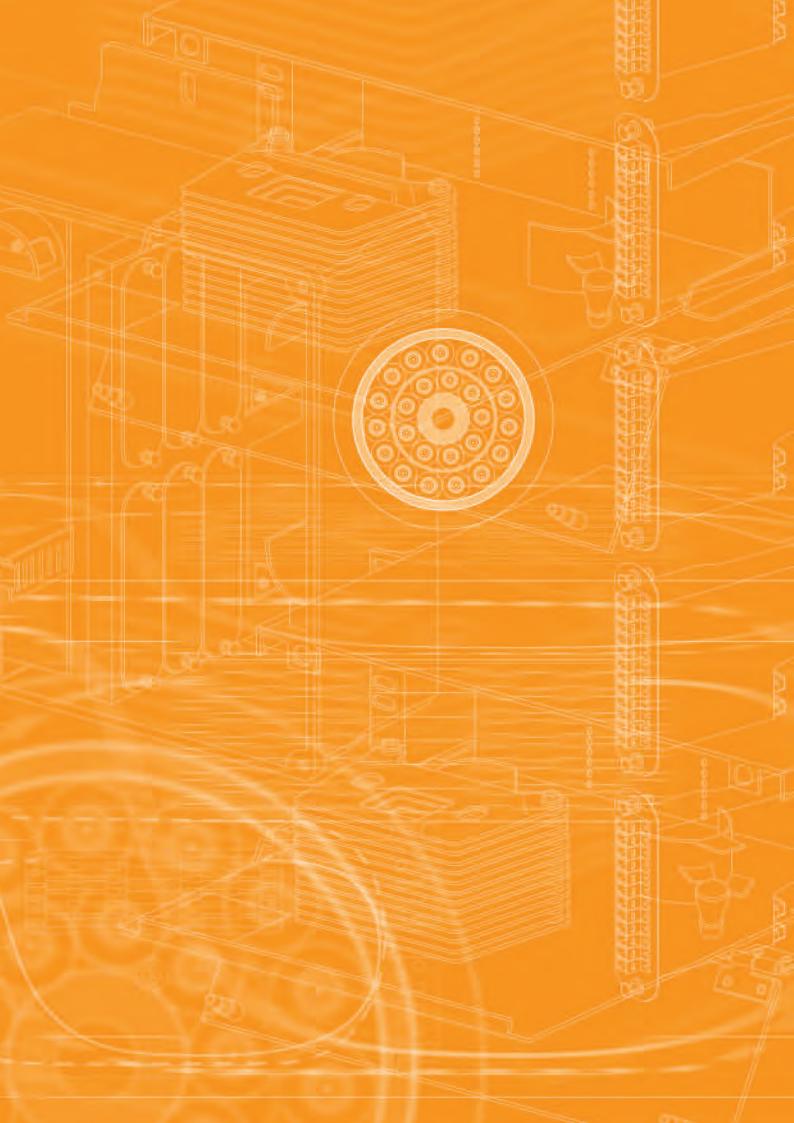
# LANscape® Solutions Fiber Optic Products Catalog

Issue 3, EMEA





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## **Corning: An Experienced Partner**

Corning Incorporated is a diversified technology company with a proud history of developing breakthrough technologies that significantly improve people's lives. We have been changing the world through innovation for more than 150 years, integrating scientific discovery with market need. We focus on high-impact growth opportunities in the telecommunications, flat panel display, environmental, life sciences and semiconductor industries

Corning is a reliable partner that meets the communication requirements of its customers all over the world with cost-effective solutions. In the field of fiber optic cable technology, Corning was one of the original pioneers, with expertise second to none. In 2000 Corning grouped all its cable, hardware and equipment businesses into the Corning Cable Systems division. Corning Cable Systems now comprises the former Siecor Corporation, the communication cables business from BICC (Corning Cables), Siemens' former Communication Cables division and RXS Kabelgarnituren. Norddeutsche Seekabelwerke (NSW) also belongs to Corning Incorporated and is continuing to operate as a separate company.

As early as 1974, when fiber optic technology was still in its infancy, Corning was working with Europe's leading Public Telecommunications companies in developing trial fiber optic routes. In 1977 came the first fiber optic route for Deutsche Telekom in Berlin. This was followed in 1979 with further projects in the USA, marking the start of a global business with a string of major commercial contracts.

Corning Cable Systems stands for technical expertise, superior product quality and customized support services. Corning, as a market leader, has sold more than 40 million fiber kilometers in fiber optic cables worldwide, providing experience on which our customers can build. As a manufacturer of passive cabling systems, we can supply our customers not only with individual products, but also complete fiber optic and copper cabling and hardware solutions from a single source (see LANscape® system description Chapter 2).

Our quality and environmental management systems are certified to DIN EN ISO 9001 and ISO 14001. Our global presence is your gain because, wherever you are, Corning is close at hand.

Further Information

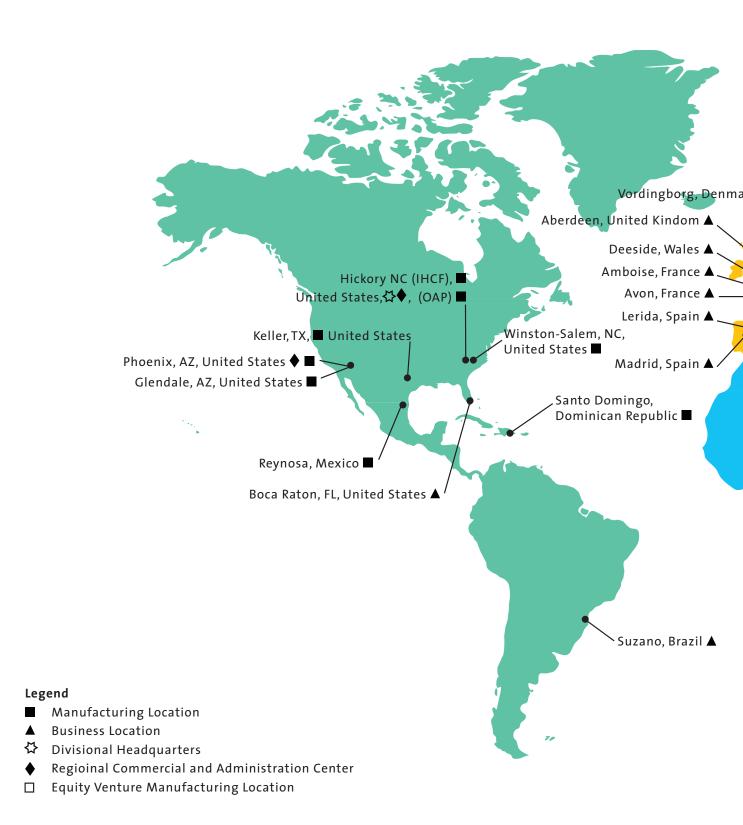
## **Corning Quality**

Corning Cable Systems is committed to providing superior product quality and customer support services.



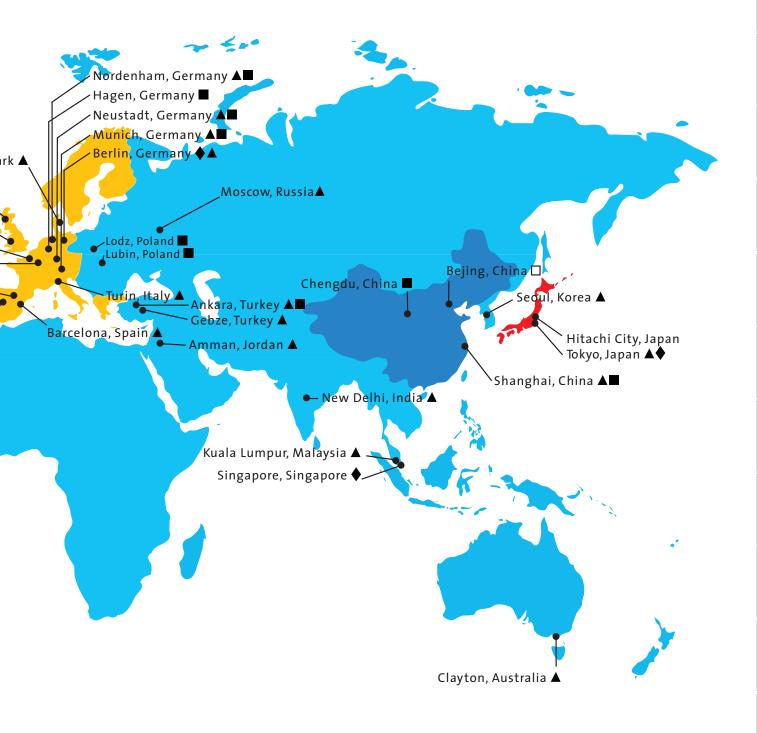


# Corning Cable Systems Global Cable and Hardware Businesses



Corning Cable Systems Global Headquarters is located in Hickory, North Carolina, USA.

Corning Cable Systems EMEA Headquarters is located in Berlin, Germany.

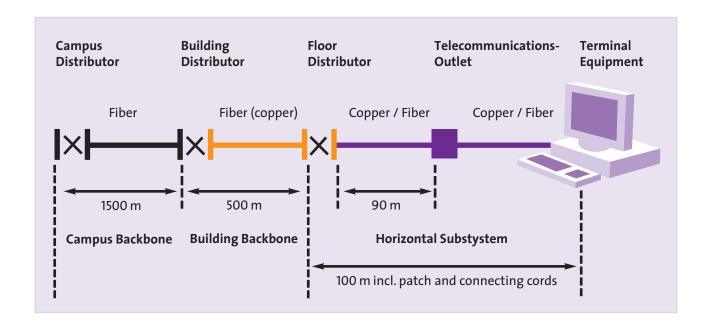


# Standards for Structured Premises Cabling Solutions

The requirements of future-proof and flexible structured cabling are largely determined by three fundamental cabling standards addressing specific geographic regions:

	Standard	Description
Europe	EN 50173-1 (2003)	Cabling Standard Information Technology Generic Cabling Systems
North America	TIA/EIA 568 B. 1 (2001) / B.2 1 (2001)	Commercial Building Telecommunications Cabling Standard
World	ISO/IEC 11801 Edition 2002	Cabling Standard, Generic Cabling for Customer Premises

The TIA/EIA is not a standard as such, but an industry specification in the North American market. It also contains requirements regarding the transmission characteristics of cabling and components that differ from those of the EN or ISO/IEC. It has its origins in the specification of unshielded copper components.



# Standards for Structured Premises Cabling Solutions

#### ISO/IEC 11801 (2002) and EN 50173-1 (2003)

In EN 50173 as in ISO/IEC 11801 the premise cabling is divided into three sub-systems:

- The campus backbone subsystem for connecting buildings of one site to another
- The building backbone subsystem for connecting individual floors of a building
- The horizontal subsystem for connecting communication outlets (e. g. wall outlet to the floor distributor)

In premise cabling it is possible to use both fiber optic cabling and components as well as balanced copper cabling and components. The campus backbone employs only fiber optic cables and components.

#### **Campus Backbone**

The campus backbone cabling interconnects the individual buildings of a site. The center of this cabling subsystem is the campus distributor. For the campus backbone, with its relatively long transmission links, only fiber optic cabling is suitable. Here Corning provides the Fiber Optic LANscape® system, a high-quality, coordinated cabling solution. The campus backbone employs mainly single-mode fiber cables, specified for their low loss and high bandwidth. A further argument for fiber optic cables in this area is their electromagnetic immunity (EMI).

#### **Building Backbone**

The connection between the building distributor and the various floor distributors is known as the building backbone. The building backbone forms the vertical riser in the building. With bandwidth requirements increasing, it is advisable to use fiber optic cables in this area for enhanced future proofing (usually multimode fiber cables). However, "highend" copper data cables (bandwidths up to 1500 MHz), as provided in the Corning FutureCom™ Copper product range, can also be used in the building backbone for distances of up to 100 meters.

#### **Horizontal Backbone**

The horizontal subsystem mainly employs shielded balanced copper cables. The cabling is configured as a star radiating out from the floor distributor to the individual outlets. The distance here should, however, not exceed 90 meters, otherwise the cabling will not conform to the standards. A further option in the horizontal subsystem is "fiber-to-the-desk", i. e. fiber optic cabling right up to the workplace. This is employed for very high bandwidth requirements or for long distances. A further advantage of fiber optic cabling in this application is once again its EMI immunity.

# Laser-Optimized™ Multimode Fibers for Gigabit and 10 Gigabit Ethernet

## Gigabit Ethernet Requires Lasers in Place of LEDs

New and future transmission standards are imposing additional demands on fiber cabling in local area networks. The data rate transmitted by active components with legacy LED transceivers is limited to 622 Mbps (megabits per second), due to the inherently slower rise/fall times of LED sources. However, modern intermediate- and high-bit-rate applications, such as Gigabit Ethernet (GbE) or 10 Gigabit Ethernet (10 GbE), require data rates significantly higher than 622 Mbps, necessitating active components with alternative transmitters.

Instead of using Fabry-Perot or DFB (Distributed Feedback) lasers that are relatively expensive and would escalate the cost of the active components, enterprise and datacenter customers are using VCSELs (Vertical Cavity Surface Emitting Lasers). These VCSELs, unlike alternative lasers, use a wavelength of 850 nm and enable gigabit-per-second performance at a significantly reduced price, reducing optical link costs 30-50%. All established manufacturers of transceivers offer implementations with VCSELs, which are already being widely used by many manufacturers of active components.

performance if fewer or different modes are excited. Unlike LEDs, lasers excite only a restricted number of modes, so intermediate- and high-performance laser-based systems must therefore be characterized by the appropriate laser bandwidth metrics, each effectively mimicking the launch conditions of a laser. Corning uses the industry's highest-performance laser bandwidth metrics to predict laser performance: Restricted Mode Launch Bandwidth (RML BW) for intermediate-performance systems (like GbE), and Minimum Calculated Effective Modal Bandwidth (minEMBc) for high-performance systems (like 10 GbE).



LED (above) and Laser (below)

## Differences Between LED Launching and Laser Launching

A significant difference between the use of LEDs and lasers is in their respective launch conditions into the fiber's core. To illustrate, first consider the fact that "multi-mode" fibers can support multiple "modes," as the name indicates. Modes are different paths that photons may follow, and can number in the hundreds.

The performance of a given fiber will depend on the relative delay between excited mode groups and the amount of power in each of those mode groups. For instance, LEDs over-fill the core by exciting every supported mode group, creating an "overfilled launch condition." For this reason, multimode fibers deployed into legacy LED applications are characterized by an "overfilled launch bandwidth" measurement (OFL BW), which mimics the launch conditions of an LED. However, that same fiber may have a totally different

VCSELs have further advantages over LEDs, such as lower loss during launching, higher transmission power leading to greater transmission distances, longer service life and, not least, a considerable price/performance ratio advantage. Furthermore, multimode fiber connecting hardware is lower cost compared to connectivity for single-mode fiber, and the relatively large multimode fiber core diameter makes the hardware quicker, simpler and more reliable to handle, providing the benefit of further cost savings during installation.

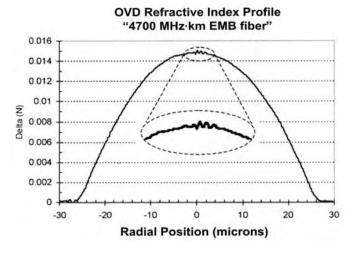
# Laser-Optimized™ Multimode Fibers for Gigabit and 10 Gigabit Ethernet

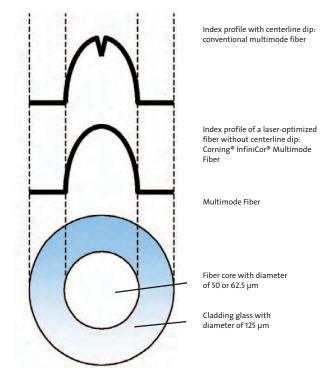
## Reasons for Using Multimode Fibers Optimized for Laser Applications

The current or future use of lasers in place of LEDs means that the fibers employed today must be optimized in the core center for laser launches. The reason for this is that in the center of common multimode fibers there are frequently disturbances, such as the so called centerline dip. The centerline dip is a dip in the index profile at the center of the fiber.

Every multimode manufacturer is prone to experience this dip in their manufacturing process. Other disturbances occurring in the index profile are flat tops and peaks. When the narrow laser signal is fed into the center of the fiber core, a larger proportion of the total power is incident on this region, resulting in distortion of the original transmission pulse. Ultimately, the resulting distortion of the transmitted signal produces an increase in the bit error rate. This in turn leads to deterioration in the net data rate. In extreme cases this may result in complete failure of the transmission.

Given the high degree of future proofing and investment protection that these fibers provide compared to copper solutions, and their favorable price/performance ratio in combination with lower-cost SX active components, laser-optimized multimode fibers for 850 nm VCSEL transmission are the fibers of choice for cabling in premises applications such as inter-building or campus networks, building backbones, and datacenters. The use of single-mode fibers in these network areas is often inadvisable, due to the resultant use of DFB or FP lasers, which lead to significant increases in network costs.

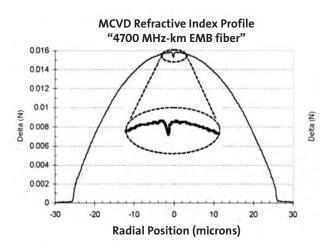


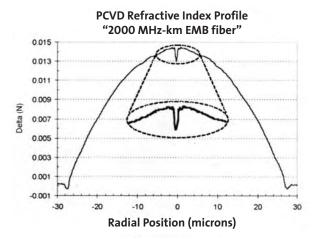


The Corning OVD (Outside Vapor Deposition) manufacturing process is optimized to minimize these centerline dips; in 1998 Corning introduced its InfiniCor® line of fibers, which were the first Laser-Optimized™ fibers in the world. All InfiniCor fibers are measured and qualified using specially-developed laser bandwidth measurement procedures (RML and EMBc, as described above). To maximize reliability and system performance, Corning recommends that all fibers that may eventually be coupled to a laser be tested by a laser-based measurement system.

In recent studies, Corning sampled several high-bandwidth multimode fibers from two leading IVD (Inside Vapour Deposition) manufacturers, one MCVD and one PCVD, with advertised 10Gb/s link length performances of 150, 300 and 500 meters at 850 nm. It was found that approximately half of all the fibres tested exhibited a refractive index dip at centerline and all had a centerline tuning errors (examples shown on the top of the next page).

# Laser-Optimized™ Multimode Fibers for Gigabit and 10 Gigabit Ethernet





Unlike Corning's OVD process, MCVD and PCVD can have a tendency toward axial non-uniformity which may be further compounded by geometrical variations in the supplied third party tubes. MCVD and PCVD manufacturers rely heavily on the quality of their tube suppliers, where even small variations in tube wall thickness or bow can lead to compounded axial uniformity errors during perform manufacture. In contrast OVD is a totally synthetic process yielding ultra high purity glass with greater consistency.

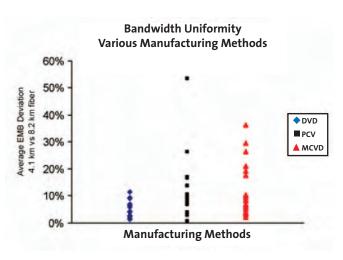
## Bandwidth Uniformity of High Performance Multimode Fibers

In a further study, Corning measured a number of high bandwidth 50-Micron IVD fibers with EMB between 950-4000 MHz.km\*, first on a long 8.2 km fiber length and then on both 4.1 km halves of the original fiber length.

These measurements revealed an average of 13% to 14% difference in EMB between the 4.1 km halves, revealing remarkable axial non-uniformity along the fiber length. The results are shown in the chart opposite, along side similar results from Corning's OVD process.

To put the results of the IVD fibers into context, this could mean that the fiber performance reach of a few hundred meters - the length typically found in an enterprise network - may well be significantly lower than the lengths characterized at the fiber manufacturing plant. This degree of EMB

uncertainty after an IVD fiber is cut and deployed into short link lengths may introduce considerable system risk in highperformance multimode fiber applications. The inherently stable OVD process yields fibers with the greatest consistency in the industry. In this experiment Corning fibers averaged only 5% change in bandwidth after cutback, which is within normal bandwidth measurement variability. Corning invented both fundamental multimode fiber vapor deposition manufacturing processes and ran them in parallel for 15 years to fully understand the capabilities of each. Corning ultimately chose OVD technology for optical fiber preform manufacturing, which offers exceptional uniformity, smooth refractive index profiles, and full quality control from raw materials to finished product. Our unrivaled experience and expertise in optical fiber manufacturing makes Corning InfiniCor® fibers the most trusted Laser-Optimized™ fibers in the industry.



<sup>\*</sup> P. Bell, Todd Wiggs, "Multimode fiber and the Vapor Deposition Manufacturing Process", Corning Optical Fiber Guidelines, web publication, Volume 10, July 2005.

## **Corning Optical Fiber**

#### Corning® InfiniCor® Multimode Optical Fiber

In today's enterprise networks, bandwidth demands are growing - rapidly. That's because end-user productivity is increasingly dependent on instant accessibility and high throughput of information. Narrow bandwidth constricts your capacity to succeed. Corning's InfiniCor® fibers, the world's first laser-optimized 50 and 62.5 µm multimode fibers, help you to stay ahead of escalating network demands with:

- Laser-optimized multimode fibers for high bandwidth performance
- High data-rate transmission up to 10 Gb/s
- Enables the lowest cost premises and enterprise networks
- Most comprehensive measurement and testing procedures in the industry
- Full compatibiliy with the broad range of laser-based and legacy protocols and applications

	50-Micron InfiniCor OM3 fiber	50-Micron InfiniCor OM2 fiber	62.5-Micron InfiniCor OM1 fiber
Optimized Data Rate	10 Gb/s over 300 m upon request up to 550 m*	10Gb/s over 100 m	
at 850 nm	1 Gb/s over 1000 m upon request greater than 1000 m	1 Gb/s over 600 m upon request up to 750 m	1 Gb/s over 300 m
Optimized Protocols	ATM Ethernet Fiber Channel InfiniBand Internet Protocol SONET	ATM Ethernet Fiber Channel InfiniBand Internet Protocol	Ethernet Fiber Distributed Data Interface (FDDI Token Ring Asynchronous Transfer Mode (ATM) Internet Protocol

for engeneered links

Longer link lengths available upon request

## **Corning Optical Fiber**

#### **Real Value for Your Network**

No one can match Corning's superior measurement technology and manufacturing control of the refractive index profile. Consequently, InfiniCor multimode optical fibers offer exceptional bandwidth for high performance, while allowing the use of low-cost, high-speed 850 nm vertical cavity surface-emitting lasers (VCSELs).

## Thoroughly Measured for Performance You Can Count On

Corning is a world leader in developing and using the most advanced measurement techniques for laser-optimized multimode fibers. In fact, InfiniCor fibers are more thoroughly measured than any other multimode fiber on the market. Corning uses direct manufacturing process control and final product measurements for all InfiniCor fibers to ensure performance in laser-based systems.

We provide calculated, effective modal bandwidth (EMBc) for InfiniCor OM3 optical fibers. EMBc is a differential mode delay (DMD)-based bandwidth value that predicts multimode system performance in high-bandwidth 10 Gb/s and 1 Gb/s systems. And we provide restricted mode launch (RML) bandwidth measurements for our InfiniCor OM2 and InfiniCor OM1 optical fiber. The RML bandwidth metric is a standards-defined method that predicts intermediate-bandwidth, laser-based system performance. Corning is the first optical fiber manufacturer to offer EMBc or RML measurements for its laser-optimized multimode fibers.

## **Optical Specifications – Minimun Bandwidth Performances**

Corning Optical Fiber	High Performance EMB* (MHz/km at 850 nm)	Intermediate Performance EMB** (MHz/km at 850 nm)	Legacy Performance EMB*** (MHz/km at 850 / 1300 nm)
InfiniCor OM3 fiber (Engineered lengths up to 550 r	2000 n) 4700		1500 / 500
InfiniCor OM2 fiber		585	500 / 500
InfiniCor OM1 fiber		220	200 / 600

- \* As predicted by minEMBc, per TIA/EIA 455-220 and draft IEC 60793-1-49 Ed. 2.0, for high performance laser-based systems (up to 10 Gb/s). 550 m distance capability is equivalent to a 4700 MHz.km EMB system with standards
  - $compliant\ transceiver\ and\ fiber\ characteristics, 3.0\ dB/km\ cable\ attenuation\ and\ 1.0\ dB\ total\ connector\ loss.$
- \*\* As predicted by RML BW, per TIA/EIA 455-204 and IEC 60793-1-41, for intermediate performance laser-based systems (up to 1 Gb/s)
- \*\*\* As predicted by OFL BW, per TIA/EIA 455-204 and IEC 60793-1-41, for legacy and LED-based systems (typically up to 100 Mb/s)

## **Corning Optical Fiber**

#### Corning® SMF-28e® Optical Fiber

#### **Evolving Networks Now**

At Corning Optical Fiber, we are continually pushing single-mode fiber to new performance levels. Building on our leadership position in the optical fiber industry, Corning is evolving our already formidable products to meet customer requirements like never before. As the first manufacturer to upgrade standard single-mode fiber worldwide, we are providing our customers with greater value today and in the future. Corning® SMF-28e® optical fiber is:

- Corning's standard single-mode fiber offering, delivering optimized capability, network design flexibility and confidence in long-term performance
- The world's most widely demanded full-spectrum fiber
- In compliance with or exceeding the industry's most stringent requirements, including:
  - ITU.T G.652 (Categories A,B,C & D)
  - IEC Specifications 60793-2-50 Type B1.3
  - -TIA/EIA 492-CAAB
  - Telcordia's GR-20
- The industry leader in comprehensive standard singlemode fiber specifications.

As Corning's premier standard single-mode fiber, SMF-28e fiber is one in a long line of optical innovations. Corning SMF-28e, an ITU-T G.652.D-compliant optical fiber, is expanding the capability of the world's most dynamic metropolitan and access networks.

#### **Building on a Solid Foundation**

Corning SMF-28e fiber has the same reliability, splicing performance and easily strippable coating that customers have trusted in Corning SMF-28 fiber, the long-standing industry benchmark for quality and performance. SMF-28e fiber offers enhanced capabilities and specifications, while providing full compatibility and interoperability with legacy standard single-mode networks. Our 30 years of experience are reflected in this evolution of standard single-mode fiber, which not only meets and exceeds the highest standards, but also provides an excellent combination of optical, environmental, dimensional and mechanical specifications.

#### **Confidence for Today and the Future**

SMF-28e fiber is optimized for metropolitan and access networks that support all broadband applications. SMF-28e fiber has been a qualified product offering since 2001 and has been successfully deployed in communications networks worldwide, proving its performance capabilities in diverse applications.

As the ideal fiber choice for rapidly growing and dynamically changing metropolitan and access networks. SMF-28e fiber provides immediate value to the customer. It is one of the easiest fibers to handle and install because of its world-class geometry, CPC® coating technology and bending specifications. Additionally, its full-spectrum capability enables flexible network designs, increases fiber capacity and prepares network infrastructures for emerging technologies and architectures.

For more information please see www.corning.com/opticalfiber

## LANscape® Solutions

A high-performance and reliable communications infrastructure gives the user a vital competitive edge. The rapid advance in information technology and the constantly increasing demands on telecom and IT networks underline the importance of selecting the right platform for the optimum communications infrastructure. Passive cabling, in particular, needs the maximum possible investment protection. This means that the cabling system must meet both current and future requirements for universal, application-independent deployment, bandwidth evolution, service, reliability and interference immunity. All of these requirements can be satisfied with Corning Cable Systems' LANscape® Solutions, a complete approach to fiber and copper cabling solutions for premises networks. It goes far beyond individual building blocks. LANscape Solutions is a comprehensive set of integrated products, services and support to ensure the successful and efficient implementation of a network that will serve as a stable communications infrastructure for many years to come. The LANscape Fiber Optic Solutions product family is the generic designation covering all passive cabling system solutions based on fiber technology. LANscape cabling systems are implemented in compliance with the standards provide the universal deploy-ability and multi-service capability required for operating network systems such as Ethernet, Fast Ethernet, Gigabit and 10 Gigabit Ethernet, ATM or Token Ring at all network levels. LANscape cabling systems supports network topologies such as:

#### **LANscape® Campus Backbone Solutions**

Corning Cable Systems provides solutions for the campus backbone that are more complete with more performance.

In a campus environment (university, industrial park, or military base) optical fiber is used extensively and sometimes exclusively in the campus backbone. Optical fiber is perfectly suited for the harsh campus backbone environment because it is lightweight and immune to lightning.

#### **LANscape Campus Backbone Solutions**

Corning Cable Systems provides solutions for the campus backbone that are more complete with more performance.

In a campus environment (university, industrial park, or military base) optical fiber is used extensively and sometimes exclusively in the campus backbone. Optical fiber is perfectly suited for the harsh campus backbone environment because it is lightweight and immune to lightning.

#### **LANscape Building Backbone Solutions**

Corning Cable Systems provides solutions for the building backbone with more bandwidth and more density.

The building backbone connects the main cross-connect with each telecommunications room in the building. The cable runs may be vertical through a riser space in the case of a multistory building and/or horizontal in the case of a large single story building such as a manufacturing facility. Optical fiber has become the medium of choice for these applications because it has virtually unlimited bandwidth and effectively doubles the density throughout the entire system.

#### **LANscape Horizontal Solutions**

Corning Cable Systems provides horizontal solutions that are more reliable and more affordable.

In today's environment, over 70 percent of networks are considered mission critical. Optical fiber is fast becoming the medium of choice in the horizontal because it is the premier medium, proven to work with high-speed multi-gigabit protocols, and its superior reliability reduces total operating costs. With the cost of active components declining, it is increasingly important for a cabling system to be future proof. There is a growing trend to build the cabling system with fiber components up to the workstation (FttD = Fiber to the Desk). LANscape cabling systems also support network topologies such as centralized fiber optic cabling or "open office" cabling with consolidation points and/or "Multi-user Telecommunications Outlet Assemblies" (MUTO).

#### **LANscape Data Center Solutions**

The enterprise data center has become the IT hub for large corporations. Consequently, it has unique cabling requirements, including density, scalability, simplicity and reliability. The Corning Cable Systems Plug & Play™ Universal System is the worlds leading fiber optic pre-terminated cabling system designed to meet the needs of this environment. The Plug & Play Universal System is a pre-terminated optical fiber cabling system that dramatically streamlines the process of deploying an optical network infrastructure in the premises

environment, particularly in data center applications. The in-

fraction of the time when compared to conventional field-ter-

novative system is able to be installed and operational in a

mination methods, significantly reducing installation cost.

Corning Cable Systems

Further nformation

## **LANscape® Pretium™ Solutions**



With LANscape® Solutions, Corning Cable Systems was among the first to offer customers a tip-to-tip solution ... a complete family of optical fiber products, services and support for premises networks. Now we've introduced LANscape Pretium™ Solutions, the premier fiber cabling solution for high performance networks.

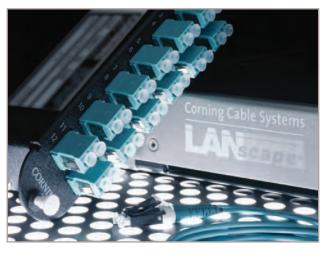
LANscape Pretium Solutions combines innovative products, including fiber optic and copper cables, connectors, hardware and test equipment, with award-winning technical support and engineering services.

LANscape Pretium Solutions are designed with two things in mind: high performance and ease of use. The solution includes a variety of products that ease the deployment process for installers. These craft-friendly products include a new family of 10 Gigabit capable copper products (cable, modules, hardware and patch cords) as well as fiber optic gel-free optical cables and a new tight-buffered cable design qualified for both indoor and outdoor use.

The ease-of-use attributes featured in LANscape Pretium Solutions also extend to hardware and equipment products, with a connector that allows 12 fibers to be terminated in under four minutes, and connector housings with superior cable and jumper management attributes.

With LANscape Pretium Solutions, customers can obtain the ultimate in fiber optic performance. Extended distances for 10 Gigabit operation, improved single-mode cabled fiber performance, enhanced connector performance and lowered insertion loss in our preterminated Plug & Play™ Universal System modules − all can be achieved with a LANscape Pretium Solution. These ease-of-use and advanced performance attributes, combined with first-class service and support, add up to a superior product offering.

LANscape® Pretium™ Solutions products are offered throughout this catalog. The LANscape Pretium logo on those specific pages will immediately inform you that you are considering a LANscape Pretium Solutions product.



At Corning Cable Systems, we realize that it takes more than products to install and maintain a successful network, and for this reason, LANscape Pretium Solutions also includes a variety of services and support.

To reward our customers for their support, Corning Cable Systems offers the Consultant LinkUp<sup>SM</sup> Program and the Extended Warranty<sup>SM</sup> Program (EWP). Special tools, events and assistance are made available to select industry consultants and designers through the Consultant LinkUp Program. For more information please contact the Programs staff with the email addresses below:

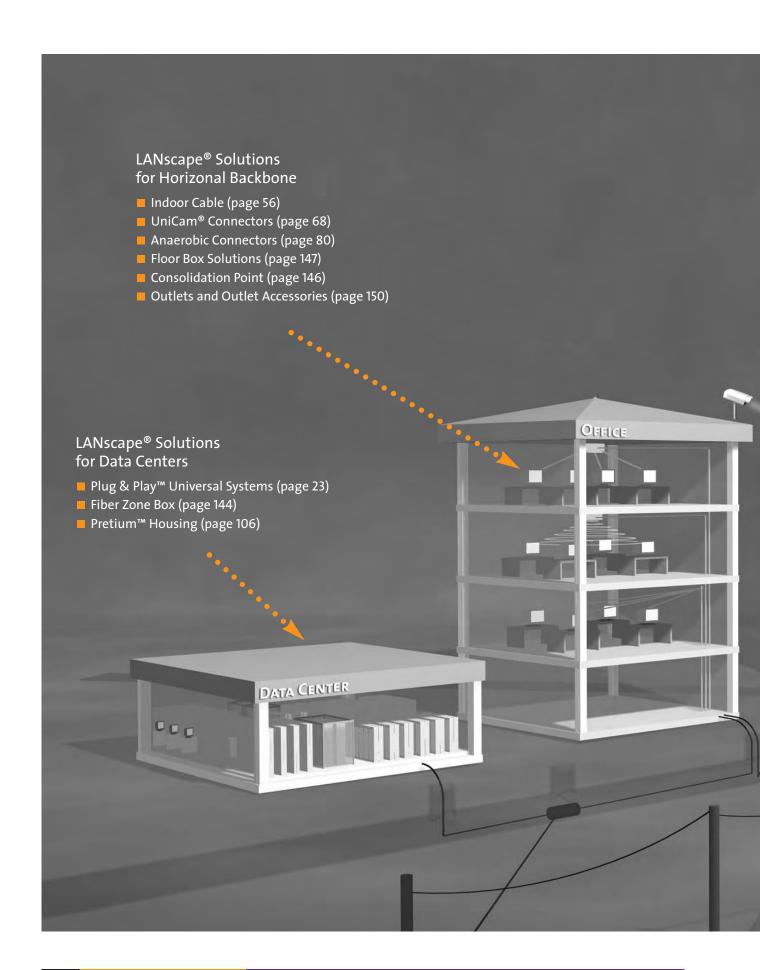
#### Installers: emea.ewp@corning.com Consultants: emea.linkup@corning.com

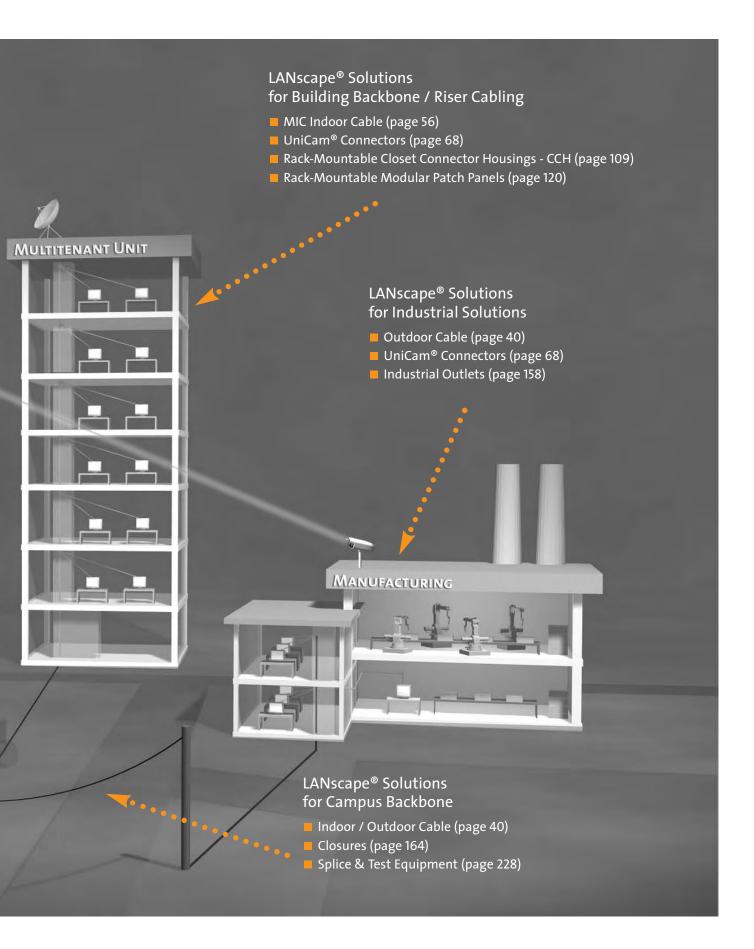
When only the best will do, Corning Cable Systems has the answer. With a Corning Cable Systems LANscape Pretium Solution, you have confidence knowing that you have purchased from a leader in the fiber optic technology industry.

With LANscape Pretium Solutions, confidence comes standard.

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## **LANscape® Solutions**





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## Plug & Play™ Universal Systems Overview



A LANscape<sup>®</sup> Pretium<sup>™</sup> Solutions Product

#### **Applications**

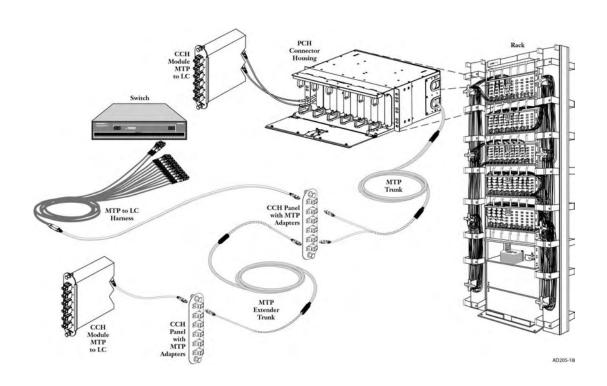
- Data Center LAN/SAN
- Enterprise building backbone
- Fiber-to-the-desk

#### Description

Corning Cable Systems Plug & Play™ Universal Systems are preterminated optical fiber cabling systems designed to dramatically streamline the process of deploying an optical networking infrastructure in the premises environment, particularly in data center applications. This innovative, value-added system significantly reduces installation time and cost. Modular, preterminated components of the system are simple to configure and can be installed, connected and operational in a fraction of the time when compared to using conventional, field-terminated methods. The system's polarity-maintaining modular components guarantee compatibility, flexibility and excellent system performance for all optical configurations. The universal wired modular components make networking moves, adds and changes simple, fast and easy to complete with minimum disruption to neighboring areas.

#### **Features**

- High-density ribbon cabling and MTP <sup>®</sup> Connector-based trunking for space saving, convenient fiber deployment
- No special polarity components or polarity concerns during link configuration and reconfiguration
- Factory-generated solutions for improved system performance, component compatibility and consistent quality
- Universal wired modular system components enable fast and simple networking moves, adds andchanges without polarity concerns associated with special polaritycompensating components
- Universal wired Plug & Play Systems provide a simple migration path between 2-fiber and parallel applications



# Introduction

Corning Cable Systems

### LANscape Solution

## Plug & P Univer

### Fiber Op Cables

Fiber Terminatio

## Plug & Play™ Universal Systems Overview

A LANscape® Pretium™ Solutions Product

#### **Installing the System**

Preterminated trunk cabling systems constructed with a factory-installed protective pulling grip are routed through the cabling pathways and spaces. Once deployed, the pulling grip is removed and the exposed connectors on both ends are plugged into patch panels or system equipment. High-density MTP® Connector-based trunk systems plug into break-out modules or harnesses for a simple, fast, modular solution with easy scalability. Correct fiber polarity is guaranteed throughout the system link. Modules and harnesses conveniently load into LANscape® Solutions hardware.

With Corning Cable Systems Plug & Play™ Universal Sytems, there are only three steps required to install the optical network:

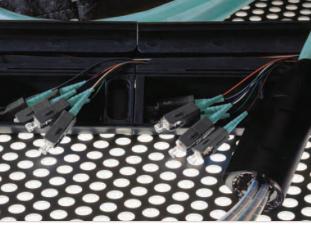
- 1. Pull the cable assembly
- 2. Mount the hardware
- 3. Plug in the connectors

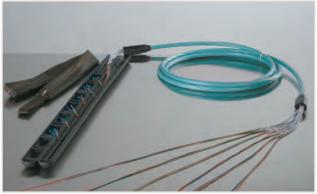
There is no time-consuming fiber preparation and termination. There are no consumables or piece parts and no tools are needed other than a screwdriver. This is a differentiation to field-installed components. All cable assemblies are custom-built to each customer's design specifications.

Note: Plug & Play Universal Systems are constructed with a value-added fiber polarity wiring solution that is not backwards compatible with systems utilizing a fiber pair-wise flip polarity solution such as placed in the trunk or module.

#### Plug and Play™ Universal System Trunks

The MTP Connector is a 12-fiber push/pull optical connector. These high-density connectors are used to significantly accelerate the network cabling process, minimize errors and reduce space. Plug & Play Universal Systems trunks utilizing MTP Connectors can support up to 216 fibers. The high-density MTP Connector allows the use of a compact, 12-fiber ribbon-based cable instead of a bulkier, simplex-style cable or several low-fiber-count cables. Up to 45 percent space savings and three times the fiber tray capacity can be achieved over traditional bulkier cabling solutions while minimizing cable tray weight and cooling air impediment.





New enhanced trunk furcation plugs and pulling grips make the preterminated trunks easier and quicker to install than other preterminated fiber optic solutions. The new, reusable pulling grip has a smaller form factor design allowing for installations through smaller conduits and pathways. The pulling grip (for a limited number of cable designs) incorporates a new, quick entry zippered system to access the inner protective sleeve assembly. The clam-shell sleeve design offers unsurpassed connector protection and fast, intuitive access of the preterminated assembly for rapid network deployments.

New features in the trunk cable furcation plug allow easy integration into Corning Cable Systems hardware. Optional brackets are available for mounting the trunk furcation plug into racks and cabinets.

## Plug & Play™ Universal Systems Overview

#### A LANscape® Pretium™ Solutions Product



#### MTP® Connector

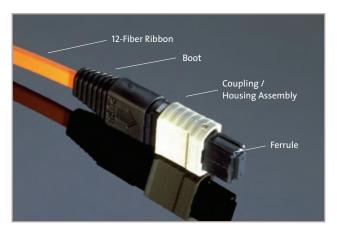
The MTP® Connector is a 12-fiber connector, Like MT-RJ 2fiber connectivity, it can be used to speed up installation, minimize errors and reduce space. Plug & Play™ Systems utilizing MTP Connectors can support up to 144 fibers. This high-density connector type allows the use of a compact 12fiber ribbon cable instead of bulkier simplex cable or several low-fiber-count cables. The MTP Connector on the trunk cable can be connected to the MTP Connector in the back of the Plug & Play Systems module. Plug & Play Systems Solutions are polarity-correct from the factory. The aligning mechanisms for the MTP Connectors are precision guide pins. Attempting to mate two pinned connectors or two non-pinned connectors is not possible. The Corning Cable Systems standard is non-pinned connectors on each end of a cable trunk (connector code 69, multimode, or 90, singlemode) and pinned connector inside the module.

#### **Extender Trunks**

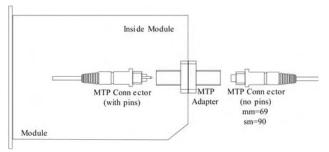
Plug & Play™ Universal Systems extender trunks are used to distribute portions or all of the fibers in a Plug & Play Universal Systems trunk to other areas in the infrastructure. For example, a large fiber count trunk can be deployed from a main distribution area to an intermediate distribution area. Extender trunks are manufactured with pinned MTP® Connectors on one end of the cable trunk and non-pinned MTP Connectors mate with the non-pinned connectors of the Plug & Play Universal Systems trunk and the non-pinned MTP Connectors are plugged into the Plug & Play Universal Systems module or Plug & Play Universal Systems harness.

#### **Pulling Grips**

Different sizes of protective pulling grips are utilized depending on the connector count and cable outside diameter. Pulling grips are rated to withstand pulling tensions up



MTP® Non-Pinned Connector



MTP® Connectors Mating Key Up to Key Down



to 450 N (100 lbs). For questions regarding specific pulling requirements, contact Corning Cable Systems Application Engineering Services (emea.ae@corning.com).

#### Requirements

Connector Type	Fiber Count	Grip Outer Diameter	Minimum Duct Space Requirement
Single-Fiber	2-6	1 cm (2.5 in)	1.2 cm (3.2 in)
Single-Fiber or MTP	8-60	2 cm (5.1 in)	2.5 cm (6.3 in)
Single-Fiber or MTP	72-144	2.5 cm (6.4 in)	3.1 cm (7.9 in)

Note: Pulling grips are rated to with stand tensions up to 450 N (100 lbs)

# Introduction

Corning Cable Systems

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## Plug & Play™ Universal Systems Overview

A LANscape<sup>®</sup> Pretium<sup>™</sup> Solutions Product

## **Specifications**

#### **Multimode Connectors**

		1300 r 50/12!	ion Loss at nm (dB) 5 µm and 25 µm		Constru	iction
Туре	Code	Max.	Typical	Durability (dB)	Ferrule	Housing
SC PC	39	0.5	0.35	0.2	ceramic	composite
SC Duplex	57	0.5	0.35	0.2	ceramic	composite
ST® Compatible PC (plastic bayonet)	50	0.5	0.35	0.2	ceramic	composite
FC PC	17	0.5	0.35	0.2	ceramic	nickel, brass
E-2000™ PC	95	0.5	0.35	0.2	ceramic	composite
LC	03	0.5	0.35	0.2	ceramic	composite
LC Duplex	05	0.5	0.35	0.2	ceramic	composite
MTP® (non-pinned)	69	0.75	0.5	0.2	composite	composite
MTP® (non-pinned) Low-loss performance	75	0.5	0.35	0.2	composite	composite
MT-RJ (non-pinned)	97	0.5	0.3	0.2	composite	composite

**Single-mode Connectors** 

Jingie mode co								
			on Loss nm (dB)		Ref	lectance (dB)	Constru	ıction
Туре	Code	Max.	Typical	Durability (dB)	Typical	Guaranteed	Ferrule	Housing
SC Ultra PC	58	0.5	0.15	0.2	≤ - 59	≤ - 55	ceramic	composite
SC Angled PC	65	0.5	0.15	0.2	≤ - 75	≤ - 65	ceramic	composite
ST Compatible Ultra PC (plastic bayonet)	61	0.5	0.15	0.2	≤ - 59	≤ - 55	ceramic	composite
FC Ultra PC	54	0.5	0.15	0.2	≤ - 59	≤ - 55	ceramic	nickel, brass
FC Angled PC	21	0.5	0.15	0.2	≤ - 75	≤ -65	ceramic	nickel, brass
E-2000 UPC	20	0.5	0.15	0.2	≤ - 59	≤ - 55	ceramic	composite
E-2000 APC	19	0.5	0.15	0.2	≤ - 75	≤ - 65	ceramic	composite
LC UPC	02	0.5	0.1	0.2	≤ - 58	≤ - 55	ceramic	composite
LC Duplex	04	0.5	0.1	0.2	≤ - 58	≤ - 55	ceramic	composite
MT-RJ (non-pinned)	98	0.5	0.3	0.3	≤ - 53	≤ - 35	composite	composite
MTP (non-pinned)	90	0.75	0.5	0.2	≤ - 65	≤ - 55	composite	composite

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# Plug & Play™ Universal Systems MTP® Trunks

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### **Ordering Information**

#### MTP® Trunks



#### Select grip application.

- A = Grip on first end only
- B = Grip on both ends
- N = No grip
- Select MTP connector type on the first end.

#### Single-mode MTP

90 = MTP, non-pinned

#### Multimode MTP

- 69= MTP, standard performance non-pinned
- 75 = MTP, low-loss performance, non-pinned\*

#### Select MTP connector type on the second end.

Use options from item 2.

#### 4 Select standard fiber count.

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

48 = 48-fiber

72 = 72-fiber

96= 96-fiber

E4 = 144-fiber

#### 5 Select fiber type.

- Y = InfiniCor OM3+ (50/125 μm) Pretium 550)
- 5 = InfiniCor OM3 (50/125 μm) Pretium 300
- $C = InfiniCor OM2 (50/125 \mu m)$
- $K = InfiniCor OM1 (62.5/125 \mu m)$
- $R = Single-mode OS1 (9/125 \mu m)$

#### 6 Select cable type. (12, 24, 36, 48, 72, 96 and 144 fibers) CZ= LSZH/FRNC Ribbon

Note: Jacket color by fiber type: K & C = Orange, S & Y = Aqua, R = Yellow

## Select trunk furcation leg length on the first end.

- A = Standard: 600 mm leg length (+70 mm/ -0 mm)
- B = 1000 mm leg length(+70 mm/ -0 mm)

Note: Ribbon furcation legs are color coded by fiber type: K & C = Orange color legs, S & Y = Aqua color legs, R = Yellow color legs

## Select trunk furcation leg length on second end.

Use options from item 7.

#### Select cable length.

Assembly lengths are measured from furcation point to furcation point.

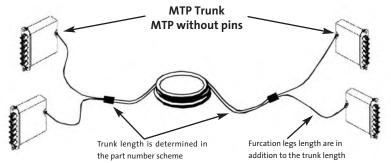
1-999 (Tolerance +3 m / -0m)

#### Select unit of measurement.

F = Feet M = Meters

#### **Example**

Order Number	Description
B696924SCZAAU030M	Universal MTP trunk, MTP non-pinned to MTP non-pinned, 24 fiber, InfiniCor OM3 (50/125
	μm) Pretium 300 ribbon cable, FRNC, 600 mm furcated legs on both sides, 30 meters long
	(furcation point to furcation point), aqua jacket, pulling grips on both ends



<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

Further

# Plug & Play™ Universal Systems MTP® Extender Trunks

A LANscape<sup>®</sup> Pretium™ Solutions Product

### **Ordering Information**

#### MTP® Extender Trunks



Please note: Extender Trucks have pinned MTPs on one end and non-pinned MTPs on the other end. Alignment of the MTP is achieved when mating a pinned MTP to a non-pinned MTP. Attempting to mate two pinned MTPs or two non-pinned MTPs is not possible.

#### Select grip application.

- A = Grip on first end only
- B = Grip on both ends
- N = No grip
- Select MTP connector type on the first end.

#### Single-mode MTP

89 = MTP, pinned

#### **Multimode MTP**

- 70 = MTP, standard performance, pinned
- 93 = MTP, low-loss performance, pinned\*
- 3 Select MTP connector type on the second end.

#### Single-mode MTP

90 = MTP, non-pinned

#### **Multimode MTP**

- 69 = MTP, standard performance, non-pinned
- 75 = MTP, low-loss performance, non-pinned\*

#### Select standard fiber count.

12 = 12-fiber

24 = 24-fiber

36 = 36-fiber

48 = 48-fiber

72 = 72-fiber

96 = 96-fiber

E4 = 144-fiber

#### 5 Select fiber type.

- Y = InfiniCor OM3+ (50/125  $\mu$ m) Pretium 550
- S = InfiniCor OM3 (50/125  $\mu$ m) Pretium 300
- C = InfiniCor OM2 (50/125 µm)
- K = InfiniCor OM1 (62.5/125 μm)
- $R = Single-mode OS1 (9/125 \mu m)$

#### 6 Select cable type.

(12, 24, 36, 48, 72, 96 and 144 fibers)

#### CZ=LSZH/FRNC Ribbon

Note: Jacket color by fiber type: K & C = Orange, S = Aqua, R = Yellow

#### Select trunk furcation leg length on the first end.

Corning Cable Systems

- A = Standard: 600 mm leg length (+70 mm/ -0 mm)
- B = 1000 mm leg length (+70 mm/ -0 mm)

Note: Furcation legs are color coded by fiber type: K & C = Orange color legs, S = Aqua color legs, R = Yellow color legs

## 8 Select trunk furcation leg length on second end.

Use options from item 7.

#### Select cable length.

Assembly lengths are measured from furcation point to furcation point.

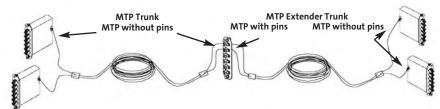
1-999 (Tolerance +3 m / -0m)

#### 10 Select unit of measurement.

F = Feet M= Meters

#### **Example**

Order Number	Description
A697036SCZABX030M	MTP Extender Trunk, MTP non-pinned to MTP pinned, 36-fiber, InfiniCor OM3 (50/125 μm)
	Pretium 300 ribbon FRNC cable, 600 mm furcated legs on MTP non-pinned side, 1000 mm
	furcated legs on MTP pinned side, 30 meters long (furcation point to furcation point), aqua
	jacket, pulling grip on MTP non-pinned side only



<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

## Plug & Play™ Universal Systems Closet Connector Housing (CCH) Modules



A LANscape® Pretium™ Solutions Product

#### **Application**

Corning Cable Systems Plug & Play™ Universal Systems
CCH Modules are used to break out the 12-fiber MTP®
Connectors terminated on trunk cables into simplex or
duplex style connectors. Simplex- and duplex-style jumpers
can then be used to patch into system equipment ports,
patch panels, or client outlets.

#### Description

The module features simplex or duplex port adapters across the front and one or two MTP Connector adapters across the back. A factory-installed and tested optical fiber assembly inside the module connects the front adapters to the back MTP Connector adapter(s). The modules fit into standard Corning Cable Systems LANscape® Solutions hardware and are available with 12-fiber configurations for ST® compatible, LC or SC duplex connectors and 24-fiber configurations for LC duplex and MT-RJ connectors.

The modules' new reduced-depth footprint provides added room for routing cables into the back of hardware and also provides a solution for shallow, raised-floor boxes. Using modules provides adaptability for the changing data center environment. Facing technology upgrade frequencies of 12-18 months, using Plug & Play™ Universal Systems CCH modules in the data center offers the advantage of greater manageability since CCH modules can easily be swapped out with new CCH modules when future connector requirements change, leaving the existing trunk cable structure in place.

Note: Plug & Play Universal Systems CCH modules are constructed with a value-added fiber polarity wiring solution that is not backwards compatible with systems utilizing a fiber pair-wise flip polarity solution such as placed in the trunk or module.



CCH Reduced-Depth Module, 24-fiber, LC duplex, OM3 (CCH-UM24-05-70S)

## Plug & Play™ Universal Systems Closet Connector Housing (CCH) Modules



A LANscape® Pretium™ Solutions Product

### **Specifications**

Please note: CCH Modules are not compatible with HDH Hardware. CCH Modules contain fibers configured in the Universal wiring scheme and must be used in conjunction with Plug & Play Universal MTP Trunks.

Parameter	Specification
<b>Low-Loss Performance Multi</b>	mode Modules
Module Loss	0.75 dB max (all fibers) at 850/1300 nm (with Pretium fiber only)
<b>Standard Performance Multi</b>	mode Modules
Module Loss	1.3 dB max (all fibers) at 850/1300 nm
<b>Standard Performance Single</b>	e-mode Modules
Module Loss	1.3 dB max (all fibers) at 1310 nm

### **Ordering Information**



#### Select fiber count.

12 = 12 fibers 24 = 24 fibers

#### Select adapters on module front.

#### ST° Compatible\*

50 = ST compatible, multimode

61= ST, UPC, single-mode

\* Max. 12 fibers

#### SC Duplex\*

72= SC Duplex UPC, single-mode

57 = SC Duplex, multimode

\* Max. 12 fibers

#### **LC Duplex**

05 = LC Duplex, multimode

04 = LC Duplex, single-mode

#### MT-RJ

86 = MT-RJ, multimode, pinned

87 = MT-RJ, single-mode, pinned

## Select MTP adapter on module

- 70 = MTP, standard performance multimode, pinned
- 89 = MTP, standard performance, single-mode, pinned
- 93 = MTP, low-loss performance, pinned\*

#### Select fiber type.

- Y = InfiniCor OM3+ ( $50/125 \mu m$ ) Pretium 550
- S = InfiniCor OM3 (50/125  $\mu$ m) Pretium 300
- C = InfiniCor OM2 (50/125  $\mu$ m)
- $K = InfiniCor OM1 (62.5/125 \mu m)$
- R = Single-mode OS1 (9/125 μm)

#### **Examples**

RMR-01U

CPP-01U-PNL

CPP-02U-PNL

Order Number	Description
CCH-UM12-05-70S	CCH Module, 12 fiber, LC Duplex adapter on the module front, MTP pinned on the module back, InfiniCor OM3 (50/125 $\mu$ m) Pretium 300 multimode fiber
Accessories	
Order Number	Description
RMB-01P	Wall-Mountable Bracket for one CCH module

Rack-Mountable Bracket, 1U for one CCH module

Rack-Mountable Bracket, 1U for two CCH modules

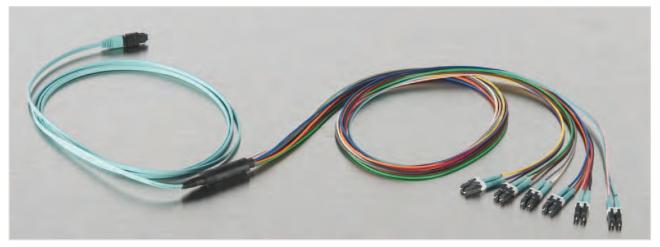
Rack-Mountable Bracket, 2U for four CCH modules

<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

## Plug & Play™ Universal Systems Harness Assemblies

A LANscape® Pretium™ Solutions Product





Plug & Play Universal Systems Harness Assembly

#### **Application**

Corning Cable Systems Plug & Play Universal Systems
Harness Assemblies are targeted for data center and higher
fiber-count telecommunications systems where there is no
room to mount interconnect hardware into racks or cabinets, or pathway space in these is limited. They are used to
break out the 12-fiber MTP® Connectors terminated on
trunk cables into simplex- or duplex-style connectors which
can connect directly to the electronics.

#### Description

Plug & Play Universal Systems harness assemblies have a pinned MTP Connector on one end that connects to a Plug & Play Universal Systems trunk. The other end is equipped with simplex- or duplex-style connectors and is designed to accommodate many ranges of leg length requirements to ease fiber routing for direct conection to the electronics. In the case of MT-RJs, non-pinned versions are offered for compatibility with the electronics.

#### **Features**

- The 2.0 mm legs for single-fiber connectors provide a more rugged solution than products with 900 μm legs
- Used with the Plug & Play Universal Systems trunks or extender trunks, they provide quick installation in applications where ruggedized legs are needed for direct installation into electronic equipment
- They provide a routing solution that is less dense than traditional jumpers since the ribbon cable end of the harness that routes through the rack or cabinet is much smaller than the equivalent six 2-fiber patch cords

## Plug & Play™ Universal Systems Harness Assemblies

A LANscape® Pretium™ Solutions Product

### **Specifications**

Parameter	Specification
Low-Loss Performance Multimode Modules	
Module Loss	0.75 dB max (all fibers) at 850/1300 nm (with Pretium fiber only)
Standard Performance Multimode Harness	
Harness Loss	1.3 dB max (all fibers) at 1300 nm
<b>Standard Performance Single-mode Harness</b>	
Harness Loss	1.3 dB max (all fibers) at 1310 nm

### **Ordering Information**



#### 1 Select MTP® connector.

- 70 = MTP, standard performance, multimode, pinned
- 89 = MTP, single-mode, pinned
- 93 = MTP, low-loss performance, pinned\*

## Select the breakout connector type.

#### ST Compatible®

50 = ST, multimode

61 = ST UPC, single-mode

#### SC Duplex

57 = SC Duplex, multimode

72 = SC Duplex UPC single-mode

#### ıc

05 = LC Duplex, multimode

04 = LC Duplex, single-mode

#### MT\_RI

97 = MT-RJ, multimode, non-pinned

98 = MT-RJ, single-mode, non-pinned

#### Select fiber count.

04 = 4-fiber

08 = 8-fiber

12 = 12-fiber

Note: if fiber count is less than 12, only middle fibers of MTP connector are terminated

#### 4 Select fiber count.

- Y = InfiniCor OM3+ (50/125 μm) Pretium 550
- S = InfiniCor OM3 (50/125 μm) Pretium 300
- $C = InfiniCor OM2 (50/125 \mu m)$
- $K = InfiniCor OM1 (62.5/125 \mu m)$
- R = Single-mode OS1 (9/125 µm)

#### 5 Select ribbon cable type.

JZ = 12-fiber ribbon interconnect RIC FRNC

11 = 12-fiber ribbon interconnect RIC Riser

# Select the break-out connector leg length (leg furcation diameter is 2.0 mm)

Corning Cable Systems

 $J = 300 \, \text{mm} (+70/-0)$ 

K = 600 mm (+70/-0)

L = 1000mm (+70/-0) - Standard

M = 1200 mm (+70/-0) N = 1500 mm (+70/-0)

P = 1800 mm (+70/-0)

### Select overall length.

01-30

#### Select unit of measure.

F = Feet

M = Meters

#### Example

Order Number	Description
H700512SJZLZ005M	Harness Assembly, MTP pinned to LC Duplex, 12 fiber, InfiniCor OM3 (50/125 μm) Pretium 300 ribbon interconnect FRNC cable, 1000 mm furcated legs, 5 meters long (tip-to-tip), aqua jacket
Accessories	
CPP-01U-PNL	1U Bracket that holds two CCH panels or modules; occupies one 1.75 in (4.45 cm) vertical rack space and can be used with standard 19-in equipment racks
CPP-02U-PNL	2U Bracket that holds four CCH panels or modules; occupies two 1.75 in (4.45 cm) vertical rack spaces and can be used with standard 19-in equipment racks
CCHE-CP72-E3	CCH Connector Panel with six MTP Connector adapters, aqua
CCHE-CPE4-69	CCH Connector Panel with 12 MTP Connector adapters



<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

## Plug & Play™ Universal Systems MTP® Hybrid Trunks

A LANscape® Pretium™ Solutions Product



#### MTP® Hybrid and Hybrid Extender Trunks

Plug & Play™ Universal Systems hybrid trunks are terminated with MTP® Connectors on one end of the trunk and simplex- or duplex-style connectors on the other end for applications requiring one end of the trunk system to connect directly into system equipment ports or patch panels. Both Plug & Play Universal Systems trunks and extender trunks are available in hybrid connector options.

### **Ordering Information**

#### MTP® Hybrid Trunking System



<sup>\*</sup> W = Universal Hybrid Connector Base Trunk.

#### Select grip application.

A = Grip on first end only (Grip placed over connector on the first end as defined in step 2. MTP end is recommended on the first end if "A" is selected)

B = Grip on both ends

N = No grip

## Select MTP connector on first end.

#### Single-mode MTP

90 = MTP, non-pinned

#### Multimode MTP

69= MTP, standard performace, non-pinned

75 = MTP, low-loss performance, pinned\*

#### Select the connector on second end.

#### **ST Compatible**

50 = ST, multimode

61 = ST, UPC, single-mode

#### **SC Duplex**

57 = SC Duplex, multimode

72 = SC Duplex, UPC, single-mode

#### **LC Duplex**

05 = LC Duplex, multimode

04 = LC Duplex, single-mode

#### MT-R.

86 = MT-RJ, multimode, pinned

87 = MT-RJ, single-mode, pinned

#### Select standard fiber count.

12 = 12-fiber 72 = 72 fiber 24 = 24 fiber 96 = 96 fiber 36 = 36 fiber E4 = 144 fiber

48= 48 fiber

#### 5 Select fiber type.

Y = InfiniCor  $OM3+ (50/125 \mu m)$ Pretium 550

S = InfiniCor OM3 (50/125 μm) Pretium 300

 $C = InfiniCor OM2 (50/125 \mu m)$ 

 $K = InfiniCor OM1 (62.5/125 \mu m)$ 

 $R = Single-mode OS1 (9/125 \mu m)$ 

#### 6 Select cable type.

(12, 24, 36, 48, 72,96, and 144 fibers)

CZ= Low-smoke, zero-halogen, ribbon

#### Select leg type on first end.

A = 600 mm, (+70/-0) - Standard

B = 1000 mm, (+70/-0)

Furcation legs are coded by fiber type: K & C = Orange, S = Aqua, R = Yellow

#### Select leg type on second end (breakout connector end).

(900 µm diameter legs available up to 144 fibers)

E = 300 mm, (+70/-0)

 $= 600 \, \text{mm}, (+70/-0)$ 

G = 1000 mm, (+70/-0) - Standard

H = 1200 mm, (+70/-0)

(2.0 mm diameter legs availble up to 24 fibers)

J = 300 mm, (+70/-0)

K = 600 mm, (+70/-0)

L = 1000 mm, (+70/-0)

M = 1200 mm, (+70/-0)

## Select cable length (measured from furcation point to furcation point).

1-999 (Tolerance +3m/-0m)

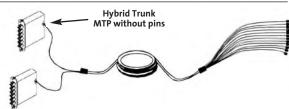
#### **10** Select unit of measurement.

F = Feet

M = Meters

#### **Examples**

Order Number	Description
A907248SCZAGW040M	MTP Hybrid Trunk, MTP non-pinned to SC duplex UPC, 48 fiber, InfiniCor OM3 (50/125 μm) Pretium 300 ribbon cable FRNC, 600 mm furcated legs on MTP side, 1000 mm long 900 μm furcated legs on SC duplex side, 40 m long (furcation point to furcation point), aqua jacket, grip on MTP side



<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

# Introduction

Corning Cable Systems

THE PREMIER SOLUTION

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# Plug & Unive

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## Plug & Play™ Universal Systems MTP® Hybrid Trunks

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## **Ordering Information**

## **MTP® Hybrid Extender Trunks**



Please note: Hybrid Universal Extender Trunks have pinned MTPs on one end and single-fiber connectors on the other end on the other end. Alignment of the MTP is achieved when mating a pinned MTP to a non-pinned MTP. Attempting to mate two pinned MTPs or two non-pinned MTPs is not possible.

#### Select grip application.

A = Grip on first end only (Grip placed over connector on first end as defined in step 2. MTP is recommended on the first end if "A" is selected)

B = Grip on both ends

N = No grip

## Select MTP connector on first end.

## Cird.

Single-mode MTP 89= MTP, pinned

Multimode MTP

70 = MTP, standard performance, pinned

93 = MTP, low-loss performance, pinned\*

## 3 Select the connector on second end.

#### **ST Compatible**

50 = ST, multimode

61 = ST, UPC, single-mode

#### **SC Duplex**

57 = SC Duplex, multimode

72 = SC Duplex, UPC, single-mode

## **LC Duplex**

05 = LC Duplex, multimode

04= LC Duplex, single-mode

#### MT-R.

86= MT-RJ, multimode, pinned

87 = MT-RJ, single-mode, pinned

#### 4 Select standard fiber count.

12= 12-fiber

24= 24 fiber

36= 36 fiber

48= 48 fiber

72 = 72 fiber

96= 96 fiber

E4 = 144 fiber

#### 5 Select fiber type.

Y = InfiniCor OM3+ (50/125 μm) Pretium 550

S = InfiniCor OM3 (50/125 μm) Pretium 300

 $C = InfiniCor OM2 (50/125 \mu m)$ 

 $K = InfiniCor OM1 (62.5/125 \mu m)$ 

 $R = Single-mode OS1 (9/125 \mu m)$ 

#### 6 Select cable type.

(12, 24, 36, 48, 72, 96, and 144 fibers)

CZ= Low-smoke, zero-halogen, ribbon

## Select leg type on first end.

A = 600 mm, (+70/-0) - Standard

B = 1000 mm, (+70/-0)

Furcation legs are coded by fiber type: K & C = Orange, S = Aqua, R = Yellow

#### Select leg type on second end (breakout connector end).

(900 µm diameter legs availble up to 144 fibers)

E = 300 mm, (+70/-0)

F = 600 mm, (+70/-0)

G = 1000 mm, (+70/-0) - Standard

H = 1200 mm, (+70/-0)

(2.0 mm diameter legs availble up to 24 fibers)

J = 300 mm, (+70/-0)

K = 600 mm, (+70/-0)

L = 1000 mm, (+70/-0)

M = 1200 mm, (+70/-0)

Select cable length (measured from furcation point to furcation point).

1-999

#### 10 Select unit of measurement.

F = Feet

M = Meters

#### Examples

Examples	
Order Number	Description
N700524SCZAGZ030M	MTP Hybrid Extender Trunk, MTP pinned to LC Duplex, 24 fiber, InfiniCor OM3 (50/125 μm) Pretium 300 ribbon FRNC cable, 600 mm furcated legs on MTP side, 1000 mm meter long 2.0 mm furcated legs on LC duplex side, 30 m long (furcation point to furcation point), aqua jacket, no pulling grip

<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

## Plug & Play™ Universal Systems Single-Fiber or MT-RJ Trunks

Corning Cable Systems

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## **Ordering Information**

## Single-Fiber or MT-RJ Trunks



#### Select grip application.

A = Grip on first end only (Grip placed over connector on first end as defined in step 2)

B = Grip on both ends

N = No grip

## Select the connector on first end.

#### **ST Compatible**

50 = ST, multimode

61 = ST, UPC single-mode

#### **SC Duplex**

57 = SC Duplex, multimode

72 = SC Duplex, UPC, singlemode

#### **LC Duplex**

05 = LC Duplex, multimode

61 = LC Duplex, single-mode

#### MT-RJ

86= MT-RJ, multimode, pinned

87 = MT-RJ, single-mode, pinned

## Select the connector on second end. Please use code from item 2.

#### 4 Select standard fiber count.

12 = 12-fiber

24= 24-fiber

36= 36-fiber

48= 48-fiber 72= 72-fiber

96= 96-fiber

E4= 144-fiber

#### 5 Select fiber type.

Y = InfiniCor  $OM3+ (50/125 \mu m)$ Pretium 550

S = InfiniCor OM3 (50/125  $\mu$ m) Pretium 300

 $C = InfiniCor OM2 (50/125 \mu m)$ 

 $K = InfiniCor OM1 (62.5/125 \mu m)$ 

R = Single-mode OS1 (9/125 µm)

#### 6 Select cable type.

8Z= Indoor, i-MIC, FRNC (900 μm diameter legs, 6-24 fibers)

UZ = Indoor Loose Tube, FRNC (900 μm diameter legs, 36-144 fibers)

XZ = Indoor Central Tube, FRNC (2.0 mm diameter legs, only available up to 24 fibers)

## Select trunk furcation length on first end.

(900 µm diameter legs availble up to 144 fibers)

E = 300 mm, (+70/-0)

F = 600 mm, (+70/-0)

G = 1000 mm, (+70/-0) - Standard

H = 1200 mm, (+70/-0)

#### (2.0 mm diameter legs availble up to

24 fibers)

J = 300 mm, (+70/-0)

K = 600 mm, (+70/-0)

L = 1000 mm, (+70/-0)

M = 1200 mm, (+70/-0)

## Select leg type on second end. Please use code from item 7.

Furcation legs are coded by fiber type: K & C = orange, S = aqua, R = yellow

## Select cable length (measured from furcation point to furcation point).

Select unit of measurement.

1-222

F = Feet M = Meters

#### **Example**

Order Number	Description
A055724S8ZGG100M	Single-fiber connector trunk, LC Duplex to SC Duplex, 24 fiber, InfiniCor OM3 (50/125 µm) Pretium 300 central tube FRNC cable, 600 mm long, 2.0 mm diameter furcated legs on LC side, 1000 mm long 900 µm diameter furcated legs on the SC Duplex side, 100 meters long (furcation point to furcation point), aqua jacket, pulling grip on LC Duplex side

<sup>\*</sup> With Pretium fiber only. For non-standard products, please contact Customer service

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## Corning FutureLink™ Cables

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## FutureLink™ Cables - Overview

FutureLink™ Cables are provided with laser-optimized InfiniCor® fibers as well as with standard single-mode SMF-28e® fibers. The coated fibers are colored according to the Telcordia (formerly Bellcore) specifications for ease of identification. The coating and coloring process employed is state-of-the-art and guarantees a uniform, smooth surface. The cables deployed in the system are non-metallic, thus eliminating the need for equipotential bonding and lightning protection measures.

#### **Multipurpose Cables**

A link failure in a modern fiber optic (FO) network can involve considerable costs for the operator. The cables must therefore meet stringent mechanical requirements and be able to withstand environmental effects such as frost and humidity. FutureLink cables have been designed to be particularly ruggedized and resilient.

For campus cabling applications there are MPC (Multipurpose Cables = in- and outdoor cables) are available. The MPC cables provide outdoor characteristics e.g. non-metallic rodent protection, water blocking and UV resistance. The microbe resistance of the cable sheath allows the cables to be buried directly in the ground. The LSZH (Low Smoke Zero Halogen) characteristics enable the cable to be deployed inside buildings. The cable sheaths are colored black.

Three design variants are provided:

- NEW: Gel-Free Cable: Cables with no messy gels, eliminating the need for cleaning solvents, making cable access and installation a craft-friendly processes. Micromodules allow for easy stripping of the fiber.
- Loose Tube Cables: Cables with loose buffer tubes stranded around a central dielectric strength member.
- Central Tube Cables: Cables with a central loose buffer tube and with strength members partially integrated in the sheath.
- Tight Buffer cables: Cables with tight buffered fiber.

To prevent water that may enter through the cable sheath from penetrating any further, water blocking is generally provided in the form of swellable (dry) elements. This socalled "dry" cable design enhances installer friendliness.

#### **Indoor Cables**

The indoor cables used for the building backbone (riser) and horizontal subsystems are non-corrosive (to IEC 60754-2), low-smoke (to IEC 61034) and flame-retardant (tested to IEC 60332-1 or -3 and DIN VDE 0472, part 804, test type B or C). The color of the cable sheath is yellow for single-mode cable, orange for OM1 and OM2 cables, and aqua for OM3 cables, unless otherwise stated.

With our standard TB3 tight buffer coating, indoor FO cable is even easier to use, as well as having zero halogen and being flame retardant. In addition, our indoor FO cables excel over other offerings on the market with the following advantages:

- Installer-friendly, as they contain no filling compound
- Very easy to strip, with stripping lengths of approximately 100 mm
- Rapid, direct connectorization without fan-out adapters
- Suitable for direct termination of field-installable connectors on tight buffer

# Introduction

## LANscape<sup>®</sup> Solutions

# Plug & Play" Universal Systems

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## Fiber Termination

## **Corning FutureLink™ Cables**

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Multifiber indoor (MIC®), breakout and pigtail and patchcord cables are available. MIC cables consist of tight buffers stranded together with non-metallic strength members. Breakout cables consist of buffered single-fiber cables (tight buffer fibers, each in own sheath) stranded together as subunits for tensile within an additional shared sheath. Pigtails and patchcord cables are single-fiber (Simplex) or Zipcord cables (Duplex) with tight buffered fibers.

All FutureLink indoor FO cables are all-dielectic and hence:

- are EMC immune
- require no grounding
- require no lightning protection
- require no equipotential bonding

## FutureLink™ Cables – Technical Data

## Cables with laser-optimized InfiniCor® multimode fibers

Fiber type – Features	Guaranteed Gigabit Link Length		Typ. attenuation in loose tube cable in dB/km		Typ. attenuation in tight buffer cable in dB/km		Fiber Class
	1Gb/s	10 Gb/s	850 nm	1300 nm	850 nm	1300 nm	
InfiniCor® eSX+ (50 µm)	1100 m	550m	2.5	0.7	2.7	0.8	OM3+
InfiniCor SX+ (50 µm)	1000 m	300 m	2.5	0.7	2.7	0.8	OM 3
InfiniCor 600 (50 µm)	600 m	100 m	2.5	0.7	2.7	0.8	OM 2
InfiniCor 300 (62.5 μm)	300 m	33 m	3.1	0.8	3.1	0.8	OM1
' The state of the							

<sup>\*</sup>Longer link lengths available upon request

## Cables with laser-optimized InfiniCor® multimode fibers

Fiber type – Features	Typ. attenuation in loose tube cable in dB/km		Typ. attenuation in tight buffer cable in dB/km		Chromatic dispersion ps/(nm x km)		Fiber Class
	1310 nm	1550 nm	1310 nm	1550 nm	1310 nm	1550 nm	
Single-mode fiber SMF-28e <sup>o</sup>	Ð						
(9 µm)	0.36	0.22	0.38	0.25	3.5	18.0	OS1

## FutureLink™ Multipurpose Cables Gel-Free Central Tube – A-BBQ(BN)H

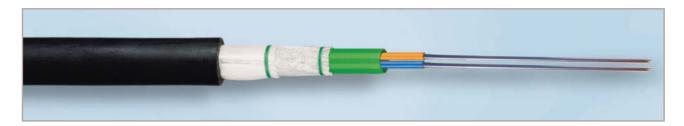
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## **Applications**

FutureLink™ gel-free multipurpose cables (MPC) have a completely dry design with laminated glass yarns for improved rodent resistance. Micro-modules containing 12-fiber bundles ease fiber handling. The innovative dry design with water-blocking technology eliminates the need for traditional flooding compound, providing more efficient and craft-friendly cable preparation. Gel-free cables can be deployed both indoors and outdoors for campus backbone and building backbone (riser) applications as well as for the cabling between floor distributors and terminal equipment.

# LSZH / FRNC jacket Micro-modules with 12 fibers Central tube Dielectric glass yarn armor Swellable elements Rip cord

#### **Features**

- Halogen-free polypropylene tube
- Low smoke according to IEC 61034 and EN 50268
- Flame retardant according to IEC 60332-3C and EN 50266-2-4
- Non-corrosive according to IEC 60754-2 and EN 50267
- Water blocking according to IEC 60794-1-F5
- Laminated glass-yarns for improved rodent resistance
- Light, thin and robust cable
- UV resistant
- Suitable for use outdoors and indoors
- Direct burial in the ground possible (microbe-resistant)

## **Special Features**

- Micro-modules allow easy handling
- Completely gel-free for easier stripping
- Flame retardant according to 60332-3C

#### Temperature Range

- Installation and assembly
- −5°C to +50°C

Operation

- -30°C to +70°C
- Transport and storage
- -30°C to +70°C

## Characteristics

Type designation		Outside diameter (mm)		Max. tensile strength (N)		radius in	
A-BBQ(BN)H 2x12	24	9.5	79	1500	190	170	1.54

#### Color code Telcordia

	Bundle/
No.	fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

## FutureLink™ Multipurpose Cables Gel-Free Central Tube – A-BBQ(BN)H



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#### Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fiber count	Order No. InfiniCor OM3+ (50/125 µm)	Order No. InfiniCor OM3 (50/125 µm)
A-BBQ(BN)H 2x12	24	LCXLM1-L6024-F700	LCXLM1-L6024-D700
Type designation	Fiber count	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM1 (62.5/125 µm)
A-BBQ(BN)H 2x12	24	LCXLM1-L6024-B700	LCXLM1-M6024-A700
Type designation	Fiber count	Order No. SMF-28e (9/125 μm)	
A-BBQ(BN)H 2x12	24	LCXLM1-D6024-U700	

<sup>\*</sup>for other fiber-counts, please contact customer service.





## FutureLink™ Multipurpose Cables Gel-Free Central Tube – A-BQ(BN)H

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## **Applications**

FutureLink™ gel-free multipurpose cables (MPC) have a completely dry design with laminated glass yarns for improved rodent resistance. This innovative dry design with water-blocking technology eliminates the need for traditional flooding compound, providing more efficient and craft-friendly cable preparation. Gel-free cables can be deployed both indoors and outdoors for campus backbone and building backbone (riser) applications as well as for the cabling between floor distributors and terminal equipment.

#### **Features**

- Halogen-free polypropylene tube
- Low smoke according to IEC 61034 and EN 50268
- Flame retardant according to IEC 60332-3C and EN 50266-2-4
- Non-corrosive according to IEC 60754-2 and EN 50267
- Water blocking according to IEC 60794-1-F5
- Laminated glass-yarns for improved rodent resistance
- Light, thin and robust cable
- UV resistant
- Suitable for use outdoors and indoors
- Direct burial in the ground possible (microbe-resistant)

# Central tube with up to 12 fibers and swellable yarns Swellable tape Dielectric glass yarn armor

#### **Special Features**

- Completely gel-free for easier stripping
- Small diameter and lightweight
- Upgrade to flame retardant rating according to IEC 60332-3C
- Low fire load

#### **Temperature Range**

Installation and assembly	-5°C to +50°C
Operation	-30°C to +70°C
■ Transport and storage	-30°C to +70°C

#### Characteristics

Type designation	Fiber count	Outside diameter (mm)		Min. tensile strength (N)		radius in	Fire load (MJ/m)
A-BQ(BN)H 1x4	4	6.8	46	1000	150	140	0.83
A-BQ(BN)H 1x6	6	6.8	46	1000	150	140	0.83
A-BQ(BN)H 1x8	8	6.8	46	1000	150	140	0.83
A-BQ(BN)H 1x12	12	6.8	46	1000	150	140	0.83

## Color code

Telcordia	
	Bundle/
No.	fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

## FutureLink™ Multipurpose Cables Gel-Free Central Tube – A-BQ(BN)H



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#### Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fiber count	Order No. InfiniCor OM3+ (50/125 μm)	Order No. InfiniCor OM3 (50/125 µm)
A-BQ(BN)H 1x4	4	LCXLM1-L6004-F700	LCXDM1-L6004-D700
A-BQ(BN)H 1x6	6	LCXLM1-L6006-F700	LCXDM1-L6006-D700
A-BQ(BN)H 1x8	8	LCXLM1-L6008-F700	LCXDM1-L6008-D700
A-BQ(BN)H 1x12	12	LCXLM1-L6012-F700	LCXDM1-L6012-D700
Type designation	Fiber count	Order No. InfiniCor OM2 (50/125 µm)	Order No. InfiniCor OM1 (62.5/125 µm)
A-BQ(BN)H 1x4	4	LCXLM1-L6004-B700	LCXLM1-M6004-A700
A-BQ(BN)H 1x6	6	LCXLM1-L6006-B700	LCXLM1-M6006-A700
A-BQ(BN)H 1x8	8	LCXLM1-L6008-B700	LCXLM1-M6008-A700
A-BQ(BN)H 1x12	12	LCXLM1-L60012-B700	LCXLM1-M6012-A700
Type designation	Fiber count	Order No. SMF-28e (9/125 µm)	
A-BQ(BN)H 1x4	4	LCXLM1-D6004-U700	
A-BQ(BN)H 1x6	6	LCXLM1-D6006-U700	
A-BQ(BN)H 1x8	8	LCXLM1-D6008-U700	
A-BQ(BN)H 1x12	12	LCXLM1-D6012-U700	

<sup>\*</sup>for other fiber counts, please contact customer service.





## FutureLink™ Multipurpose Cables Central Tube Ribbon Cable



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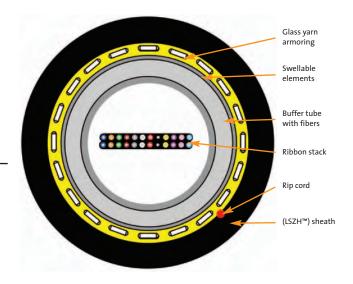


## **Applications**

FutureLink™ ribbon multipurpose cables (MPC) can be deployed both indoors and outdoors for campus backbone and building backbone (riser) cabling as well as for cabling between floor distributors and terminal equipment/workstations. The cables can be installed in conduits, ducts, and be buried directly in the ground.

#### **Features**

- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60332-3 and non-corrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- Completely dry construction, no gel filling compounds
- All-dielectric, cable construction requires no grounding or bonding
- Laminated glass yarns for improved rodent resistance
- Water blocking according to IEC 60794-1-2-F5
- UV resistant
- Suitable for use indoors and outdoors
- Direct burial in the ground possible (microbe resistant)



## **Temperature Range**

Laying and installation

−5 °C to +50 °C

Operation

 $-30~^{\circ}\text{C}$  to +70  $^{\circ}\text{C}$ 

Transport and storage

−30 °C to +70 °C

## **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)
A-B(BN)H 1x12	12	12.6	140	1500	280	250	2.37
A-B(BN)H 2x12	24	12.6	140	1500	280	250	2.40
A-B(BN)H 3x12	36	12.6	140	1500	280	250	2.44
A-B(BN)H 4x12	48	12.6	140	1500	280	250	2.48
A-B(BN)H 5x12	60	12.6	140	1500	280	250	2.51
A-B(BN)H 6x12	72	14.3	180	1500	250	285	3.10

Color code	
Telcordia	

reicordia	
No.	Bundle/ fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

## FutureLink™ Multipurpose Cables Central Tube Ribbon Cable

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## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM3+ (50/125 µm)	Order No. InfiniCor OM3 (50/125 μm)
A-B(BN)H 1x12	12	LCXMM3-LX012-F700	LCXMM3-LX012-D700
A-B(BN)H 2x12	24	LCXMM3-LX024-F700	LCXMM3-LX024-D700
A-B(BN)H 3x12	36	LCXMM3-LX036-F700	LCXMM3-LX036-D700
A-B(BN)H 4x12	48	LCXMM3-LX048-F700	LCXMM3-LX048-D700
A-B(BN)H 5x12	60	LCXMM3-LX060-F700	LCXMM3-LX060-D700
A-B(BN)H 6x12	72	LCXMM3-LX072-F700	LCXMM3-LX072-D700

Type designation	Fiber count	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM1 (62.5/125 μm)
A-B(BN)H 1x12	12	LCXMM3-LX012-B700	LCXMM3-MX012-A700
A-B(BN)H 2x12	24	LCXMM3-LX024-B700	LCXMM3-MX024-A700
A-B(BN)H 3x12	36	LCXMM3-LX036-B700	LCXMM3-MX036-A700
A-B(BN)H 4x12	48	LCXMM3-LX048-B700	LCXMM3-MX048-A700
A-B(BN)H 5x12	60	LCXMM3-LX060-B700	LCXMM3-MX060-A700
A-B(BN)H 6x12	72	LCXMM3-LX072-B700	LCXMM3-MX072-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
A-B(BN)H 1x12	12	LCXMM3-EX012-U700
A-B(BN)H 2x12	24	LCXMM3-EX024-U700
A-B(BN)H 3x12	36	LCXMM3-EX036-U700
A-B(BN)H 4x12	48	LCXMM3-EX048-U700
A-B(BN)H 5x12	60	LCXMM3-EX060-U700
A-B(BN)H 6x12	72	LCXMM3-EX072-U700

 $<sup>\</sup>hbox{$^*$for other fiber-counts, please contact customer service.}\\$ 

## FutureLink™ Multipurpose Cables Tight-Buffered i-MPC – A-VQ(BN)H ... TB3



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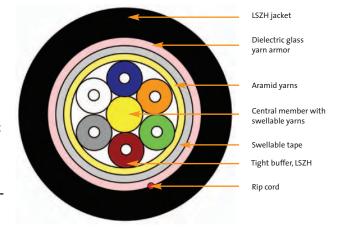


## **Applications**

FutureLink™ multipurpose cables (MPC) can be deployed both indoors and outdoors for campus backbone and building backbone (riser) cabling as well as for the cabling between floor distributors and terminal equipments/workstations (FTTD). The cables can be installed in conduits, ducts and be buried directly in the ground. The 900 µm tight buffer design allows direct connectorization without fanout adapters.

#### **Features**

- Tight-buffered fiber of 900 μm diameter, TB3 design (easy to strip)
- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant accorning to IEC 60 332-1 and noncorrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Laminated glass yarns for improved rodent resistance
- Water blocking according to IEC 60794-1-2-F5
- UV resistant
- Suitable for use outdoors and indoors
- Direct burial in the ground possible (microbe resistant)



#### **Temperature Range**

■ Installation and assembly

−5°C to +50°C

Operation

-30 °C to +70 °C

■ Transport and storage

-40°C to +70°C

#### **Special Features**

- Especially suitable for field-installable
   UniCam<sup>®</sup> connectors
- Pre-assembled lengths available

#### Characteristics

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)
A-VQ(BN)H 1x4	4	6.2	36	1500	135	95	0.58
A-VQ(BN)H 1x6	6	6.8	42	2000	150	100	0.68
A-VQ(BN)H 1x8	8	7.0	46	2000	150	105	0.73
A-VQ(BN)H 1x12	12	8.7	74	2700	200	130	1.18
A-VQ(BN)H 1x16	16	9.3	81	2700	210	140	1.38
A-VQ(BN)H 1x24	24	10.3	99	2700	245	155	1.61

Color code	
Telcordia	

No.	Bundle/ fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

# Introduction

Corning Cable Systems

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Fiber Terminati

## FutureLink™ Multipurpose Cables Tight-Buffered i-MPC – A-VQ(BN)H ... TB3

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## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM3+ (50/125 µm)	Order No. InfiniCor OM3 (50/125 μm)
A-VQ(BN)H 1x4	4	LCXLM2-L5004-F700	LCXLM2-L5004-D700
A-VQ(BN)H 1x6	6	LCXLM2-L5006-F700	LCXLM2-L5006-D700
A-VQ(BN)H 1x8	8	LCXLM2-L5008-F700	LCXLM2-L5008-D700
A-VQ(BN)H 1x12	12	LCXLM2-L5012-F700	LCXLM2-L5012-D700
A-VQ(BN)H 1x16	16	LCXLM2-L5016-F700	LCXLM2-L5016-D700
A-VQ(BN)H 1x24	24	LCXLM2-L5024-F700	LCXLM2-L5024-D700

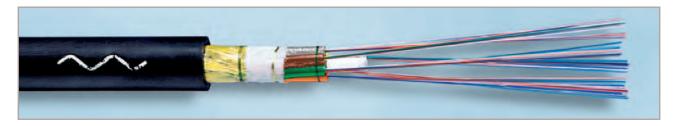
Type designation	Fiber count	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM1 (62.5/125 μm)
A-VQ(BN)H 1x4	4	LCXLM2-L5004-B700	LCXLM2-M5004-A700
A-VQ(BN)H 1x6	6	LCXLM2-L5006-B700	LCXLM2-M5006-A700
A-VQ(BN)H 1x8	8	LCXLM2-L5008-B700	LCXLM2-M5008-A700
A-VQ(BN)H 1x12	12	LCXLM2-L5012-B700	LCXLM2-M5012-A700
A-VQ(BN)H 1x16	16	LCXLM2-L5016-B700	LCXLM2-M5016-A700
A-VQ(BN)H 1x24	24	LCXLM2-L5024-B700	LCXLM2-M5024-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
A-VQ(BN)H 1x4	4	LCXLM2-D5004-U700
A-VQ(BN)H 1x6	6	LCXLM2-D5006-U700
A-VQ(BN)H 1x8	8	LCXLM2-D5008-U700
A-VQ(BN)H 1x12	12	LCXLM2-D5012-U700
A-VQ(BN)H 1x16	16	LCXLM2-D5016-U700
A-VQ(BN)H 1x24	24	LCXLM2-D5024-U700

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Multipurpose Cables Loose Tube MPC – A-DQ(ZN)H...LG

A LANscape® Solutions Product

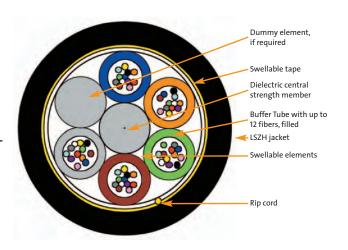


## **Applications**

FutureLink™ multipurpose cables (MPC) can be deployed both indoors and outdoors for campus backbone and building backbone (riser) cabling as well as for the cabling between floor distributors. The cables can be installed in conduits, ducts and be buried directly in the ground.

#### **Features**

- Low-smoke to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-1 and non-corrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Dry cable core
- Water blocking according to IEC 60794-1-2-F5
- UV resistant
- Suitable for use outdoors and indoors
- Direct burial in the ground is possible (microbe resistant)



#### **Temperature Range**

Installation and assembly

-5 °C to +50 °C

Operation

-30 °C to +70 °C

■ Transport and storage

-40 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)	radius for	Min. bend radius in service (mm)	Fire load (MJ/m)	Color o Telcoro No.	
A-DQ(ZN)H 2x6LG	12	11.2	115	2700	200	170	2.60	01 02	Bl Oı
A-DQ(ZN)H 4x6LG	24	11.2	115	2700	200	170	2.54	03	Gı
A-DQ(ZN)H 2x12LG	24	11.2	115	2700	200	170	2.63	04 05	Br Sl:
A-DQ(ZN)H 3x12LG	36	11.2	115	2700	200	170	2.56	06	W Re
A-DQ(ZN)H 4x12LG	48	11.2	115	2700	200	170	2.49	08	Bl
A-DQ(ZN)H 5x12LG	60	11.2	115	2700	200	170	2.42	09 10	Ye Vi
A-DQ(ZN)H 6x12LG	72	11.2	115	2700	200	170	2.35	11 12	Pi Tu

## lia Bundle/ fiber color Blue

02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turauoise

## FutureLink™ Multipurpose Cables Loose Tube MPC – A-DQ(ZN)H...LG

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 μm)
A-DQ(ZN)H 2x6LG	12	LCXLM1-K4012-B700	LCXLM1-K4012-D701
A-DQ(ZN)H 4x6LG	24	LCXLM1-K4024-B702	LCXLM1-K4024-D704
A-DQ(ZN)H 2x12LG	24	LCXLM1-K4024-B701	LCXLM1-K4024-D703
A-DQ(ZN)H 3x12LG	36	LCXLM1-K4036-B700	LCXLM1-K4036-D701
A-DQ(ZN)H 4x12LG	48	LCXLM1-K4048-B700	LCXLM1-K4048-D701
A-DQ(ZN)H 5x12LG	60	LCXLM1-K4060-B700	LCXLM1-K4060-D701
A-DQ(ZN)H 6x12LG	72	LCXLM1-K4072-B700	LCXLM1-K4072-D701

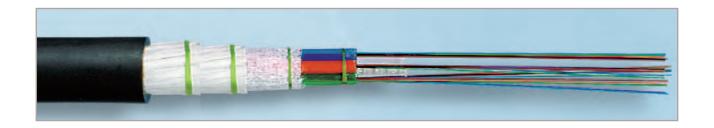
Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 μm)	
A-DQ(ZN)H 2x6LG	12	LCXLM1-M4012-A702	
A-DQ(ZN)H 4x6LG	24	LCXLM1-M4024-A702	
A-DQ(ZN)H 2x12LG	24	LCXLM1-M4024-A701	
A-DQ(ZN)H 3x12LG	36	LCXLM1-M4036-A701	
A-DQ(ZN)H 4x12LG	48	LCXLM1-M4048-A701	
A-DQ(ZN)H 5x12LG	60	LCXLM1-M4060-A701	
A-DQ(ZN)H 6x12LG	72	LCXLM1-M4072-A701	

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
A-DQ(ZN)H 2x6LG	12	LCXLM1-D4012-U701
A-DQ(ZN)H 4x6LG	24	LCXLM1-D4024-U701
A-DQ(ZN)H 2x12LG	24	LCXLM1-D4024-U704
A-DQ(ZN)H 3x12LG	36	LCXLM1-D4036-U701
A-DQ(ZN)H 4x12LG	48	LCXLM1-D4048-U701
A-DQ(ZN)H 5x12LG	60	LCXLM1-D4060-U701
A-DQ(ZN)H 6x12LG	72	LCXLM1-D4072-U702

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Multipurpose Cables Loose Tube MPC - A-DQ(BN)H...LG

A LANscape® Solutions Product

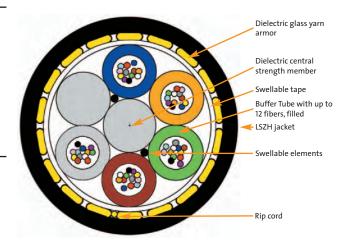


## **Applications**

FutureLink™ multipurpose cables (MPC) can be deployed both indoors and outdoors for campus backbone and building backbone (riser) cabling, as well as for the cabling between floor distributors. The cables can be installed in conduits, ducts and be buried directly in the ground.

#### **Features**

- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-1 and non-corrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Laminated glass yarns for improved rodent resistance
- Dry cable core
- Water blocking according to IEC 60794-1-2-F5
- UV resistant
- Suitable for use outdoors and indoors
- Direct burial in the ground is possible (microbe resistant)



#### **Temperature Range**

-5 °C to +50 °C Installation and assembly

-30 °C to +70 °C Operation

■ Transport and storage -40 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)	Color co Telcord No.	
A-DQ(BN)H 2x6LG	12	11.6	130	4000	260	230	2.29	01 02	Blı Or
A-DQ(BN)H 4x6LG	24	11.6	130	4000	260	230	2.63	03	Gr
A-DQ(BN)H 2x12LG	24	11.6	130	4000	260	230	2.71	04 05	Bro Sla
A-DQ(BN)H 3x12LG	36	11.6	130	4000	260	230	2.64	06 07	W Re
A-DQ(BN)H 4x12LG	48	11.6	130	4000	260	230	2.58	08	Bla Ye
A-DQ(BN)H 5x12LG	60	11.6	130	4000	260	230	2.52	09 10	Vio
A-DQ(BN)H 6x12LG	72	11.6	130	4000	260	230	2.46	11 12	Pir Tu

Yellow Violet Pink Turquoise

## FutureLink™ Multipurpose Cables Loose Tube MPC – A-DQ(BN)H...LG

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 µm)
A-DQ(BN)H 2x6LG	12	LCXLM1-K4012-B701	LCXLM1-K4012-D700
A-DQ(BN)H 4x6LG	24	LCXLM1-K4024-B703	LCXLM1-K4024-D701
A-DQ(BN)H 2x12LG	24	LCXLM1-K4024-B704	LCXLM1-K4024-D702
A-DQ(BN)H 3x12LG	36	LCXLM1-K4036-B701	LCXLM1-K4036-D700
A-DQ(BN)H 4x12LG	48	LCXLM1-K4048-B701	LCXLM1-K4048-D700
A-DQ(BN)H 5x12LG	60	LCXLM1-K4060-B701	LCXLM1-K4060-D700
A-DQ(BN)H 6x12LG	72	LCXLM1-K4072-B701	LCXLM1-K4072-D700

Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 µm)
A-DQ(BN)H 2x6	12	LCXLM1-M4012-A703
A-DQ(BN)H 4x6	24	LCXLM1-M4024-A703
A-DQ(BN)H 2x12	24	LCXLM1-M4024-A700
A-DQ(BN)H 3x12	36	LCXLM1-M4036-A700
A-DQ(BN)H 4x12	48	LCXLM1-M4048-A700
A-DQ(BN)H 5x12	60	LCXLM1-M4060-A700
A-DQ(BN)H 6x12	72	LCXLM1-M4072-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
A-DQ(BN)H 2x6	12	LCXLM1-D4012-U702
A-DQ(BN)H 4x6	24	LCXLM1-D4024-U702
A-DQ(BN)H 2x12	24	LCXLM1-D4024-U703
A-DQ(BN)H 3x12	36	LCXLM1-D4036-U702
A-DQ(BN)H 4x12	48	LCXLM1-D4048-U702
A-DQ(BN)H 5x12	60	LCXLM1-D4060-U702
A-DQ(BN)H 6x12	72	LCXLM1-D4072-U701

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Multipurpose Cables Central Tube – A-DQ(BN)H

A LANscape® Solutions Product

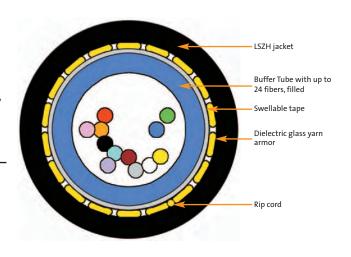


## **Applications**

FutureLink™ multipurpose cables (MPC) can be deployed both indoors and outdoors for campus backbone and building backbone (riser) cabling as well as for the cabling between floor distributors and the terminal equipment / workstations (FTTD). The cables can be installed in conduits, ducts and be buried directly in the ground.

#### **Features**

- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-3 (up to 12 fibers) or IEC 60 332-1 (16- and 24-fiber) and non-corrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Laminated glass yarns for improved rodent resistance
- Water blocking according to IEC 60794-1-2-F5
- UV resistant
- Suitable for use outdoors and indoors
- Direct burial in the ground is possible (microbe resistant)
- Small diameter



#### **Special Features**

■ Pre-assembled lengths available

#### **Temperature Range**

■ Installation and assembly −5°C to +50°C

■ Operation −20 °C to +60 °C

■ Transport and storage −25 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)
A-DQ(BN)H 1x4	4	7.0	50	1000	150	140	0.94
A-DQ(BN)H 1x6	6	7.0	50	1000	150	140	0.94
A-DQ(BN)H 1x8	8	7.0	50	1000	150	140	0.94
A-DQ(BN)H 1x12	12	7.0	50	1000	150	140	0.94
A-DQ(BN)H 1x16	16	9.0	78	1500	190	170	1.64
A-DQ(BN)H 1x24	24	9.0	78	1500	190	170	1.64

Color code Telcordia				
	Bundle/			
No.	fiber color			
01	Blue			
02	Orange			
03	Green			
04	Brown			
05	Slate			
06	White			
07	Red			
08	Black			
09	Yellow			
10	Violet			
11	Pink			

Turquoise

## FutureLink™ Multipurpose Cables Central Tube MPC – A-DQ(BN)H

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 μm)
A-DQ(BN)H 1x4	4	LCXLM1-K0004-B701	LCXLM1-K0004-D700
A-DQ(BN)H 1x6	6	LCXLM1-K0006-B700	LCXLM1-K0006-D700
A-DQ(BN)H 1x8	8	LCXLM1-K0008-B700	LCXLM1-K0008-D700
A-DQ(BN)H 1x12	12	LCXLM1-K0012-B700	LCXLM1-K0012-D700
A-DQ(BN)H 1x16	16	LCXLM1-K0016-B700	LCXLM1-K0016-D700
A-DQ(BN)H 1x24	24	LCXLM1-K0024-B700	LCXLM1-K0024-D700

Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 μm)
A-DQ(BN)H 1x4	4	LCXLM1-M0004-A700
A-DQ(BN)H 1x6	6	LCXLM1-M0006-A700
A-DQ(BN)H 1x8	8	LCXLM1-M0008-A700
A-DQ(BN)H 1x12	12	LCXLM1-M0012-A700
A-DQ(BN)H 1x16	16	LCXLM1-M0016-A700
A-DQ(BN)H 1x24	24	LCXLM1-M0024-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
A-DQ(BN)H 1x4	4	LCXLM1-D0004-U700
A-DQ(BN)H 1x6	6	LCXLM1-D0006-U700
A-DQ(BN)H 1x8	8	LCXLM1-D0008-U700
A-DQ(BN)H 1x12	12	LCXLM1-D0012-U700
A-DQ(BN)H 1x16	16	LCXLM1-D0016-U700
A-DQ(BN)H 1x24	24	LCXLM1-D0024-U700

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Multipurpose Cables Tunnel Cables with Circuit Integrity

A LANscape® Solutions Product

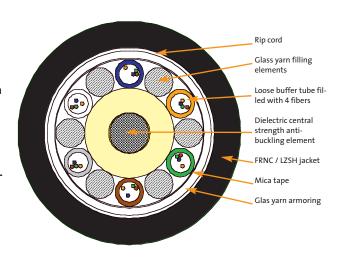


## **Applications**

FutureLink™ multipurpose cable (MPC) can be employed both indoors and outdoors for campus backbone and building backbone (riser) cabling as well as for the cabling between floor distributors. This MPC Integrity cable guarantees circuit integrity and is an outstanding cable for usage in tunnels and other secured areas. The cables can be installed in conduits, ducts and be buried directly in the ground.

#### **Features**

- Circuit integrity according to IEC 60331-11 and IEC 60331-25 (90 min @ 750° C)
- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-3 and noncorrosive to IEC 60754-2 (FRNC)
- All-dielectric cable construction; requires no grounding or bonding
- Laminated glass yarns for improved rodent resistance
- Dry cable core
- UV resistant
- Water blocking according to IEC 60794-1-2-F5
- Suitable for use outdoors and indoors
- Direct burial in the ground possible (microbe resistant)



## **Temperature Range**

Installation and assembly

−5 °C to +50 °C

Operation

-20 °C to +60 °C

■ Transport and storage

−25 °C to +70 °C

#### **Characteristics**

Type designation*	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)
A-D(BH)H 2x2	4	15.2	253	5000	340	300	3.62
A-D(BH)H 3x2	6	15.2	252	5000	340	300	3.65
A-D(BH)H 4x2	8	15.2	250	5000	340	300	3.68
A-D(BH)H 3x4	12	15.2	249	5000	340	300	3.71
A-D(BH)H 4x4	16	15.2	248	5000	340	300	3.75
A-D(BH)H 6x4	24	15.2	246	5000	340	300	3.78

Color code Telcordia				
Bundle/				
fiber colo				
Blue				
Orange				
Green				
Brown				
Slate				
White				
Red				
Black				
Yellow				
Violet				
Pink				

## FutureLink™ Multipurpose Cables Tunnel Cables with Circuit Integrity

A LANscape® Solutions Product

## Features for InfiniCor® fiber

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 µm)
A-D(BN)H 1x4	4	LCXLM1-K4004-B700-IN	LCXLM1-K4004-D700-IN
A-D(BN)H 2x4	8	LCXLM1-K4008-B700-IN	LCXLM1-K4008-D700-IN
A-D(BN)H 3x4	12	LCXLM1-K4012-B700-IN	LCXLM1-K4012-D700-IN
A-D(BN)H 4x4	16	LCXLM1-K4016-B700-IN	LCXLM1-K4016-D700-IN
A-D(BN)H 5x4	20	LCXLM1-K4020-B700-IN	LCXLM1-K4020-D700-IN
A-D(BN)H 6x4	24	LCXLM1-K4024-B700-IN	LCXLM1-K4024-D700-IN

Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 μm)
A-D(BN)H 1x4	4	LCXLM1-M4004-A700-IN
A-D(BN)H 2x4	8	LCXLM1-M4008-A700-IN
A-D(BN)H 3x4	12	LCXLM1-M4012-A700-IN
A-D(BN)H 4x4	16	LCXLM1-M4016-A700-IN
A-D(BN)H 5x4	20	LCXLM1-M4020-A700-IN
A-D(BN)H 6x4	24	LCXLM1-M4024-A700-IN

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
A-D(BN)H 1x4	4	LCXLM1-D4004-U700-IN
A-D(BN)H 2x4	8	LCXLM1-D4008-U700-IN
A-D(BN)H 3x4	12	LCXLM1-D4012-U700-IN
A-D(BN)H 4x4	16	LCXLM1-D4016-U700-IN
A-D(BN)H 5x4	20	LCXLM1-D4020-U700-IN
A-D(BN)H 6x4	24	LCXLM1-D4024-U700-IN

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Indoor Cables Multifiber Cables (i-MIC) – J-VH...TB3

Corning Cable Systems

LANSCAPE

PRETIUM

THE PREMIER SOLUTION

A LANscape® Pretium™ Solutions Product

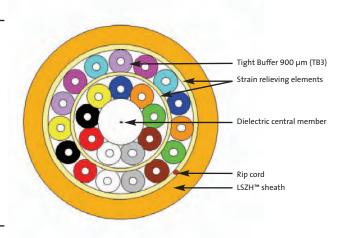


## **Applications**

FutureLink™ multifiber indoor cables (MIC) are particularly suitable for placing and pulling into cable conduits and shafts (building backbone and horizontal subsystems), also underfloor, for use as jumper and adapter cables and for connecting workstations inside buildings (FTTD). They can also be used as interbuilding cables laid in dry conduits. The 900 µm tight buffer design allows easy and direct field connectorization.

#### **Features**

- Utilizes 900 µm tight-buffered fiber with TB3 coating, enabling easy consistent stripping
- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-3 and noncorrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Completely dry design



#### **Special Features**

- Especially suitable for field-installable
   UniCam<sup>®</sup> connectors
- Pre-assembled lengths available

#### **Temperature Range**

■ Installation and assembly —5 °C to +50 °C

■ Operation −20 °C to +60 °C

■ Transport and storage −25 °C to +70 °C

#### Characteristics

Type designation	Fiber count	Outside diameter (mm)	_	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)
J-VH 2	2	3.8	15	400	57	38	0.28
J-VH 4	4	4.2	18	600	63	42	0.35
J-VH 6	6	5.1	25	600	77	51	0.48
J-VH 8	8	5.5	29	800	78	52	0.52
J-VH 12	12	6.2	36	800	93	62	0.7
J-VH 16	16	6.5	42	1000	98	65	0.81
J-VH 24	24	8.0	59	1000	120	80	1.13

Telcordia	
	Bundle/
No.	fiber colo
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red

Color code

# Introduction

Corning Cable Systems

## LANscape Solution

## oer Optic Cables

## Fibe Termina

## FutureLink™ Modular Indoor Cables Multifiber Cables (i-MIC) – J-VH...TB3

A LANscape<sup>®</sup> Pretium<sup>™</sup> Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM3+ (50/125 μm)	Order No. InfiniCor OM3 (50/125 μm)
J-VH 2	2	LCXLI2-L5002-F700	LCXLI2-L5002-D700
J-VH 4	4	LCXL12-L5004-F700	LCXL12-L5004-D700
J-VH 6	6	LCXLI2-L5006-F700	LCXLI2-L5006-D700
J-VH 8	8	LCXLI2-L5008-F700	LCXL12-L5008-D700
J-VH 12	12	LCXLI2-L5012-F700	LCXLI2-L5012-D700
J-VH 16	16	LCXLI2-L5016-F700	LCXLI2-L5016-D700
J-VH 24	24	LCXLI2-L5024-F700	LCXL12-L5024-D700

Type designation	Fiber count	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM1 (62.5/125 µm)
J-VH 2	2	LCXLI2-L5002-B700	LCXLI2-M5002-A700
J-VH 4	4	LCXLI2-L5004-B700	LCXL12-M5004-A700
J-VH 6	6	LCXLI2-L5006-B700	LCXLI2-M5006-A700
J-VH 8	8	LCXLI2-L5008-B700	LCXL12-M5008-A700
J-VH 12	12	LCXLI2-L5012-B700	LCXL12-M5012-A700
J-VH 16	16	LCXLI2-L5016-B700	LCXLI2-M5016-A700
J-VH 24	24	LCXLI2-L5024-B700	LCXLI2-M5024-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
J-VH 2	2	LCXLI2-D5002-U700
J-VH 4	4	LCXLI2-D5004-U700
J-VH 6	6	LCXLI2-D5006-U700
J-VH 8	8	LCXLI2-D5008-U700
J-VH 12	12	LCXLI2-D5012-U700
J-VH 16	16	LCXLI2-D5016-U700
J-VH 24	24	LCXLI2-D5024-U700

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Indoor Cables Loose Tube Cables – J-DH...LG

A LANscape® Solutions Product

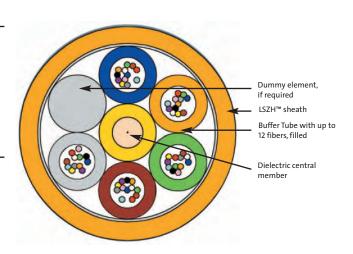


## **Applications**

FutureLink™ indoor cables are particularly suitable for placing and pulling into cable conduits and shafts inside buildings and in the building riser between floor distributors.

#### **Features**

- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-1 and noncorrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Small diameter
- Low weight
- Low fire load rating



#### **Temperature Range**

Installation and assembly

−5 °C to +50 °C

Operation

−20 °C to +60 °C

Transport and storage

−25 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Min. tensile strength (N)		Min. bend radius in service (mm)	Fire load (MJ/m)
J-DH 2x6LG	12	9.8	85	2000	170	145	2.06
J-DH 4x6LG	24	9.8	85	2000	170	145	1.94
J-DH 2x12LG	24	9.8	85	2000	170	145	2.04
J-DH 3x12LG	36	9.8	85	2000	170	145	1.97
J-DH 4x12LG	48	9.8	85	2000	170	145	1.90
J-DH 5x12LG	60	9.8	85	2000	170	145	1.83
J-DH 6x12LG	72	9.8	85	2000	170	145	1.75
J-DH 8x12LG	96	11.3	120	2000	200	170	2.37
J-DH 10x12LG	120	12.9	160	2000	225	195	3.17
J-DH 12x12LG	144	14.6	205	2000	255	220	4.13

#### Color code Telcordia

No.	Bundle/ fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

## FutureLink™ Indoor Cables Loose Tube Cables – J-DH...LG

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 µm)	Order No. InfiniCor OM3 (50/125 μm)
J-DH 2x6LG	12	LCXLI1-K4012-B700	LCXLI1-K4012-D700
J-DH 4x6LG	24	LCXLI1-K4024-B701	LCXLI1-K4024-D700
J-DH 2x12LG	24	LCXLI1-K4024-B700	LCXLI1-K4024-D701
J-DH 3x12LG	36	LCXLI1-K4036-B700	LCXLI1-K4036-D700
J-DH 4x12LG	48	LCXLI1-K4048-B700	LCXLI1-K4048-D700
J-DH 5x12LG	60	LCXLI1-K4060-B700	LCXLI1-K4060-D700
J-DH 6x12LG	72	LCXLI1-K4072-B700	LCXLI1-K4072-D700
J-DH 8x12LG	96	LCXLI1-K4096-B700	LCXLI1-K4096-D700
J-DH 10x12LG	120	LCXLI1-K4120-B700	LCXLI1-K4120-D700
J-DH 12x12LG	144	LCXLI1-K4144-B700	LCXLI1-K4144-D700

Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 μm)
J-DH 2x6LG	12	LCXLI1-M4012-A700
J-DH 4x6LG	24	LCXLI1-M4024-A701
J-DH 2x12LG	24	LCXLI1-M4024-A700
J-DH 3x12LG	36	LCXLI1-M4036-A700
J-DH 4x12LG	48	LCXLI1-M4048-A700
J-DH 5x12LG	60	LCXLI1-M4060-A700
J-DH 6x12LG	72	LCXLI1-M4072-A700
J-DH 8x12LG	96	LCXLI1-M4096-A700
J-DH 10x12LG	120	LCXLI1-M4120-A700
J-DH 12x12LG	144	LCXLI1-M4144-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
J-DH 2x6LG	12	LCXLI1-D4012-U700
J-DH 4x6LG	24	LCXLI1-D4024-U702
J-DH 2x12LG	24	LCXLI1-D4024-U701
J-DH 3x12LG	36	LCXLI1-D4036-U701
J-DH 4x12LG	48	LCXLI1-D4048-U701
J-DH 5x12LG	60	LCXLI1-D4060-U701
J-DH 6x12LG	72	LCXLI1-D4072-U700
J-DH 8x12LG	96	LCXLI1-D4096-U700
J-DH 10x12LG	120	LCXLI1-D4120-U700
J-DH 12x12LG	144	LCXLI1-D4144-U700

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Indoor Cables Central Tube Cables – J-DH

A LANscape® Solutions Product

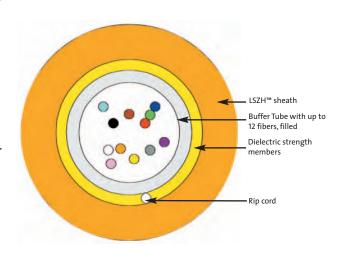


## **Applications**

FutureLink™ central tube cables are particularly suitable for placing and pulling into cable conduits and shafts inside buildings and in the building riser between floor distributors.

#### **Features**

- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-1 and noncorrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Small diameter
- Low weight
- Low fire load



## **Temperature Range**

Installation and assembly −5 °C to +50 °C
 Operation −20 °C to +60 °C

■ Transport and storage −25 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	0	Min. tensile strength (N)		radius in	Fire load (MJ/m)
J-DH 1x4	4	6.2	40	800	140	125	0.71
J-DH 1x6	6	6.2	40	800	140	125	0.71
J-DH 1x8	8	6.2	40	800	140	125	0.70
J-DH 1x12	12	6.2	40	800	140	125	0.69

## Color code

Telcordia	
No.	Bundle/ fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

FutureLink™ Indoor Cables Central Tube Cables – J-DH

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 µm)
J-DH 1x4	4	LCXLI1-K0004-B700	LCXLI1-K0004-D700
J-DH 1x6	6	LCXLI1-K0006-B700	LCXLI1-K0006-D700
J-DH 1x8	8	LCXLI1-K0008-B700	LCXLI1-K0008-D700
J-DH 1x12	12	LCXLI1-K0012-B700	LCXLI1-K0012-D700

Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 µm)
J-DH 1x4	4	LCXLI1-M0004-A700
J-DH 1x6	6	LCXLI1-M0006-A700
J-DH 1x8	8	LCXLI1-M0008-A700
J-DH 1x12	12	LCXLI1-M0012-A700

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
J-DH 1x4	4	LCXLI1-D0004-U700
J-DH 1x6	6	LCXLI1-D0006-U700
J-DH 1x8	8	LCXLI1-D0008-U700
J-DH 1x12	12	LCXLI1-D0012-U700

<sup>\*</sup>for other fiber-counts, please contact customer service.

## FutureLink™ Indoor Cables Breakout Cables with 2.8 mm Subunits – T-VHH...TB3

A LANscape<sup>®</sup> Solutions Product

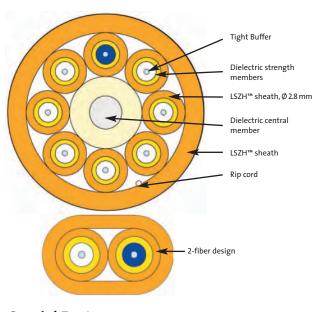


## **Applications**

FutureLink™ breakout cables are particularly suitable for placing and pulling into cable conduits and shafts (building backbone, horizontal subsystems and underfloor), for use as jumper and adapter cables and for connecting workstations inside buildings (FTTD). They can also be used as inter-building cables laid in dry conduits. Easy and direct in field connectorization is possible with enhanced strain relief.

#### **Features**

- Utilizes 900 µm tight-buffered fiber with TB3 coating, enabling easy consistent stripping (up to 100 mm)
- Low-smoke according to IEC 61034 and zero-halogen (LSZH)
- Flame-retardant according to IEC 60 332-3 and noncorrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Completely dry design
- Additional strength members in 2.8 mm diameter subunits



## **Special Features**

- Especially suitable for field-installable UniCam<sup>®</sup> connectors
- Pre-assembled lengths available

## **Temperature Range**

Installation and assembly −5°C to +50°C
 Operation −20°C to +60°C

■ Transport and storage −25 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)		Min. tensile strength (N)		radius in	Fire load (MJ/m)
T-VHH 2 FL	2	3.9 x 6.8	28	400	60	40	0.40
T-VHH 4	4	8.5	62	1000	150	130	1.14
T-VHH 6	6	10.3	94	1600	180	155	1.77
T-VHH 8	8	12.1	133	2000	210	180	2.49
T-VHH 12	12	15.8	240	2700	275	235	4.43

Color cod Telcordia	e
No.	Bundle/ fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

FutureLink™ Indoor Cables Breakout Cables with 2.8 mm Subunits – T-VHH...TB3

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 µm)	Order No. InfiniCor OM3 (50/125 µm)
T-VHH 2 FL	2	LCXLI2-L3002-B720	LCXLI2-L3002-D720
T-VHH 4	4	LCXL12-L3004-B720	LCXLI2-L3004-D720
T-VHH 6	6	LCXL12-L3006-B720	LCXLI2-L3006-D720
T-VHH 8	8	LCXL12-L3008-B720	LCXLI2-L3008-D720
T-VHH 12	12	LCXLI2-L3012-B720	LCXLI2-L3012-D720

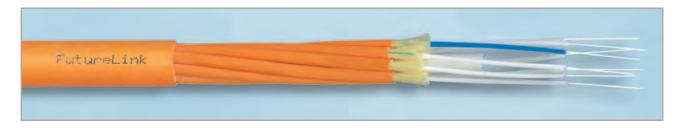
Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 µm)
T-VHH 2 FL	2	LCXLI2-M3002-A720
T-VHH 4	4	LCXLI2-M3004-A720
T-VHH 6	6	LCXLI2-M3006-A720
T-VHH 8	8	LCXLI2-M3008-A720
T-VHH 12	12	LCXLI2-M3012-A720

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
T-VHH 2 FL	2	LCXLI2-D3002-U720
T-VHH 4	4	LCXLI2-D3004-U720
T-VHH 6	6	LCXLI2-D3006-U720
T-VHH 8	8	LCXLI2-D3008-U720
T-VHH 12	12	LCXLI2-D3012-U720

<sup>\*</sup>for other fiber-counts, please contact customer service.

# FutureLink™ Indoor Cables Breakout Cables with 2.0 mm Subunits – T-VHH...TB3

A LANscape® Solutions Product

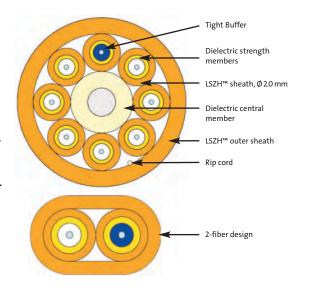


## **Applications**

FutureLink™ breakout cables are particularly suitable for placing and pulling into cable conduits and shafts (building backbone, horizontal subsystems and underfloor), for use as well as jumper and adapter cables and for connecting workstations inside buildings (FTTD). They can also be used as inter-building cables laid in dry conduits. Easy and direct infield connectorization is possible with enhanced strain relief.

#### **Features**

- Utilizes 900 µm Tight-buffered fiber with TB3 coating, enabling easy consistent stripping (up to 100 mm)
- Low-smoke according to IEC 61034 and zero-halogen (LSZH™)
- Flame-retardant according to IEC 60 332-3 and noncorrosive according to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Completely dry design
- Additional strength members in 2.0 mm diameter subunits



#### **Special Features**

- Especially suitable for field-installable UniCam®
- Pre-assembled lengths available

## **Temperature Range**

Installation and assembly −5°C to +50°C
 Operation −20°C to +60°C

■ Transport and storage −25 °C to +70 °C

#### **Characteristics**

Type designation		Outside diameter (mm)	_	Min. tensile strength (N)		radius in	Fire load (MJ/m)
T-VHH 2 FL	2	3 x 5	17	300	60	40	0.31
T-VHH 4	4	6.7	41	600	115	100	0.74
T-VHH 6	6	7.8	58	1200	135	115	0.99
T-VHH 8	8	9.1	79	1200	160	135	1.48
T-VHH 12	12	11.6	135	2000	200	170	2.48
T-VHH 24	24	13.9	170	2000	240	200	3.21

Color cod Telcordia	_
NI.	Bundle/
No.	fiber color
01	Blue
02	Orange
03	Green
04	Brown
05	Slate
06	White
07	Red
08	Black
09	Yellow
10	Violet
11	Pink
12	Turquoise

con-

## FutureLink™ Indoor Cables Breakout Cables with 2.0 mm Subunits – T-VHH...TB3

A LANscape® Solutions Product

## Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

## **Ordering Information**

Type designation	Fibercount	Order No. InfiniCor OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 µm)
T-VHH 2 FL	2	LCXLI2-L3002-B750	LCXL12-L3002-D750
T-VHH 4	4	LCXLI2-L3004-B750	LCXL12-L3004-D750
T-VHH 6	6	LCXL12-L3006-B750	LCXL12-L3006-D750
T-VHH 8	8	LCXL12-L3008-B750	LCXL12-L3008-D750
T-VHH 12	12	LCXLI2-L3012-B750	LCXLI2-L3012-D750
T-VHH 24	24	LCXLI2-L3024-B750	LCXLI2-L3024-D750

Type designation	Fiber count	Order No. InfiniCor OM1 (62.5/125 μm)
T-VHH 2 FL	2	LCXL12-M3002-A750
T-VHH 4	4	LCXL12-M3004-A750
T-VHH 6	6	LCXL12-M3006-A750
T-VHH 8	8	LCXLI2-M3008-A750
T-VHH 12	12	LCXL12-M3012-A750
T-VHH 24	24	LCXLI2-M3024-A750

Type designation	Fiber count	Order No. SMF-28e (9/125 μm)
T-VHH 2 FL	2	LCXLI2-D3002-U750
T-VHH 4	4	LCXL12-D3004-U750
T-VHH 6	6	LCXLI2-D3006-U750
T-VHH 8	8	LCXLI2-D3008-U750
T-VHH 12	12	LCXLI2-D3012-U750
T-VHH 24	24	LCXLI2-D3024-U750

<sup>\*</sup>for other fiber-counts, please contact customer service.

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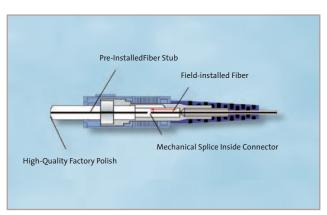
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## UniCam® Field Installable Connectors

Using field-installable connectors, where the connectors are mounted on site, avoids the need for accurate surveying of the often complex cable runs before placing the cables. Cable is pulled in and can be cut to the required length at the connecting hardware. As a result, field-installable connectors are often considerably more flexible than pre-terminated cables and the planning effort can be reduced significantly. In addition, the use of field-installable connectors is less expensive than pre-terminated cables and reduces hardware, space and the associated costs.

Ordinary field-installable connectors using epoxy and polish techniques frequently do not meet the requirements of modern networks due to variable craftmanship and poor reproducibility. Overpolishing or underpolishing of the end face, scratches on the ferrule end surface or interfering adhesive residues frequently degrade the quality. In addition, environmental factors such as contamination or poor lighting conditions on site can also hamper installation.

The field-installable UniCam® connector versions provide a high-quality alternative to epoxy and polish connectors. They provide simple, quick and reliable connector installation on site. Fiber stubs are pre-installed in the ferrules of the UniCam connectors at the factory, thus eliminating the critical epoxy and polish operations in the field. This approach also allows the necessary high quality, controlled endface processing to be performed as part of the production process in the factory, thus reducing field technician influence to a minimum. On site, the stripped and cleaved field fibers are inserted into the UniCam connectors and retained. A mechanical splice inside the connector establishes the low-loss connection between the field fiber and the pre-installed fiber inside the connector.



The UniCam Principle

#### MTP® UniCam®

The Corning Cable Systems UniCam MTP® Connector is the latest innovation in the proven UniCam Connector family. It is the first no-epoxy/no-polish, field-installable 12-fiber connector in the industry. It is the ideal solution for applications using 12-fiber ribbons. The UniCam MTP Connector utilizes the same reliable, proven no-epoxy/no-polish technology as all other Corning Cable Systems UniCam Connectors. Unlike other field-installable connectors, the UniCam Connector installs with the same push-pull reliability as the familiar SC connector.

## **Continuity Test System (CTS) Feature**

This innovative two-fiber connector provides transmit and receive channels in one connector of highly compact design. It belongs to the group of so-called "Small Form Factor" (SFF) connectors. In contrast to other SFF connectors, the MT-RJ provides two fibers in one ferrule. In addition to the proven "latch" mechanism, the guide pin principle is employed to ensure high-precision alignment of the mated connectors. The MT-RJ connector permits maximum port densities in outlets and patch panels as well as in active components. The standardized MT-RJ interface (according to FOCIS 12 annex to TIA/EIA-604) is therefore supported by a large number of active component manufacturers.

In addition to being used on pre-assembled cables, the MT-RJ is increasingly being used in its field-installable versions. The no-epoxy / no-polish MT-RJ versions of UniCam combine easy, quick installation with RJ45 compactness to provide a connector for use in private networks into the horizontal cabling. Such well-thought features like the "dual polarity" incorporated in the adapters, which enable the MT-RJ UniCam connector to be rotated 180° to rectify crossed fiber connections, make this connector the first choice for structured building and campus cabling.

## UniCam® MTP® Connectors

## A LANscape® Pretium™ Solutions Product



## **Applications**

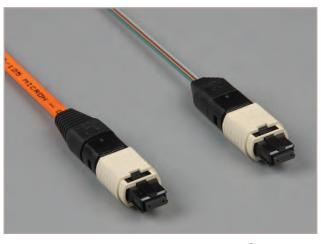
- Direct termination of ribbon cables
- Repair of Plug & Play™ Systems trunk cables
- Parallel optical interconnects between servers

## Description

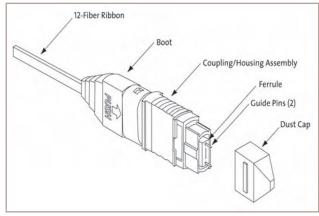
The Corning Cable Systems UniCam® MTP® Connector is the latest innovation in the proven UniCam Connector family. It is the first no-epoxy/no-polish, field-installable 12-fiber connector in the industry. It is the ideal solution for applications using 12-fiber ribbons. The UniCam MTP Connector utilizes the same reliable, proven no-epoxy/no-polish technology as all other Corning Cable Systems UniCam Connectors. Unlike other field-installable connectors, the UniCam Connector requires no polishing. The UniCam MTP Connector installs with the same push-pull reliability as the familiar SC connector.

#### Features / Benefits

- High-density termination replaces 12 single-fiber connectors
- Keyed for proper insertion
- Meets TIA/EIA-604-5 (FOCIS)
- Color-coded, 50 μm and 62.5 μm multimode housings and adapters
- Push-pull operation
- Alignment achieved with precision guide pins
- Terminates jacketed or bare 12-fiber ribbons in less than five minutes
- IEEE-802.3, Fibre Channel and ANSI/TIA/EIA-568 B.3 compliant



UniCam MTP ® Connectors



MTP Unicam

Introduction

LANscape® Solutions

Plug & Play<sup>™</sup> Universal Systems

ber Optic Cables

Fiber

Cable Assemblies

Hardware

Closures

ble Assembly Houses

Cable Ianagemen

ther Product Families

> Further Information

## **UniCam® MTP® Connectors**

A LANscape<sup>®</sup> Pretium<sup>™</sup> Solutions Product



## **Specifications**

Insertion Loss	0.5 dB average	1.0 dB maximum	
Reflectance less than -20 dB			
<b>Temperature Cycling</b> less than 0.3 dB change, -40° ≥ to +75° ≥ degree		to + 75°≥ degrees Celcius; 21 cycles	
Interconnect Compatibility TIA/EIA-604-5 (FOCIS)			

Order Number	Description	
93-001-69	UniCam <sup>®</sup> MTP <sup>®</sup> Compatible 62.5 µm Multimode Connector, 12-fiber beige housing and black boot, no pins	
93-051-69	UniCam MTP Compatible standard 50 µm Multimode Connector, 12-fiber black hous ing and black boot, no pins	
93-051-69-X UniCam MTP Compatible laser-optimized 50 µm Multimode Connector, 12-fib housing and aqua boot, no pins		
93-001-70	UniCam MTP Compatible 62.5 µm Multimode Connector, 12-fiber beige housing and black boot, with pins	
93-051-70	UniCam MTP Compatible standard 50 µm Multimode Connector, 12-fiber black hous ing and black boot, with pins	
93-051-70-X	UniCam MTP Compatible laser-optimized 50 µm Multimode Connector, 12-fiber black housing and aqua boot, with pins	
Accessories		
TKT-UNICAM-MTP	Installation Kit for UniCam MTP Connector	
TER-MTP-COR-1MM	MTP Connector Adapter, 12 fibers, reduced flange	

# Introduction

LANscape® Solutions

Plug & Play" Universal Systems

Fiber Optic Cables

> Fiber Termination

# rther (

## **UniCam® Multimode Connectors**

A LANscape® Solutions Product

#### **Applications**

- Main cross-connect, intermediate cross-connect, horizontal cross-connect and workstation
- Maintenance and restoration of building cable
- Ideal for fiber-to-the-desktop applications where installation setup and teardown time is critical



UniCam MT-RJ, FC, SC, ST © Compatible and LC Multimode Connectors



UniCam Connector Installation Tool

#### Description

The UniCam® Connector is the ideal solution for all your field-installable multimode fiber optic connector requirements. The quick installation reduces the total installed cost of connectorization, making the UniCam Connector cost-effective for all fiber applications, from the main cross-connect to the workstation.

The UniCam Connector can best be described as a mini pigtail. It incorporates a factory-installed fiber stub that is fully bonded in the ferrule. The other end is precisely cleaved and placed into the patented alignment mechanism of a mechanical splice. Both the field fiber and fiber stub are fully protected from environmental factors. Unlike other noepoxy, field-installable connectors, the UniCam Connector requires no polishing.

#### Features / Benefits

- No epoxy or polishing
- Compliant with ANSI/TIA/EIA-568-B.3 and EN 50173
- Economical cost for all fiber terminations
- Fastest termination time in the industry: < 2 min per fiber
- Low labor and no consumables for reduced total cost
- Minimal tool kit, reduced setup time; universal assembly tool terminates all single- and 2-fiber UniCam Connector styles
- Small-form-factor options:
   Two LC or one MT-RJ connector fits in the same space as the SC connector
- Eliminates unnecessary cable slack and storage

# **UniCam® Multimode Connectors**

A LANscape® Solutions Product

### **Specifications**

Parameter	Description
Intermateability	Connectors are FOCIS compliant with TIA/EIA 604-2 (ST® compatible), 604-3 (SC), 604-10A (LC), 604-4 (FC) and 604-12 (MT-RJ)
Insertion Loss	0.3 dB average loss, FOTP-171 / 0.2 dB OM3 (except MT-RJ)
Durability	≤ 0.2 dB change, 500 rematings, FOTP-21
Tensile Strength	10 lb $\leq$ 0.2 dB change; 0.5 lb $\leq$ 0.2 dB change for LC
Temperature Cycling	≤ 0.3 dB change, -40 to +75–C; 21 cycles
Nominal Fiber OD Nominal Fiber Coating	125 μm
or Fan-Out Tubing OD	900 μm
Materials	Ferrule: Composite or ceramic Housing: Composite
Reflectance	Super PC: ≤ -40 dB (+18° to +26°C) Ultra PC: average -55 dB (+18° to +26°C)

Note: Max. insertion loss in Corning labs: 0.75 dB. Temperature range for European cables is typically -25°C to +75°C.

## **Ordering Information**

Order Number	Description
95-000-40	UniCam® SC Multimode Connector for 62.5 µm fiber with composite ferrule
95-000-41	UniCam SC Multimode Connector for 62.5 µm fiber with ceramic ferrule
95-050-40	UniCam SC Multimode Connector for 50 µm fiber with composite ferrule, OM2
95-050-41	UniCam SC Multimode Connector for standard 50 µm fiber with ceramic ferrule, OM2
95-050-41-X	UniCam SC Multimode Connector for laser-optimized 50 µm multimode fiber with ceramic ferrule, OM3
95-000-50	UniCam ST Compatible Multimode Connector for 62.5 µm fiber with composite ferrule
95-000-51	UniCam ST Compatible Multimode Connector for 62.5 µm fiber with ceramic ferrule
95-050-50	UniCam ST Compatible Multimode Connector for 50 µm fiber with composite ferrule, OM2
95-050-51	UniCam ST Compatible Multimode Connector for 50 µm fiber with ceramic ferrule, OM2
95-050-51-X	UniCam ST Compatible Multimode Connector for laser-optimized 50 µm multimode fiber with ceramic ferrule
95-000-61	UniCam FC Multimode Connector for 62.5 µm fiber with ceramic ferrule
95-000-99	UniCam LC Multimode Connector for 62.5 µm fiber with ceramic ferrule, with spring
95-050-99	UniCam LC Multimode Connector for 50 µm fiber with ceramic ferrule, with spring, OM2
95-050-99-X	UniCam LC Multimode Connector for laser-optimized 50 µm multimode fiber with ceramic ferrule, with spring, OM3
92-001-97-P-E	UniCam MT-RJ Multimode Connector with pins for 62.5 µm fiber
92-001-97-NP-E	UniCam MT-RJ Multimode Connector without pins for 62.5 µm fiber
92-051-97-P-E	UniCam MT-RJ Multimode Connector with pins for 50 µm fiber, OM2
92-051-97-NP-E	UniCam MT-RJ Multimode Connector without pins for 50 µm fiber, OM2
92-051-97-P-E-X	UniCam MT-RJ Multimode Connector with pins for laser-optimized 50 µm multimode fiber, OM3
92-051-97-NP-E-X	UniCam MT-RJ Multimode Connector without pins for laser-optimized 50 µm multimode fibe OM3

Note: SC, ST and FC can be terminated on 900  $\mu m$  buffer, 900  $\mu m$  fan-out tubing or 3 mm cable. LC and MTRJ can be terminated on 900  $\mu m$  buffer or 900  $\mu m$  fan-out tubing. All UniCams include colored boots and crimp rings.

# Introduction

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Closures

# **UniCam® Multimode Connectors**

A LANscape® Solutions Product

## **Ordering Information**

#### Accessories

Order Number	Description	
TKT-UNICAM	Basic Installation Kit for single-fiber and 2-fiber UniCam® connectors, terminates single-fiber ST® compatible, SC, LC and FC, as well as 2-fiber UniCam MT-RJ connectors includes UC Continuity Test System (SF), FBC-001 score and snap cleaver	
TKT-UNICAM-CTS	TKT-UNICAM plus splitter box, CTS adapters and patch cords needed to add Continuity Test Set (CTS) functionality; visual fault locator not included	
TKT-UNICAM-CTS-SF	Basic Installation Kit for UniCam Connectors, terminates single-fiber UniCam Connectors, includes Continuity Test System (SF) and visual fault locator	
TKT-UNICAM-ELITE	Premium Installation Kit; consists of TKT-UNICAM-CTS with high-performance D12 cleaver; includes single- and two-fiber handlers, visual fault locator and connector cleaning cassette; recommended for single-mode applications; does not include FBC-001 cleaver	
TEST-UNICAM-CTS	Converts an existing TKT-UNICAM kit to add the Continuity Test Set (CTS) option; contains splitter box, SC, ST compatible, LC and MT-RJ CTS adapters and jumpers	
FBC-001	Score and Snap Cleaver	
TL-UC01	Elite UniCam Connector Installation Tool; terminates UniCam ST Compatible, SC, LC, FC and MT-RJ Single-mode and Multimode Connectors	
TER-CTS-MTRJ	CTS Adapter for UniCam MT-RJ Connectors	
TER-CTS-SC	CTS Adapter for UniCam SC Connectors	
TER-CTS-ST	CTS Adapter for UniCam ST Compatible Connectors	
TER-CTS-LC	CTS Adapter for UniCam LC Connectors	
VFL-350	Visual Fault Locator, 635 nm penlight style	
835801R3Z31001M	Jumper, ST to SC for single-mode and multimode CTS applications, 1 m long (for VFL-to-CTS splitter box and UniCam ST compatible or SC Connectors)	
589802R5Z18001M	Jumper, SC duplex to MT-RJ single-mode and multimode CTS applications, 1 m long (for CTS splitter box-to-UniCam Connector Installation Tool)	
95-400-03-BP	SC Duplex Clip (50 per pack)	
2104359-01	Universal Connector Cleaning Cassette, cleans standard 2.5 mm or 1.25 mm single-fiber ferrules as well as pinned and pinless connectors with multi-fiber ferrules	

# **UniCam® Single-Mode Connectors**

A LANscape® Solutions Product

#### **Applications**

- Easy termination of all standard single-mode fiber
- Field installation with excellent return loss
- Retrofit and upgrade existing systems
- Maintenance and restoration of building cable

#### Description

The UniCam® Connector is the ideal solution for all your field-installable single-mode fiber optic connector requirements. The quick installation reduces the total installed cost of connectorization, making the UniCam Connector cost-effective for all fiber applications, from the main cross-connect to the workstation.

The UniCam Connector can best be described as a mini pigtail. It incorporates a factory-installed fiber stub that is fully bonded into the ferrule. The other end is precisely cleaved and placed into the patented alignment mechanism of our mechanical splice. Both the field fiber and fiber stub are fully protected from environmental factors. Unlike other noepoxy, field-installable connectors, the UniCam Connector requires no polishing.



UniCam MT-RJ, FC, SC, ST ® Compatible and LC Single-mode Connectors



**UniCam Connector Installation Tool** 

#### Features / Benefits

- No epoxy or polishing
- Installs in less than two minutes
- Reflectance performance of < -40 dB for Super PC
- Ultra PC performance with reflectance performance average of -55 dB
- Economical cost for all fiber terminations
- Low labor and no consumables for reduced total cost
- Ceramic ferrules for single-fiber UniCam Connector
- Minimal tool kit, reduced setup time; universal assembly tool terminates all single- and 2-fiber UniCam Connector styles
- Eliminates unnecessary cable slack and storage

# Introduction

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# **UniCam® Single-Mode Connectors**

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### **Specifications**

Description		
Connectors are FOCIS compliant with TIA/EIA 604-2 (ST® compatible), 604-3 (SC), 604-10A (LC), 604-4 (FC) and 604-12 (MT-RJ)		
0.3 dB average loss, FOTP-171		
≤ 0.3 dB change for 500 rematings, FOTP-21		
10 lb ≤ 0.2 dB change		
≤ 0.3 dB change, -40 to +75°C; 21 cycles		
Super PC: ≤ -40 dB (+18° to +26°C) Ultra PC: average -55 dB (+18° to +26°C)		

Note: Max. insertion loss in Corning labs: 0.75 dB. Temperature range for European cables is typically -25°C to +75°C.

## **Ordering Information**

Order Number	Description	
95-200-41	UniCam® SC Single-Mode Connector with Super PC polish	
95-200-42	UniCam SC Single-Mode Connector with Ultra PC polish	
95-200-51	UniCam ST Compatible Single-Mode Connector with Super PC polish	
95-200-52	UniCam ST Compatible Single-Mode Connector with Ultra PC polish	
95-200-61	UniCam FC Single-Mode Connector with Super PC polish	
95-200-62	UniCam FC Single-Mode Connector with Ultra PC polish	
95-200-99	UniCam LC Single-Mode Connector with Ultra PC polish, with spring	
92-201-97-P-E	UniCam MT-RJ Single-Mode Connector with pins	
92-201-97-NP-E	UniCam MT-RJ Single-Mode Connector without pins	

Note: SC, ST and FC can be terminated on 900  $\mu$ m buffer, 900  $\mu$ m fan-out tubing or 3 mm cable. LC can be terminated on 900  $\mu$ m buffer fiber or 900  $\mu$ m fan-out tubing.

# **UniCam® Single-Mode Connectors**

A LANscape® Solutions Product

## **Ordering Information**

#### Accessories

Order Number	Description	
TKT-UNICAM	Basic Installation Kit for single-fiber and 2-fiber UniCam® connectors, terminates single-fiber ST® compatible, SC, LC and FC, as well as 2-fiber UniCam MT-RJ connectors includes UC Continuity Test System (SF), FBC-001 score and snap cleaver	
TKT-UNICAM-CTS	TKT-UNICAM plus splitter box, CTS adapters and patch cords needed to add Continuity Test Set (CTS) functionality; visual fault locator not included	
TKT-UNICAM-CTS-SF	Basic Installation Kit for UniCam Connectors, terminates single-fiber UniCam Connectors, includes Continuity Test System (SF) and visual fault locator	
TKT-UNICAM-ELITE	Premium Installation Kit; consists of TKT-UNICAM-CTS with high-performance D12 cleaver; includes single- and two-fiber handlers, visual fault locator and connector cleaning cassette; recommended for single-mode applications; does not include FBC-001 cleaver	
TEST-UNICAM-CTS	Converts an existing TKT-UNICAM kit to add the Continuity Test Set (CTS) option; contains splitter box, SC, ST compatible, LC and MT-RJ CTS adapters and jumpers	
FBC-001	Score and Snap Cleaver	
TL-UC01	Elite UniCam Connector Installation Tool; terminates UniCam ST Compatible, SC, LC, FC and MT-RJ Single-mode and Multimode Connectors	
TER-CTS-MTRJ	CTS Adapter for UniCam MT-RJ Connectors	
TER-CTS-SC	CTS Adapter for UniCam SC Connectors	
TER-CTS-ST	CTS Adapter for UniCam ST Compatible Connectors	
TER-CTS-LC	CTS Adapter for UniCam LC Connectors	
VFL-350	Visual Fault Locator, 635 nm penlight style	
835801R3Z31001M	Jumper, ST to SC for single-mode and multimode, 1 m long (for VFL-to-CTS splitter box and UniCam ST compatible or SC Connectors)	
729802R5Z18001M	Jumper, SC to MT-RJ for single-mode and multimode, 1 m long (for CTS splitter box-to-UniCam Connector Installation Tool)	
95-400-03-BP	SC Duplex Clip (50 per pack)	
2104359-01	Universal Connector Cleaning Cassette, cleans pinned and pinless connectors with ferrules	

## **UniCam® Connector Tool Kits**

A LANscape® Solutions Product

#### **Applications**

- UniCam<sup>®</sup> Connector installations
- Main cross-connect, telecommunications room and telecommunications enclosures
- Fiber-to-the-desk

#### Description

Corning Cable Systems' UniCam Connector installation tool kits are designed with the installer in mind. Conveniently packaged in an easy-to-carry ballistic nylon bag, the tool kits are compact and easy to carry around the job site. New to the UniCam Connector tool kit family is the Elite tool kit that contains a high-performance cleaver and fiber handlers for superior cleave performance when terminating single- and 2-fiber UniCam Connectors. Recommended for single-mode installations, the tool kit reduces scrap and improves connector performance.

The Continuity Test Set (CTS) version of the UniCam Connector tool kit family provide a visual feedback feature when terminating UniCam SC, LC, ST® compatible, or MT-RJ Connectors. Useful for reducing scrap rates or for training new installers, the TKT-UNICAM-CTS is very popular, since the installer can watch for the red glow in the back of the connector to dim or disappear. This indicates that the field fiber is inserted properly in the connector.

#### Features / Benefits

- Convenient carrying bag
- Easy to understand, graphic instructions included
- One kit terminates single-mode and multimode UniCam SC, ST compatible, FC, LC and MT-RJ Connectors
- CTS option reduces scrap rate and helps train new installers
- All components necessary for UniCam Connector termination provided in one kit
- New Elite tool kit enhances single-mode terminations with lower, more consistent insertion loss and improved overall cleave performance



TKT-UNICAM-ELITE Tool Kit



TKT-UNICAM-CTS Tool Kit



TKT-UNICAM-CTS-SF Tool Kit



TKT-UNICAM Tool Kit

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# **UniCam® Connector Tool Kits**

A LANscape® Solutions Product

# **Specifications**

Order Number	Dimensions (H x W x D)	Shipping Weight	
TKT-UNICAM	13 x 18 x 25 cm (5 x 7 x 10 in)	2.3 kg (5 lb)	
TKT-UNICAM-CTS	13 x 18 x 25 cm (5 x 7 x 10 in)	2.3 kg (5 lb)	
TKT-UNICAM-CTS-SF	13 x 18 x 25 cm (5 x 7 x 10 in)	2.3 kg (5 lb)	
TKT-UNICAM-ELITE	23 x 33 x 20 cm (9 x 13 x 8 in)	2.3 kg (5 lb)	

# **Ordering Information**

Order Number	Description	Quantity per Deilvery Unit
TKT-UNICAM	Basic Installation Kit for single-fiber and 2-fiber UniCam® connectors, terminates single-fiber ST® compatible, SC, LC and FC, as well as 2-fiber UniCam MT-RJ connectors; includes UC Continuity Test System (SF), FBC-001 score and snap cleaver	1/1
TKT-UNICAM-CTS	TKT-UNICAM-CTS tool kit including splitter box, CTS adapters, patch cords and visual fault locator for Continuity Test Set (CTS) functionality	1/1
TKT-UNICAM-CTS-SF	Basic Installation Kit for UniCam Connectors, terminates single-fiber 1 UniCam Connectors, includes Continuity Test System (SF) and visual fault locator	
TKT-UNICAM-ELITE	Premium Installation Kit; consists of TKT-UNICAM-CTS with high- performance D12 cleaver; includes single- and two-fiber handlers, visual fault locator and connector cleaning cassette; recommended for single- mode applications; does not include FBC-001 cleaver	1/1
Accessories		
Order Number	Description	
TEST-UNICAM-CTS	Converts an existing TKT-UNICAM kit to add the Continuity Test Set (CTS) option; contains splitter box, SC, ST compatible, LC and MT-RJ CTS adapters and jumpers	1/1 s
HANDLER-012-2F	2-Fiber Handler for D12 cleaver; use for UniCam MT-RJ Connectors	1/1
HANDLER-012-1F	1-Fiber Handler for D12 cleaver; use for single-fiber UniCam Connectors	1/1
FBC-001	Score and Snap Cleaver	
TL-UC01	Elite UniCam Connector Installation Tool; terminates UniCam ST compatible, SC, LC, FC and MT-RJ single-mode and multimode Connectors	1/1
TER-CTS-MTRJ	CTS Adapter for UniCam MT-RJ Connectors	1/1
TER-CTS-SC	CTS Adapter for UniCam SC Connectors	1/1
TER-CTS-ST	CTS Adapter for UniCam ST Compatible Connectors	1/1
TER-CTS-LC	CTS Adapter for UniCam LC Connectors	1/1
VFL-350	Visual Fault Locator, 635 nm penlight style	1/1
835801R3Z31001M	Jumper, ST compatible to SC for single-mode and multimode CTS applications, 1 m long (for VFL-to-CTS splitter box and UniCam ST compatible or SC Connectors) Simplex	1/1
Jumper, SC Duplex to MT-RJ for single-mode and multimode CTS applications, 1 m long (for CTS splitter box-to-UniCam Connector Installation Tool)		1/1
026101R2Z31001M	ent ent ent f	
95-400-03-BP	SC Duplex Clip	50/1
2104359-01	Universal Connector Cleaning Cassette, cleans pinned and pinless connectors with ferrules	1/1
TRIGGER-BP-D	Trigger/Duplexing Clip for UniCam LC Connectors	50/1

# **UniCam® Connector Tool Kits**

A LANscape® Solutions Product

### **Ordering Information**

### **UniCam® Connector Termination Tool Kit Comparision Matrix**

Qty	. Description	Order Number	TKT-UNICAM	CTS	CTS-SF	ELITE
1	UniCam Connector Installation Critical Steps Card	SRP-006-083	Χ	Χ	Х	Х
1	UniCam Connector Installation Recommended Procedures Document	SRP-006-150	Х	Х	Х	Х
1	UniCam Connector Installation DVD/CD	LAN-600CD-EN	Χ	Χ	Χ	Х
1	UniCam Connector Strip Length Gauge Card	2104282-01	X	Х	Х	Х
	UniCam Connector Elite Installation Tool	TL-UC01	Х	Х	Х	Х
l	UniCam Connector Crimp Tool	3201007-01	X	Χ	Χ	Х
l	Score and Snap Fiber Cleaver	FBC-001	Χ	Χ	Χ	Х
1	D12 Multifiber Cleaver	S46999-M9-D12				Х
1	D12 2-Fiber Handler	HANDLER-012-2F				Х
l	D12 1-Fiber Handler	HANDLER-012-1F				X
1	Fiber Stripper, Miller	3205004-01	X	Χ	Χ	X
1	No-Nik® Stripper	3205007-01	Χ	Χ	X	X
1	Jacket Stripper	3206001-01	X	Χ	X	X
1	Electrician's Scissors 5"	100294-01	X	Χ	X	Х
l	Number Marker	100297-01	Χ	Χ	X	X
1	Tweezers	100312-01	Х	Χ	X	X
6	Alcohol Wipes	1508001-01	Χ	Χ	X	Х
1	Permanent Marker, Black	2104007-01	X	Χ	X	Х
1	Electrician's Tape	2104047-01	Х	Χ	X	X
1	Loctite 411 Adhesive	2104060-01	Х	Χ	X	Х
7	Black Adhesive Anvil Strips	2104322-01	Χ	Χ	X	X
1	MSDS, 411 Adhesive	2305031-01	Х	Χ	Χ	X
1	MSDS, Alcohol Wipes	2305043-01	Х	X	Х	X
1	Cassette, Universal Connector Cleaning	2104359-01				Х
1	Visual Fault Locator	VFL-350		Χ	Х	X
1	UniCam Connector Continuity Test Set	TEST-UNICAM-CTS		Χ		Х
1	UniCam Connector Continuity Test Set (SF	TEST-UNICAM-CTS-SF	X		Х	
1	UniCam Connector Standard Tool Bag	2104407-01	X	Χ	Х	
1	UniCam Connector Elite Tool Bag	2104507-01				Х

Note: Items with individual order numbers can be purchased separately. Tool kits containing combustible items can only be shipped via ground shipment. Air freight shipments will exclude combustible contents.

### **Anaerobic Glass-Insert Connectors**

A LANscape® Solutions Product

#### **Applications**

■ Ideal for main, intermediate or horizontal cross-connects

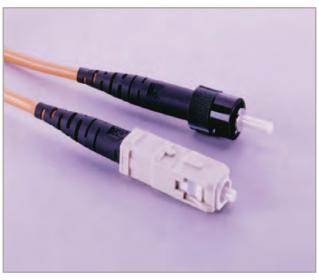
#### Description

The Corning Cable Systems Anaerobic Glass-Insert (GIC) ST® compatible and SC multimode connectors are designed to incorporate all the polishing advantages of the glass-insert ferrule with the quick cure installation of anaerobic adhesives. The parts have been pre-assembled to save you time and to improve productivity. Utilizing a metal ferrule holder, the Anaerobic GIC connectors can be assembled on 900  $\mu m$  fiber 2-mm or 3-mm jacketed cable in a few minutes.

The anaerobic expoxy uses a two-part component process. The adhesive is first injected in the ferrule. The fiber is then dipped into the primer and inserted into the connector. Curing of the epoxy takes one minute without the use of lamps or ovens.

With the glass-in-ceramic ferrule, the anaerobic adhesive adheres uniformly to the inside of the glass-insert, ensuring proper curing through the entire length of the ferrule, including the tip, thus allowing a quick and easy hand polish. The glass insert easily polishes to the desired finish without the laborious and difficult hand polishing of ceramic.

The Corning Cable Systems ST® compatible and SC glass-insert multimode connectors can be completely assembled and polished in less than three minutes.



**Anaerobic Glass-Insert Connectors** 

#### Features / Benefits

- Fast cure anaerobic adhesive; does not require electrical power
- Glass-in-ceramic ferrule; allows easy polishing with high yield
- Reduced installation time; less than three minutes assembled and polished
- Typical loss of 0.2 dB with physical contact polish

Note: This connector is not UV-curable.

### **Anaerobic Glass-Insert Connectors**

A LANscape® Solutions Product

### **Specifications**

Parameter	Description	
Intermateability	All ST® compatible and SC connectors	
Insertion Loss	0.2 dB average; FOTP-171	
Durability	$D \le 0.2$ dB, FOTP-21, 500 rematings	
Cable Retention	$D \le 0.2 dB$ , FOTP-6, 20 lb	
Temperature Cycling	$D \le 0.3$ dB, FOTP-3, -40° to +75°C, 21 cycles	
Humidity	$D \le 0.3$ dB, FOTP-5, 60°C at 95% RH, 168 hours	
Impact	$D \le 0.1  dB$ , FOTP-2, 8 cycles	

### **Ordering Information**

Order Number	Description			
95-051-11-SP	ST Compatible Multimode, Glass-Insert Anaerobic Connector, black plastic bayonet; 900 µm, 2 mm or 3 mm black and aqua boots, 1.6, 2.0 and 3.0 mm crimp rings; used on 50 µm fiber (Note: This connector is NOT UV-curable)			
95-051-16-SP	SC Multimode Glass-Insert Anaerobic Connector, plastic housing (black); 900 µm, 2 mm or 3 mm black and aqua boots, 1.6, 2.0 and 3.0 mm crimp rings; used on 50 µm fiber (Note: This connector is NOT UV-curable)			
95-101-11-SP	ST Compatible Multimode, Glass-Insert Anaerobic Connector, black plastic bayonet; 900 µm, 2 mm or 3 mm beige boots, 1.6, 2.0 and 3.0 mm crimp rings; used on 62.5 µm fiber (Note: This connector is NOT UV-curable)			
95-101-16-SP	SC Multimode Glass-Insert Anaerobic Connector, plastic housing (beige); 900 µm, 2 mm or 3 mm beige boots, 1.6, 2.0 and 3.0 mm crimp rings; used on 62.5 µm fiber (Note: This connector is NOT UV-curable)			

Note: Mating a 50 µm Anaerobic GIC to another 50 µm Anaerobic GIC is not recommended; mating to patch cords or electronics is the recommended application.

#### **Accessories**

Order Number	Description	
TKT-ANAEROBIC2	Installation Kit for Anaerobic All-Cermaic and Anaerobic Glass-Insert Connectors; includes consumables for 500 connectors	
TKT-ANAEROBIC2-C	Anaerobic All-Ceramic and Anaerobic GIC Consumables Kit; includes adhesive and polishing papers for 500 connectors	
TKT-ANAEROBIC2-25	Installation Kit for 2.5 mm ferrule Anaerobic All-Ceramic (SC, ST compatible) and GIC Anaerobic (SC, ST compatible) connectors, includes consumables for approximately 500 connectors	
1101045-01	Anaerobic Adhesive, Primer and Syringe Tips for 500 connectors	
2104359-01	Universal Connector Cleaning Cassette; cleans over 500 connectors	
3201032-01	Crimp Tool for LC connectors with jacket retention crimp rings	
3201031-01	Crimp Tool for SC, FC, ST Compatible connectors with jacket retention crimp rings	

Note: For existing UV-curable, Glass-Insert users, the only additional tooling required is the jacket retention crimp tool (3201031-01 and 3201032-01) and the adhesive and primer (1101045-01). Polishing procedures are exactly the same.

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### **Anaerobic All-Ceramic Connectors**

A LANscape® Solutions Product

#### **Applications**

- Installations requiring field-installed connectors
- Enterprise networks

#### Description

Corning Cable Systems' Anaerobic All-Ceramic single-mode and multimode connectors combine the quick-cure convenience of anaerobic adhesive with similar performance to heat-cure epoxy and polish connectors. Connectors are installed in minutes, yet provide low-loss performance for years.

The anaerobic epoxy adhesive is a two-part epoxy. The adhesive is first injected into the connector ferrule. The fiber is dipped into the primer and inserted into the connector. When the primer contacts the adhesive, the adhesive begins to harden. Curing takes one minute without the use of lamps or ovens.



Anaerobic All-Ceramic

#### Features / Benefits

- Fast cure time without lamps or ovens
- Installs without index matching gel
- Minimal tools required
- Hand polish; doesn't require polishing machine
- Doesn't require electrical power to install
- Low material cost
- Average insertion loss of 0.2 dB with physical contact polish

# Introduction

LANscape<sup>6</sup> Solutions

Plug & Play Universal Systems

## **Anaerobic All-Ceramic Connectors**

A LANscape® Solutions Product

## **Specifications**

Parameter	Multimode	Single-mode
Interconnection Compatibility	Compliant with TIA/EIA 604-2 (ST® compa	tible), 604-3 (SC), 604-4 (FC) and 604-10 (LC)
Insertion Loss	0.2 dB average 0.75 dB maximum	0.2 dB average 0.75 dB maximum
Reflectance	≤ -26 dB	≤ -40 dB
Temperature Cycling	$\leq$ 0.3 dB change, -40° to +75°C; 21 cycles	≤ 0.3 dB change, -40° to +75°C; 21 cycles

## **Ordering Information**

Order Number	Description	
Multimode		
95-051-52-SP	ST Compatible Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, metal bayonet with Corning logo, 50 µm, 3 mm, 2 mm and 900 µm boots (aqua and black), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-101-52-SP	ST Compatible Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, metal bayonet with Corning logo, 62.5 µm, 3 mm, 2 mm and 900 µm boots (beige), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-051-41-SP	SC Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, black housing (50 µm) with Corning logo, 3 mm, 2 mm and 900 µm boots (aqua and black), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-101-41-SP	SC Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, beige housing (62.5 µm) with Corning logo, 3 mm, 2 mm and 900 µm boots (beige), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-051-61-SP	FC Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, metal bayonet, 5 μm, 3 mm, 2 mm and 900 μm boots with Corning logo (aqua and black), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-101-61-SP	FC Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, metal bayonet, 62.5 µm, 3 mm, 2 mm and 900 µm boots with Corning logo (beige), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-051-98-SP	LC Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, black housing (50 µm) with Corning logo, 2 mm, 3 mm, and 900 µm boots (aqua and black), dust ca 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-101-98-SP	LC Multimode, Epoxy & Polish Anaerobic connector, ceramic ferrule, beige housing (62.5 $\mu$ m) with Corning logo, 2 mm, 3 mm, and 900 $\mu$ m boots (beige), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
Single-mode		
95-201-52-SP	ST Compatible Single-mode, Epoxy & Polish Anaerobic connector, ceramic ferrule, metal bayonet with Corning logo, 3 mm, 2 mm and 900 µm boots (white), dust cap, 1.6-2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-201-41-SP	SC Single-mode, Epoxy & Polish Anaerobic connector, ceramic ferrule, blue housing with Corning logo, 3 mm, 2 mm and 900 µm boots (blue), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-201-61-SP	FC Single-mode, Epoxy & Polish Anaerobic connector, ceramic ferrule, metal bayonet, 3 mm, 2 mm and 900 μm boots with Corning logo (blue), dust cap, 1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	
95-201-98-SP	LC Single-mode, Epoxy & Polish Anaerobic connector, ceramic ferrule, blue housing with Corning logo, 2 mm, 3 mm, and 900 µm boots (blue), dust cap,  1.6 - 2.0 mm + 3.0 mm jacket retention crimp rings; single pack	

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## **Anaerobic All-Ceramic Connectors**

A LANscape® Solutions Product

## **Ordering Information**

Order Number	Description	
<b>Boot Color</b>		
50 μm	Includes both black and aqua boots for standard 50 μm and laser-optimized 50 μm fiber	
62.5 µm Single-mode	Beige White (SC, ST® Compatible, FC) Blue (LC)	

Note: All ST compatible, SC, FC and LC connectors come with 3 mm, 2 mm and 900  $\mu m$  boots.

#### Accessories

Accessories		
Order Number	Description	
TKT-ANAEROBIC2	Installation Kit for all Anaerobic All-Ceramic (LC, FC, ST Compatible and SC) and Anaerobic Ceramic Glass-Insert (GIC) Connectorsn (SC, ST); includes consumables for 500 connectors	
TKT-ANAEROBIC2-C	Consumables Kit for All-Ceramic and GIC includes adhesive and 4 packs (50 sheets each) polishing papers for approximately 500 connectors	
TKT-ANAEROBIC2-25	Installation Kit for 2.5 mm ferrule Anaerobic All-Ceramic (SC, ST compatible, FC) and GIC Anaerobic (SC, ST compatible) connectors, includes consumables for approximately 500 connectors	
TKT-ANAEROBIC2-S	Supplement Kit for installation of all-ceramic connectors, includes LC crimp tool, LC polishing fixture and LC microscope adapter	
3201031-01	Crimp Tool for ST compatible, SC and FC connectors with jacket retention crimp rings	
3201032-01	LC Crimp Tool for LC connectors with jacket retention crimp rings	
2104459-01	LC Polishing Fixture, spring loaded	
2104020-01	ST Compatible, SC and FC Polishing Fixture	
1101045-01	Anaerobic Adhesive, Primer and Syringe Tips (for 500 connectors)	
2104359-01	Universal Connector Cleaning Cassette (for 500 connectors)	

# Introduction

ANscape® Solutions

Plug & Play<sup>™</sup>
Universal
Systems

ber Optic Cables

Fiber

Further

### **Anaerobic Connector Tool Kits**

A LANscape® Solutions Product

#### **Applications**

- Anaerobic All-Ceramic and Glass-Insert Connector installations
- Main cross-connect, telecommunications room and telecommunications closets

#### Description

Corning Cable Systems' Anaerobic Connector installation tool kits are designed with the installer in mind. Conveniently packaged in an easy-to-carry ballistic nylon bag, the tool kits are compact and easy to carry around the job site.

The standard consumables kit, TKT-ANAEROBIC2, allows to installation and polishing of multimode and single-mode all-ceramic anaerobic connectors as well as the anaerobic GIC connectors. All connectors can be polished with this kit; LC, SC FC and ST® compatible.

The TKT-ANAEROBIC2-25 is an economical alternative for installers working only with 2.5 mm ferrule connectors (SC, ST compatible and FC). It includes the stripping tools, polishing films, epoxy 2.5mm polishing fixture, microscope 2.5mm adapter, and crimp tool for 2.5mm connectors as well as the new red carrying case.

The TKT-ANAEROBIC2-S is the supplement kit required for LC terminations and contains the three LC tools; LC crimp tool, LC polishing fixture and LC microscope adapter.

The combined features of the the TKT-ANAEROBIC2-25 and the TKT-ANAEROBIC2-S are the same as the TKT-ANAEROBIC2.



TKT-ANAEROBIC Tool Kit

# **Anaerobic Connector Tool Kits**

A LANscape® Solutions Product

## **Ordering Information**

Order Number	Description	
TKT-ANAEROBIC2	Installation Kit for all Anaerobic All-Ceramic (LC, FC, ST Compatible and SC) and Anaerobic Ceramic Glass-Insert (GIC) Connectorsn (SC, ST); includes consumables for 500 connectors	
TKT-ANAEROBIC2-C	Consumables Kit for All-Ceramic and GIC includes adhesive and 4 packs (50 sheets each) polishing papers for approximately 500 connectors	
TKT-ANAEROBIC2-25 Installation Kit for 2.5 mm ferrule Anaerobic All-Ceramic (SC, ST compare and GIC Anaerobic (SC, ST compatible) connectors, includes consumable approximately 500 connectors		
TKT-ANAEROBIC2-S	Supplement Kit for installation of all-ceramic connectors, includes LC crimp tool, LC polishing fixture and LC microscope adapter	

#### **Accessories**

Order Number	Description	
LSCOPE-9	200x Microscope with universal 2.5 mm adapter	
1506069-01	Lapping Film - Clear (Final Polish)	
2104004-02	Lapping Film - Gray (3 μm) (50 per pack)	
2104020-01	Universal Polishing Puck	
2104071-01	Lapping Film - Yellow (12 μm) (50 per pack)	
2104072-01	Lapping Film White (0.3 μm) (50 per pack)	
2104375-01	Adapter for Microscope, Universal 1.25 mm	
2104454-01	Polish Pad, Green Rubber	
2104459-01	Polishing Fixture - LC Hand, Spring Loaded, Single Port	
3201032-01	Crimp Tool, LC Connectors with jacket retention crimp ring	
3233004-01	Scribe - Ruby with Reversible Blade	
3201031-01	Crimp Tool for SC, FC and ST Compatible connectors with jacket retention crimp ring	

### **Buffer Tube Fan-Out Kits**

A LANscape® Solutions Product

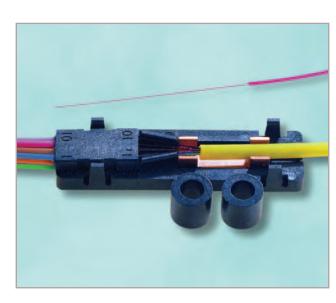
#### **Applications**

 Field termination of loose tube cables at indoor or outdoor cross-connects

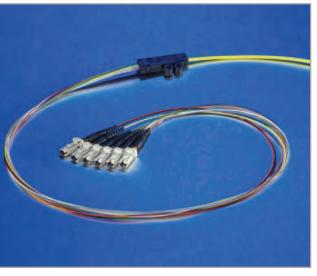
#### Description

Corning Cable Systems' Indoor and Outdoor Buffer Tube Fan-Out Kits are specifically designed for the termination of 6- and 12-fiber buffer tubes. These buffer tube fan-out kits provide the ultimate solution for those users who want to field-install connectors on 250 µm coated fibers. The kits provide the most compact, easy-to-install fan-out solution requiring no additional hardware or space than that required for terminating tight-buffered cables.

Indoor and Outdoor Kits feature a 900  $\mu$ m Fan-Out Assembly that is color-coded to match the fiber color scheme. The Fan-Out Assembly is available with 6- or 12-fiber units in lengths of 0.6 m (25-in) or 1.2 m (47-in). These different lengths provide the installer the flexibility needed for a variety of hardware options.



Buffer Tube Fan-Out Kit



Buffer Tube Fan-Out Kit

#### Features / Benefits

- Eliminates strain on fibers by isolating them from tensile forces
- Protects 250 µm coated fibers from kinks or breaks
- Colored fan-out tubing
- Snap-together furcation unit eliminates epoxy for indoor kits
- Compact design
- Quick and easy to install
- Optimized for field termination of cables
- fiber routing capabilities
- Bend radius protection designed into each unit
- Outdoor kits include additional elements that compensate for wider temperature fluctuations common in outdoor environments
- Indoor temperature range 0° to +70°C Outdoor temperature range -40° to +70°C

### **Buffer Tube Fan-Out Kits**

A LANscape® Solutions Product

### **Ordering Information**

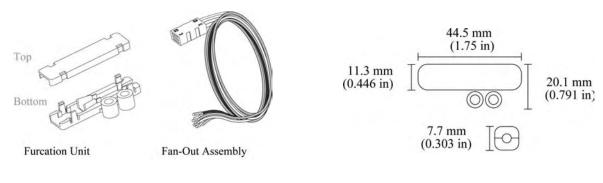
To order a Buffer Tube Fan-Out Kit, first determine the length of tubing required for connector termination either 0.6 m (25 in) or 1.2 m (47 in). Next, determine the number of fibers to furcate.

Order Number	Length of Tubing	Number of Fibers per Buffer Tube	
Indoor Buffer T	ube Fan-Out Kits		
FAN-BT25-06	0.6 m (25 in)	6	
FAN-BT47-06	1.2 m (47 in)	6	
FAN-BT25-12	0.6 m (25 in)	12	
FAN-BT47-12	1.2 m (47 in)	12	
Outdoor Buffer	Tube Fan-Out Kits		
FAN-OD25-06	0.6 m (25 in)	6	
FAN-OD47-06	1.2 m (47 in)	6	
FAN-OD25-12	0.6 m (25 in)	12	
FAN-OD47-12	1.2 m (47 in)	12	

Notes: Refer to cable specifications.

#### **Tool Kit and Tool Kit Consumables**

Order Number	Description
TKT-FANBT-A	Buffer Tube Fan-Out Assembly Tool Kit includes buffer tube fan-out assembly fixture and buffer tube fan-out kit instructions
TKT-FANBT-C	Buffer Tube Fan-Out Assembly Consumables Kit includes buffer tube fan-out procedure instructions, buffer tube fan-out clamp, MSDS 411 adhesive, Loctite 411 adhesive, Kimwipes, alcohol wipes, and MSDS alcohol wipes



Fan-Out-Kit Components

Fan-Out-Kit Dimensions

# **Spider Fan-Out Kits**

A LANscape® Solutions Product

#### **Applications**

- Field termination of tight-buffered or loose tube cables when patch panels are not used
- To manufacture field or factory multifiber jumpers or patch cords
- Allows direct termination of cable on rugged 2.9 mm subunits

#### Description

Corning Cable Systems' Spider Fan-Out Kit is a low-cost termination option for multifiber cables. These kits are designed for both factory and field termination of tight-buffered and loose tube non-armored cables with four to 24 fibers. These kits provide the end-user with a craft-friendly, modular product that enables simple assembly for successful installation. Installation of the kits eliminates the need for patch panels at low-cost termination points.

The Spider Fan-Out Kit terminates and provides pull-out protection for bare fibers (900 µm or 250 µm). Installation of the product is simple. The cable jacket is stripped back and the fibers are threaded into the modular six-fiber fanout inserts. These inserts consist of six one-meter lengths of fan-out tubing secured in a composite assembly. The fanout tubing provides three layers of protection consisting of a Teflon inner tube (into which the fiber is inserted), an aramid yarn strength member and an outer protective PVC jacket. The fan-out insert then snaps into the main spider body. When all the inserts have been loaded, the outer housing is installed to complete the assembly.



Spider Fan-Out Assembly



Spider Fan-Out Kit

#### Features / Benefits

- Low cost
- Craft-friendly
- Modular, compact design
- No special tools or heat shrinks
- Field or factory termination
- Cost-effective for splicing and terminating hardware
- Outer housing made of non-metallic/high strength, rugged, composite material

Further nformation

# **Spider Fan-Out Kits**

A LANscape® Solutions Product

### **Ordering Information**

Use the following options to construct the order number:

Use the following options to construct the order number:

Select fiber count.

06 = Up to 6 fibers

12 = Up to 12 fibers

18 = Up to 18 fibers

24 = Up to 24 fibers

2 Select fiber coating type.

900 = Accepts 900 μm fiber (MIC® / A-VQ(BN)H Cable)

250 = Accepts 250 µm fiber

(Loose and Central Tube Cable)

3 Select fiber type (color designation).

M = Orange (multimode)

S = Yellow (single-mode)

#### **Example**

Order Number	Description
SFK-P-12-250-M	12-fiber, accepts multimode loose or central tube cable, 250 μm,
	cable outer diameter 8.6 to 15.7 mm

#### **Cable Outer Diameter\***

-	Loose/Central Tube	Loose/Central Tube Cable (250 µm fiber)		MIC / A-VQ(BN)H Cable	
Fiber Count	Minimum mm (in)	Maximum mm (in)	Minimum mm (in)	Maximum mm (in)	
6 to 12	8.6 (0.34)	15.7 (0.62)	4.6 (0.18)	7.1 (0.28)	
13 to 24	8.6 (0.34)	15.7 (0.62)	6.6 (0.26)	10.9 (0.43)	

<sup>\*</sup> Check the cable's outer diameter for fit into the assembly.

#### **Spider Fan-Out Kit Specifications**

	•		
	MIC / A-VQ(BN)H Cable	MIC / A-VQ(BN)H Cable	Loose/Central Tube Cable
Fiber Count	6 to 12	13 to 24	6 to 24
Body Length	121 mm (4.75-in)	146 mm (5.75-in)	146 mm (5.75-in)
Body Diameter	19 mm (.75-in)	28 mm (1.1-in)	28 mm (1.1-in)
Fan Out Tube Length	1 m (3.28 ft)	1 m (3.28 ft)	1 m (3.28 ft)
Fan Out Tube Diameter	2.9 mm	2.9 mm	2.9 mm

#### **Accessories**

Order Number	Description
Fan-Out Insert Plugs (6 fibers)	
2104148-01	250 μm, multimode (orange jacket)
2104149-01	900 μm, multimode (orange jacket)
2104150-01	250 μm, single-mode (yellow jacket)
2104151-01	900 μm, single-mode (yellow jacket)
2104189-01	Blank Plug

### Further Information

### **Ribbon Fan-Out Kits**

A LANscape® Solutions Product

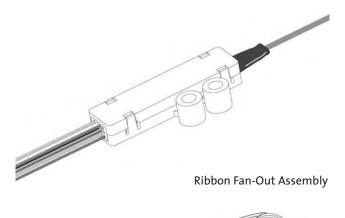
#### **Applications**

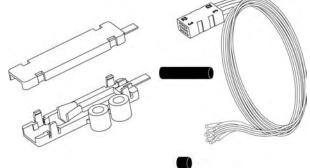
Field termination of ribbon cables at indoor cross-connects

#### Description

Corning Cable Systems' Ribbon Fan-Out Kits are specifically designed for the termination of 12-fiber ribbon cables. These fan-out kits provide the ultimate solution for those users who want to field-install connectors on ribbon cables. The kits provide the most compact, easy-to-install fan-out solution requiring no additional hardware or space than that for terminating tight-buffered cables.

The Ribbon Fan-Out Kit features a 900  $\mu$ m Fan-Out Assembly that is color-coded to match the fiber color scheme. The Fan-Out Assembly is available with 12-fiber units in lengths of 0.6m (25 in) or 0.9m (36 in). These different lengths provide the installer the flexibility needed for a variety of hardware options.





Ribbon Fan-Out Kit Components

#### Features / Benefits

- Colored fan-out tubing for indoor use
- Snap-together furcation unit eliminates epoxy
- Compact design

- Quick and easy to install
- Optimized for field termination of cables
- Excellent fiber routing capabilities
- Bend radius protection designed into each unit

### **Ordering Information**

To order a Ribbon Fan-Out Kit, first determine the length of tubing required for connector termination, either 0.6m (25 in) or 0.9m (36 in).

Order Number	Length of Tubing1	Number of Fibers per Buffer Tube <sup>2</sup>
RIB-FAN-12	0.6 m (25 in)	12
RIB-FAN-12-36	0.9 m (36 in)	12

Notes: 10.9 meters is only recommended if installing into connector modules; 0.6 meters is recommended for connector panels and other Corning Cable Systems' hardware.

<sup>2</sup> Refer to cable specifications.

# CamSplice™ No-Adhesive Mechanical Splice

A LANscape® Solutions Product

#### **Applications**

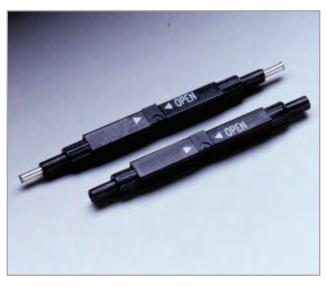
- Pigtail splicing
- Transition splice between listed and non-listed cables
- Indoor or outdoor through or branch splicing
- Emergency restoration
- Lab splicing for temporary system testing

#### Description

Corning Cable Systems' CamSplice™ is a simple, craft-friendly mechanical splice for both multimode and single-mode fibers. It features a "cam" locking mechanism, which requires no adhesive. The CamSplice Mechanical Splice incorporates a unique, patented fiber alignment method that self-centers the fibers and provides extremely accurate alignment. Average "blind" (non-tuned) splice loss for the CamSplice Mechanical Splice is specified at 0.3 dB with a minimum loss less than 0.15 dB. There is only one part for 250/250 µm, 250/900 µm or 900/900 µm applications (one size fits all).

The CamSplice Mechanical Splice requires minimal training and few accessories to assemble. The assembly process involves stripping and cleaving fibers, inserting the fibers into the splice part until they touch and turning the cams to secure the fibers. The process does not involve any adhesives or special tools, although an optional assembly fixture is recommended. A typical installation takes less than two minutes. A compact, self-contained tool kit is available with standard tools including the optional assembly fixture.

Completed splices fit in Corning Cable Systems and many other industry standard splice trays.



CamSplice No-Adhesive Mechanical Splice

#### Features / Benefits

- No adhesive or epoxy required
- Universal, one-part-fits-all fiber coatings
- Remate-able, tunable
- No polishing required
- Self-centering fiber alignment mechanism
- Optional lead-in tubes for securing 900 μm fibers
- Index-matching gel pre-inserted
- No stress on fiber in alignment area
- Small assembly fixture recommended, but optional
- Fits in industry-standard splice trays

# **CamSplice™ No-Adhesive Mechanical Splice**

A LANscape® Solutions Product

### **Specifications**

Parameter	Description				
Dimensions	44 mm (1.73 in) length x 4.2 mm (0.17 in) width (Cam)				
Mean Splice Loss	0.15 dB				
Blind Splice Loss	0.3 dB				
Temperature Range	-40 to +75°C, < 0.1 dB average variation				
Vibration	10 to 55 Hz with 1.52 mm (0.06 in) maximum excursion, three planes, $<$ 0.5 dB variation, two hours in each plane				
Tensile	0.50 lb				
Reflectance	- 45 dB (flat cleave) - 60 dB (angled cleave)				

A summary of testing procedures and results is available upon request.

### **Ordering Information**

Order Number	Description	
Splice parts		
95-000-04	CamSplice™ Mechanical Splices (6 per pack)	
95-000-04-ATC*	Antitorsion CamSplice Mechanical Splice for 900 µm applications (pack of 6)	
* Once crimped, the anti	torsion CamSplice is not rematable.	

#### **Accessories**

TKT-100-01	CamSplice Tool Kit; includes CamSplice assembly fixture, fiber coating stripping tool, and other miscellaneous items required for splicing; kit comes in a compact carrying case
TKT-100-02	Same as above, including an FBC-001 fiber cleaver
2104040-01	CamSplice Assembly Fixture
2104200-01	Crimp Tool for Antitorsion CamSplice mechanical splice
FBC-001	Score and Snap Fiber Cleaver
FBC-006	Precision Diamond Cleaver

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### 6 Cable Assemblies

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LANscape® Solutions

Plug & Play<sup>™</sup> Universal Systems

> Fiber Optic Cables

> > Fiber Termination

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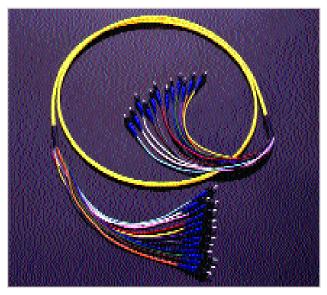
#### Description

As the industry's leading supplier of single-mode cable assemblies, Corning Cable Systems offers the most complete line of connectors and factory-terminated cables. From single-fiber jumpers to high-fiber-count assemblies, Corning Cable Systems products meet or exceed all industry standards for reflectance and insertion loss.

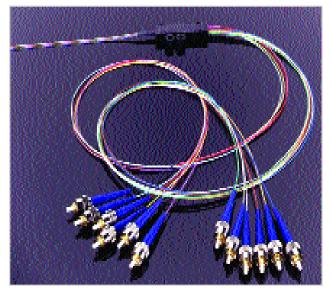
Corning Cable Systems' state-of-the-art manufacturing process ensures unsurpassed connector performance. We thoroughly screen the fibers and ferrules at the beginning, assemble and polish them in a carefully monitored and controlled process, and quality test our assemblies at the end. This assembly and polishing process ensures the same outstanding quality in every connector.



SC Duplex Patch Cord



ST® Compatible Ultra PC 12-Fiber



FC Ultra PC 12-Fiber

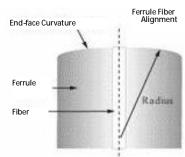
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#### **Connector Performance**

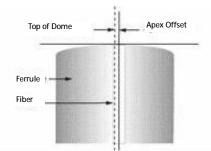
Controlling connector end-face geometry is key to assuring network reliability. Radius of Curvature, Apex Offset, and Fiber Undercut are the three critical parameters that affect long-term connector performance. These parameters are closely monitored and controlled throughout Corning Cable Systems' automated process, thus assuring the highest quality in each and every connector assembly.

#### **Radius of Curvature**

Radius of Curvature describes the radius of the end-face surface measured from the ferrule axis. The correct Radius of Curvature is necessary to control the compressive forces on the connector end-face. Radius of Curvature values between 7 to 25 millimeters are recommended to avoid fiber damage and to ensure low reflectance and insertion loss.



Radius of Curvature



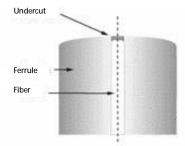
**Apex Offset** 

#### **Apex Offset**

Apex Offset is the displacement between the apex of the sphere that fits the ferrule end-face and the center of the fiber core. Excessive Apex Offset can lead to lack of physical contact of the fiber cores and an increase in insertion loss. An Apex Offset value of  $\leq$  50 microns is recommended. Values greater than 50 microns can reduce fiber-to-fiber contact and cause increases in reflectance over the operating temperature.

#### Fiber Undercut/Protrusion

Fiber Undercut is the distance of the fiber above or below the fitted spherical surface of the ferrule. Proper undercut guarantees that fiber-to-fiber contact will always be maintained over the operating temperature range. An undercut value of  $\pm$  50 nanometers is recommended to avoid air gaps between fibers. Larger undercut values can cause changes in reflectance and insertion loss. Excessive fiber protrusion can increase the compressive load at the end of the fiber causing fiber damage or failure of the fiber-ferrule epoxy bond.



Fiber Undercut

	Shroud*	Boot	Cable
Single-mode (OS1)	Blue	Blue	Yellow
Multimode 62.5 µm (OM1)	Beige	Black	Orange
Multimode 50 µm (OM2)	Black	Black	Orange
Laser-optimized Multimode 50 µm (OM3)	Black	Aqua	Aqua

<sup>\*</sup> Note: Shroud color scheme is not applicable on FC or ST compatible connectors with metal bayonets. For duplex assemblies channel B is identified with a white boot.

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#### **Connector Types**

#### Jacketed Fiber 900 µm FC Ultra PC Blue boot represents <sup>a</sup> -55 dB reflectance FC Ultra PC FC Ultra PC FC Angled PC THE CA Green boot represents a -65 dB reflectance FC Angled PC FC Angled PC SC Ultra PC Blue boot represents <sup>a</sup> -55 dB reflectance SC Ultra PC SC Ultra PC SC Angled PC Green boot represents a -65 dB reflectance SC Angled PC SC Angled PC LC Ultra PC Blue boot represents <sup>a</sup> -55 dB reflectance LC Ultra PC LC Ultra PC LC Angled PC Green boot represents a -65 dB reflectance LC Angled PC LC Angled PC ST® Compatible Ultra PC Blue boot represents <sup>a</sup> -55 dB reflectance ST Compatible Ultra PC ST Compatible Ultra PC MTP® Angled Connector Green boot represents <sup>a</sup> -55 dB reflectance MTP® Angled Connector MTP Angled Connector (shown with ribbon) MT-RJ Reflectance of a -35 dB MT-RJ MT-RJ E-2000 Ultra PC Blue boot represents a -55 dB reflectance E-2000™ Ultra PC E-2000 Ultra PC E-2000 Angled PC Green boot represents a -65 dB reflectance E-2000 Angled PC E-2000 Angled PC

LSA - DIN Ultra PC Reflectance of <sup>a</sup> -55 dB

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# **Connector Specifications**

### **Multimode Connectors**

		1300 r 50/12!	ion Loss at nm (dB) 5 µm and 25 µm		Construction		
Туре	Code	Мах.	Typical	Durability (dB)	Ferrule	Housing	
SC PC	39	0.5	0.35	0.2	ceramic	composite	
SC Duplex	57	0.5	0.35	0.2	ceramic	composite	
ST® Compatible PC (plastic bayonet)	50	0.5	0.35	0.2	ceramic	composite	
FC PC	17	0.5	0.35	0.2	ceramic	nickel, brass	
E-2000™ PC	95	0.5	0.35	0.2	ceramic	composite	
LC	03	0.5	0.35	0.2	ceramic	composite	
LC Duplex	05	0.5	0.35	0.2	ceramic	composite	
MTP® (non-pinned)	69	0.75	0.5	0.2	composite	composite	
MT-RJ (non-pinned)	97	0.5	0.3	0.2	composite	composite	

### Single-mode Connectors

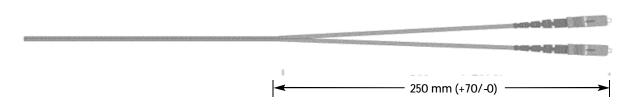
		Insertion Loss at 1310 nm (dB)			Ref	lectance (dB)	Constru	uction
Туре	Code	Мах.	Typical	Durability (dB)	Typical	Guaranteed	Ferrule	Housing
SC Ultra PC	58	0.5	0.15	0.2	≤ -59	≤ -55	ceramic	composite
SC Angled PC	65	0.5	0.15	0.2	≤ -75	≤ - 65	ceramic	composite
ST Compatible Ultra PC (plastic bayonet)	61	0.5	0.15	0.2	≤ -59	≤ -55	ceramic	composite
FC Ultra PC	54	0.5	0.15	0.2	≤ - 59	≤ -55	ceramic	nickel, brass
FC Angled PC	21	0.5	0.15	0.2	≤ -75	≤ -65	ceramic	nickel, brass
E-2000 UPC	20	0.5	0.15	0.2	≤ - 59	≤ -55	ceramic	composite
E-2000 APC	19	0.5	0.15	0.2	≤ -75	≤ - 65	ceramic	composite
LC UPC	02	0.5	0.1	0.2	≤ -58	≤ -55	ceramic	composite
LC Duplex	04	0.5	0.1	0.2	≤ -58	≤ -55	ceramic	composite
MT-RJ (non-pinned)	98	0.5	0.3	0.3	≤ -53	≤ - 35	composite	composite
MTP (non-pinned)	90	0.75	0.5	0.2	≤ -65	≤ -55	composite	composite

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Singl	le-Fi	iber	Cab	le
J19		IDCI	Jub	

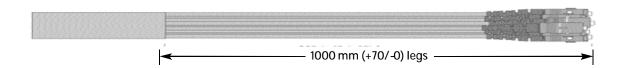
Available in 2.0 mm or 2.9 mm outer diameters.

### Zipcord Cable (2 fibers)



Available in 1.8, 2.0 and 2.9 mm legs.

### Break-Out/Fan-Out Cable (2-24 fibers - 2.0 mm legs)

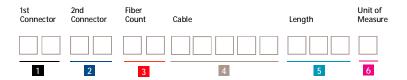


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### **Ordering Information**

#### Single-Fiber Connector Assemblies

Corning Cable Systems' patch cords and high fiber count assemblies are ordered using six easy steps. The steps involve the selection of connector(s), cable and length. The format and steps are listed below.



Please use the following options to construct the order number:

1 Select connector code on first end based on the type of adapter used at the patch panel or the electronic interface connector. The connector and adapter must be compatible for a correct connection (always use the lowest code first when constructing the part number.) Note: RFP polarity on duplex connectors.

00 = No connectors (when ordering with a pigtail)

```
Multimode
                                   Single-mode
39 = SC PC
                                   58 = SC Ultra PC
                                   72 = SC PC Duplex*
57 = SC Duplex*
74 = ST® Compatible PC Ceramic
                                   65 = SC Angled PC
                                   61 = ST Compatible Ultra PC
     (metal bayonet)
50 = ST Compatible PC Ceramic
                                   83 = ST Compatible Ultra PC
                                        (metal bayonet)
      (plastic bayonet)
17 = FC PC
                                   54 = FC Ultra PC
                                   21 = FC Angled PC
95 = E2000^{\text{m}} PC
                                   28 = LSA-DIN UPC
03 = LC PC
05 = LC PC Duplex*
                                   20 = E2000 Ultra PC
84 = MU PC**
                                   19 = E2000 Angled PC
                                   04 = LC Duplex*
                                   02 = LC Ultra PC
                                   85 = MU Ultra PC**
* For duplex pigtails please select two fibers
```

- \*\* MU connectors only with OFNR available
- 2 Select connector on second end.
  Use the order numbers from selection 1.
- 3 Select standard fiber count.

```
01 = 1-fiber
                (for buffered fiber or single-fiber cable)
02 = 2-fiber
                (for buffered fiber, zip cord duplex, or breakout cable)
04 = 4-fiber
                (for breakout cable or MIC* cable)
08 = 8-fiber
                (for breakout cable or MIC cable)
12 = 12-fiber
                (for breakout cable or MIC cable)
24 = 24-fiber
                (for breakout cable, MIC or MIC unitized cable)
                (for MIC unitized cable)
36 = 36-fiber
48 = 48-fiber
                (for MIC unitized cable)
72 = 72-fiber
                (for MIC unitized cable)
96 = 96 - fiber
                (for MIC unitized cable)
144= 144-fiber (for MIC unitized cable)
* MIC unitized only available as OFNR riser
```

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### **Ordering Information**

### Single-Fiber Connector Assemblies

Select cable code based on construction and fiber type.

Cable Type Fiber Type

Cable Listing: FRNC / LSZH

	OM1	OM2	OM3	OS1
	62.5 µm	50 µm	50 µm	Single-mode / E9
Buffered Fiber				
900 µm (TB, 1.5 m strippable)	K4Z41	C4Z31	S4Z80	R4Z31
900 µm (TB III, 10 cm strippable)	K4Z43	C4Z33	S4Z83	R4Z33
Single-Fiber Cable				
2.9 mm (TB III)	K3Z41	C3Z31	S3Z80	R3Z31
2.0 mm (TB III, standard for LC)	K2Z41	C2Z31	S2Z80	R2Z31
Zipcord / Duplex Cable				
2 x 2.9 mm (TB III)	K5Z41	C5Z31	S5Z80	R5Z31
2 x 2.0 mm (TB III, standard for LC)	K5Z2O	C5Z2O	S5Z20	R5Z2O
Breakout Cable* - 2-12 fibers				
2.9 mm subunits (TB III)	K6Z41	C6Z31	S6Z80	R6Z31
Breakout Cable* – 2-24 fibers				
2.0 mm subunits (TB III)	K6Z20	C6Z2O	S6Z20	R6Z2O
MIC FRNC Cable* - 2-24 fibers	K8Z30	C8Z31	S8Z80	R8Z31
Tight-Buffered MPC*	KSZ25	CSZ25	SSZ25	RSZ25
Cable Listing: Riser – OFNR				
Single-Fiber Cable				
2.9 mm (TB II)	K3141	C3131	S3180	R3131
2.0 mm (TB II)	K2141	C2131	S2180	R2131
Zipcord / Duplex Cable				
2.9 mm (TB II)	K5141	C5131	S5180	R5131
2.0 mm (TB II)	K5120	C5120	S5120	R5120
Breakout Cable – 2-24 fibers	·		·	
2.9 mm subunits (TB II)	K61HD	C61HD	S61HD	R61HD
Breakout Cable – 2-24 fibers				
2.0 mm subunits (TB II)	K61LD	C61LD	S61LD	R61LD
MIC Cable – 2-24 fibers*	K8130	C8131	S8180	R8131
MIC Unitized Cable – 36-144 fibers*	K8130	C8131	S8180	R8131

 $<sup>^{\</sup>star}$  Standard leg lengths for multifiber assemblies, 1000 mm (+70 / -0); no stagger. Note: Pigtails ordered with 900 µm fiber are color coded by fiber type: S = Aqua, R = Yellow, G = Green, B = Blue

5 Select cable assembly length. 001 to 999

6 Select unit of measure.

F = Feet M= Meters

Note: Assembly lengths are measured from furcation plug to furcation plug. For lengths greater than 999, contact Customer Service.

#### **Examples**

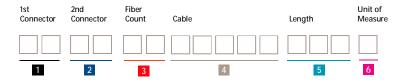
Order Number	Description
000502S4Z80002M	LC-Duplex Pigtail with 2 OM3 fibers 1.5 m strippable, halogen free, FRNC, assembled with 1 LC Duplex connector on 1. side and no connectors on 2. side, Cable length: 2 m
055724S8Z80100M	Breakout cable with 24 OM3 2.0 mm subunits, halogen free, FRNC, assembled with 12 LC Duplex connectors on 1.side and 12 SC Duplex connectors on 2.side, furcation legs 1000 mm each side, cable length: 100m.

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### **Ordering Information**

#### Multifiber MT-RJ and MTP Assemblies

Corning Cable Systems 2-fiber patch cords are ordered using six easy steps. The steps involve the selection of connector(s), cable and length. The format and steps are listed below.



Please use the following options to construct the order number:

Select connector code on first end based on the type of adapter used at the patch panel or the electronic interface connector. The connector and adapter must be compatible for a correct connection (always use the lowest code first when constructing the part number.) Note: RFP polarity on duplex connectors, straight polarity on MTP-MTP jumpers.

00 = No connectors (when ordering with a pigtail)

Multimode

MTP Connectors

69 = MTP/f, non-pinned 70 = MTP/m, pinned

Only available with ribbon interconnect cable or bare ribbon cable. For MTP-Hybrid solutions please refer to our Plug&Play™ Universal Harness solutions.

MT-RJ Connectors 86 = MT-RJ/m, pinned 97 = MT-RJ/f, non-pinned

For MT-RJ-Hybrid solutions request, please use the connector codes from single fiber connector list.

Single-mode

MTP Connectors

89 = MTP/f Angled, non-pinned 90 = MTP/m Angled, pinned

Only available with ribbon interconnect cable or bare ribbon cable. For MTP-Hybrid solutions please refer to our Plug&Play™ Universal Harness solutions.

MT-RJ Connectors 87 = MT-RJ/m, pinned 98 = MT-RJ/f, non-pinned

For MT-RJ-Hybrid solutions request, please use the connector codes from single fiber connector list.

- 2 Select connector on second end.
  Use the order numbers from selection 1.
- Select standard fiber count.

02 = 2-fiber (for buffered fiber, mini-zipcord, mini-MIC 2.9 mm)

04 = 4-fiber (MIC cable)

12 = 12-fiber (MIC cable or for MTP only, ribbon interconnect cable or bare ribbon)

24 = 24-fiber (MIC cable)

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### **Ordering Information**

#### Multifiber MT-RJ and MTP Assemblies

Select cable code based on construction and fiber type.

Cable Type Fiber Type

Indoor: FRNC / LSZH

	OM1 62.5 µm	OM2 50 μm	OM3 50 μm	OS1 Single-mode / E9
Buffered Fiber	·	•	•	
900 µm (TB, 1.5 m strippable)	K4Z41	C4Z31	S4Z80	R4Z31
900 µm (TB III, 10 cm strippable)	K4Z43	C4Z33	S4Z83	R4Z33
Zipcord / Duplex Cable				
2 x 1.8 mm (Mini-Zip, TB III)*	K5Z18	C5Z18	S5Z18	R5Z18
Mini-MIC 2.9 mm (TB III)**	K8ZM2	C8ZM2	S8ZM2	R8ZM2
Indoor/Outdoor FRNC/LSZH Tight-Buffered MPC* (TBIII)	KSZ25	CSZ25	SSZ25	RSZ25
Ribbon FRNC/LSZH				
Ribbon Interconnect Cable	KJZ40	CJZ31	SJZ80	RJZ31
Bare Ribbon				
Bare Ribbon Fiber	KXX40	CXX31	SXX80	RXX31

<sup>\*</sup> Standard leg lengths for multifiber assemblies, 1000 mm (+70 / -0); no stagger.
Note: Furcation legs are color coded by fiber type: K & C = Orange, S = Aqua, R = Yellow MT-RJ pigtails on 900 µm fiber are color coded: blue = fiber 1, orange = fiber 2

#### 5 Select cable assembly length. 001 to 999

Note: Assembly lengths are measured from furcation plug to furcation plug. For lengths greater than 999, contact Customer Service.



F = Feet M= Meters

#### **Examples**

Order Number	Description
009802R4Z31003M	MT-RJ Pigtail with 2 OS1 fibers 1.5 m strippable, halogen free, FRNC, assembled with 1 MT-RJ/f connector on 1. side and no connector on 2. side, pigtail length 3m
049802R5Z18010M	MT-RJ Patch cord with 2 OS1 fibers, halogen free, FRNC, assembled with 1 LC Duplex connector on 1. side and 1 MT-RJ/f connector on 2. side, cable length 10 m
898912RJZ31010M	Ribbon interconnect cable with 12 OS1 fibers, halogen free, FRNC, assembled with 1 MTP/f connector on 1. side and 1 MTP/f connector on 2. side, cable length 10m

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### **Pretium™ Connector Housings**

A LANscape® Pretium™ Solutions Product



### **Applications**

- Main cross-connect, intermediate cross-connects and telecommunications rooms
- Rack or equipment cabinet installations
- Data center fiber distribution frames
- Cross-connects using large quantities of low-fiber-countcables

#### Description

Corning Cable Systems Pretium™ Connector Housings are designed for the LAN and data center environment. The housings are four inches deeper than standard CCH housings and are shipped with everything the installer needs. Mountable in 19- or 23-in (optional) equipment racks or cabinets, the housings provide easy, open access to connectors for moves, adds and changes and for connector cleaning.

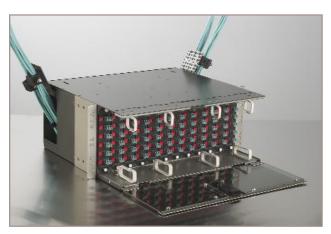
The 4U (7 inches tall) housing accepts 12 Corning Cable Systems CCHE connector panels or CCH connector modules while the 1U (1.75 inches tall) housing accepts two CCHE connector panels or CCH modules\*. CCHE connector panels and CCH modules are available in a wide variety of port counts depending on connector style. Blank panels are provided in unused positions to give a finished look.

The PCH-04U housing contains an integral hinged jumper manager on the front of the housing. This manager can be locked in the "up" position for an additional 1U of horizontal jumper management or left in the default "down" position to provide additional capacity for jumper routing along the top of the housing.

The PCH-01U housing has a removable top that slides forward with the simple release of two latches, providing unencumbered access to interior components. The drawer slides forward or backward for easy access to the interior after installation.



PCH-01U and PCH-04U Housings



Close-up of PCH-04U Integrated Jumper Manager



PCH-04U with Splice Option

<sup>\*</sup>Note: Standard depth modules cannot be used when splicing. Use pigtailed panels or reduced depth modules.

# **Pretium™ Connector Housings**

A LANscape® Pretium™ Solutions Product



#### **Features**

- Optional splicing available in all units
- Deeper housings provide extra room for high cablecounts and Corning Cable Systems Plug & Play™ Systems
- Large fiber guides in front contain patch cords
- Connector labeling optimized for use with machine-generated labels and Microsoft® Word templates
- Front and rear removable doors (optional locks available)
- Grommeted cable entries keep dust out of the PCH-04U
- Integrated, hinged jumper manager (PCH-04U only)
- Transparent front door (PCH-04U only)
- Rugged metal construction
- Units include patented Universal Cable Clamp for cable strain-relief
- Fiber capacity: PCH-04U = 288 fibers (using LC or MT-RJ direct termination; 144 when splicing), PCH-01U = 48 fibers (using LC or MT-RJ)
- Accepts CCHE panels and CCH modules (panels or the reduced-depth module design must be used when splicing)



PCH-01U with Removed Cover



Close-up of PCH-04U Cable Entry

## **Specifications**

Order Number	Dimensions (HxWxD)	Shipping Weight	Quantity per Delivery Unit
PCH-01U	4 x 43 x 41 cm (1.75 x 17 x 16 in)	7.0 kg (15 lb)	1/1
PCH-04U	18 x 43 x 41 cm (7 x 17 x 16 in)	7.5 kg (16.5 lb)	1/1
PCH-04U-SPL	18 x 43 x 41 cm (7 x 17 x 16 in)	7.5 kg (16.5 lb)	1/1

# Pretium™ Connector Housings

A LANscape® Pretium™ Solutions Product



# **Ordering Information**

Order Number	Description	Quantity per Delivery Unit
PCH-01U	Pretium™ Connector Housing, 1U tall, accepts up to two CCHE connector panels or CCH reduced depth modules, supplied with one Universal Cable Clamp, two blank panels and installation hardware	1/1
PCH-04U	Pretium Connector Housing, 4U tall, accepts up to 12 CCHE connector panels or CCH reduced depth modules, supplied with one Universal Cable Clamp, 12 blank panels and installation hardware	1/1
PCH-04U-SPL	Pretium Connector Housing, 4U tall, accepts up to 12 CCHE connector panels or CCH reduced-depth modules, supplied with one Universal Cable Clamp, 12 blank panels, installation hardware and tray holder for MFT splice trays	1/1
PCH Optional Acce	essories	
PC1-LBL-PI10	PCH-01U Master Label provides room to label up to 48 individual fibers per label; three master labels per 8-1/2 x 11-in sheet; for ink-based printers only	10/1
PC4-LBL-PI10	PCH-04U Master Label provides room to label up to 288 individual fibers per label; one master label per 8-1/2 x 11-in sheet, for ink-based printers only	10/1
PC1-SPLC-04R	Splice Tray Bracket for PCH-01U; accepts up to four Type 2R 0.2-in or two Type 4R 0.4-in reduced-length splice trays; includes slack storage spools	1/1
PC4-SPLC-12SR	Splice Tray Bracket for PCH-04U; accepts up to 12 Type 2S 0.2-in or 7 Type 4S 0.4-in standard length splice trays; or accepts up to 12 Type 2R 0.2-in or 7 Type 4R 0.4-in splice trays; works with left side cable entry only	1/1
PC1-STRN	PCH-01U Strain-Relief Bracket; will accept up to two Universal Cable Clamp kits (UCC-001)	1/1
PC4-STRN	PCH-04U Strain-Relief Bracket; will accept up to two Universal Cable Clamp kits (UCC-001)	1/1
UCC-001	Universal Cable Clamp Strain-Relief Kit; to be used with PC1-STRN or PC4-STRN	1/1
HDWR-LOCK-KIT	Door Lock Kit; can be installed on the front and/or back doors of the PCH-04U; comes with one lock and two keys	1/1
PC4-SLK	Rear Slack Storage Bracket for PCH-04U; installed in the rear of the housing for additional slack storage; one supplied with PCH-04U	1/1
PC1-LOCK-KIT	Door Lock Kit; can be installed on the front and/or back door(s) of the PCH-01U; comes with one lock and two keys	1/1
PC1-BKT-FLSH	Flush Mount Brackets (one set) for PCH-01U	1/1
PC1-BKT-23	Mounting Brackets for 23-in frames/cabinets for PCH-01U	1/1
PC4-BKT-FLSH	Flush Mount Brackets for PCH-04U	1/1
PC4-BKT-23	Mounting Brackets for 23-in frames/cabinets for PCH-04U	1/1
CJP-01U-P	1U Jumper Management Panel, provides jumper management in a 1.75-in rack space	1/1
CJP-02U-P	2U Jumper Management Panel, provides jumper management in a 3.5-in rack space	1/1
PC4-SLK-D24	Accessory Unit attached to the rear of the PCH-04U providing fiber cable storage in 24 circular cassettes	1/1
PC4-SIDE-PLT	Front Metal Plates and Grommets to enclose the front of the PCH-04U	5/1

Please see page to chapter XXX, page XXX for splice tray options.

# Closet Connector Housings CCH-01U & CCH-02U

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## **Applications**

 Corning Cable Systems' Closet Connector Housings (CCH) provide interconnect or cross-connect capabilities between the outside plant, riser, or distribution cables, and the opto-electronics.

## Description

The units can be rack-mounted in 48 cm (19 in) or 58 cm (23 in) equipment racks (4.45 cm - 1.75 in- EIA/TIA hole spacing) and are available in one rack space (two connector panels) or two rack spaces (four panels).

Closet Connector Housings can be ordered with connector panels for multimode and single-mode applications. Connector panels are offered in 6-, 8-, 12-, 16- and 24-fiber configurations (depending on connector style). Documentation labels are provided and units or components can be added as needed to construct a fiber distribution frame for any application.

### Features / Benefits

- Ideal for field connectorization
- Suitable for loose tube, tight-buffered and optical fiber ribbon cables
- Mounting configurations include standard 11.4 cm (4.5 in) frontal projection, partially flush and flush mount
- Multiple locations for jumper egress
- Accepts CCHE connector panels or modules
- Slide-out drawer for easy connector access
- Lock can be field-installed
- Meets requirements of ANSI/TIA/EIA-568A and 606
- Brackets included for rack mounting in 48 cm (19 in) or 58 cm (23 in) equipment racks



Closet Connector Housing, CCH-01U



Closet Connector Housing, CCH-02U



Bracket Kit for Wall Mounting, CCH-WALLMNT-KIT

# Closet Connector Housings CCH-01U & CCH-02U

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# **Specifications**

Order Number	Dimensions (H x W x D) cm (in)	Shipping Weight kg (lb)	Quantity per Delivery Unit
CCH-01U	4.4 x 43.2 x 30.5 (1.75 x 17 x 12)	2.3 (5)	1/1
CCH-02U	8.9 x 43.2 x 30.5 (3.5 x 17 x 12)	2.7 (6)	1/1

# **Ordering Information**

Order Number	Description	Quantity per Delivery Unit
CCH-01U	Closet Connector Housing that will accept up to two CCHE panels; comes with blank panels and hardware to strain-relieve one cable with the Universal Cable Clamp (UCC) or up to five 1 cm (0.4-in) or smaller cables with the UCC insert; two 6-fiber panels = 12 fiber total capacity; two 8-fiber panels = 16 fiber total capacity; two 12-fiber panels = 24 fiber total capacity; two 16-fiber panels = 32 fiber total capacity; two 24-fiber panels = 48 fiber total capacity (MT-RJ and LC)	1/1
CCH-02U	Closet Connector Housing that will accept up to four CCHE panels; comes with blank panels and hardware to strain-relieve one cable with the Universal Cable Clamp (UCC) or up to five 1 cm (0.4-in) or smaller cables with the UCC insert; four 6-fiber panels = 24 fiber total capacity; four 8-fiber panels = 32 fiber total capacity; four 12-fiber panels = 48 fiber total capacity; four 16-fiber panels = 64 fiber total capacity; four 24-fiber panels = 96 fiber total capacity (MT-RJ and LC)	1/1

## **Pre-Loaded Housings**

CCH-01U-2491	CCH-01U pre-loaded with 12 568SC (SC duplex) adapters (two CCHE panels), 62.5 µm multimode, composite insert, composite housing	1/1
CCH-01U-2497	CCH-01U pre-loaded with 12 MT-RJ adapters (two CCHE panels), 62.5 µm multimode, composite housing	1/1
CCH-01U-1215T	CCH-01U pre-loaded with 12 ST® compatible adapters (two CCHE panels), 62.5 µm multimode, ceramic insert, composite housing	1/1

## **Accessories**

Replacement Label Kit for the CCH housing (1-rack-space housing)	10/1
Replacement Label Kit for the CCH housing (2-rack-space housing)	10/1
Bracket Kit for wall mounting the CCH housing, 6 rack spaces tall, hinged	1/1
One Bracket and Two Universal Cable Clamps (UCCs); each housing is shipped with one bracket and two UCCs; an additional bracket and UCC can be added	1/1
Closet Jumper Management Panel; provides jumper management in a 1.75 in (4.45 cm) rack space	1/1
Closet Jumper Management Panel; provides jumper management in a 3.5 in (8.9 cm) rack space	1/1
Lock Kit for front door of housing; contains one lock with two keys	1/1
Armored Cable Grounding Kit; contains armor grounding clip and ground strap	1/1
	Replacement Label Kit for the CCH housing (2-rack-space housing)  Bracket Kit for wall mounting the CCH housing, 6 rack spaces tall, hinged  One Bracket and Two Universal Cable Clamps (UCCs); each housing is shipped with one bracket and two UCCs; an additional bracket and UCC can be added  Closet Jumper Management Panel; provides jumper management in a 1.75 in (4.45 cm) rack space  Closet Jumper Management Panel; provides jumper management in a 3.5 in (8.9 cm) rack space  Lock Kit for front door of housing; contains one lock with two keys

# Introduction

LANscape<sup>®</sup> Solutions

Plug & Play"" Universal Systems

oer Optic Cables

Fiber ermination

# Closet Connector Housings CCH-03U & CCH-04U

A LANscape® Solutions Product

## **Applications**

 Corning Cable Systems' Closet Connector Housings (CCH) provide interconnect or cross-connect capabilities between the outside plant, riser, or distribution cables, and the opto-electronics.

## Description

The units can be rack-mounted in 48 cm (19 in) or 58 cm (23 in) equipment racks (4.45 cm - 1.75 in - TIA hole spacing) and are available in three-rack-space (six panels) or four-rack-space (12 panels) versions. For installations requiring 144 fibers, the capacity can be achieved using SC simplex, SC duplex, LC and MT-RJ connectors for 12 fibers per panel in conjunction with the four-rack-space housing. For installations requiring up to 288 fibers, the capacity can be achieved using LC and MT-RJ connectors for 24 fibers per panel in conjunction with the 4-rack-space housing.

Closet Connector Housings can be ordered with connector panels for multimode and single-mode applications. Connector panels are offered in 6-, 8-, 12-, 16- and 24-fiber configurations (depending on connector style). Documentation labels are provided and units or components can be added as needed to construct a fiber distribution frame for any application.

The CCH has been designed with an open top, located in the front of the housing in the 3- and 4-rack-space versions of the design. The opening, when used in conjunction with the Closet Jumper Management Panel (CJP), facilitates jumper routing.

#### Features / Benefits

- Ideal for field connectorization
- Suitable for loose tube, tight-buffered and optical fiber ribbon cables
- Mounting configurations include standard 11.4 cm (4.5 in) frontal projection, partially flush and flush mount
- Multiple locations for jumper egress
- Removable, durable, clear polycarbonate-tinted front door (CCH-03U and CCH-04U)



Closet Connector Housing, CCH-03U



Closet Connector Housing, CCH-04U



Bracket Kit for Wall Mounting, CCH-WALLMNT-KIT

# Closet Connector Housings CCH-03U & CCH-04U

A LANscape® Solutions Product

### Features / Benefits

- Lock can be field-installed
- Accepts CCHE connector panels or modules
- Open top of housing for vertical pigtail or jumper exiting
- Optional top and side covers available
- Meets requirements of ANSI/TIA/EIA-568A and 606
- Brackets included for rack mounting in 48 cm (19 in) or 58 cm (23 in) equipment racks



Lock Kit for front door of housing

# **Specifications**

Order Number	Dimensions (H x W x D) cm (in)	Shipping Weight kg (lb)	Quantity per Delivery Unit
CCH-03U	13.3 x 43.2 x 30.5 (5.25 x 17 x 12)	2.7 (6)	1/1
CCH-04U	17.8 x 43.2 x 30.5 (7 x 17 x 12)	3.6 (8)	1/1

Order Number	Description	Quantity per Delivery Unit
CCH-03U	Closet Connector Housing that will accept up to six CCHE panels or modules; comes with blank panels and hardware to strain-relieve two cables with the Universal Cable Clamp (UCC) or up to ten 1 cm (0.4-in) or smaller cables with the UCC insert; six 6-fiber panels = 36 fiber total capacity; six 8-fiber panels = 48 fiber total capacity; six 12-fiber panels = 72 fiber total capacity; six 16-fiber panels = 96 fiber total capacity; six 24-fiber panels = 144 fiber total capacity (MT-RJ and LC)	1/1
CCH-04U	Closet Connector Housing that will accept up to 12 CCHE panels or modules; comes with blank panels and hardware to strain-relieve two cables with the Universal Cable Clamp (UCC) or up to ten 1 cm (0.4-in) or smaller cables with the UCC insert; twelve 6-fiber panels = 72 fiber total capacity; twelve 8-fiber panels = 96 fiber total capacity; twelve 12-fiber panels = 144 fiber total capacity; twelve 16-fiber panels = 192 fiber total capacity; twelve 24-fiber panels = 288 fiber total capacity (MT-RJ and LC)	1/1

# Closet Connector Housings CCH-03U & CCH-04U

A LANscape® Solutions Product

Order Number		Quantity per Delivery Unit
Pre-Loaded Housings		
CCH-04U-E491	CCH-04U pre-loaded with 72 568SC (SC duplex) adapters (12 CCHE panels), 62.5 µm multimode, composite insert, composite housing	1/1
CCH-04U-7291	CCH-04U pre-loaded with 36 568SC (SC duplex) adapters (6 CCHE panels), 62.5 µm multimode, composite insert, composite housing	1/1
CCH-04U-E497	CCH-04U pre-loaded with 72 MT-RJ adapters (12 CCHE panels), 62.5 µm multimode, composite housing	1/1
CCH-04U-7297	CCH-04U pre-loaded with 36 MT-RJ adapters (6 CCHE panels), 62.5 µm multimode, composite housing	1/1
CCH-04U-7215T	CCH-04U pre-loaded with 72 ST® compatible adapters (12 CCHE panels), 62.5 µm multimode, ceramic insert, composite housing	1/1
Accessories		
CJP-01U	Closet Jumper Management Panel; provides jumper management in a 4.45 cm (1.75-in) rack space	1/1
CJP-02U	Closet Jumper Management Panel; provides jumper management in a 8.9 cm (3.5-in) rack space	1/1
CCH-3U-LBL	Replacement Label Kit for the CCH housing (3-rack-space housing);	10/1
CCH-4U-LBL	Replacement Label Kit for the CCH housing (4-rack-space housing);	10/1
CCH-WALLMNT-KIT	Bracket Kit for wall mounting the CCH housing, 6 rack spaces tall, hinged	1/1
ссн-исс-кіт	One Bracket and Two Universal Cable Clamps (UCCs); each housing is shipped with one bracket and two UCCs; an additional bracket and UCC can be added; two multi-cable grommets included that accept up to five 1.0 cm (0.4-in) diameter cables	
HDWR-LOCK-KIT	Lock Kit for front door of housing; contains one lock with two keys	1/1
CCH-TOP-CVR	Patch Field Cover that covers top opening in CCH-03U and CCH-04U housings	1/1
FDC-CABLE-GRND	Armored Cable Grounding Kit; contains armor grounding clip and ground stra	
CCH-04U-SIDEPNL	Side Panels to enclose CCH-04U housing	2/1

# Closet Connector Housing Panels (CCHE-CP)

A LANscape® Solutions Product

## **Applications**

- The panels are used with field-installable connectors or in applications where the preconnectorized cables are routed directly from the equipment to the piece of interconnect hardware
- Provides an efficient way to securely mate two or more connectors



Closet Connector Housing Panels are offered in 6-, 8-, 12-, 16- and 24-fiber panels for use with the LANscape® Solutions hardware products.

The panels are available with a variety of industry-standard adapter types. In most applications, the Closet Connector Housing Panels are designed for applications where specified labeling and connector identification are required. This is accomplished by the use of colored icons with different symbols molded into the icon.

#### Features / Benefits

- Designed to accommodate all industry-standard adapter types
- Unique color-coded connector labeling system
- Universal approach is used; one panel size fits in all standard LANscape Solutions hardware
- Available in 6-, 8- and 12-fiber count options in most adapter styles; 16- and 24-fiber count options available in MT-RJ and LC duplex styles
- Also available for copper modules







12-Fiber ST® Compatible Connector Panel





12-Fiber SC Duplex Panel





24-Fiber MT-RJ Connector Panel

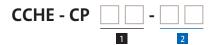
CCHE Empty Panel for up to 6 LANscape modules (Copper and Fiber Optic)

# Closet Connector Housing Panels (CCHE-CP)

A LANscape® Solutions Product

## **Ordering Information**

## **Closet Connector Housing Panels**



Use the following options to construct the order number:

#### Select fiber count.

- 06 = 6 fibers
- 08 = 8 fibers
- 12 = 12 fibers
- 16 = 16 fibers (\*)
- 24 = 24 fibers (\*)
- 36 = 36 fibers (\*\*)
- 72 = 72 fibers (\*\*)
- \* = only LC Duplex, MT-RJ and SC Duplex adapters
- \*\* = only MTP adapters

#### 2 Select adapters.

#### **ST® Compatible**

- 15 = ST compatible multimode, ceramic insert, 62.5μm and 50μm (OM1 & OM2)
- 19 = ST compatible single-mode ceramic insert (OS1)
- 25 = ST multimode, threaded, composite housing, composite insert (OM1)
- E5 = ST multimode, ceramic insert, 50μm (OM3)

#### FC

- 11 = FC single-mode, ceramic insert
- 21 = FC single-mode, metal insert

#### **LC Duplex**

- 04= LC Duplex single-mode, ceramic insert (OS1)
- 05= LC Duplex multimode, ceramic insert, 62.5µm (OM1)
- D3= LC Duplex multimode, ceramic insert, 50µm (OM2)
- E4= LC Duplex multimode, ceramic insert, 50µm (OM3)

#### **SC Duplex**

- 57 = SC Duplex, multimode, composite housing, ceramic insert, 62.5µm
- 72 = SC Duplex single-mode, ceramic insert (OS1)
- 91 = SC Duplex, multimode, composite insert, 62.5µm (OM1)
- E7 = SC Duplex multimode, ceramic insert, 50µm (OM3)
- G7 = SC Duplex multimode, ceramic insert, 50µm (OM2)
- P5 = SC Duplex, multimode, composite housing, metal insert, 50µm

#### **SC Simplex**

- 39 = SC Simplex, multimode, metal insert, 62.5µm (OM1)
- 56 = SC Simplex, multimode, composite insert, 62.5µm (OM1)
- 5C = SC Simplex, single-mode, ceramic insert (OS1)
- 6C = SC Simplex, angle polish singlemode, ceramic insert
- E6 = SC Simplex, multimode, ceramic insert, 50μm (OM3)
- P4 = SC Simplex, multimode, ceramic insert, 50µm (OM2)

#### MT-RJ

- 86 = MT-RJ multimode, composite housing 62.5µm (OM1)
- 87 = MT-RJ single-mode, composite housing (OS1)
- E1 = MT-RJ mulitmode, composite housing 50µm (OM3)
- G1 = MT-RJ mulitmode, composite housing 50µm (OM2)

#### E2000™

- P1 = E2000 APC, single-mode, composite housing, ceramic insert
- P2 = E2000 UPC, single-mode, composite housing, ceramic insert
- P3 = E2000 APC, multimode, 62.5μm and 50μm, composite housing

#### MTF

- 69 = MTP, multimode, composite housing, 62.5μm (OM1)
- 89 = MTP, single-mode, composite housing (OS1)
- E3 = MTP, multimode, composite housing, 50µm (OM3)

#### **Examples**

Order Number	Description
CCHE-CP24-E4	Closet Connector Housing Panel with 12 LC-Duplex adapters 50µm (OM3), ceramic insert, aqua adapter
CCHE-CP72-89	Closet Connector Housing Panel with 6 MTP adapters 9µm (OS1), black adapter

# **Closet Connector Housing Panels** (CCHE-CP)

A LANscape® Solutions Product

## **Ordering Information**

## Closet Connector Panels for Modular Terminations (Copper and Fiber Optic)

Order Number	Description
CCHE-CP00-LS	CCHE empty panel for up to 6 LANscape® single-port modules or three dual-port modules
	(Category 5,6, 7 copper or fiber optic modules), incl. integral cable strain relief

## **Pigtailed Closet Connector Panels**



Use the following options to construct the order number:

#### Select fiber count.

06 = 6 fibers

08= 8 fibers

12 = 12 fibers (only for SC duplex, LC duplex and MT-RJ)

16 = 16 fibers

24 = 24 fibers

#### 2 Select adapters.

#### ST® Compatible

50 = ST compatible, ceramic insert, multimode, composite housing

61 = ST compatible/UPC, ceramic insert, single-mode

17 = FC, metal insert, multimode

21 = FC APC, metal insert, single-mode, metal housing

54 = FC UPC, metal insert, single-mode

#### **SC Simplex**

56 = SC Simplex, composite insert, multimode

5C = SC Simplex/UPC, ceramic insert, single-mode

6C = SC Simplex/APC, ceramic insert, single-mode

#### **SC Duplex**

72 = SC Duplex/UPC, single-mode, ceramic insert

91 = SC Duplex, composite insert, multimode, plastic housing

#### **LC Duplex**

04 = LC Duplex, ceramic insert, single-mode

05 = LC Duplex, ceramic insert, multimode

#### MT-RJ

86 = MT-RJ multimode 87 = MT-RJ single-mode

#### Select fiber type.

#### MIC® Subunit Cable

(Standard Fiber Cable Option)

CH = Standard multimode (50/125 µm) OM2 SJ = Laser-optimized multimode

SH = Laser-optimized multimode (50/125 µm) OM3

KH = Multimode (62.5/125 μm) OM1

RH = Single-mode OS1

#### **Ribbon Fiber**

CJ = Standard multimode (50/125 µm) OM2

(50/125 µm) OM3

KJ = Multimode (62.5/125 μm) OM1

RJ = Single-mode OS1

### OptiStrip™ Buffered Fiber

KN = Multimode (62.5/125 µm) OM1

RN = Single-mode OS1

### **Examples**

Order Number	Description
CCHE-CP24-50-P03-CH	Pigtailed Closet Connector Housing Panel, standard multimode OM2 pigtails, with ST adapters, ceramic insert, composite housing
CCHE-CP36-17-P03-SH	Pigtailed Closet Connector Housing Panel, laser-optimized OM3 pigtails, with FC adapters, metal insert

# Closet Connector Housing Panels (CCHE-CP)

A LANscape® Solutions Product

# **Ordering Information**

## **Colored Icons**

**ICN - CP** 



Use the following options to construct the order number:

1 Select color / symbol.

YLB = Blank (Yellow)



BLP = Phone (Blue)



RDC = Computer (Red)



GRT = Cable TV (Green)



PRD = Satellite (Purple)



ORV = Video (Orange)



# **Closet Splice Housings (CSH)**

A LANscape® Solutions Product

## **Applications**

- Provides storage and protection of fiber splices in individually accessible trays
- Rack-mount, 48 cm (19 in) or 58 cm (23 in) for transition splicing between UL-listed and unlisted cable at building entrance or pigtail splicing

## Description

Corning Cable Systems' Closet Splice Housings (CSH) are used in equipment racks or equipment cabinets, as well as in the transition splice between outdoor-rated and riser/plenum-rated cable at a building entrance. Pigtail splicing is accomplished when the CSH is used in conjunction with the Closet Connector Housing (CCH).

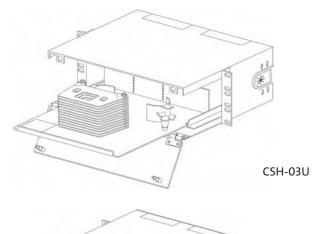
The Closet Splice Housing is available in 3-rack-space and 5-rack-space models.

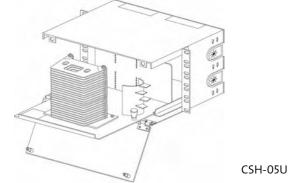
## Features / Benefits

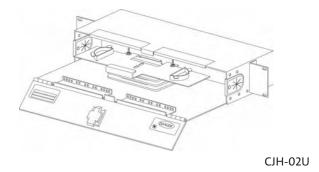
- Cable strain-relief hardware provided including Corning Cable Systems' Universal Cable Clamp (UCC)
- 11.4 cm (4.5 in) projection or flush-mountable
- Open-side design for easy fiber egress
- Sliding shelf provides access to splice trays and routing guides
- Record label provided
- Multiple grommeted cable entry ports
- Top and bottom rear removable access panels for vertical pigtail entry from the CCH housing
- Front and rear doors lockable with optional lock kits
- Brackets included for 48 cm (19 in) and 58 cm (23 in) racks



Closet Splice Housings (CSH-05U and CSH-03U)







Note: One "U" = One industry-standard rack space of 4.4 cm (1.75 in)

# Closet Splice Housings (CSH)

A LANscape® Solutions Product

# **Specifications**

Order Number	Dimensions (H x W x D) cm (in)	Shipping Weight kg (lb)	Quantity per Delivery Unit
CSH-03U	13.3 x 43.2 x 30.5 (5.25 x 17 x 12)	2.7 (6)	1/1
CSH-05U	22.2 x 43.2 x 30.5 (8.75 x 17 x 12)	3.6 (8)	1/1
CJH-02U	8.9 x 43.2 x 17.7 (3.5 x 17 x 7)	1.8 (4)	1/1
CJH-03U	13.3 x 43.2 x 17.7 (5.25 x 17 x 7)	2.3 (5)	1/1

# **Ordering Information**

Order Number	Description	Quantity per Delivery Unit
Closet Splice Housing; accepts up to seven 1 cm (0.4-in) splice trays (Type 4R, 4S or 4A) in three rack spaces 13.3 cm (5.25 in)*		1/1
CSH-05U-F	Closet Splice Housing; accepts up to fourteen 1 cm (0.4-in) splice trays in five rack spaces 22.2 cm (8.75 in)*	1/1
CJH-02U-F	Rear-Mounted Closet Splice Housing designed to utilize the open space behind the 2U jumper management panel (CJP-02U)*; accepts up to three 0.4-in (1 cm) splice trays (Type 4R, 4S or 4A) in two rack spaces 8.9 cm(3.5 in)	1/1

<sup>\*</sup> Splice trays and jumper management panels (CJPs) ordered separately.

## **Splice Trays**

Must be ordered separately. Please refer to pages 160.

## **Jumper Management Panels**

Must be ordered separately. Please refer to pages 123.

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## **Patch Panels and Accessories**

A LANscape® Solutions Product

## **Applications**

■ The LANscape® Fiber Optic cabling system offers 48 cm (19 in) patch panels in 1 and 2U variants. This allows flexible configuration of building and floor distributors to suit specific needs.

## Description

The patch panels can be rack-mounted in 48 cm (19 in) distribution racks (4.45 cm - 1.75 in - EIA/TIA hole spacing) and are available in one rack space or two rack spaces.

Three different designs are available:

- Patch panel frames with high-grade steel/black front panel and mounted strain relief, particularly suitable for use with field- or preassembled MIC® or breakout cables.
- Fixed, closed patch panel boxes in various designs, for splice and slack storage with metric/PG cable entry mountings or as a breakout box with cable strain relief and brush strip in cable entry area.
- 3. Pull-out, closed patch panel boxes with various splice storage options and PG feedthroughs.

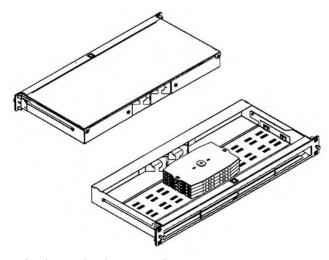
All the patch panels provide 24 or 48 ports for mounting e.g. up to 48 simplex modules. When triple MT-RJ modules are used, as many as 72 two-fiber connections (up to 144 fibers can be accommodated in one 2U patch panel). The patch panels are available both in high-grade steel and black (Design Line) finish.



Universal patch panel – Splice box



Universal patch panel - Breakout version



Splice box with splice trays - drawing

#### Features / Benefits

- Ideal for field connectorization
- Suitable for loose tube, tight-buffered and optical fiber ribbon cables
- Slide-out drawer for easy connector access (pull-out version)
- Flexible configuration of building and floor distributors
- Combination of fiber modules with modules from the FutureCom™ copper cabling system possible

# Introduction

# LANscape

## Plug & Play Universal Systems

## Fiber Opti Cables

# **Patch Panels and Accessories**

A LANscape® Solutions Product

# **Ordering Information**

## Patch Panels, fixed

Order Number	Description	Quantity per Delivery Unit	
WAXWSV-02400-C003	Universal patch panel "Splice box version", 48 cm (19 in), 1U, for mounting up to 24 single modules, splice tray holder for max. 2 splice trays, cable/fiber management and 2 angled entries for each direction for PG/metric-glands, high-grade steel	1/1	Sundan a
WAXWSV-02408-C003	Universal patch panel "Splice box version", 48 cm (19 in), 1U, for mounting up to 24 single modules, splice tray holder for max. 2 splice trays, cable/fiber management and 2 angled entries for each direction for PG/metric-glands, black	1/1	SERVICE TO
WAXWSV-02400-C004	Universal patch panel "Empty box version", 48 cm (19 in), 1U, for mounting up to 24 single modules, 2 angled entries for each direction for PG/metric-glands, high-grade steel	1/1	
WAXWSV-02408-C004	Universal patch panel "Empty box version", 48 cm (19 in), 1U, for mounting up to 24 single modules, 2 angled entries for each direction for PG/metric-glands, black	1/1	
WAXWSV-02400-C005	Universal patch panel "Breakout version", 48 cm (19 in), 1U, for mounting up to 24 single modules, cable/fiber management, breakout entry (brush strip) and cable strain relief, high-grade steel	1/1	
WAXWSV-02408-C005	Universal patch panel "Breakout version", 48 cm (19 in), 1U, for mounting up to 24 single modules, cable/fiber management, breakout entry (brush strip) and cable strain relief, black	1/1	Market

# **Patch Panels and Accessories**

A LANscape® Solutions Product

# **Ordering Information**

## Patch Panels, pull-out

Order Number	Description	Quantity per Delivery Unit	
WAXWSV-02400-C006	Universal patch panel "Splice box", 48 cm (19 in), 1U, for mounting up to 24 single modules, splice tray holder for max. 4 splice trays, cable/fiber management and 2 angled entries for each direct for PG/metric-glands, high-grade steel	1/1	HIT HIT
WAXWSV-02408-C006	Universal patch panel "Splice box", 48 cm (19 in), 1U, for mounting up to 24 single modules, splice tray holder for max. 4 splice trays, cable/fiber management and 2 angled entries for each direction for PG/metric-glands, black	1/1	
WAXWSV-02400-C007	Universal patch panel "Splice box 2", 48 cm (19 in) 1U, for mounting up to 24 single modules, splice tray holder for max. 2 splice trays, cable/fiber management and 2 angled entries for each direction for PG/metric-glands, high-grade steel	, 1/1	Manua
WAXW5V-02408-C007	Universal patch panel "Splice box 2", 48 cm (19 in) 1U, for mounting up to 24 single modules, splice tray holder for max. 2 splice trays, cable/fiber management and 2 angled entries for each direction for PG/metric-glands, black	, 1/1	
WAXWSV-04800-C006	Universal patch panel "Splice box", 48 cm (19 in), 2U, for mounting up to 48 single modules, splice tray holder for max. 8 splice trays, cable/fiber management and 4 angled entries for each direction for PG/metric-glands, high-grade steel	1/1	AH W
WAXWSV-04808-C006	Universal patch panel "Splice box", 48 cm (19 in), 2U, for mounting up to 48 single modules, splice tray holder for max. 8 splice trays, cable/fiber management and 4 angled entries for each direction for PG/metric-gland, black	1/1	State

# Introduction

LANscape<sup>®</sup> Solutions

# **Patch Panels and Accessories**

A LANscape® Solutions Product

# **Ordering Information**

## Accessories

Order Number	Description	Quantity per Delivery Unit	
WAXWSW-00000-C007	Cable management panel, 48 cm (19 in), 1 U, with 5 black cable routing clips, high-grade steel	1/1	22223
WAXWSW-00008-C007	Cable management panel, 48 cm (19 in), 1 U, with 5 black cable routing clips, black	1/1	Part of the same o
WAXWSW-00000-C008	Cable feedthrough panel, 48 cm (19 in)*, for feeding the cables into the cabinet or rack, incl. edge grommeting, high-grade steel  * Additional length and storage protection possible in combination with the "Empty Box" (LAXLSW-00000-C004)	1/1	
WAXWSW-00008-C008	Cable feedthrough panel, 48 cm (19 in)*, for feeding the cables into the cabinet or rack, incl. edge grommeting, black  * Additional length and storage protection possible in combination with the "Empty Box" (LAXLSW-00000-C004)	1/1	
	Blank panel, 48 cm (19 in), 1 U, for filling unused areas in distribution cabinets or racks		
WAXWSW-00000-C004 WAXWSW-00008-C004	high-grade steel black	1/1 1/1	
	Blank panel, 48 cm (19 in), 2U, for filling unused areas in distribution cabinets or racks		
WAXWSW-00000-C005 WAXWSW-00008-C005	high-grade steel black	1/1 1/1	
LAXLSW-00000-C004	Empty box without front panel, 48 cm (19 in), 1 U, fixed, side brackets and 2 angled entries each side for PG/metric-gland	1/1	
LAXLSW-00000-C003	Front panel without breakouts*, 48 cm (19 in), 1 U high-grade steel	1/1	
	* customized versions also available (subject to quantity and agreement)		

# **Patch Panels and Accessories**

A LANscape® Solutions Product

# **Ordering Information**

## **Accessories**

Order Number	Description	Quantity per Delivery Unit	-
LAXLSW-00000-C008	Fiber/Cable management blocks, for fixing with two-side adhesive tape	6/1	REE
LAXLSW-00000-C009	Cable strain relief and brush strip, as provided with breakout box version	1/1	17777712
LAXLSW-00000-C006	Splice tray holder for max. 2 splice trays, locked against rotation	1/1	
LAXLSW-00000-C007	Splice tray holder for max. 4 splice trays, locked against rotation, (only for fixed universal patch panels with PG-gland mounting)	1/1	
LAXLSW-00000-C010	Cable strain relief, additional for PG16/ M20 mounting	g 1/1	
S45752-Z562-A140	PG gland for strain relief / PG 16	10/1	
WAXWSW-00000-C002	Designation window 440 mm, self-adhesive for LANscape® patch panels	10/1	
WAXWSW-00000-C003	Designation sheet DIN A4, with 20 designation labels for LANscape patch panels, white	10/1	

# Partially Loaded Patch Panels

A LANscape® Solutions Product

## **Application**

■ The LANscape FO cabling system offers partially loaded 48 cm (19 in) patch panels in 1 and 2U variants. This allows flexible configuration of building and floor distributors to suit specific needs.

## Description

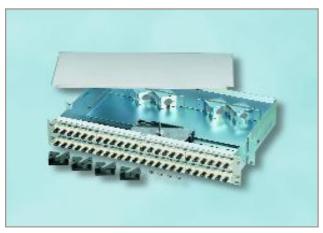
The patch panels can be rack-mounted in 48 cm (19 in) distribution racks (4.45 cm -1.75 in -EIA/TIA hole spacing) and are available in one rack space or two rack spaces.

#### 1. Splice Box

Universal patch panel, 48 cm (19 in) mounting, available in either a 1U or 2U version. The front panel and splice area are slideable to enable easy access to the splice area. Angled cable entries are provided on the rear of the panel to allow the entry of two cables, a PG gland can be mounted in the cable entry for extra strain relief. The 1U splice box has a maximum capacity of 48 fibers - LC and 72 fibers - MT-RJ and 4 splice trays (when using LC Duplex and MTRJ connectors). The splice box is supplied with splice trays, splice tray cover, splice organisers and crimp splice protectors and cable / fiber management accessories. Available in black or high grade steel finish. Ideal for higher fiber count applications where extra buffer tube storage is not required.

#### 2. Splice Box 2

Universal patch panel, 1U, 48 cm (19 in). mounting. The front panel and splice area are slideable to enable easy access to the splice area. A buffer tube overlength storage area is provided beneath the splice area. Angled cable entries are provided on the rear of the panel to allow the entry of two cables, a PG/Metric gland can be mounted in the cable entry for extra strain relief. The Splice Box 2 has a maximum capacity of 24 fibers and 2 splice trays. The Splice Box 2 is supplied with splice trays, splice tray cover, splice organizers and crimp splice protectors and cable / fiber management accessories. Available in black or high grade steel finish. Ideal for terminating outdoor or loose tube cables where extra buffer tube storage is required.



Splice Box, 2U, High-Grade Steel

# **Partially Loaded Patch Panels**

A LANscape® Solutions Product

#### 3. Breakout Box

Universal patch panel, 1U, 48 cm (19 in). mounting. The breakout box is a fixed box with removable cover. Cable entry is through the rear of the box with a brush strip and cable strain relief. The breakout box is supplied with cable / fiber management accessories. Ideal for using with pre terminated cables or field terminated cables using Anaerobic or UniCam® connectors.

#### **Features**

- Ideal for field connectorization
- Suitable for loose tube, tight-buffered and ribbon cables
- Splice Box slide-out drawer for easy connector access (pull-out version)
- Flexible configuration of building and floor distributors
- Combine the fiber modules with modules from the FutureCom copper cabling system
- 1U Panels have 2 angled entries for each direction for PG-glands
- 2U Panels have 4 angled entries for each direction for PG-glands
- Recyclable



Splice Box 2 with 12 SC Duplex Modules, Black



Breakout Box with 12 SC Duplex Modules, High-Grade Steel

# **Specifications**

Product	Dimensions (HxWxD)	Shipping Weight	Quantity per Delivery Unit
1U Patch Panel	4.4 x 48.3 x 21.3 cm (1.73 x 19 x 8.4 in)	2.45 kg (5.4 lbs)	1/1
1U Breakout Box	4.4 x 48.3 x 21.3 cm (1.73 x 19 x 8.4 in)	2.45 kg (5.4 lbs)	1/1
2U Patch Panel	8.8 x 48.3 x 21.3 cm (3.4 x 19 x 8.4 in)	3.8 kg (8.4 lbs)	1/1

# Partially Loaded Patch Panels

A LANscape® Solutions Product

## **Ordering Information**



#### Select fiber count.

012 = 12-fibers 024= 24-fibers 036= 36-fibers 048= 48-fibers 096= 96-fibers

144=144-fibers

- 1) ST® Compatible, SC, FC, E2000™ are available up to 24 fibers in 1U Splice Box, 1U Splice Box 2 and 1U Breakout Box
- 2) ST Compatible, SC, FC, E2000 are available up to 48 fibers in 2U Splice Box.
- 3) LC Duplex is available up to a maximum of 48 fibers in a 1U Splice Box, 1U Splice Box 2 and 1U Breakout Box and 96 fibers in a 2U Splice Box
- 4) MT-RJ is available up to a maximum of 72 fibers in a 1U Splice Box, 1U Splice Box 2 and 1U Breakout Box and 144 fibers in a 2U Splice Box
- 5) For 144 fiber variations please contact Customer Service.

### 2 Select finish.

00 = High-grade steel 08 = Black

#### 3 Select panel type.

1 = 1U Modular Patch Panel

2 = 2U Modular Patch Panel

3 = 1U Modular Patch Panel 2

4 = 1U Modular Fixed Breakout Box

#### 4 Select adapters.

#### ST® Compatible

- 15 = ST single-mode, threaded composite housing, ceramic insert (OS1)
- 19 = ST single-mode, threaded, composite housing, ceramic insert (OM1 / OM2)
- 25 = ST multimode, threaded composite housing, composite insert (OM1)

FC

11 = FC single-mode, metal housing, ceramic insert

#### **LC Duplex**

- 04 = LC Duplex, single-mode, composite housing, ceramic insert (OS1)
- O5 = LC Duplex, multimode, composite housing, ceramic insert, 62.5 µm (OM1)
- D3 = LC Duplex, multimode composite housing, ceramic insert, 50 µm (OM2)
- E4 = LC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM3)

#### SC Simplex

- 5C = SC Simplex UPC, single-mode, composite housing, ceramic insert (OS1)
- 6C = SC Simplex APC, composite housing, ceramic insert
- P4= SC Simplex, multimode, composite housing, metal insert, 50µm (OM3)

#### **SC Duplex**

- 57 = ŚC Duplex, multimode, composite housing, ceramic insert, 62.5μm (OM1)
- 72 = SC Duplex UPC, single-mode, composite housing, ceramic insert
- 91 = SC Duplex, multimode, composite housing, composite insert 62.5µm (OM1)
- E7 = SC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM3)
- G7 = SC Duplex, multimode, composite housing, ceramic insert, 50 µm (OM2)
- P5 = SC Duplex, multimode, composite housing, metal insert, 50 µm (OM2)

#### MT-RJ

- 86 = MT-RJ, multimode, composite housing, 62.5μm (OM1)
- 87 = MT-RJ, single-mode, composite housing(OS1)
- E1 = MT-RJ, multimode, composite housing, 50μm (OM3)
- G1 = MT-RJ, multimode, composite housing, 50µm (OM2)

#### E2000™

- P1 = E2000 APC, single-mode, composite housing, ceramic insert
- P2 = E2000 UPC, single-mode, composite housing, ceramic insert
- P3 = E2000, multimode, composite housing, 50µm and 62.5µm

#### **Examples**

Order Number	Description
LAXLSV-02400-C125	Partially-loaded Patch Panel 19", 1U, 24 fiber, with 12 ST multimode moldules with black composite housing, composite insert
LAXLSV-04800-C215	Partially-loaded Patch Panel 19", 2U, 48 fiber, with 24 ST multimode moldules with black composite housing, ceramic insert

# **Fiber Optic Modules**

A LANscape® Solutions Product

## Description

The LANscape® fiber optic (FO) modules and the FutureCom™ copper modules have identical mechanical interfaces so they can be used in combination in the same outlets, patch panels and floor box solutions.

FO modules consist of an FO feedthrough with an installed or integral adapter. The modules for LC, single-MT-RJ, SC simplex, FC, ST® Compatible and E-2000 adapters and for the blank cover require one mounting position, while the SC duplex and triple-MT-RJ modules occupy two mounting positions in outlets and patch panels.



ST multimode modules in Modular Patch Panel

Order Number	Description	Quantity per Delivery Unit	
LAXLSM-00101-C000	ST compatible module, single-mode adapter (metal housing, ceramic insert), white, RAL 9010	1/1	51 00
LAXLSM-00108-C000	ST compatible module, single-mode adapter (metal housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00101-C001	ST compatible module, multimode adapter (metal housing, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00108-C001	ST compatible module, multimode adapter (metal housing, ceramic insert), black, RAL 9005		
LAXLSM-00101-C014	FC module, single-mode/multimode adapter (metal housing, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00108-C014	FC module, single-mode/multimode adapter (metal housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00101-C002	SC module, single-mode adapter (composite housing, ceramic insert), white, RAL 9010	1/1	(3)
LAXLSM-00108-C002	SC module, single-mode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00101-C010	SC-APC module, single-mode adapter (composit housing, green, ceramic insert), white, RAL 9010	e 1/1	
LAXLSM-00108-C010	SC-APC module, single-mode adapter (composit housing, green, ceramic insert), black, RAL 9005	e	
LAXLSM-00101-C003	SC module, multimode adapter (composite housing, ceramic insert), white, RAL 9010	1/1	(C.
LAXLSM-00108-C003	SC module, multimode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	

# Introduction

# LANscape® Solutions

## Plug & Play Universal Systems

# **Fiber Optic Modules**

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Order Number	Description	Quantity pe Delivery Uni	r it
LAXLSM-00112-C003	SC module, multimode adapter OM 3, (composite (composite housing, aqua, ceramic insert), white, RAL 9010	1/1	6
LAXLSM-00118-C003	SC module, multimode adapter OM 3 (composite housing, aqua, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00201-C000	SC Duplex module, single-mode adapter (composite housing, ceramic insert), white, RAL 9010	1/1 O	10
LAXLSM-00208-C000	SC Duplex module, single-mode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00201-C001	SC Duplex module, multimode adapter (composite housing, ceramic insert), white, RAL 9010	1/1	(1)
LAXLSM-00208-C001	SC Duplex module, multimode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00212-C001	SC Duplex module, multimode adapter OM 3 (composite housing aqua, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00218-C001	SC Duplex module, multimode adapter OM 3 (composite housing aqua, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00101-S009	E-2000™ module, single-mode adapter (composite housing, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00108-S009	E-2000 module, single-mode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00101-S00H	E-2000-APC module, single-mode adapter (composi housing, ceramic insert), white, RAL 9010	te 1/1	
LAXLSM-00108-S00H	E-2000-APC module, single-mode adapter (composi housing, ceramic insert), black, RAL 9005	te 1/1	
LAXLSM-00101-C004	MT-RJ module (simplex), single-mode/multimode, white, RAL 9010	1/1	10.
LAXLSM-00108-C004	MT-RJ module (simplex), single-mode/multimode, black, RAL 9005		
LAXLSM-00112-C004	MT-RJ module (simplex), multimode OM 3, aqua	1/1	

# **Fiber Optic Modules**

A LANscape® Solutions Product

Order Number	Description	Quantity per Delivery Unit	
LAXLSM-00201-C002	MT-RJ module (triplex), single-mode/multimode, white, RAL 9010		
LAXLSM-00208-C002	MT-RJ module (triplex), single-mode/multimode, black, RAL 9005	1/1	
LAXLSM-00212-C002	MT-RJ module (triplex), multimode OM 3, aqua	1/1	
LAXLSM-00101-C006	LC Duplex module, single-mode adapter (composite, housing, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00108-C006	LC Duplex module, single-mode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00101-C007	LC Duplex module, multimode adapter (composite housing, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00108-C007	LC Duplex module, multimode adapter (composite housing, ceramic insert), black, RAL 9005	1/1	
LAXLSM-00112-C007	LC Duplex module, multimode adapter OM 3 (composite housing aqua, ceramic insert), white, RAL 9010	1/1	
LAXLSM-00118-C007	LC Duplex module, multimode adapter OM 3 (composite housing aqua, ceramic insert), black, RAL 9005	1/1	
Accessories			
Order Number	Description		
WAXWSM-00101-C001	Blank cover, 1 position for installation in LANscape® patch panels, outlets and floor box solutions, white, RAL 9010	6/1	
WAXWSM-00108-C001	Blank cover, 1 position for installation in LANscape patch panels, outlets and floor box solutions black, RAL 9005	6/1	
LAXLOK-00004-C001	SC Duplex Shutter, blue	12/1	
LAXLOK-00013-C001	SC Duplex Shutter, beige	12/1	

# Introduction

ANscape® Solutions

Plug & Play''' Universal Systems

iber Optic Cables

Fiber

# Further

# **Fiber Connecting System**

A LANscape® Solutions Product

## Description

#### Fiber Connector Shelf (FCS)

The LANscape® Fiber Connector Shelf (FCS-01U) is a compact, one-rack space modular unit that provides fiber optic cable cross-connect facilities in computer equipment rooms and remote terminal equipment locations.

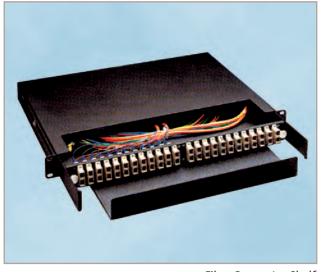
The unit is designed for splicing and/or interconnection of fibers, and is ideal for rack-mounting in compact areas such as equipment cabinets, where limited rack space is available. The FCS mounts in one rack space within a 48 cm (19 in) rack. It accommodates splicing directly in the unit using the splice holding components that are provided with each housing or by using the MFT Splice Tray. Field connectorization is made possible by utilizing the buffer tube fan-out.

The FCS is available in 12-, 24-, and 48-fiber capacities, which provides maximum flexibility in a minimum amount of space. The FCS can be easily accessed through the use of its slide out shelf and removable front panel, and it also accommodates most fiber optic adapter types. In addition, universal cable organizers are also built into the unit for easy cable routing. The FCS is available as basic unit (connector panel to be ordered separate) and also pre-assembled with different FCP's.

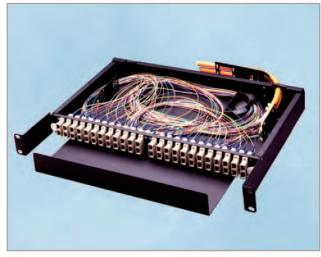


The LANscape Fiber Connector Tray (FCT) is a compact, onerack space modular unit that provides fiber optic cable cross-connect facilities in computer equipment rooms and remote terminal equipment locations.

The unit is designed for splicing and/or interconnection of fibers, and is ideal for rack-mounting in compact areas such as equipment cabinets, where limited rack space is available. The FCT mounts in one rack space within a 48 cm (19 in). rack. It accommodates splicing directly in the unit using the splice holding components that are provided with each housing or by using the Universal Splice Tray. Field connectorization is made possible with the buffer tube fan-out-kit.



Fiber Connector Shelf



Fiber Connector Tray

The FCT is available in 12-, 24-, and 48-fiber capacities, which provides maximum flexibility in a minimum amount of space. The FCT can be easily accessed due to its modular housing design and removable front panel. It also accommodates most fiber optic adapter types. In addition, universal cable organizers are built into the unit for easy cable routing. The FCT is available as basic unit (connector panel to be ordered separate) and also pre-assembled with different FCP's.

A LANscape® Solutions Product

#### Fiber Connector Housing (FCH)

The LANscape Fiber Connector Housing (FCH-01U) is a compact, one-rack space modular unit. The unit is designed for holding connectors and cable slack, where limited rack space is available.

The FCH is available in 12-, 24-, and 48-fiber capacities, which provides maximum flexibility in a minimum amount of space. The FCH can be easily accessed through removable front panel (FCP), and it also accommodates most fiber optic adapter types.

#### **Fiber Connector Panels (FCP)**

The LANscape Fiber Connector Panels (FCP) can be used in combination with all LANscape FCH, FCS and FCT units. The FCP is available in 12-, 24-, and 48-fiber capacities with or without installed adapters, which provides maximum flexibility. The FCP's also accommodate most industry accepted fiber optic adapter types.



Cable Strain Relief for FCT

A LANscape® Solutions Product

## **Specifications**

## Fiber Connector Shelf (FCS) and Fiber Connecting Tray 1U and 2U

Order Number	Dimensions (H x W x D) in / cm	Shipping Weight kg (lb)
FCS-01U	1.75 x 17.4 x 12.25 (4.45 x 44.15 x 31.12)	4.2 (9.3)
FCS-02U	3.5 x 17.4 x.12.25 (8.90 x 44.15 x 31.12)	2.7 (5.9)
FCT-01U	1.75 x 17.4 x 12.25 (4.45 x 44.15 x 31.12)	4.2 (9.3)
FCT-02U	3.5 x 17.4 x.12.25 (8.90 x 44.15 x 31.12)	2.9 (6.4)
FCH-01U	1.75 x 1.64 x 7.8 (4.45 x 44.13 x 20)	0.8 (1.7)

# Ordering Information (for assembled planels & housing)



## Select number of units.

- 1 = 1 Unit 2 = 2 Units
- 2 Select fiber count.

1U Panel

12 or 24 = for ST, FC, LC Duplex or MTRJ 36 or 48 = for SC Duplex, LC Duplex, MTRJ

211 Pane

24 or 48 = for ST, FC, SC Duplex, SC, LC Duplex or MTRJ

72 or 96 = for SC Duplex, LC Duplex or MTRJ

### 3 Select adapters.

#### **ST® Compatible**

- 15 = ST single-mode, threaded composite housing, ceramic insert (OS1)
- 19 = ST single-mode, threaded, composite housing, ceramic insert (OM1 / OM2)
- 25 = ST multimode, threaded composite housing, composite insert (OM1)

#### FC

11 = FC single-mode, metal housing, ceramic insert

#### **LC Duplex**

- 04 = LC Duplex, single-mode, composite housing, ceramic insert (OS1)
- 05 = LC Duplex, multimode, composite housing, ceramic insert, 62.5 μm (OM1)
- D3 = LC Duplex, multimode composite housing, ceramic insert, 50 µm (OM2)
- E4 = LC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM3)

#### **SC Simplex**

- 5C = SC Simplex UPC, single-mode, composite housing, ceramic insert (OSI)
- 6C = SC Simplex APC, composite housing, ceramic insert
- P4= SC Simplex, multimode, composite housing, metal insert, 50µm (OM3)

#### **SC Duplex**

- 57 = SC Duplex, multimode, composite housing, ceramic insert, 62.5μm (OM1)
- 72 = SC Duplex UPC, single-mode, composite housing, ceramic insert
- 91 = SC Duplex, multimode, composite housing, composite insert 62.5μm (OM1)
- E7 = SC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM3)
- G7 = SC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM2)
- P5 = SC Duplex, multimode, composite housing, metal insert, 50 μm (OM2)

#### MT-RJ

- 86 = MT-RJ, multimode, composite housing, 62.5μm (OM1)
- 87 = MT-RJ, single-mode, composite housing(OS1)
- E1 = MT-RJ, multimode, composite housing, 50µm (OM3)
- G1 = MT-RJ, multimode, composite housing, 50µm (OM2)

#### E2000™

- P1 = E2000 APC, single-mode, composite housing, ceramic insert
- P2 = E2000 UPC, single-mode, composite housing, ceramic insert
- P3 = E2000, multimode, composite housing, 50µm and 62.5µm

A LANscape® Solutions Product

## **Ordering Information**

## Loaded Connector Front Panel, 1U, for FCS and FCT Units / 48 cm (19 in)



#### Select fiber count.

12 or 24 = for ST, FC, LC Duplex, SC, SC Duplex and MTRJ 36 or 48 = for SC Duplex, LC Duplex and MTRJ

### Select adapters.

#### ST® Compatible

- 15 = ST single-mode, threaded composite housing, ceramic insert (OS1)
- 19 = ST single-mode, threaded, composite housing, ceramic insert (OM1 / OM2)
- 25 = ST multimode, threaded composite housing, composite insert (OM1)

#### FC

11 = FC single-mode, metal housing, ceramic insert

#### **LC Duplex**

- 04 = LC Duplex, single-mode, composite housing, ceramic insert (OS1)
- 05 = LC Duplex, multimode, composite housing, ceramic insert, 62.5 μm (OM1)
- D3 = LC Duplex, multimode composite housing, ceramic insert, 50 µm (OM2)
- E4 = LC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM3)

#### **SC Simplex**

- 5C = SC Simplex UPC, single-mode, composite housing, ceramic insert (OS1)
- 6C = SC Simplex APC, composite housing, ceramic insert
- P4= SC Simplex, multimode, composite housing, metal insert, 50μm (OM3)

#### SC Duplex

- 57 = SC Duplex, multimode, composite housing, ceramic insert, 62.5μm (OM1)
- 72 = SC Duplex UPC, single-mode, composite housing, ceramic insert
- 91 = SC Duplex, multimode, composite housing, composite insert 62.5µm (OM1)
- E7 = SC Duplex, multimode, composite housing, ceramic insert, 50 μm (OM3)
- G7 = SC Duplex, multimode, composite housing, ceramic insert, 50 µm (OM2)
- P5 = SC Duplex, multimode, composite housing, metal insert, 50 μm (OM2)

#### MT-RJ

- 86 = MT-RJ, multimode, composite housing, 62.5μm (OM1)
- 87 = MT-RJ, single-mode, composite housing(OS1)
- E1 = MT-RJ, multimode, composite housing, 50μm (OM3)
- G1 = MT-RJ, multimode, composite housing, 50μm (OM2)

#### **E2000**™

- P1 = E2000 APC, single-mode, composite housing, ceramic insert
- P2 = E2000 UPC, single-mode, composite housing, ceramic insert
- P3 = E2000, multimode, composite housing, 50µm and 62.5µm

A LANscape® Solutions Product

# **Ordering Information**

## **Examples**

Order Number	Description	Quantity per Delivery Unit
FCS-112-72	Fiber Connector Shelf, 48 cm (19 in), 1U, 12 fiber, SC Duplex single-mode UPC, blue composite housing, ceramic insert	1/1
FCT-224-91	Fiber Connector Tray, 48 cm (19 in), 2U, 24 fiber, SC Duplex single-mode 62.5 µm, beige composite housing, ceramic insert	1/1
FCP-CP72-97X	Fiber Connector Panel for LANscape FCH, FCS and FCT units (1U), black empty, for 36 MT-RJ adapters	1/1
FCH-01U	Fiber Connector Housing fixed version, without cover, for 12, 24 or 48 fiber units, black	1/1

## **Cable Strain Relief for FCT**

Order Number	Description	
15-218-92	Cable Strain Releif for FCT units, external version	1/1

## Accessories for FCH, FCS & FCT

Order Number	Description	
FCS-LBL-PNL	Label and Patch Cable Manager, jumper routing shelf for providing jumper slack storage, with label for recording port assignments	1/1
BPE-ST-1-01	Plugs for empty panel holes, ST compatible threaded	1/1
BPE-SC-3-01	Plugs for empty panel holes, SC Simplex	1/1
BPE-SC-1-01	Plugs for empty panel holes, SC Duplex	1/1
S46998-A4-A41	MFT Splice Tray for maximum 24 heat-shrink splice protectors	10/1
S46998-A4-A40	MFT Crimp Splice Tray for maximum 24 heat-shrink splice protectors	10/1
S46998-A4-A48	MFT Splice Tray Cover	10/1

## **IPOC™** Connector Panels

A LANscape® Solutions Product

## **Applications**

Corning Cable Systems' LANscape® IPOC™ Connector and Splice Panels provides a single housing for convenient pigtail splicing of multimode (including the laser enhanced InfiniCor® OM3 fiber), and single-mode fibers. The IPOC panel is ideal for all types of network designs including stand alone and basic installations. The LANscape IPOC Panel is a rack mounted solution that can be used in premise applications in the main cross-connect, or intermediate cross-connect locations.



### Description

Corning Cable Systems LANscape IPOC Panels include the benefits of a connector panel and a splice panel. This cost-effective design provides a fiber dense solution that saves valuable rack space. Corning Cable Systems recommends the use of the LANscape IPOC panel fully loaded with pigtails to save valuable installation time and to assure factory tested quality.

The LANscape IPOC Panel can be ordered for fiber counts of 12 or 24 for all connectors. The IPOC Panel is also available with 48 fibers for LC and SC Duplex and MT-RJ connectors.

#### Features / Benefits

- Ideal for fiber optic pigtail splicing
- Allows easy access to splice area, through slide out drawer
- Routing guides supplied for easy installation
- Available with 62.5 μm, 50 μm, OM3 and single-mode
   Corning fibers
- 12, 24 and 48 fiber capacity; 48 fibers for LC Duplex, SC Duplex and MT-RJ
- Hinged opening for splice tray to allow easy access of second tray
- Each splice tray accepts 24 crimp or heat-shrink splice protectors
- 4 rear cable entries (optional for 2 x M20 and 2 x M25 glands)
- Interchangeable brackets for installation in 48 cm (19 in) and ETSI Racks
- Housing color options: light grey RAL 7035 and black RAL 9005

## **IPOC™** Connector Panels

A LANscape® Solutions Product

## **Specifications**

Dimensions (H x W x D) cm (in)	Shipping Weight (fully loaded) kg (lb)
4.5 x 48.3 x 21 cm (1.8 x 19 x 8.3 in)	2.50 (5.51)

## **Ordering Information**

Use the following options to construct the order number:



### Select fiber count.

- 12 = 12 fibers
- 24 = 24 fibers
- 48 = 48 fibers\*
- \* 48 fibers available for LC and SC Duplex and MT-RJ configuration only

#### 2 Select adapters.

### **ST® Compatible**

- 15= ST single-mode, threaded composite housing, ceramic insert (OS1)
- 19= ST single-mode, threaded, composite housing, ceramic insert (OM1 / OM2)
- 25= ST multimode, threaded composite housing, composite insert (OM1)
- E5= ST multimode, ceramic insert, 50 μm (OM3)

#### FC

11= FC single-mode, metal housing, ceramic insert

### LC Duplex

- 04= LC Duplex, single-mode, composite housing, ceramic insert (OS1)
- 05= LC Duplex, multimode, composite housing, ceramic insert, 62.5 µm (OM1)
- D3= LC Duplex, multimode composite housing, ceramic insert, 50 µm (OM2)
- E4= LC Duplex, multimode, composite housing, ceramic insert, 50 µm (OM3)

#### 3 Select pigtail code.

- 02 = LC/UPC single-mode
- 03 = LC multimode
- 19 = E2000/APC single-mode
- 20 = E2000 single-mode
- 39 = SC multimode
- 50 = ST multimode
- 54 = FC single-mode
- 58 = SC/UPC single-mode
- 61 = ST/UPC single-mode
- 65 = SC/APC single-mode
- 86 = MT-RJ multimode (with pins) 87 = MT-RJ single-mode (with pins)

#### SC Duplex

- 57 = SC Duplex, multimode, composite housing, ceramic insert, 62.5µm
- 72 = SC Duplex single-mode, ceramic insert (OS1)
- 91 = SC Duplex, multimode, composite insert, 62.5µm (OM1)
- E7 = SC Duplex multimode, ceramic insert, 50µm (OM3)
- G7 = SC Duplex multimode, ceramic insert, 50µm (OM2)
- P5 = SC Duplex, multimode, composite housing, metal insert, 50µm

#### **SC Simplex**

- 39 = SC Simplex, multimode, metal insert, 62.5µm (OM1)
- 56 = SC Simplex, multimode, composite insert, 62.5µm (OM1)
- 5C = SC Simplex, single-mode, ceramic insert (OS1)
- 6C = SC Simplex, angle polish singlemode, ceramic insert
- E6 = SC Simplex, multimode, ceramic insert, 50µm (OM3)
- P4 = SC Simplex, multimode, ceramic insert, 50µm (OM2)

### 4 Select fiber type.

- S = InfiniCor OM3 (50/125  $\mu$ m) Pretium 300
- $C = InfiniCor OM2 (50/125 \mu m)$
- $K = InfiniCor OM1 (62.5/125 \mu m)$
- $R = Single-mode OS1 (9/125 \mu m)$

#### MT-RJ

- 86 = MT-RJ, multimode, composite housing, 62.5µm (OM1)
- 87 = MT-RJ, single-mode, composite housing(OS1)
- E1 = MT-RJ, multimode, composite housing, 50µm (OM3)
- G1 = MT-RJ, multimode, composite housing, 50μm (OM2)

#### **E2000**™

- P1 = E2000 APC, single-mode, composite housing, ceramic insert
- P2 = E2000 UPC, single-mode, composite housing, ceramic insert
- P3 = E2000, multimode, composite housing, 50µm and 62.5µm

### 5 Select splice tray option.

- S1 = MFT for heat-shrink splice without protectors
- S2 = MFT for heat-shrink splice with protectors
- S3 = MFT for crimp without protectors
- S4 = MFT for crimp with protectors
- SO = No splice tray
- \* The MFT splice tray can hold up to a max of 24 splices with either crimp or heatshrink protectors. Two splice trays are included per IPOC connector panel.

#### 6 Select housing color option.

(blank) = Light grey BK = Black

## **IPOC™** Connector Panels

A LANscape® Solutions Product

## **Ordering Information**

## **Fiber Count & Splice Trays**

The list below uses the code CP24 based on 24 fibers; for 12 and 48 fibers please use CP12 and CP48. 48 fibers are available in LC Duplex, SC Duplex and MT-RJ adapters only. The IPOC panel order numbers listed below are based on the S4 splice tray code, which includes a MFT crimp splice tray with crimp protectors. Other splice tray options are available and can be selected by changing the code to S0, S1, S2 and S3, as described in the ordering Information below, to include heat-shrink alternatives.

### **Examples**

Order Number	Description	Quantity per
		<b>Delivery Unit</b>
IPOC-CP24-25-50C-S4	24 multimode 50/125 µm connector panel with 24 ST composite insert adapters, 24 ST pigtails	1/1
IPOC-CP24-25-50C-S4-BK	24 multimode 50/125 µm connector panel with 24 ST composite insert adapters, 24 ST pigtails, black housing	1/1
IPOC-CP24-P5-39C-S4	24 multimode 50/125 µm fiber connector panel with 12 SC Duplex metal insert adapters, 24 SC pigtails	1/1
IPOC-CP24-P5-39C-S4-BK	24 multimode 50/125 µm fiber connector panel with 12 SC Duplex metal insert adapters, 24 SC pigtails, black housing	1/1
IPOC-CP24-D3-03C-S4	24 multimode 50/125 µm fiber connector panel with 12 LC duplex ceramic insert adapters, 24 LC pigtails	1/1
IPOC-CP24-D3-03C-S4-BK	24 multimode 50/125 µm fiber connector panel with 12 LC duplex ceramic insert adapters, 24 LC pigtails, black housing	1/1
IPOC-CP24-G1-86C-S4	24 multimode 50/125 µm fiber connector panel with 12 MT-RJ ceramic insert adapters, 12 MT-RJ 2-fiber pigtails	1/1
IPOC-CP24-E1-86S-S4	24 50/125 μm OM3 fiber connector panel with 12 MT-RJ ceramic insert adapters, 12 MT-RJ 2-fiber pigtails	1/1
IPOC-CP24-11-54R-S4	24 single-mode fiber connector panel with 24 FC ceramic insert adapters, 24 FC pigtails	1/1
IPOC-CP24-P2-20R-S4	24 single-mode fiber connector panel with 24 E2000 ceramic insert adapters 24 E2000 pigtails	, 1/1

#### Accessories

LAXLSW-00000-C016	M25 Cable Entry Gland	10/1
LAXLSW-00000-C017	M20 Cable Entry Gland	10/1
S46998-A4-A40	MFT Heat-Shrink Splice Tray for max. 24 Heat-shrink Splice Protector	10/1
S46998-A4-A41	MFT Crimp Splice Tray for max. 24 Crimp Splice Protector	10/1
CSP-1	Crimp Splice Protector, length: 22 mm	150/1
S46999-A16-A4	Heat-Shrink Splice Protectors, length: 60 mm	150/1
S46998-A4-A29	Heat-Shrink Splice Protector, length: 45 mm	100/1
S46998-A4-A48	MFT Splice Tray Cover	10/1
WAXWSW-00000-C007	Cable Management Panel 19 in., 1U, high-grade steel	1/1
WAXWSW-00008-C007	Cable Management Panel 19 in., 1U, black	1/1

Further

# Wall-Mountable Connector Housings (WCHE)

A LANscape® Solutions Product

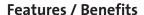
## **Applications**

 Corning Cable Systems Wall-Mountable Connector Housings provide interconnect or cross-connect capabilities between the outside plant, riser, or distribution cables and the opto-electronics.

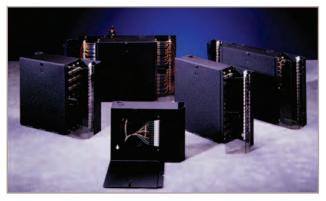
## Description

The units can be wall-mounted in main cross-connects or telecommunication rooms, and are available in different versions: two panels, four panels, six panels and 12 panels.

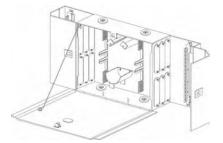
Optional products such as the Wall-Mountable Jumper Storage Guide Kit and Cable Strain-Relief Kit have been designed to make your wall-mountable product installation easier. The standoff bracket is designed to extend the WCH housing from the wall so that cable can be routed behind the units. Brackets can be stacked to allow a larger amount of space behind.



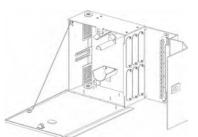
- Optimized design for field connectorization
- Suitable for loose tube, tight-buffered and ribbon fiber optic cables
- Metal cabinet construction
- Jumper routing guides and jumper strain-relief points
- Optional field-installable lock kit
- Includes bracket for buffer tube fan-out kits
- Optional pivoting splice tray holder allows easy cable routing and is designed to make field splicing easier; splice trays ordered separately
- Accepts standard CCHE connector panels
- -04P, -06P and -12P cabinets have a durable, clear polycarbonate-tinted jumper door for easy viewing of jumper connections



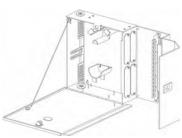
Wall-Mountable Connector Housings



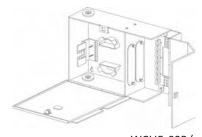
WCHE-12P (up to 288 fibers)



WCHE-06P (up to 144 fibers)



WCHE-04P (up to 96 fibers)



WCHE-02P (up to 48 fibers)

# Wall-Mountable Connector Housings (WCHE)

A LANscape® Solutions Product

# **Specifications**

Order Number	Dimensions (H x W x D) cm (in)	Shipping Weigh kg (lb)	Quantity per Delivery Unit
WCHE-12P	34.3 x 57.1 x 13.0 (13.5 x 22.5 x 5.125)	7.8 (17.2)	1/1
WCHE-06P	34.3 x 40.8 x 13.0 (13.5 x 16.062 x 5.125)	5.8 (12.8)	1/1
WCHE-04P	34.3 x 40.8 x 10.3 (13.5 x 16.062 x 4.062)	5.2 (11.5)	1/1
WCHE-02P	23.5 x 33.2 x 8.2 (9.25 x 13.25 x 3.25)	3.5 (7.7)	1/1

# **Ordering Information**

Order Number	Description	Quantity per Delivery Unit
WCHE-12P	Wall-Mountable Connector Housing that will accept up to 12 CCHE panels; twelve 6-fiber panels = 72 fiber total capacity; twelve 8-fiber panels = 96 fiber total capacity; twelve 12-fiber panels = 144 fiber total capacity	1/1
WCHE-06P	Wall-Mountable Connector Housing that will accept up to six CCHE panels; six 6-fiber panels = 36 fiber total capacity; six 8-fiber panels = 48 fiber total capacity; six 12-fiber panels = 72 fiber total capacity	1/1
WCHE-04P	Wall-Mountable Connector Housing that will accept up to four CCHE panels; four 6-fiber panels = 24 fiber total capacity; four 8-fiber panels = 32 fiber total capacity; four 12-fiber panels = 48 fiber total capacity	1/1
WCHE-02P	Wall-Mountable Connector Housing that will accept up to two CCHE panels; two 6-fiber panels = 12 fiber total capacity; two 8-fiber panels = 16 fiber total capacity; two 12-fiber panels = 24 fiber total capacity	1/1

## Accessories

WJG-02R	Wall-Mountable Jumper Storage Guides that provide jumper management; kit includes mounting screws	2/1
WCH-STDOFF-BKT	Wall-Mountable Connector Housing Wall Stand-off Brackets for -04P, -06P, -08P and -12P; brackets provide a 1-in (2.54 cm) spacing from wall	1/1
WCH-STDOFF-BKT-2P	Wall-Mountable Connector Housing Wall Stand-off Brackets for -02P; brackets provide a 1-in (2.54 cm) spacing from wall	1/1
BKT-ALL-R23-75	Universal Rack-Mount Bracket for 19-in (48 cm) or 23-in (58 cm) equipment racks; allows for rack-mounting of the wall-mountable units	1/1
WCH-STRNRLF-KIT	Optional External Cable Strain-Relief Kit that utilizes Corning Cable Systems' Universal Cable Clamp; includes bracket, mounting hardware, one strain-relief clamp and one multicable insert that will hold up to five cables less than 0.4-in (1 cm) in diameter	1/1
WCH-DUST-CVR	Optional Dust Cover for -04P and -08P housing; covers jumper exits; includes mounting hardware	2/1
WCH-DUST-CVR-D	Optional Dust Cover for -06P and -12P housing; covers two jumper exits; includes mounting hardware; two kits required for -12P	2/1
WCH-LBL-KIT	Replacement Label Kit for WCH	1/1
HDWR-LOCK-KIT	Field-Installable Lock for center door only; includes one lock and two keys	1/1

# Introduction

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> Fiber Termination

Further

# Wall-Mountable Connector Housings (WCHE)

A LANscape® Solutions Product

# **Ordering Information (continued)**

## **Optional Splice Tray Holders**

Order Number	Description	Quantity per Delivery Unit
WCHE-SPLC-12	Splice Tray Holder for WCHE-12P; accommodates six MFT splice trays*	1/1
WCHE-SPLC-4-8*	Splice Tray Holder for WCHE-04P, WCHE-06P, accomodates four MFT splice trays*	1/1
WCHE-SPLC-2P*	Splice Tray Holder for WCHE-02P; accommodates one standard splice tray*	1/1
Slack Storage		
WCHE-SSH-2*	Wall-Mountable Slack Storage Housing for WCHE-02P; accommodates two 1 cm (0.4-in)-thick splice trays	1/1
WCHE-SSH-4-12*	Wall-Mountable Slack Storage Housing for WCHE-04P, WCHE-06P, WCHE-08 and WCHE-12P; accommodates four 1 cm (0.4-in)-thick splice trays	1/1

## **Connector Panels**

Must be ordered separately. Please refer to page 120.

### \* Splice Trays

Must be ordered separately. Please refer to page 160.

# **Environmental Distribution Center (EDC)**

A LANscape® Solutions Product

## **Applications**

- Outdoor rated
- Backbone cabling terminations in outdoor applications such as industrial, security or traffic control
- NEMA 4X rating / IP66
- Field connectorization or pigtail splicing

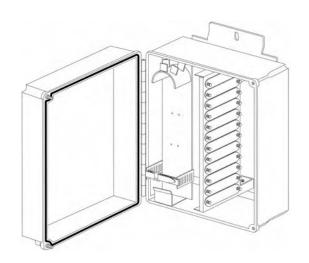
## Description

The Corning Cable Systems Environmental Distribution Center (EDC) product family incorporates design features that allow the product to accommodate the changing requirements and growing needs of fiber optic networks. The EDC product family sets the standard for the future of interconnect hardware. As a component of Corning Cable Systems LANscape® Fiber Cabling Solutions, the EDC accepts Closet Connector Housing (CCHE) panels and splice trays.

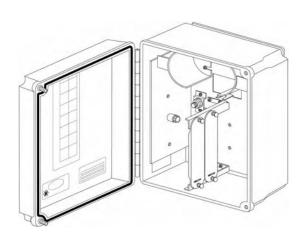
Designed for the storage and protection of fiber optic connections and splices in indoor or outdoor environments, the EDC is ideal for industrial, marine, security or traffic control applications. The unit includes brackets for mounting to a wall or pole. Accessories for the EDC include various fittings, a rack-mount kit and a grounding kit.

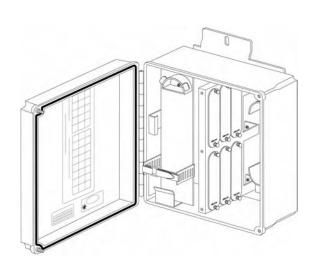


**Environmental Distribution Center** 



EDC-12P-NH





EDC-02P-NH EDC-06P-NH

LANscape<sup>®</sup> Solutions

Plug & Play" Universal Systems

Fiber Optic Cables

> Fiber Termination

# **Environmental Distribution Center (EDC)**

A LANscape® Solutions Product

#### Features / Benefits

- Composite construction offers outstanding chemical and temperature resistance as well as exhibiting excellent weatherability
- Constructed of a Low Smoke Zero-Halogen™ (LSZH) material
- Unit is easy to punch, drill, file or saw simplifying the installation of cable entry holes
- Cover can be secured with corrosion-resistant, captive screws or quick-release latches that will also accept a user-supplied padlock, if additional security is required
- Accepts LANscape® Solutions CCHE panels (available in 6-, 8-, 12-, 16- or 24-fiber increments) for most popular adapter types including SC duplex, LC duplex and MT-RJ
- Brackets for wall or pole mounting are included
- Accept splice trays that accommodate a variety of splicing techniques including fusion and mechanical splices – for splicing or fan-out applications
- Suitable for loose tube, tight-buffered and ribbon cable
- NEMA 4X rated / IP66

# **Specifications**

Order Number	Dimensions (H x W x D) cm (in)	Shipping Weight kg (lb)	Quantity per Delivery Unit
EDC-02P-NH	318 x 267 x 159 (12.5 x 10.5 x 6.25)	4.53 (10)	1/1
EDC-06P-NH	419 x 368 x 211 (16.5 x 14.5 x 8.3)	9.06 (20)	1/1
EDC-12P-NH	472 x 422 x 262 (18.6 x 16.6 x 10.3)	12.68 (28)	1/1

# **Ordering Information**

Order Number	Description	Quantity per Delivery Unit
EDC-02P-NH	Environmental Distribution Center that will accept two CCHE panels and one-length splice trays; no cable entry holes provided	1/1
EDC-06P-NH	Environmental Distribution Center that will accept six CCHE panels and three splice trays; no cable entry holes provided	1/1
EDC-12P-NH	Environmental Distribution Center that will accept 12 CCHE panels and six splice trays; no cable entry holes provided	1/1
Accessories		
HDWR-GRND-KIT	Hardware Grounding Kit; includes two ground wires, one sheath ground clip and one ground bus	1/1
BKT-ALL-R23-03	Universal Rack-Mount Kit for mounting to 19 in (48 cm) or 23 in (58 cm) equipment racks	1/1

### **Connector Panels and Splice Trays**

Must be ordered separately. For panels, please refer to pages 120. For splice trays, please refer to pages 160.

# Fiber Zone Box (FZB)

A LANscape® Solutions Product

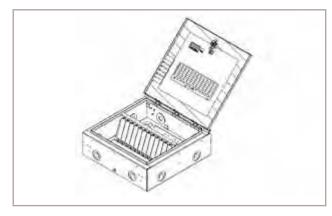
### **Applications**

- Data center horizontal distribution areas
- Data center zone distribution areas
- LAN passive zone distribution area
- Interconnect or cross-connect point

### Description

The Corning Cable Systems Fiber Zone Box is a cabling infrastructure distribution facility ideal for passive applications in zone cabling applications. Equipped with a light seal to inhibit dust and liquid penetration, the Fiber Zone Box may be mounted in several ways. The unit is sized to fit a 60 x 60 cm drop ceiling opening, under the floor in the access flooring area of data centers, or may be mounted to a wall.

The Fiber Zone Box accepts up to 12 LANscape® Solutions connector panels (CCHE) or LANscape Solutions Plug & Play™ Systems Closet Connector Housing (CCH) connector modules for fiber termination and distribution. The unit is secured with a removable door containing a latch and a keyed lock.



Fiber Zone Box

#### **Features**

- Designed for use in passive data centers, or LAN or zone cabling applications
- Reconfigures to accept up to 4U of 48 cm (19 in) rackmountable equipment
- Reduces data center pathway congestion when used with multi-fiber Plug & Play Systems cable trunks
- Accepts LANscape Solutions CCH connector panels and Plug & Play Systems modules, which are available in all popular adapter types including LC, ST® Compatible, SC and MT-RJ
- Equipped with key lock, ensuring security of unit
- Patch panel pivots back for connector access; can lock intilted position or be returned to vertical
- White hinged and removable door matches ceiling tiles
- Twelve cable entry points, each containing 2.54 cm (1 in) and 6.4 cm (2.5 in) concentric knockouts
- Backplate easily removed by releasing four quick-release latches; this feature allows the user to bring the backplate assembly into the work area where the cable routing and connector installation can be done conveniently
- Accepts up to 24 buffer tube fan-out kits

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Systems

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Fiber Termination

Cable

Fiber Zone Box (FZB)

A LANscape® Solutions Product

# **Specifications**

Order Number	Dimensions (HxWxD)	Shipping Weight	Quantity per Delivery Unit
FZB-04U	54.0 x 54.0 x 21.6 cm (21.25 x 21.25 x 8.50 in)	6.8 kg (15 lbs)	1/1

# **Ordering Information**

Order Number	Description	
Fiber Zone Box		
FZB-04U	Fiber Zone Box accepts up to 12 CCHE connector panels or CCH Plug & Play™ Systems modules or up to 4U of 48 cm (19 in) rack-mountable patch panels. Includes two Universal Cable Clamps, edge grommet, labels, and tie wraps.	1/1
Accessories		
UCC-001	Universal Cable Clamp used for strain-relieving cables with an outside diameter of 1 cm (0.375 in) to 2.9 cm (1.125 in)	1/1
UCC-005	Universal Cable Clamp used for strain-relieving up to five cables with an outside diameter 1 cm (0.375 in) or less	1/1
CPP-01U-PNL	1U Bracket that holds two CCH panels or modules; occupies one 4.4 cm (1.75 in) vertical rack space and can be used with standard 48 cm (19 in) equipment racks	1/1
HDH-03P-01U-PNL	1U Bracket that holds three HDH panels or modules; occupies one 4.4 cm (1.75 in) vertical rack space and can be used with standard 48 cm (19 in) equipment racks	1/1

### **Adapter Panels or Modules**

CCH Connector Panels and CCH Plug & Play Systems Modules must be ordered separately. For CCH Connector Panels please refer to page 114. For CCH Plug & Play Systems Modules please refer to pages 30.

# **Consolidation Point Housing (CPH)**

A LANscape® Solutions Product

### **Applications**

 Consolidation Point Housing for LANscape<sup>®</sup> Systems Modules and Panels

### Description

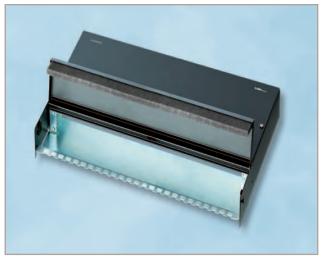
LANscape Consolidation Points are ideal for ceiling, wall, floor or desk installation.

### Features / Benefits

- Conform to ISO/IEC 11801 and EN 50173
- Individual strain relief for cables
- Dust-free insertion of cable
- Electrical grounding of housing base
- Housing cover made of steel, RAL9005



Consolidation Point for Maximum 12 Fiber Optic Modules



Consolidation Point for Patch Panels

# **Ordering Information**

### **Consolidation Point Housing**

Order Number	Description	Dimensions (H x W x D)	Quantity per Delivery Unit
WAXWSW-00008-C015	Consolidation Point Housing for maximum 12 LANscape modules with strain releif for inserted cable, possibility to insert a cable stain relief and dustshutter for floor, wall and ceiling installatio	6 x 26.3 x 32 cm (2.36 x 10.4 x 12.6 in) n	1/1
WAXWSW-00008-C013	Consolidation Point Housing for LANscape 48 cm (19 in) PatchPanels with patch cable strain releif and dust-shutter	6 x 30.1 x 49.3 cm (2.36 x 11.9 x 19.4 in)	1/1

# Floor Box Solutions for Modules

A LANscape® Solutions Product

### **Applications**

■ The LANscape® mounting panels for floor boxes are suitable for fiber-optic and copper modules.

### Description

The modular system provides floor box solutions up to nine ports for floor boxes manufactured by Ackermann, Kleinhuis, Electraplan and Vergokan.

The cable strain relief is fixable in three different positions. Self-adhesive designation strips are available for all ports.

Splicing of pigtails is possible in the floor box In combination with the protection box and the special splice tray.



Ackermann Floor Box assembled with FO and Copper Modules

#### Features / Benefits

- Suitable for all LANscape modules (fiber-optic and copper)
- Sturdy metal construction, black
- No mounting inserts required
- Integrated individual strain relief of each cable (regardless of the diameter)
- No screws necessary
- Strain relief mountable in different positions
- Designation windows
- Up-gradeable with protection box for fiber-optic cables
- Up-gradeable with special splice trays

# Floor Box Solutions for Modules

A LANscape® Solutions Product

# **Ordering Information**

### **Mounting Panels for Ackermann Floor Boxes**

Order Number	Description	Quantity per Delivery Unit	
WAXWSU-00600-C003	Mounting panel for Ackermann floor boxes, GES 2, GES 4, GES 4/10, GESR 4, GES 6, GES 6/10, GES 7/10 (only outer mounting position) or GES 8/10 for up to 6 LANscape® modules, grounding bolt, integrated strain relief and 6 cable ties	1/1	
WAXWSU-00900-C003	Mounting panel for Ackermann floor boxes, GES 7/10 (only center position), GES 9 or GESR 9, for up to 9 LANscape modules, grounding bolt, integrated strain relief and 9 cable ties	1/1	

### **Mounting Panel for Kleinhuis Floor Boxes**

WAXWSU-00900-C002	Mounting panel for Kleinhuis floor boxes, GR. II or GR. III (only outer mounting position in round boxes), for up to 9 LANscape modules, grounding bolt, integrated strain relief and 9 cable ties	1/1	
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# **Mounting Panel for Electraplan Floor Boxes**

WAXWSU-00900-C004	Mounting panel for Electraplan floor boxes, KDR Q3 and KDR R3 (left, center, right), for up to 9 LANscape® modules, grounding bolt, integrated strain relief and 9 cable ties	1/1	
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# LANscape<sup>®</sup> Solutions

Further

# Floor Box Solutions for Modules

A LANscape® Solutions Product

# **Ordering Information**

### **Accessories**

### **Protection Boxes for Mounting Panels**

Order Number	Description	Quantity per Delivery Unit	
WAXWSU-00000-C003	Protection box for Ackermann floor boxes GES 2, GES 4, GES 4/10, GESR 4, GES 6, GES 6/10, GES 7/10 (only outer mounting position) or GES 8/10, with integrated cable management, black Upgradeable with special splice tray WAXLSU-00000-C	1/1	
WAXWSU-00000-C004	Protection box for Ackermann floor boxes GES 7/10 (only center position), GES 9 or GESR 9, Kleinhuis GR. II or GR. III (only outer mounting position in round boxes), Electraplan KDR Q3 and KDR R3 (left, center, right), VanGeel IK1 (long) and Vergokan KDSVV (left, center, right), with integrated cable management, blac	1/1 k	1
	Upgradeable with special splice tray WAXLSU-00000-C	006	

# **Splice Trays for Protection Boxes**

WAXLSU-00000-C004	Splice Tray for protection box (Ackermann floor boxes GES 2, GES 4, GES 4/10, GESR 4, GES 6, GES 6/10, GES 7/10 (only outer mounting position) or GES 8/10), with splice organizer for 12 crimp splice protectors, black	1/1	
WAXLSU-00000-C005	Splice Tray for protection box (Ackermann floor boxes GES 7/10 (only center position), GES 9 or GESR 9, Kleinhuis GR. II or GR. III (only outer mounting position in round boxes), Electraplan KDR Q3 and KDR R3 (left, center, right), VanGeel IK1 (long) and Vergokan KDSVV (left, center, right)), with splice organizer for 12 crimp splice protectors, black	1/1	

## **Outlets and Outlet Accessories**

A LANscape® Solutions Product

### Description

#### **Standard Outlets**

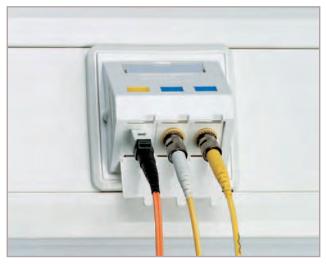
The LANscape® system provides standard outlet solutions for all popular installation variants and mounting styles. There are designs available for surface, flush and raceway mounting. The LANscape system includes frame sets which can be combined for individual requirements to produce the outlet configurations from one up to six ports. In addition, the LANscape Modular System provides two inclined outlets with two ST® compatible and MT-RJ modules respectively, as well as an SC duplex module (multi-mode). The frame sets, with a central plate size 50 x 50 mm, can be combined e. g. with "DELTAprofil" and DELTAfl‰cheface-plates but also with those of many other manufacturers.

#### **Metal Outlets**

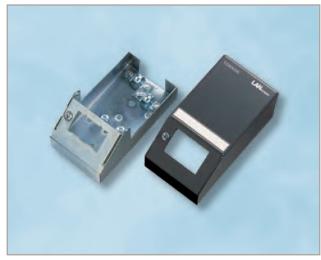
The LANscape system provides metail outlet solutions with integrated cable and two inserts for LANscapre fiber optic or copper moldules. The outlets are ideal for rough conditions and can be installed in the wall as well other configurations.

### **Brackets for Raceway Mounting**

The following brackets support quick and simple installation of outlets and frame sets in raceways. They also support compliance with the minimum bend radius requirements for copper and fiber cables. The brackets come with an optional insertable half-shell providing isolation from AC power systems. The half-shell has the added advantage of providing the fiber-optic link with protection from mechanical damage when new cables are pulled in. The brackets are suitable for Tehalit and Ackermann raceways with T-groove mounting.



Frame set, projecting, inclined, integrated in a wall raceway



2-Port metal outlet for industrial use

### **Fiber Optic Wall Outlets**

- Mounts two FO duplex adapters or four simplex adapters for connection
- For ST compatible, E2000™, FC, SC, SC duplex, as well as LC or MT-RJ adapters with SC simplex foot print
- Optimized for use with UniCam® connectors
- Suitable for installation on wall raceways and for surface mounting
- Outlets can be mounted side-by-side in standard openings
- Integral fiber management with 30 mm bend radius control
- Stores 1 meter of fiber slack
- Optimum cable strain relief

LANscape® Solutions

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Fiber Optic Cables

# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

### **Standard Outlets**

Order Number	Description	Quantity per Delivery unit
	with two ST modules with adapters for multimode connectors, inclined, incl. mounting frame, central plate 50x50 mm, with designation window, screw fixing, (without faceplate),	
LAXLSD-S0201-C000	white, RAL 9010	1/1
LAXLSD-S0202-C000	pearl white, RAL 1013	1/1



	with one SC duplex module with adapter	
	for multimode connector, incline,	
	incl. mounting frame,	
	central plate 50x50 mm,	
	with designation window,	
	screw fixing, (without faceplate),	
LAXLSD-S0201-C001	white, RAL 9010	1/1
LAXLSD-S0202-C001	pearl white, RAL 1013	1/1



	with two MT-RJ modules, inclined, incl. mounting frame, central plate 50 x 50 mm, with designation window, screw fixing, (without faceplate),	
LAXLSD-S0201-C002	white, RAL 9010	1/1
LAXLSD-S0202-C002	pearl white, RAL 101	1/1



# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

### Frame sets

Description	Quantity per Delivery unit
inclined for two LANscape® modules, comprising mounting frame and central plate 50x50 mm, with designation window, screw fixing, for two simplex modules, one duplex- or one MT-RJ three-port-module	
white, RAL 9010	1/1
pearl white, RAL 1013	1/1
	inclined for two LANscape® modules, comprising mounting frame and central plate 50x50 mm, with designation window, screw fixing, for two simplex modules, one duplex- or one MT-RJ three-port-module white, RAL 9010



Note: can not be used with SC simplex modules

### Design Line – Special Color Variants

Design Line – Special Color Variants		
	inclined, for two LANscape® modules, comprising mounting frame and central plate 50x50 mm, with designation window, screw fixing, for teo simplex modules, one duplex- or one MT-RJ three-port-module	
WAXWSE-S0203-C001	light gray, RAL 7035	1/1
WAXWSE-S0208-C001	black, RAL 9005	1/1



Note: can not be used with SC simplex modules

	projecting inclined, for two LANscape® modules, comprising mounting frame and central plate 50x50 mm, with designationwindow and protective doors, for two simplex modules, one duplex- or one MT-RJ three-port-module	
WAXWSE-V0201-C001	white, RAL 9010	1/1
WAXWSE-V0202-C001	pearl white, RAL 1013	1/1



# LANscape Solutions

### Plug & Play" Universal Systems

# iber Optic Cables

# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

Order Number	Description	Quantity per Delivery unit
Faceplate		
Тасеріасе	"DELTAprofil", 80x80 mm, for LANscape® outlets	
WAXWSE-00001-C001	white, RAL 9010	1/1
WAXWSE-00002-C001	pearl white, RAL 1013	1/1



#### **Faceplate**

	"DELTAfläche", 75x75 mm, for LANscape® outlets,	
WAXWSE-00001-C002 WAXWSE-00002-C002	white, RAL 9010 pearl white, RAL 1013	1/1 1/1
	F	



### Surface mount housing

	"DELTAfläche", 75x75 mm, for LANscape outlets,	
WAXWSE-00001-C003	white, RAL 9010	1/1
WAXWSE-00002-C003	pearl white, RAL 1013	1/1



#### Blank cover

	One position for installation in LAN patch panels, outlets and floor box solutions	
WAXWSM-00101-C001	white, RAL 9010	6/1
WAXWSM-00108-C001	black, RAL 9005	6/1



# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

# Frame sets (continued)

Order Number	Description	Quantity per Delivery unit
Combi-frame		
	"DELTAprofil", 80x80 mm, inclined, for three LANscape® modules	
WAXWSE-S0301-C001	white, RAL 9010	1/1
WAXWSE-S0302-C001	pearl white, RAL 1013	1/1



#### Combi-frame

Combi-irame		
	"DELTAfläche", 75x75 mm, inclined, for three LANscape® modules	
WAXWSE-S0301-C002	white, RAL 9010	1/1
WAXWSE-S0302-C002	pearl white, RAL 1013	1/1



# Inclined Outlets for Simplex, Duplex or MT-RJ 3-Port Modules

Order Number	Description	Quantity per Delivery unit
	projecting, inclined, for three LANscape modules, comprising mounting frame and three-port housing with designation window and protective doors, plus faceplate 80x80 mm	
WAXWSE-V0301-C001	white, RAL 9010	1/1
WAXWSE-V0302-C001	pearl white, RAL 1013	1/1



	projecting, inclined, for six LANscape modules, comprising mounting frame and two three-port housings with designation window and protective doors, plus faceplate 151x80 mm	
WAXWSE-V0601-C001	white, RAL 9010	1/1
WAXWSE-V0602-C001	pearl white, RAL 1013	1/1



# LANscape® Solutions

### Plug & Play" Universal Systems

# Fiber Optic Cables

# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

Order Number	Description	Quantity per Delivery unit
Surface mount housing		
	87 x 87 mm, incl. two screws for faceplate (87 x 87 mm)	
WAXWSE-00001-C004	white, RAL 9010	1/1



### Faceplate

racepiate		
	87 x 87 mm, for a module housing, including two metric screws and two whitworth screws, for mounting the faceplate in installation outlets	
WAXWSE-00001-C005	white, RAL 9010	1/1



#### Surface mount housing

Juliace illoulit ilousilig		
	87 x 147 mm,	
	including two screws for faceplate (87 x 147 mm)	
WAXWSE-00001-C006	white, RAL 9010	1/1



#### Faceplate

racepiate		
	87 x 147 mm, for two module housings,	
	including two metric screws and two	
	whitworth screws, for mounting the	
	faceplate in installation outlets	
WAXWSE-00001-C007	white, RAL 9010	1/1



### Universal module housing

WAXWSE-V0201-C002	white, RAL 9010	1/1
	projecting, inclined, for faceplate (87 x 87 and 87 x 147 mm), for mounting 2 LANscape® modules, center bar included	



# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

# Frame sets (continued)

Order Number	Description	Quantity per Delivery unit
Surface mount housing		
	67 x 110 mm,	
	for combi-frame (67x110 mm)	
WAXWSE-00001-C008	white, RAL 9010	1/1



Combi-mame		
	67 x 110 mm,	
	for mounting two LANscape® modules,	
	inclined	
	(only simplex modules can be used)	
WAXWSE-V0201-C004	white, RAL 9010	1/1



**Brackets for Raceway Mounting** 

	T-groove mounting, height 50 mm, with isolating shell	
WAXWSE-00001-C010	white, RAL 9010	1/1



	T-groove mounting, height 55 mm, with isolating shell	
WAXWSE-00008-C002	black	1/1



#### Wall outlet

	for mounting two SC duplex, 4 ST® compatible, 4 FC, 4 SC, 4 E2000™, 4 LC or 4 MT-RJ adapters, white similar to RAL 9010,	
LAXLSD-U0001-C000	other colors available on request	1/1



### Mounting

8		
LAXLSE-U0001-C000	for 2 ST® compatible and FC adapters	8/1
LAXLSE-U0001-C001	for 1 SC duplex adapter	8/1
LAXLSE-U0001-C002	for 2 SC, 2 E2000™ 2 LC or 2 MT-RJ adapters	8/1

# LANscape Solution

# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

### **Identifying Icons and Designation Labels**

All frame sets come with a 50x50 mm central plate as well as three- and six-port frame sets, which make it possible to code each port by using identifying icons. The icons are reversible, showing a phone on one side and a computer (LAN) on the other. They are available in six different colors. Furthermore, these frame sets have a designation window with a clear composite cover for inserting a designation label.

Quantity per

Order Number Description		Delivery Unit	
	computer/phone,		
WAXWSE-00003-C001	gray, RAL 7042	120/1	
	computer/phone,		
WAXWSE-00004-C001	blue, RAL 5015	120/1	
	<b>c</b> omputer/phone,		
WAXWSE-00005-C001	yellow, RAL 1021	120/1	
	computer/phone,		
WAXWSE-00006-C001	green, RAL 6029	120/1	
	computer/phone,		
WAXWSE-00007-C001	red, RAL 3000	120/1	
	computer/phone,		
WAXWSE-00008-C001	black, RAL 9005	120/1	



### **Designation sheet DIN A4**

	with 150 designation labels for LANscape® outlets, white,	
WAXWSE-00001-C009	e.g. for labeling via PC-printer	10/1



# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

### **Metal Outlets**

Description	Quantity per Delivery Unit
for industrial use with 2 LANscape® modules, tilted exit panel with title window, all-metal with integrated cable insert, HxWxD / 60 x 65 x 123.5 mm (2.36 x 2.56 x 4.56 in)	
Anthrazit, RAL 7016, other colors upon request	1/1
	for industrial use with 2 LANscape® modules, tilted exit panel with title window, all-metal with integrated cable insert, HxWxD / 60 x 65 x 123.5 mm (2.36 x 2.56 x 4.56 in) Anthrazit, RAL 7016,



### 4-Port Metal Outlet

WAXWSD-V0408-C001

WAXLSD-00000-C001

for industrial use with 4 LANscape modules, tilted exit panel with title window, all-metal with integrated cable insert and grounding bolt, HxWxD / 79 x 101 x 121 mm (3.11 x 3.97 x 4.67 in)		
Anthrazit, RAL 7016, other colors upon request	1/1	



### **Splice tray for 4-port Metal Outlet**

4	utiet	
	with slpice storage for 12 crimp	
	splice protectors, seperate storage	
	for extra cable, complies with minimum	
	bend radius of fibers or pigtails	
	HxWxD / 15 x 96 x 92 mm	
	(0.6 x 3.78 x 3.62 in)	
	metal, RAL 1013	1/1



LANscape® Solutions

# **Outlets and Outlet Accessories**

A LANscape® Solutions Product

# **Ordering Information**

### **Metal Outlets**

Order Number	Description	Quantity per Delivery Unit	
4-Port Metal Outlet			
	for 4 LANscape® modules, straight front feed, complete metal housing with integrated connection protection and extra cable storage, HxWxD / 45 x 93 x 128 mm (17.7 x 36.6 x 50.4 in)		
WAXWSD-U0407-C001	red, RAL3000 other colors available upon request	1/1	



# for 4 LANscape® modules, straight front feed, complete metal housing with integrated connection protection and extra cable storage, HxWxD / 45 x 93 x 87 mm (17.7 x 36.6 x 50.4 in) WAXWSD-U0407-C002 red, RAL 3000 other colors available upon request



# 4-Port Metal Outlet for 4 LANscape® modules, straight front feed, complete metal housing with integrated connection protection and extra cable storage, HxWxD / 45 x 93 x 87 mm (17.7 x 36.6 x 50.4 in) WAXWSD-U0401-C002 white, RAL 9010 other colors available upon request



# **Splice Trays**

A LANscape® Solutions Product

### Description

Corning Cables Systems splice trays use proven designs and fiber organization technology to provide optimum physical protection for fusion and mechanical splicing methods. The trays are engineered for use with both loose tube and tight-buffered optical cable designs. Their generous size prevents induced attenuation due to fiber bending.

### **MFT Splice Trays**

MFT splice trays allow installation of heat-shrink, crimp, CamSplice™ and ribbon splice protection. They feature a hinged opening that allows full and easy access of each individual tray without removal of the top splice tray. Up to 24 fibers can be spliced in each tray. The trays have multiple fiber management positions. The trays include snap out options for integral buffer strain relief as well as pigtail strain relief with an snap-out pigtail support router. The fiber slack should be 1200 mm long and be stored in the tray. The bend radius between 30 and 40 mm, ensuring safe storage of the fibers without adversely affecting the attenuation. Trays have a craft friendly design and allow single and multimode splicing protection. The cover is made of seethrough material to allow a clear view of the fibers without opening the tray.

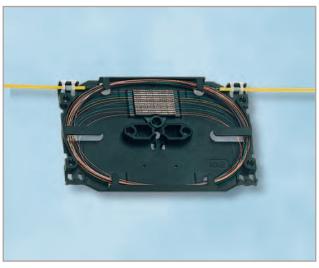
### **Standard Splice Trays**

Standard splice trays allow for two multifiber loose buffers to be attached at each of the four tray entries. For subsequent ease of access, it is advisable to store no more than 12 splices per tray. The fiber slack should be 1200 mm long and be stored in the tray. The bend radii are between 30 and 40 mm, ensuring safe storage of the fibers without adversely affecting the attenuation.

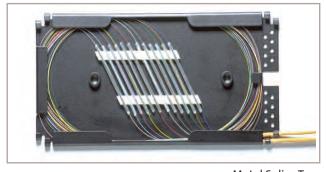
Single fusion splices can be mechanically protected with heatshrink splice protectors or crimp splice protectors. For safe storage of the splices in the trays, there are various splice organizers available to suit the selected splice protection. The splice organizers are simply snapped into the tray. A different type of splice organizer is used for the storage of 5 heatshrink splice protectors for 4-fiber ribbons or for 5 of CamSplice® mechanical splices. A standard splice tray can accommodate two such splice organizers.



MFT Splice Tray



Standard splice tray with crim splices



Metal Splice Tray

### **Metal Splice Trays**

Metal splice trays series consists of a rugged aluminum base and cover. Crimpable metal tabs provide buffer tube strain-relief. Additional strain-relief points are available for securing buffer rubes or pigtails to the trays using cable ties. These trays include models for heatshrink, crimp and camsplice splice protection. They are designed for our CCS, CSH, EDC and WCHE models. They are all black in color.

# **Splice Trays**

A LANscape® Solutions Product

# **Ordering Information**

# **MFT Splice Trays**

Order Number	Description	Quantity per Delivery Unit
S46998-A4-A41	MFT heat-shrink splice tray for maximum 24 heat-shrink splice protectors	10/1
S46998-A4-A40	MFT crimp splice tray for maximum 24 crimp splice protectors	10/1
S46998-A4-A41	MFT splice tray cover	10/1
C46197-K11-C8	MFT splice tray cover	10/1

# **Standard Splice Trays**

Order Number	Description	Quantity per Delivery Unit	
C46197-A7-A66	Standard splice tray, for 12 (max. 24) crimp splice protectors or for 6 (max. 12) heatshrink splice protectors using the associated splice organizers	10/1	
C46197-A7-A69 S46999-Z12-A1 S46998-A4-R1	Splice organizer for 12 crimp splice protectors for 6 heat-shrink splice protectors for 5 CamSplice®	10/1 10/1 10/1	
CSP-1 S46999-A16-A4 S46998-A4-A29	Splice protector Crimp splice protector, length 22 mm Heat shrink splice protector, length 60 mm Heat shrink splice protector, length 45 mm	150/1 100/1 100/1	

# **Metallic Splice Trays**

Order Number	Description	
M67-078	Wide tray for 24 heat-shrink fusion splices, type 4S. Dimensions: 29.7 x 11.0 x 1.0 cm (11.7 x 4.3 x 0.4 in)	
	(	
M67-113	Tray for 12 SlicePak Splice Protectors, type 4S Dimensions: 29.7 x 9.9 x 1.0 cm (11.7 x 3.9 x 0.4 in)	

Closures

# **Splice Trays**

A LANscape® Solutions Product

# **Ordering Information**

# Metallic Splice Trays (continued)

Order Number	Description	
M67-076	tray for heat-shrink mass fusion splices or 12 heat-shrink fusion splices. type 4S. Dimensions: 29.7 x 11.0 x 1.0 cm (11.7 x 4.3 x 0.4 in)	
M67-110	Tray for 12 heat-shrink fusion, 12 Splice Pak splice protectors or 6 heat-shrink mass fusion slices, type 4R. Dimensions: 17.5 x 8.9 x 1.0 cm (6.9 x 3.5 x 0.4 in)	
M67-048	Tray for 12 single fiber heat-shrink fusion splices, type 2S. Dimensions: 17.5 x 9.9 x 0.5 cm (11.7 x 3.9 x 0.2 in)	
M67-112	Long tray for 24 heat-shrink fusion splices, type 2S long. Dimensions: 33.6 x 9.9 x 0.5 cm (13.7 x 3.9 x 0.2 in)	
M67-068	Tray for six heat-shrink fusion splices, type 2R. Dimensions: 18.5 x 8.9 x 0.5 cm (7.3 x 3.5 x 0.2 in)	

# **Table of contents**

3	Closures		
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A LANscape® Solutions Product

### **Application**

The UCAO Closure (Universal Closure Access for Optical Cables) provides environmentally protected sealing on splices of fiber optic cables. In addition, the unit provides excellent cable strain relief and space for excess buffer tube storage. It can be installed with all common cable sheaths and is suitable for buried, duct and aerial applications. Due to its compact design, it is ideal for the connection of low to medium distribution cables. The ease of opening and closing makes this closure ideal for access networks.

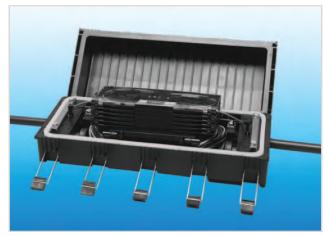
# makes this closure idea Features

- Suitable for buried, duct and aerial lines
- For straight and branching application
- Fast and easy access to individual splice trays
- Capacity for up to 144 splices
- Closure sealing made of re-usable silicone



The body of the closure consists of two half shells made of plastic that is resistant against all environmental influences. The intersection of the half shells is sealed with a reusable silicone ring. The closure has an integral hinge on one side and five stainless steel and plastic tensioners on the other side.

The tensioners can be closed by hand and easily opened with a screwdriver. To prevent unauthorized access, an anti-access device option can be installed on the clips. The two cable entries on each endface of the closure can accommodate cables with outer diameters of up to 21 mm. The cable entries are placed between the cable entry wedges in the lower half shell. With a four-cable entry set, including multiple strain relief and a filling piece, each cable entry can be adapted to fit four cables of up to 8 mm in diameter. Alternatively, a closure with sealing wedges, each containing one port with compression fittings, is available.



Inline Closure UCAO MFT

These ports simplify the installation of branching cables in the event of future demand. Both the cable sheath and the central members are strainrelieved with clamps locked into the lower half shell. The same clamps provide an electrical connection and external grounding if required. The tightness of the closure can be flash-tested by using the optional tightness testing set.

### Features of the Multi-Funtion Tray (MFT)

- Up to 24-fiber splice capacity per tray
- Minimum fiber bend controls
- Individual tray access
- Multiple tray mounting access



MFT Splice Tray

A LANscape® Solutions Product

### **Fiber Managment**

The tray holder contained in each closure should be inserted into the lower half shell. It can accommodate up to six MFT splice trays with a fast and easy single tray access. The buffer tubes can be installed direct up to the splice trays. With an optinal Buffer Adapter Set the fibers from one tube can be separated to differt tubes. Or rather fibers from different tubes can be bring togehter into one tube. Each MFT splice tray provid 4 buffer tubes entries.



Management of the Buffer Tubes

# **Specifications**

Туре	Number and Outer Diameter of Cable	Number of MFT Spice Trays	Splice Capacity	Length of Buffer Tubes (mm)
UCAO 4-9 Standard	4 x up to 21 mm	6	144	1500 (cut) 2400 (uncut)
UCAO 4-9 with Compression Fittings	2 x up to 21 mm 2 x 8 to 13 mm	6	144	1500 (cut) 2400 (uncut)

### **Dimensions**

Туре	Length (mm)	Width (mm)	Height (mm)	Weight (kg)
UCAO 4-9	378	160	118	2.4
UCAO 4-9 with Compression Fittings	404	160	118	2.4

Fiber ermination

A LANscape® Solutions Product

#### **Kit Content**

Each closure kit contains all parts for installation of a straight joint including the equipment for fiber management. Consumables such as splice trays and splice protectors have to be ordered separately.

### **Closure Content**

- 1. Half shells with tensioners
- 2. Cabel strain reliefs including grounding
- 3. Cable entry wedges for standard closure (For UCAO 4-9 with compression fittings: see picture right)
- 4. Sealing tape
- 5. Half-shell sealing
- 6. Cleaning tissue
- 7. Bolts for cable entry wedges
- 8. Dummy plug
- 9. Wrapping gage
- 10. Grounding bolts (not shown)
- 11. Shield connection lead
- 12. Installation instructions

### **Components for Fiber Mangement**

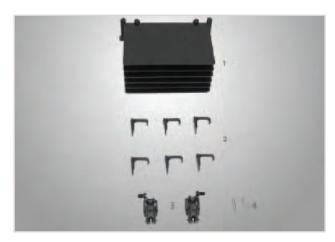
- 1. Tray holder, complete, for five standard splice trays
- 2. Holder for buffer tube storage
- 3. Strain reliefs for central members
- 4. Bolts for strain relief



Kit Content UCAO



Cable Entry Wedge with Compression Fittings



Components for Fiber Organization

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# **Ordering Information**

Order Number	Po	s. Type		Quantity per Delivery Unit
on request	1	UCAO 4-9 MFT splice protection	including one splice tray for 24 Shrink	1/1
S45754-A3-A56	2	UCAO 4-9 MFT with compression fittings	including one splice tray for 24 Shrink splice protection	1/1
on request	3	UCAO 4-9 MFT splice protection	including one splice tray for 24 crimp	1/1
on request	4	UCAO 4-9 MFT with compression fittings	including one splice tray for 24 crimp splice protection	1/1

### Accessories

Order Number	Pos	. Туре		Quantity per Delivery Unit
C46197-K11-C32	5	Splice tray MFT	for 24 Shrink splice protection	1/1
C46197-K11-C33	6	Splice tray MFT	for 24 crimp splice protection	1/1
S46998-A6-R1	7	Branching Set and shield connection for 10 c	Cable and central member strain relief ables	1/1
S46998-A6-R2	8	Grounding Set	For 10 cables	1/1
S45756-M7-A2	9	4-Cable Entry Set	Including strain relief elements	10/1
S45756-M5-A7	10	System for Tightness Testing	Including valve, plug, sealing paste	10/1
S45756-M5-A2	11	Wall / Pole Mounting		1/1
S45756-M5-A1	12	Aerial Hanging Device		1/1
S45756-M2-A2	13	Sealing Tape		10/1
S45756-M3-A2	14	Anti-Access Device		1/1
S46999-A16-A4	15	Heat-shrink Splice Protectors	for single-fiber, 60 mm	100/1
S46998-A4-A29	16	Heat-shrink Splice Protectors	for single-fiber, 45 mm	100/1
CSP-1	17	Crimp Splice Protector		150/1
S46998-A2-R85	18	Buffer Adapter Set 1-1 buffer to one spiral wrap	spiral wrap and adapter to connect one	4/1
S46998-A2-R84	19	Buffer Adapter Set 2-1 one buffer to two spiral wrap two buffers to one spiral wrap		4/1
S46998-A2-R83	20	Buffer Adapter Set 3-1 one buffer to three spiral wra three buffers to one spiral wra		4/1

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# **Universal Inline Closures UCNP**

A LANscape® Solutions Product

### Application

The UCNP (product family of Universal Closures) is designed to protect splices and to store excess buffer tube lengths inline to fiber optic cables. The closures are applicable in all network types such as aerial, duct or direct buried networks as well as in all network levels such as interconnection, branching, distribution or access levels.

### Design

The Universal Closures UCNP consist of two plastic end caps, type UCNP, and a plastic closure tube. The longitudinally split closure tube is closed with two plastic bars. They are affixed by using only a plastic hammer and are secured with pins. For re-entry only a plastic hammer is required.

Permanent elastic longitudinal and round seals allow the closure to be opened and re-closed as often as required without additional installation material. The round seals are applied pre-cut with a joiner in order to allow installation on uncut cables or during repairs.

The two end caps incorporate the strain relief absorbing mechanical forces, which may be applied to the cables from the network side. Two metal bars interconnect the two end caps. On the lower bar the fiber management system is installed.

All closure sizes are available with two different fiber management systems included in the pack. Each closure is equipped with a feedthrough for external grounding or a valve for pressure tightness testing (flash test).



UCNP 7-10 E



UCNP closed with clamping bars

#### **Features**

- Suitable for all network applications in inline configurations on cut and uncut FO cables
- Fast and easy access to the splice without special tools
- Fast and easy insertion of branching cables on demand without special tools
- Choice of complete closures including one of two different fiber management systems
- Different sizes for up to 432 splices
- Same installation procedure for inline (UCNP) and canister closures (UCNCP)

ANscape® Solutions

Plug & Play<sup>™</sup> Universal

Fiber Optic Cables

> Fiber Termination

# **Universal Inline Closures UCNP**

A LANscape® Solutions Product

# Fiber Management, Types, Capacities

Fiber Management		Closure Type	Splice Trays Fusion	Splice (Single Fibers)
Standard (S)	100	UCNP 5-10 S	6 Standard (without cover)	72
		UCNP 7-10 S	12 Standard (without cover)	144
		<b>UCNP 7-20 S</b>	24 Standard (without cover)	288
		UCNP 9-20 S	36 Standard (without cover)	432
Element (E)		UCNP 7-10 E	8 Standard (with cover)	96
		UCNP 7-20 E	16 Standard (with cover)	192
		UCNP 9-20 E	24 Standard (with cover)	288

### **Dimensions**

	Outer Dimension		
Туре	Diameter	Length	Cable entries (mm)
UCNP 5-10	150 (5)	384 (10)	3 x 5-15 cut and 2 x 12-20 cut / uncut
UCNP 7-10	204 (7)	384 (10)	4 x 5-18 cut and
UCNP 7-20	204 (7)	768 (20)	2 x 12-22 cut / uncut
UCNP 9-20	250 (9)	768 (20)	6 x 12-25 cut and 2 x 12-32 cut / uncut
	UCNP 5-10  UCNP 7-10  UCNP 7-20	UCNP 5-10 150 (5)  UCNP 7-10 204 (7)  UCNP 7-20 204 (7)	UCNP 5-10 150 (5) 384 (10)  UCNP 7-10 204 (7) 384 (10)  UCNP 7-20 204 (7) 768 (20)

# **Universal Inline Closures UCNP**

A LANscape® Solutions Product



Kit Content UCNP (fiber management not shown)

### **Kit Content**

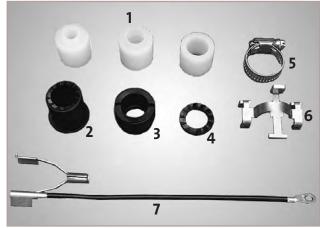
Each closure kit contains all parts required for the installation of a branching closure with up to five cables – up to four in the intersection and one branching set for cable ports with compression fitting.

- 1. Closure tube
- 2. End cap
- 3. Connecting bars
- 4. Clamping bars
- 5. Dummy plugs
- 6. Sealing rings
- 7. Sealing cord
- 8. Strain relief / Grounding for central members
- 9. Closing screw
- 10. Grounding screws
- 11. Gage / wrench
- 12. Cleaning tissue
- 13. Sealing paste
- 14. Lubricant
- 15. Brush
- 16. Closing screws for end cap
- 17. Cable clamps
- 18. Double bracket, 2-way strain relief for cable
- 19. Support ring (for UCNP 9-30)
- 20. Sealing tape
- 21. Installation instructions
- 22. Fiber management according to selected type (not shown)
- 23. Shield connection lead (not shown)

### **Branching Set for Cable Entry Port**

(to be ordered separately)

- 1 Seals
- 2 Pressure screw
- 3 Closing screw
- 4 Washer
- 5 Hose clamp
- 6 Bracket, 1-way strain relief
- 7 Strain relief / Grounding for central members



Branching Set for Cable Entry Port

### **Aerial Hanging Device**

(to be ordered separately)

- 1. Supports
- 2. Clamp screws



**Aerial Hanging Device** 

LANscape<sup>®</sup> Solutions

Quantity per

Designation

Plug & Play" Universal Systems

Fiber Option Cables

Fiber Termination

# **Universal Inline Closures UCNP**

**Order Number** 

A LANscape® Solutions Product

# **Ordering Information**

Fiber Management

		Designation	Delivery Unit
Standard (S)	S46998-A2-A40	UCNP 5-10 S	1/1
1	S46998-A2-A41	UCNP 7-10 S	1/1
	S46998-A2-A42	UCNP 7-20 S	1/1
	S46998-A2-A43	UCNP 9-20 S	1/1
Element (E)	S46998-A2-A44	UCNP 7-10 E	1/1
	S46998-A2-A45	UCNP 7-20 E	1/1
	S46998-A2-A46	UCNP 9-20 E	1/1
Accessories			
S46998-A2-R36	Branching Set for end cap UCNP 5, compr, fittings, set for 1 cable	cable entry port, with	1/1
S46998-A2-R16	– for end cap UCNP 7		1/1
546998-A2-R37	– for end cap UCNP 9		1/1
C45402-Z3-C31	Valve for tightness testing (flash to	esting)	1/1
S45056-M130-A3	Desiccant, 50 g		1/1
S45754-D1-A1	Aerial Hanging Device for all UCNP sizes		1/1
	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	5.205	
Heat-Shrink Splice Protecto			100/1
Heat-Shrink Splice Protecto 546999-A16-A4	ors		100/1 100/1
Heat-Shrink Splice Protecto 546999-A16-A4 546998-A4-A29 546999-A16-A8	ors – for single-fiber, 60 mm		
Heat-Shrink Splice Protecto 546999-A16-A4 546998-A4-A29	o <b>rs</b> – for single-fiber, 60 mm  – for single-fiber, 45 mm		100/1
Heat-Shrink Splice Protecto 546999-A16-A4 546998-A4-A29 546999-A16-A8	ors  - for single-fiber, 60 mm  - for single-fiber, 45 mm  - for attenuation splices and up to		100/1 5/1
Heat-Shrink Splice Protecto 546999-A16-A4 546998-A4-A29 546999-A16-A8 546999-A16-A6	ors  - for single-fiber, 60 mm  - for single-fiber, 45 mm  - for attenuation splices and up to		100/1 5/1
Heat-Shrink Splice Protectors  S46999-A16-A4  S46998-A4-A29  S46999-A16-A8  S46999-A16-A6  Crimp Splice Protectors	ors  - for single-fiber, 60 mm  - for single-fiber, 45 mm  - for attenuation splices and up to  - for 4- up to 12-fiber ribbons		100/1 5/1 25/1
Heat-Shrink Splice Protectors s46999-A16-A4 s46998-A4-A29 s46999-A16-A8 s46999-A16-A6 Crimp Splice Protectors CSP-1 Splice Organizer s46999-Z12-A1	- for single-fiber, 60 mm - for single-fiber, 45 mm - for attenuation splices and up to - for 4- up to 12-fiber ribbons  Crimp Splice Protector  - for 6 heat-shrink protectors		100/1 5/1 25/1 150/1
Heat-Shrink Splice Protectors 46999-A16-A4 546998-A4-A29 546999-A16-A8 546999-A16-A6  Crimp Splice Protectors  CSP-1  Splice Organizer	ors  - for single-fiber, 60 mm  - for single-fiber, 45 mm  - for attenuation splices and up to  - for 4- up to 12-fiber ribbons  Crimp Splice Protector		100/1 5/1 25/1 150/1
Heat-Shrink Splice Protectors s46999-A16-A4 s46998-A4-A29 s46999-A16-A8 s46999-A16-A6 Crimp Splice Protectors CSP-1 Splice Organizer s46999-Z12-A1	- for single-fiber, 60 mm - for single-fiber, 45 mm - for attenuation splices and up to - for 4- up to 12-fiber ribbons  Crimp Splice Protector  - for 6 heat-shrink protectors - for 12 crimp splice protectors	4-fiber ribbons	100/1 5/1 25/1 150/1
Heat-Shrink Splice Protectors s46999-A16-A4 s46998-A4-A29 s46999-A16-A8 s46999-A16-A6 Crimp Splice Protectors CSP-1 Splice Organizer s46999-Z12-A1 c46197-A7-A69	- for single-fiber, 60 mm - for single-fiber, 45 mm - for attenuation splices and up to - for 4- up to 12-fiber ribbons  Crimp Splice Protector  - for 6 heat-shrink protectors - for 12 crimp splice protectors	4-fiber ribbons  bers, without cover	100/1 5/1 25/1 150/1
Heat-Shrink Splice Protectors S46999-A16-A4 S46998-A4-A29 S46999-A16-A8 S46999-A16-A6  Crimp Splice Protectors  CSP-1  Splice Organizer S46999-Z12-A1 C46197-A7-A69  Splice Tray	- for single-fiber, 60 mm - for single-fiber, 45 mm - for attenuation splices and up to - for 4- up to 12-fiber ribbons  Crimp Splice Protector  - for 6 heat-shrink protectors - for 12 crimp splice protectors	4-fiber ribbons  bers, without cover	100/1 5/1 25/1 150/1 10/1 10/1

A LANscape<sup>®</sup> Solutions Product

### **Application**

The MAX Fiber routing and management system is designed to easily handle bare fibers and provide the most flexibility within interconnection, branching, distribution or access levels.

The MAX is the new Corning Cable Systems standard for fiber routing end-management and is commonly used for closures, wall boxes, ODFs and cabinets.

#### **Features**

The family of UCNCP Universal Dome Closures are designed to give the maximum protection for the installed network against environmental influences. The UCNCP FiberWay™ MAX closures can be used in various environments:

- Direct buried
- Ducts and manholes
- Aerial and poles



UCNCP Dome Closure with MAX Fiber Routing System

# Further Information

# UCNCP Dome Closure with MAX – Fiber Routing System

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### Description

### **Closure End Caps**

Two end cap designs for the UCNCP are available - mechanical cable entry or heat-shrink cable entry sealing. All end caps are provided with a feed-through for external grounding or to insert a valve for flash testing.

Mechanical two-section end caps are paired with two prefabricated cable entries in the intersection for the installation of uncut cables. Six cable ports are available for branching cables sealed with silicone compression fittings.

Heat shrink end caps are designed with one oval cable entry port to accommodate the installation of uncut cables and seven circular ports for the cable entry of branching cables.





Mechanical End Cap

Heat-Shrink End Cap

### **Closure Strain Relief System**

Strain relief is provided for the cable outer sheath and for the central strength member to combat mechanical forces. It is compatible with most common cables.





Each tray can be marked individually for identification and registration

### **MAX Fiber Routing and Management System**

The MAX Fiber routing and management system is built with an aluminum frame and pre-assembled with six-fold guiding units for the splice trays. These guiding units are on both sides of the frame or individually stacked with large buffer tube storage. If the buffer storage is removed, it is easy to snap in the guiding units to enlarge the splice tray capacity. The fiber itself is guided from the fixed cable end through distribution channels and threaded into the trays directly through the rotation point of the splice tray hinge. This patented method guarantees no stress on the fibers and will prevent any attenuation increases in case of future tray access. The minimum bending radius requirement is 30 mm.

#### Splice Trays

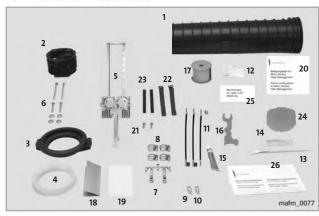
The MAX system can be used for access network applications with either single circuit (SC) or single element (SE) trays or a mixture of both, in accordance to the network requirements. One raster unit is required for the SC tray and two are required for the SE tray. Two SC trays can be replaced by one SE tray or vice versa.

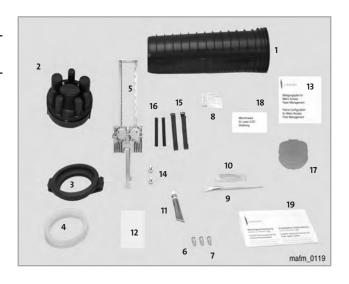
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#### **Content Closure Kit\***

### **Mechanical Cable Sealing**

- 1. Closure canister
- 2. End cap
- 3. Clamping ring
- 4. Sealing ring
- 5. Mounting frame
- 6. Closing screws for end cap
- 7. Double strain relief bracket
- 8. Cable clamps
- 9. Sealing plug
- 10. Grounding screw (vented)
- 11. Grounding wires
- 12. Cleaning cloth
- 13. Brush
- 14. Lubricant
- 15. Sealing paste
- 16. Gauge / Wrench
- 17. Sealing tape for cable
- 18. Sealing tape for end cap
- 19. Sleeving
- 20. Frame configuration diagram
- 21. Screws for mounting frame
- 22. Felt strip for mechanically securing the trays
- 23. Felt strip for securing uncut buffer tubes
- 24. Cover for single- and multifiber management
- 25. Warning label for laser/LED radiation
- 26 Installation instructions





### **Content Closure Kit\***

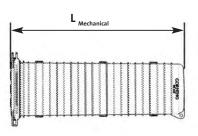
### **Heat-Shrink Cable Sealing**

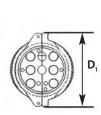
- 1. Closure canister
- 2. End cap
- 3. Clamping ring
- 4. Sealing ring
- 5. Mounting frame
- 6. Sealing plug
- 7. Grounding screw / Grounding screw (vented)
- 8. Cleaning cloth
- 9. Brush
- 10. Lubricant
- 11. Sealing paste
- 12. Sleeving
- 13. Frame configuration diagram
- 14. Screws for the mounting frame
- 15. Felt strip for mechanically securing the trays
- 16. Felt strip for securing uncut buffer tubes
- 17. Cover for single- and multifiber management
- 18. Warning label for laser/LED radiation
- 19. Installation instructions
- \* Splice trays, splice protectors and additional branching kits have to be ordered separately.

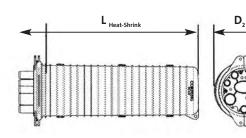
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# **Specifications**

Closure Type	UCNCP 9-20 MAX	UCNCP 9-24 MAX	UCNCP 9-28 MAX
Dimension (mm)			
L Mechanical	525	600	730
L Heat-Shrink	595	670	800
D1	306	306	306
D2	225	225	225
Capacity (pcs) without extra	buffer storage		
SC Trays	48	72	120
SE Trays	24	36	60
SC heat-shrink splices up to 6/tray	288	432	720
SC crimp splices up to 12/tray	576	864	1440
SE heat-shrink splices up to 12/tray	288	432	720
SE crimp splices up to 12/tray	288	432	720
No. of raster units (sixfold)	2 x 4	2 x 6	2 x 10
Cable Sheath Opening (m)			
Uncut cables	3.6	3.8	4.1
Branching cables	1.8	1.9	2.05
Uncut Buffer Storage (m)			
Between double stack	5 x 3.6	6 x 3.8	8 x 4.1
In extra buffer storage	12 x 3.6	18 x 3.8	25 x 4.1
Number and Diameter of Ca	ble Entries (mm)		
Mechanical End Cap			
Cut or uncut cable	2 x 12 - 32	2 x 12 - 32	2 x 12 - 32
Branching cable	6 x 12 - 25	6 x 12 - 25	6 x 12 - 25
Heat-Shrink End Cap			
Cut or uncut cable	2 x 12 - 37	2 x 12 - 37	2 x 12 - 37
Branching cable	2 x 8 - 20	2 x 8 - 20	2 x 8 - 20
	3 x 14 - 25	3 x 14 - 25	3 x 14 - 25
	2 x 18 - 42	2 x 18 - 42	2 x 18 - 42







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# **Ordering Information**

Order No.	Pos. Type		Description	Max No. of Trays	
				SC	SE
	Me	chanical End Cap			
S46998-A2-A160	1	UCNCP 9-20 MAX	Dome closure with mechanical end cap	48	24
S46998-A2-A117	2	UCNCP 9-24 MAX	Dome closure with mechanical end cap	72	36
S46998-A2-A118	3	UCNCP 9-28 MAX	Dome closure with mechanical end cap	120	60
S46998-A2-A163	4	UCNCP 9-20 MAX	Dome closure with extra buffer storage and mechanical end cap	24	12
S46998-A2-A164	5	UCNCP 9-24 MAX	Dome closure with extra buffer storage and mechanical end cap	36	18
S46998-A2-A165	6	UCNCP 9-28 MAX	Dome closure with extra buffer storage and mechanical end cap	60	30
	Hea	at-Shrink End Cap			
S46998-A2-A180	7	UCNCP 9-20 MAX HS	Dome closure with heat-shrink end cap	48	24
S46998-A2-A181	8	UCNCP 9-24 MAX HS	Dome closure with heat-shrink end cap	72	36
S46998-A2-A182	9	UCNCP 9-28 MAX HS	Dome closure with heat-shrink end cap	120	60
S46998-A2-A183	10	UCNCP 9-20 MAX HS	Dome closure with extra buffer storage and heat-shrink end cap	24	12
S46998-A2-A184	11	UCNCP 9-24 MAX HS	Dome closure with extra buffer storage and heat-shrink end cap	36	18
S46998-A2-A185	12	UCNCP 9-28 MAX HS	Dome closure with extra buffer storage and heat-shrink end cap	60	30

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# **Ordering Information**

Order Number	Pos	. Туре	Description	Quanitiy per Delivery Unit
S46998-A2-R93	1	SC Splice Tray Set	SC for Crimp Splice Protector	6/1
S46998-A2-R94	2	SC Splice Tray Set	SC for Heat-Shrink Splice Protector	6/1
S46998-A2-R95	3	SE Splice Tray Set	SE for Crimp Splice Protector	3/1
S46998-A2-R96	4	SE Splice Tray Set	SE for Heat-Shrink Splice Protector	3/1
S46998-A2-R98	5	SC Splice Tray Set with Fiber Routing and Tray Holder Set	SC for Crimp Splice Protector	6/1
S46998-A2-R99	6	SC Splice Tray Set with Fiber Routing and Tray Holder Set	SC for Heat-Shrink Splice Protector	6/1
S46998-A2-R100	7	SE Splice Tray Set with Fiber Routing and Tray Holder Set	SE for Crimp Splice Protector	3/1
S46998-A2-R101	8	SE Splice Tray Set with Fiber Routing and Tray Holder Set	SE for Heat-Shrink Splice Protector	3/1
S46998-A2-R90	9	Fiber Routing and Tray holder Set	for 6 SC or 3 SE Splice Trays	1/1
S46998-A2-R114	10	Branching Set for mechanical closures with Modular Strain Relief	Cable Gland for 1 cable 12-25mm	1/1
S46998-M8-A4	11	Heat-Shrink Tube Set for Oval Ports	Shrink Ratio 95-25mm	1/1
S46998-M8-A1	12	Branching Set Heat-Shrink Tube for Circular Ports	Port Diameter up to 25mm Shrink Ratio 34-7mm	1/1
S46998-M8-A2	13	Branching Set Heat-Shrink Tube for Circular Ports	Port Diameter up to 35mm Shrink Ratio 40-12mm	1/1
S46998-M8-A3	14	Branching Set Heat-Shrink Tube for Circular Ports	Port Diameter up to 48mm Shrink Ratio 56-16 mm	1/1
S46998-M1-A5	15	Wall / Pole Mounting Device		1/1
S46998-A4-A29	16	Heat-Shrink Splice Protector	45 mm	100/1
CSP-1	17	Crimp Splice Protector	22 mm	150/1
		·		

# UCNCP Dome Closures with Multi-Function Tray (MFT)

A LANscape<sup>®</sup> Solutions Product

### **Applications**

The Universal Closures UCNCP product family is designed to protect splices and to store excess buffer lengths in configurations on fiber optic cables.

They are applicable for:

- Direct buried
- Ducts or manholes
- Aerial networks

### **Closure Features**

Two versions of closures are available:

- 1. With mechanical cable sealing:
- 2 cable entries in the intersection to be used also for uncut cable
- Glands for branching cables
- Quick re-entry without special tools
- 2. With heat shrink cable sealing:
- With oval port for uncut cables
- Sealing with heat shrink tube and branching clip
- Branching ports for different cable diameters





### **Features Multi-Function Tray:**

- Up to 24-fiber splice capacity per tray
- Minimum fiber bend controls
- Individual tray access
- Multiple tray mounting access

LANscape® Solutions

Plug & Play Universal Systems

Fiber Optic Cables

> Fiber Termination

UCNCP Universal Dome Closures with Multi-Function Tray (MFT)

A LANscape® Solutions Product

## Content of Closure Kit\* (below) (Mechanical Cable Sealing)

- 1. Closure canister
- 2. End cap
- 3. Clamping ring
- 4. Sealing ring
- 5. Tray holder
- 6. Closing screws for end cap
- 7. Double strain relief bracket
- 8. Cable clamps
- 9. Strain relief / Grounding for central members
- 10. Grounding screw / Grounding screw (vented)
- 11. Plug
- 12. Gauge / Wrench
- 13. Cleaning tissue
- 14. Brush
- 15. Lubricant
- 16. Sealing paste
- 17. Screw for tray holder
- 18. Sealing tape
- 19. Sealing tape for end cap
- 20. Installation instructions





## Content of Closure Kit\* (above) (Heat-Shrink Cable Sealing)

- 1. End cap
- 2. Tray holder with slack storage
- 3. Closure canister
- 4. Clamping Ring
- 5. Velcro tape for mechanically securing the tray
- 6. Sealing ring
- 7. Lubricant
- 8. Brush
- 9. Sealing paste
- 10. Cleaning cloth
- 11. Grounding screw /
  Grounding screw (vented) / Plug
- 12. Securing screws for tray holder
- 13. Installation instructions
- \* Splice trays, splice protectors and additional branching kits have to be ordered separately.

# UCNCP Universal Dome Closures with Multi-Function Tray (MFT)

A LANscape® Solutions Product

## **Specifications**

Closure Type	UCNCP 5-18 MFT Flip	UCNCP 7-22 MFT Flip	UCNCP 9-18 MFT Flip
Dimension (mm)		-	
Length (L)	505	585	530
Diameter (D)	159	220	265
Capacity (pcs)			
rays 4		8	16
Splices	96	192	384
Trays for uncut fibers	Included	Included	Included
Buffer storage	Included	Included	Included
Number and Diameter of Ca	ble Entries (mm)		
Mechanical End Cap			
Cable entries cut/uncut	2 x 12 - 20	2 x 12 - 22	2 x 12 - 32
Cable entries cut	3 x 5 - 15	4 x 5 - 18	6 x 12 - 25
Heat-Shrink End Cap			
Cable entries oval port	2 x 25	2 x 32	2 x 38
Cable entries circular port	3 x 8 - 16	4 x 8 - 14	2 x 8 - 20
Cabic Critics Circular port	3 X 0 - 10	1 / 0   11	2 X O 20
Cable Chines chediai port	3 X 8 - 10	2 x 1 - 32	3 x 14 - 25

## **Ordering Information**

Mechanical end cap	S46998-A2-A130	S46998-A2-A132	S46998-A2-A134
Heat-Shrink end cap	S46998-A2-A131	S46698-A2-A133	S46698-A2-A135

## **UCNCP Universal Dome Closures with Multi-Function Tray (MFT)**

A LANscape® Solutions Product

## **Ordering Information (continued)**

#### **Accessoires**

Order Number	Description	Quantity per Delivery Unit
S46998-A 2-R81	MFT Splice Tray Set, two pcs. with cover (for heat-shrink splice protector)	2/1
S46998-A 2-R82	MFT Splice Tray Set, four pcs. with cover (for heat-shrink splice protector)	4/1
S46998-A 2-R91	MFT Splice Tray Set, two pcs. with cover (for crimp splice protector)	2/1
S46998-A 2-R92	MFT Splice Tray Set, four pcs. with cover (for crimp splice protector)	4/1
S46998-A 2-R85	Buffer Adapter Set 1-1 (four pieces)	1/1
S46998-A 2-R84	Buffer Adapter Set 2-1 (four pieces)	1/1
S46998-A 2-R83	Buffer Adapter Set 3-1 (four pieces)	1/1
S46998-A 2-R36	Branching Set - mechanical end cap UCNCP 5	1/1
S46998-A 2-R16	Branching Set - mechanic end cap UCNCP 7	1/1
S46998-A 2-R37	Branching Set - mechanical end cap UCNCP 9	1/1
S46998-M 8-A1 S46998-M 8-A2	Heat-Shrink Branching Set for circular port up to 25 mm (shrink ratio 34 - 7 mm) Heat-Shrink Branching Set for circular port up to 35 mm (shrink ratio 40 - 12 mm)	1/1
S46998-M 8-A3	Heat-Shrink Branching Set for circular port up to 48 mm (shrink ratio 56 - 16 mm)	
S46998-M 8-A5	Heat-Shrink Set for oval port UCNCP 5	1/1
S46998-M 8-A6	Heat-Shrink Set for oval port UCNCP 7	1/1
S46998-M 8-A4	Heat-Shrink Set for oval port UCNCP 9	1/1
S46998-D 1-A3	Aerial Hanging Device	1/1
S46998-M 1-A3	Wall / Pole Mounting for UCNCP 5	1/1
S46998-M 1-A4	Wall / Pole Mounting for UCNCP 7	1/1
S46998-M 1-A5	Wall / Pole Mounting for UCNCP 9	1/1
S46999-A16-A4	Heat-shrink Splice Protectors for single-fiber, 60 mm	100/1
S46998-A4-A29	Heat-shrink Splice Protectors for single-fiber, 45 mm	100/1
CSP-1	Crimp Splice Protector	150/1

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# Fiber Optic Bulk Cables and Connecting Hardware for Cable Assembly Houses

A LANscape® Solutions Product

This product range is particularly suitable for assembly of multi-fiber optical cable, patch cords and pigtails, as well as for assemblers of partially or fully loaded FO patch panels.

#### **Fiber Optic Bulk Cables**

The design of the cables is optimized for the assembly of the appropriate Corning factory-installable connectors.

#### **Fiber Optic Connectors for Factory Assembly**

Popular connector types are available and supplied as a bag of parts in packs of one hundred. The boots must be ordered separately according to the required color and cable diameter. The color of the boots is frequently used for identifying end-face quality. Separate crimp rings are available for strain-relieving aramid yarns. The connectors are optimized for assembly on all popular FO cables dimensions. Particular features include the high quality pre-polishing of the ferrule end-face and the complete pre-assembly of the connector body on the ferrule. This reduces the risk of error and scrap, while providing high polishing quality for low effort together with a significant time savings.

Corning connectors are provided with spherical polished ferrules allowing customers to terminate high quality ends with Ultra (UPC), Super (SPC) and Angled (APC) physical contact reflectance performance.



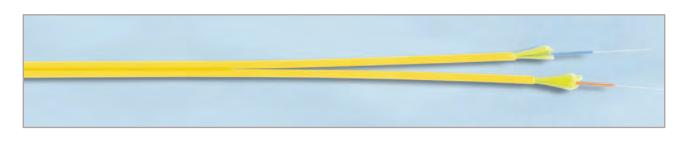
#### Fiber Optic Adapters

As the FO adapter forms the link between the connector pairs, it has direct impact on the insertion loss of the connector pairs. Corning offers high quality adapters with high precision slotted ceramic sleeves for optimum connector alignment. Additionally, metal inserts and composite inserts offer economical alternatives.

FO adapters have various applications, including the partial or full loading of FO patch panels. The adapters are available in a variety of levels (single-mode for UPC and APC and multimode versions) and corresponding colors. The adapters are supplied with dust covers on both ends. Some of the adapters can be rapidly and easily mounted with metal clips, but also provide the option of screw mounting.

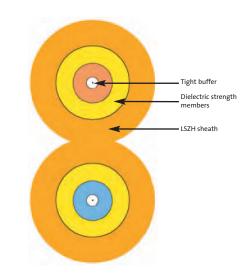
## FutureLink™ Assembly Cables Duplex Cable (Zipcord/Mini-Zip) – J-VH...TB3

A LANscape® Solutions Product



#### **Applications**

FutureLink™ Zipcord cables are particularly suitable for placing and pulling into cable conduits and shafts, for use as jumper and adapter cables and for connecting workstations inside buildings (FTTD). The tight buffer design allows easy and direct field connectorization. FutureLink duplex bulk cabling for assemblers is designed with 900 µm tight buffers and 2.8 mm subunits for direct assembly with standard / "Small Form Factor" single fiber connectors. 2.0 mm sub-units are particularly suitable for LC connectors, whereas the FutureLink Mini-Zip with 700 µm tight buffered design bulk cabling is particularly suitable for MT-RJ connectors.



#### **Features**

- Tight-buffer design 900 μm (TB3)/700 μm (TB3 R) with stripping up to 100 mm
- Low-smoke to IEC 61034 and zero-halogen (LSZH™)
- Flame-retardant to IEC 60 332-3 and non-corrosive to IEC 60754-2 (FRNC)
- All-dielectric cable construction requires no grounding or bonding
- Completely dry design
- Additional strength members in 2.8 / 2.0 / 1.8 mm diameter subunits

#### **Special Features**

 Mini-Zip is especially suitable for making hybrid patch cables

#### **Temperature Range**

Installation and assembly −5 °C to +50 °C
 Operation −20 °C to +60 °C

■ Transport and storage −25 °C to +70 °C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)		Max. Tensile strength (N)		radius in		Co Te
J-VH 2x1 TB3	2	2.8x5.7	15	400	45	30	0.30	<u>01</u> 02
J-VH 2x1 TB3	2	2.0x4.1	8.5	300	45	30	0.16	02
J-VH 2x1 TB3 R (Mini-Zip	o) 2	1.8x3.7	6	150	45	30	0.11	

Color code Telcordia Bundle/ No. fiber color 01 Blue 02 Orange Introduction

LANscape® Solutions

Plug & Play<sup>™</sup>
Universal
Systems

iber Optic Cables

Fiber Fermination

> Cable Assemblies

> > Hardware

Closures

Cable As ent Hou

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Other Produ

Further Information

## FutureLink™ Assembly Cables Duplex Cable (Zipcord/Mini-Zip) – J-VH...TB3

A LANscape® Solutions Product

#### Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

## **Ordering Information**

Type designation	Fibercount	Outside Diameter (mm)	Order No. InfiniCor® OM2 (50/125 µm)	Order No. InfiniCor OM3 (50/125 µm)		
J-VH 2x1 TB3	2	2.8 x 5.7	LCXL12-L2002-B720	LCXLI2-L2002-D720		
J-VH 2x1 TB3	2	2.0 x 4.1	LCXLI2-L2002-B750	LCXLI2-L2002-D750		
J-VH 2x1 TB3 R ( Mini-Zip)	2	1.8 x 3.7	LCXLI2-L2002-B740	LCXLI2-L2002-D740		

Type designation	Fibercount	Outside Diameter (mm)	Order No. InfiniCor OM1 (62.5/125 μm)		
J-VH 2x1 TB3	2	2.8 x 5.7	LCXLI2-M2002-A720		
J-VH 2x1 TB3	2	2.0 x 4.1	LCXL12-M2002-A750		
J-VH 2x1 TB3 R (Mini-Zip)	2	1.8 x 3.7	LCXLI2-M2002-A740		

Type designation	Fibercount	Outside Diameter (mm)	Order No. SMF-28e® (9/125 μm)
J-VH 2x1 TB3	2	2.8 x 5.7	LCXLI2-D2002-U720
J-VH 2x1 TB3	2	2.0 x 4.1	LCXLI2-D2002-U750
J-VH 2x1 TB3 R ( Mini-Zip)	2	1.8 x 3.7	LCXLI2-D2002-U740

Special colors available upon request.

LANscape<sup>®</sup> Solutions

FutureLink™ Assembly Cables Simplex Cables (Patchcables) – J-VH...TB3

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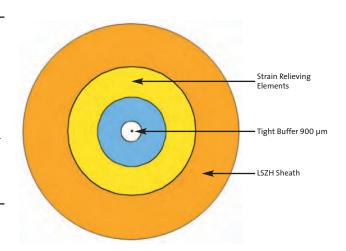


#### **Applications**

FutureLink™ simplex bulk cabling for cable assembly manufacturing operations is designed with 900 µm tight buffers for direct assembly of single-fiber connectors. The Future-Link cable with 2.0 mm diameter is particularly suitable for LC connectors, whereas the 2.8 mm simplex is suitable for most standard single-fiber connectors available on the market.

#### **Features**

- Utilizes 900 µm Tight-buffered fibers with TB3 coating, enabling easy consistent stripping (up to 100 mm)
- Low-smoke to IEC 61034 and zero-halogen (LSZH™)
- Flame-retardant to IEC 60 332-3 and non-corrosive to IEC 60754-2 (FRNC)
- Completely dry design (no gel)
- All-dielectric cable construction requires no grounding or bonding



#### **Temperature Range**

Installation and assembly −5 °C to +50 °C
 Operation −20 °C to +60 °C
 Transport and storage −25 °C to +70 °C

#### **Characteristics**

Type designation		Outside diameter (mm)	_	Max. Tensile strength (N)		radius in	
J-VH1	1	2.0	4.1	50	35	30	0.08
J-VH1	1	2.8	8.2	200	50	30	0.15

## FutureLink™ Modular Assembly Cables Simplex Cables (Patchcables) – J-VH...TB3

A LANscape® Solutions Product

#### Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

## **Ordering Information**

Type designation	Fibercount	Order No. InfiniCor® OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 μm)		
J-VH 1 TB3 (2.0 mm)	1	LCXLI2-L2001-B750	LCXLI2-L2001-D750		
J-VH 1 TB3 (2.8 mm)	1	LCXL12-L2001-B720	LCXL12-L2001-D720		
Type designation		Order No. InfiniCor OM1 (62.5/125 μm)			
J-VH 1 TB3 (2.0 mm)		LCXLI2-M2001-A750			
J-VH 1 TB3 (2.8 mm)		LCXL12-M2001-A720			
Type designation	Fiber count	Order No. SMF-28e® (9/125 µm)			
J-VH 1 TB3 (2.0 mm)	1	LCXLI2-D2001-U750			
J-VH 1 TB3 (2.8 mm)	1	ICXII2-D2001-II720			

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> Fiber Termination

# FutureLink™ Assembly Cables Mini-MIC / J-VH...TB3 R

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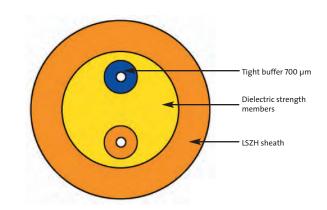


### **Applications**

The FutureLink™ Mini-MIC bulk cabling for cable assembly manufacturing operations is used primarily for terminating multifiber connectors (MT-RJ).

#### **Features**

- Tight-buffered fiber of 700 μm diameter,
   TB3 R design (easy to strip up to 100 mm)
- Low-smoke to IEC 61034 and zero-halogen (LSZH™)
- Flame-retardant to IEC 60 332-3 and non-corrosive to IEC 60754-2 (FRNC) and DIN VDE0472 part 813
- All-dielectric cable construction requires no grounding or bonding
- Completely dry design
- Especially suitable for factory assembly with MT-RJ connectors



#### **Temperature Range**

Installation and assembly −5°C to +50°C
 Operation −20°C to +60°C
 Transport and storage −25°C to +70°C

#### **Characteristics**

Type designation		Outside diameter		Max. Tensile strength (N)	radius for	radius in		Color cod Telcordia	
		(mm)			installation (mm)	service (mm)		No.	Bundle/ fiber color
J-VH 2 TB3 R	2	2.9	8	200	50	45	0.20	01 02	Blue Orange

# FutureLink™ Assembly Cables Mini-MIC / J-VH...TB3 R

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#### Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

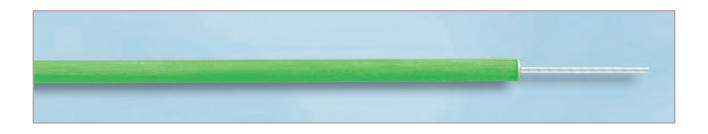
## **Ordering Information**

Type designation	Fibercount	Order No. InfiniCor <sup>®</sup> OM2 (50/125 μm)	Order No. InfiniCor OM3 (50/125 µm)
J-VH 2 TB3 R	2	LCXL12-L1002-B701	LCXLI2-L1002-D701
Type designation	Fiber count	<b>Order No.</b> InfiniCor OM1 (62.5/125 μm)	
J-VH 2 TB3 R	2	LCXLI2-M1002-A701	
Type designation	Fiber count	Order No. SMF-28e® (9/125 μm)	
J-VH 2 TB3 R	2	LCXLI2-D1002-U701	

LANscape<sup>®</sup> Solutions

# FutureLink™ Assembly Cables Tight Buffer V-E9/G50/G62.5

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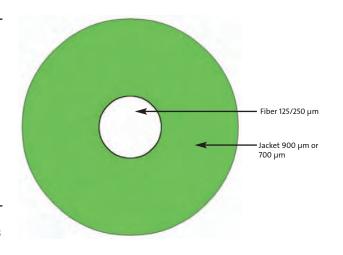


### **Applications**

These tight buffered fibers are used primarily by assembly manufacturing operations for making pigtails. Tight-buffered pigtails are typically used for connecting adapters and splice trays in patch panels where the incoming and outgoing cables are spliced. For field assemby applications these cables are especially suitable for use with UniCam® Connectors (only with 900 µm coating).

#### **Features**

- Utilizes 900 / 700 µm tight-buffered fibers with TB3 or TB coating, enabling easy consistent stripping (TB3 up to 100 mm, TB up to 1500 mm)
- Low-smoke to IEC 61034 and zero-halogen (LSZH)
- Flame retardant to IEC 60 332.3 and non-corrosive to IEC 60754-2 (FRNC)
- Completely dry design (no gel)



#### **Temperature Range**

Installation and assembly −5°C to +50°C
 Operation −20°C to +60°C
 Transport and storage −25°C to +70°C

#### **Characteristics**

Type designation	Fiber count	Outside diameter (mm)	Weight (kg/km)	Stripping Length (N)	Min. bend radius for installation (mm)	Min. bend radius in service (mm)	Fire load (MJ/m)
V (900 μm)	1	0.9	1	1500	30	0.14	TB
V (900 μm)	1	0.9	1	100	30	0.14	TB3
V reduced (700 μm)	1	0.7	0.6	1500	30	0.14	TBR
V reduced (700 μm)	1	0.7	0.6	100	30	0.14	TB3R

## FutureLink™ Assembly Cables Tight Buffer V-E9/G50/G62.5

A LANscape® Solutions Product

#### Features for InfiniCor® fibers

- Tested for their laser performance to FOTP 204
- Optimized for VCSEL launch conditions
- Guaranteed minimum distances for Gigabit Ethernet and 10 Gigabit Ethernet transmission

## **Ordering Information**

Type designation	Fiber typpe	Sheath colour	Sheath type	Order No.
V-G50 (900 µm)	InfiniCor OM3	aqua	ТВ	LCXLI2-LX001-D700-AQ
V-G50 (900 μm)	InfiniCor OM2	green	ТВ	LCXLI2-LX001-B700-GN
V-G62.5 (900 μm)	InfiniCor OM1	blue	TB	LCXLI2-MX001-A700-BL
V-E9 (900 μm)	SMF-28e	yellow	ТВ	LCXLI2-EX001-U700-GE
V-G50 (900 μm)	InfiniCor OM3	aqua	TB3	LCXLI2-LX001-D704-AQ
V-G50 (900 μm)	InfiniCor OM2	green	TB3	LCXLI2-LX001-B704-GN
V-G62.5 (900 μm)	InfiniCor OM1	blue	TB3	LCXLI2-MX001-A704-BL
V-E9 (900 μm)	SMF-28e	yellow	TB3	LCXLI2-EX001-U704-GE
V-G50 reduced (700 μm)	InfiniCor OM3	aqua	TB R	LCXLI2-LX001-D702-AQ
V-G50 reduced (700 μm)	InfiniCor OM2	green	TB R	LCXLI2-LX001-B702-GN
V-G62.5 reduced (700 μm)	InfiniCor OM1	blue	TB R	LCXLI2-MX001-A702-BL
V-E9 reduced (700 µm)	SMF-28e	yellow	TB R	LCXLI2-EX001-U702-GE
V-G50 reduced (700 μm)	InfiniCor OM3	aqua	TB3 R	LCXLI2-LX001-D701-AQ
V-G50 reduced (700 μm)	InfiniCor OM2	green	TB3 R	LCXLI2-LX001-B701-GN
V-G62.5 reduced (700 μm)	InfiniCor OM1	blue	TB3 R	LCXLI2-MX001-A701-BL
V-E9 reduced (700 μm)	SMF-28e	yellow	TB3 R	LCXLI2-EX001-U701-GE

# FutureLink™ Assembly Cables Furcation Tubes -J-HH

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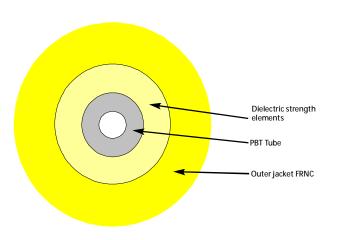
Cormina Future Civic 3-LH

#### **Applications**

This furcation tube for one or two fibers can be used to manufacture fan-out kits. Fan-out kits provide easy splitting of high density central or losse tube cables for Plug & Play™ Solutions or other applications. This fan-out tube with integrated strength elements incorporates all the features for the easy installation of simplex or duplex fiber connectors.

#### **Features**

- PBT -Tube
- Dielectric (metal-free), hence no ground loop problems
- Dry, without filling compound
- Easy to strip
- Low smoke according to IEC 61034
- Zero Halogen (LSZH)
- Flame retardant according to IEC 60 332-3
- Non-corrosive according to IEC 60 754-2 (FRNC)



### **Temperature Range**

Installation and assembly	-5 °C to $+50$ °C
Operation	-0°C to +50°C

■ Transport and storage -25°C to +70°C

#### Characteristics

Type designation	For fiber count	Outside diameter cable (mm)	Weight (kg/km)	Max. Tensile strength (N)	Min. bend radius in installation (mm)	Fire rating (MJ/m)
J-HH 1 FRNC GE	2	2.8	6.6	200	30	0.15
J-HH 1 FRNC OR	1	2.8	7.5	200	30	0.16
J-HH 1 FRNC AQ	2	2.0	4	150	30	0.099
J-HH 1 FRNC	1	2.0	4	150	30	0.085

#### Color code

Yellow	=	Single-mode (OS1)
Orange	=	Multimode (OM1/OM2)
Δαιια	_	Multimode (OM3)

# FutureLink™ Assembly Cables Furcation Tubes -J-HH

A LANscape® Solutions Product

## **Ordering Information**

#### Cables with 2.0 mm outside diameter for one fiber

Type designation	Jacket color	Outer diameter tube (mm)	Inner diameter tube (mm)	Order No.
J-HH FRNC GE	yellow	0.95	0.45	LCXLI1-V2000-V753
J-HH FRNC OR	orange	0.95	0.45	LCXLI1-V2000-V751
J-HH FRNC AQ	aqua	0.95	0.45	LCXLI1-V2000-V755

#### Cables with 2.0 mm outside diameter for two fibers

Type designation	Jacket color	Outer diameter tube (mm)	Inner diameter tube (mm)	Order No.
J-HH FRNC GE	yellow	1.15	0.6	LCXLI1-V2000-V750
J-HH FRNC OR	orange	1.15	0.6	LCXLI1-V2000-V751
J-HH FRNC AQ	aqua	1.15	0.6	LCXLI1-V2000-V752

#### Cables with 2.8 mm outside diameter for one fiber

Type designation	Jacket color	Outer diameter tube (mm)	Inner diameter tube (mm)	Order No.
J-HH FRNC GE	yellow	0.95	0.45	LCXLI1-V2000-V723
J-HH FRNC OR	orange	0.95	0.45	LCXLI1-V2000-V722
J-HH FRNC AQ	aqua	0.95	0.45	LCXLI1-V2000-V7525

#### Cables with 2.8 mm outside diameter for two fibers

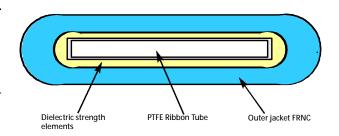
Type designation	Jacket color	Outer diameter tube (mm)	Inner diameter tube (mm)	Order No.
J-HH FRNC GE	yellow	1.15	0.6	LCXLI1-V2000-V720
J-HH FRNC OR	orange	1.15	0.6	LCXLI1-V200-V721
J-HH FRNC AQ	aqua	1.15	0.6	LCXLI1-V2000-V724

# FutureLink™ Assembly Cables Furcation Tubes for Ribbon Fiber - J-HH

A LANscape® Solutions Product

#### **Applications**

This Fan-Out rectangular tube for ribbon fibers will predominantly be used in cable assembly houses to manufacture ribbon Fan-Out kits. This ribbon Fan-Out kits provide easy splitting of high density ribbon cables in patchpanels or consolidation points for Plug & Play™ Solutions or other applications. It is suitable for MTP® terminations (e.g. server areas or floor distributors).



#### **Features**

- PTFE Ribbon Tube, for 12-fiber ribbon cable
- Square shapre for ribbon cable
- Dielectric (metal-free), hence no ground loop problems
- Dry, without filling compound
- Easy to strip
- Low smoke according to IEC 61034
- Jacket is zero halogen (LSZH), flame retardant according to IEC 60 332-3 and non corrosive according to IEC 60 754-2 (FRNC) and DIN VDE 0472 part 813

#### **Temperature Range**

■ Installation and assembly −5°C to +50°C

■ Operation -0°C to +50°C

■ Transport and storage −25 °C to +70 °C

#### Characteristics

Type designation	No. of Tubes	Outside diameter cable (mm)	Weight (kg/km)	Max. Tensile strength (N)	Min. bend radius in installation over flat side (mm)	Fire rating (MJ/m)
J-HH1 F	1	4.8 x 1.9	11.2	200	30	0.063
J-HH 1 F	1	4.8 x 1.9	11.2	200	30	0.063
J-HH1 F	1	4.8 x 1.9	11.2	200	30	0.063

### **Ordering Information**

Type designation	Jacket color	Outside diameter tube (mm)	Inner diameter tube (mm)	Order No.
J-HH 1 F GE	yellow	4.1 x 1.0	3.5 x 0.4	LCXLI1-V2000-V701
J-HH1F OR	orange	4.1 x 1.0	3.5 x 0.4	LCXLI1-V2000-V700
J-HH1F AQ	aqua	4.1 x 1.0	3.5 x 0.4	LCXLI1-V2000-V702

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### **Applications**

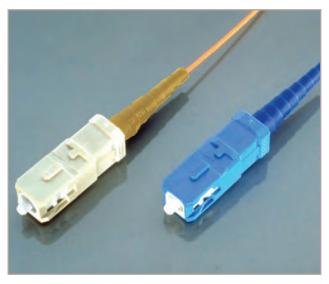
- Building wiring applications
- Ideal for connector assembly house applications in patch cord manufacturing
- Mass terminations when material cost is the main consideration
- Applications requiring low connector reflectance

#### Description

The Corning Cable Systems Plus Corning heat-cured product line includes a full selection of single-mode and multimode epoxy and polish connectors for factory cable assembly installation. We offer a wide range of connector styles, hardware and boot options. In today's market with low-cost imitations, Corning Cable Systems continues to offer high quality, pre-assembled connectors in order to give you the confidence of delivering a quality cable assembly to your end customer.

The Coring Cable Systems single-mode, pre-radiused ceramic ferrule connectors can be polished to Ultra PC (ultra-physical contact, ≤ 55 dB back reflectance) performance. For angled PC (APC), the FC, LC and SC are available with a pre-angled 8 degree end-face. The polymer multimode ferrule offers excellent performance at an economical price. The zirconia ceramic multimode ferrule is offered standard with a pre-radiused end-face.

The standard recommended procedures provided with our connectors indicate proper polishing pressure, time and polishing films when using automated polishing machines. Correct processes coupled with a high-quality, pre-radiused ferrule ensure excellent performace and yield every time. Additionally, pre-ground APC and pre-radiused ferrules allow for a faster and more efficient polishing process without the need for long, expensive, diamond polishing steps often required with lower quality ferrules. Field installation kits are available for hand polishing as well.



**Heat-Cure SC Connectors** 



Heat-Cure LC Connector

The bayonet hardware on the ST® Compatible connector is available in either thermoplastic or metal. The LC and SC connectors have shrouds which are duplexable after installation when used with the duplex clips. The FC and SC connectors have non-optical disconnect features. All connectors are pre-assembles for easy installation. Additionally, a leadin tube inside the crimp body ensures epoxy is contained and helps with fiber insertion.

## LANscape<sup>®</sup> Solutions

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## Cable Management

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## **Heat-Cure Single-Fiber Connectors**

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#### Features / Benefits

- Bulk packaging for easier parts management
- Angled PC (8°) available in FC, LC and SC
- Pre-radiused zirconia ceramic ferrule; Ultra PC possible
- Multimode polymer ferrule provides low cost option with performance similar to ceramic
- Connectors are pre-assembled for reduced installation time (ferrule, ferrule holder, spring, crimp body and primary connector housing provided as one piece)
- Segmented-design boots provide improved mechanical performance
- New crimp ring with jacket retention for 1.6, 2.0 and 3.0 mm cable
- Boot size and color options
- SC, ST compatible and FC meet TIA/EIA-568-B.3 standard; SC and LC are duplexable
- FC and SC have non-optical disconnect feature
- 90 degree boot clips are available as add-on accessories
- Connectors branded as CORNING

### **Specifications**

Parameter	Single-mode	Multimode
Interconnection Compatibility	Compliant with TIA/EIA 604-2 (ST compatible), 604-3 (SC), 604-4 (FC) and 604-10 (LC)	
Insertion Loss (average)	0.2 dB	Polymer ferrule: 0.2 dB Standard ceramic ferrule: 0.2 dB
Reflectance	< -30 dB for PC < -40 dB for Super PC < -55 dB for Ultra PC < -65 dB for Angled PC	-20 dB -20 dB -20 dB -20 dB
Durability	$\leq$ 0.2 dB change, 500 rematings, FOTP-21 (500 rematings for LC)	$\leq$ 0.2 dB change, 500 rematings, FOTP-21 (500 rematings for LC)
Tensile Strength	$\leq$ 0.2 dB change, 20 lb, FOTP-6	$\leq$ 0.2 dB change, 20 lb, FOTP-6
Temperature Cycling	-40° to +75°C, 21 cycles, < 0.3 dB change	-40° to +75°C, 21 cycles, < 0.3 dB change
Material	Ferrule: Pre-radiused zirconia, Housing: Thermoplastic or metal, as specified by part number	Ferrule: Pre-radiused zirconia, Housing: Thermoplastic or metal, as specified by part number
	Note, SC connector is not available with motal bousing	

Note: SC connector is not available with metal housing.

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## **Ordering Information**

All components are packaged in bags of 100 pieces unless specified otherwise. Single connectors are also available; to order, replace the BP-suffix on the connector part number with SP. The SP-versions are delivered with connector, dust cap, crimp rings for 1.6-2 mm and 3 mm cable application, and boots for 900  $\mu$ m, 1.6-2 mm and 3 mm cables.

#### 1. Order the connector.

#### **SC Connectors**

Part Number	Description	Quantity per Delivery Unit
95-250-08-BP	SC single-mode, epoxy and polish connector, ceramic ferrule (125.5 µm hole diameter), blue housing, dust cap, without boot or crimp ring, Plus Corning logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-211-08-BP	SC APC 8° single-mode, epoxy and polish connector, ceramic ferrule (125.5 µm hole diameter), pre-angled, green housing, dust cap, without boot or crimp ring, Plus Corning logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-050-48-BP	SC multimode, epoxy and polish connector, ceramic ferrule, black housing (50 µm), dust cap, without boot or crimp ring, Plus Corning logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-100-48-BP	SC multimode, epoxy and polish connector, ceramic ferrule, beige housing (62.5 µm), dust cap, without boot or crimp ring, Plus Corning logo, bulk pack (order in multiples of 100)	100



## LANscape Solutions

# Further

## **Heat-Cure Single-Fiber Connectors**

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## **Ordering Information**

## **SC Connectors (continued)**

Part Number	Description	Quantity per Delivery Unit
95-100-03-BP	SC multimode, epoxy and polish connector, composite ferrule, beige plastic body (62.5 µm), dust cap, without boot or crimp ring, Plus Corning logo, bulk pack (order in multiples of 100)	100



### **ST** <sup>®</sup> Compatible Connectors

Part Number	Description	Quantity per Delivery Unit
95-251-49-BP	ST single-mode, epoxy and polish connector, ceramic ferrule (125.5 µm hole diameter), metal bayonet/body, dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-101-49-BP	ST multimode, epoxy and polish connector, ceramic ferrule, metal bayonet/body, dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-250-06-BP	ST single-mode, epoxy and polish connector, ceramic ferrule (125.5 µm hole diameter), blue plastic bayonet/body (single-mode), dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-050-44-BP	ST multimode, epoxy and polish connector, ceramic ferrule, black plastic bayonet/body (50 µm), dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



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## **Ordering Information**

## ST® Compatible Connectors (continued)

Part Number	Description	Quantity per Delivery Unit
95-100-44-BP	ST multimode, epoxy and polish connector, ceramic ferrule, beige plastic bayonet/body (62.5 µm), dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-100-02-BP	ST multimode, epoxy and polish connector, composite ferrule, black plastic bayonet/body (62.5 µm), dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



#### **FC Connectors**

Part Number	Description	Quantity per Delivery Unit
95-250-10-BP	FC single-mode, epoxy and polish connector, ceramic ferrule (125.5 µm hole diameter), metal threaded housing, dust cap, without boot or crimp ring, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-211-10-BP	FC APC 8° single-mode, epoxy and polish connector, ceramic ferrule (125.5 µm hole diameter), pre-angled, metal threaded housing, dust cap, without boot or crimp ring, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-100-10-BP	FC multimode, epoxy and polish connector, ceramic ferrule, metal threaded housing, dust cap, without boot or crimp ring, no logo, bulk pack (order in multiples of 100)	100



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# Further

## **Heat-Cure Single-Fiber Connectors**

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## **Ordering Information**

### **LC Connectors**

Part Number	Description	Quantity per Delivery Unit
95-250-LC-BP	LC single-mode, epoxy and polish connector, ceramic ferrule 1.25 mm (125.5 µm hole diameter), blue housing, dust cap, without boot, crimp ring or trigger, Plus Corning logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-211-LC-BP	LC APC 8° single-mode, epoxy and polish connector, ceramic ferrule 1.25 mm (125.5 µm hole diameter), green housing, dust cap, without boot, crimp ring or trigger, Plus Corning logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-050-LC-BP	LC multimode, epoxy and polish connector, ceramic ferrule 1.25 mm, black housing (50 µm), dust cap, without boot, crimp ring or trigger, Plus Corning logo, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-100-LC-BP	LC multimode, epoxy and polish connector, ceramic ferrule 1.25 mm, beige housing (62.5 µm), dust cap, without boot, crimp ring or trigger, Plus Corning logo, bulk pack (order in multiples of 100)	100



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## **Ordering Information**

## 2. Order the crimp ring

Part Number	Description	Quantity per Delivery Unit
95-400-09-BP26	Crimp ring with jacket retention for SC/FC/ST (1.6-2 mm), use with crimp tool 3201031-01, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-400-09-BP3	Crimp ring with jacket retention for SC/FC/ST (3 mm), use with crimp tool 3201031-01, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-400-12-BP26	Crimp ring with jacket retention for LC (1.6-2 mm), use with crimp tool 3201032-01, bulk pack (order in multiples of 100)	100



Part Number	Description	Quantity per Delivery Unit
95-400-12-BP3	Crimp ring with jacket retention for LC (3 mm), use with crimp tool 3201032-01, bulk pack (order in multiples of 100)	100



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## **Heat-Cure Single-Fiber Connectors**

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## **Ordering Information**

### 3. Order the boot (bulk packs)

### Boots for SC/ST/FC Connectors, 900µm

Part Number	Description	Quantity per Delivery Unit
95-400-08-BP9A	Boot 900 µm for SC/ST/FC, aqua, with Plus Corning Logo	100
95-400-08-BP9B	Boot 900 µm for FC/ST/SC, black, with Plus Corning Logo	100
95-400-08-BP9C	Boot 900 µm for FC/ST/SC, charcoal gray, with Plus Corning Logo (not shown)	100
95-400-08-BP9G	Boot 900 µm for FC/ST/SC, green, with Plus Corning Logo	100
95-400-08-BP9K	Boot 900 µm for FC/ST/SC, beige, with Plus Corning Logo	100
95-400-08-BP9N	Boot 900 µm for FC/ST/SC, blue, with Plus Corning Logo	100
95-400-08-BP9R	Boot 900 µm for FC/ST/SC, red, with Plus Corning Logo	100
95-400-08-BP9W	Boot 900 µm for FC/ST/SC, white, with Plus Corning Logo	100
95-400-08-BP9Y	Boot 900 µm for FC/ST/SC, yellow, with Plus Corning Logo	100



#### Boots for SC Connectors, 1.6-2 mm

Part Number	Description	Quantity per Delivery Unit
95-400-31-BP2A	Boot 1.6-2 mm for SC, aqua, no logo, for use with jacket retention crimp ring	100
95-400-31-BP2B	Boot 1.6-2 mm for SC, black, no logo, for use with jacket retention crimp ring	100
95-400-31-BP2C	Boot 1.6-2 mm for SC, charcoal gray, no logo, for use with jacket retention crimp ring (not shown)	100
95-400-31-BP2G	Boot 1.6-2 mm for SC, green, no logo, for use with jacket retention crimp ring	100
95-400-31-BP2K	Boot 1.6-2 mm for SC, beige, no logo, for use with jacket retention crimp ring	100
95-400-31-BP2N	Boot 1.6-2 mm for SC, blue, no logo, for use with jacket retention crimp ring	100
95-400-31-BP2R	Boot 1.6-2 mm for SC, red, no logo, for use with jacket retention crimp ring	100
95-400-31-BP2W	Boot 1.6-2 mm for SC, white, no logo, for use with jacket retention crimp ring	10
95-400-31-BP2Y	Boot 1.6-2 mm for SC, yellow, no logo, for use with jacket retention crimp ring	100



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## **Ordering Information**

### Boots for SC Connectors, 3 mm

Part Number	Description	Quantity per Delivery Unit
95-400-31-BP3A	Boot 3 mm for SC, aqua, no logo, for use with jacket retention crimp ring	100
95-400-31-BP3B	Boot 3 mm for SC, black, no logo, for use with jacket retention crimp ring	100
95-400-31-BP3C	Boot 3 mm for SC, charcoal gray, no logo, for use with jacket retention crimp ring (not shown)	100
95-400-31-BP3G	Boot 3 mm for SC, green, no logo, for use with jacket retention crimp ring	100
95-400-31-BP3K	Boot 3 mm for SC, beige (khaki), no logo, for use with jacket retention crimp ring	100
95-400-31-BP3N	Boot 3 mm for SC, blue, no logo, for use with jacket retention crimp ring	100
95-400-31-BP3R	Boot 3 mm for SC, red, no logo, for use with jacket retention crimp ring	100
95-400-31-BP3W	Boot 3 mm for SC, white, no logo, for use with jacket retention crimp ring	100
95-400-31-BP3Y	Boot 3 mm for SC, yellow, no logo, for use with jacket retention crimp ring	100



## Boots for ST®/FC Connectors, 1.6-2 mm

Part Number	Description	Quantity per Delivery Unit
95-400-32-BP2A	Boot 1.6-2 mm for ST/FC, aqua, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2B	Boot 1.6-2 mm for ST/FC, black, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2C	Boot 1.6-2 mm for ST/FC, charcoal gray, Plus Plus Corning logo, for use with jacket retention crimp ring (not shown)	100
95-400-32-BP2G	Boot 1.6-2 mm for ST/FC, green, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2K	Boot 1.6-2 mm for ST/FC, beige, Plus Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2N	Boot 1.6-2 mm for ST/FC, blue, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2R	Boot 1.6-2 mm for ST/FC, red, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2W	Boot 1.6-2 mm for ST/FC, white, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP2Y	Boot 1.6-2 mm for ST/FC, yellow, Plus Corning logo, for use with jacket retention crimp ring	100



## **Heat-Cure Single-Fiber Connectors**

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## **Ordering Information**

### Boots for ST/FC Connectors, 3 mm

Part Number	Description	Quantity per Delivery Unit
95-400-32-BP3A	Boot 3 mm for ST/FC, aqua, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3B	Boot 3 mm for ST/FC, black, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3C	Boot 3 mm for ST/FC, charcoal gray, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3G	Boot 3 mm for ST/FC, green, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3K	Boot 3 mm for ST/FC, beige, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3N	Boot 3 mm for ST/FC, blue, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3R	Boot 3 mm for ST/FC, red, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3W	Boot 3 mm for ST/FC, white, Plus Corning logo, for use with jacket retention crimp ring	100
95-400-32-BP3Y	Boot 3 mm for ST/FC, yellow, Plus Corning logo, for use with jacket retention crimp ring	100



### Boots for LC Connectors, 900µm

Part Number	Description	Quantity per Delivery Unit
95-400-11-BP9A	Boot 900 µm for LC, aqua, no logo	100
95-400-11-BP9B	Boot 900 µm for LC, black, no logo	100
95-400-11-BP9C	Boot 900 µm for LC, charcoal gray, no logo (not shown)	100
95-400-11-BP9G	Boot 900 µm for LC, green, no logo	100
95-400-11-BP9K	Boot 900 µm for LC, beige, no logo	100
95-400-11-BP9N	Boot 900 µm for LC, blue, no logo	100
95-400-11-BP9R	Boot 900 µm for LC, red, no logo	100
95-400-11-BP9W	Boot 900 µm for LC, white, no logo	100
95-400-11-BP9Y	Boot 900 μm for LC, yellow, no logo	100



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## **Ordering Information**

### Boots for LC Connectors, 1.6-2 mm

Part Number	Description	Quantity per Delivery Unit
95-400-11-BP2A	Boot 1.6-2 mm for LC, aqua, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2B	Boot 1.6-2 mm for LC, black, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2C	Boot 1.6-2 mm for LC, charcoal gray, no logo, for use with jacket retention crimp ring (not shown)	100
95-400-11-BP2G	Boot 1.6-2 mm for LC, green, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2K	Boot 1.6-2 mm for LC, beige, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2N	Boot 1.6-2 mm for LC, blue, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2R	Boot 1.6-2 mm for LC, red, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2W	Boot 1.6-2 mm for LC, white, no logo, for use with jacket retention crimp ring	100
95-400-11-BP2Y	Boot 1.6-2 mm for LC, yellow, no logo, for use with jacket retention crimp ring	100



### Boots for LC Connectors, 3 mm

Part Number	Description	Quantity per Delivery Unit
95-400-11-BP3A	Boot 3 mm for LC, aqua, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3B	Boot 3 mm for LC, black, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3C	Boot 3 mm for LC, charcoal gray, no logo, for use with jacket retention crimp ring (not shown)	100
95-400-11-BP3G	Boot 3 mm for LC, green, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3K	Boot 3 mm for LC, beige, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3N	Boot 3 mm for LC, blue, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3R	Boot 3 mm for LC, red, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3W	Boot 3 mm for LC, white, no logo, for use with jacket retention crimp ring	100
95-400-11-BP3Y	Boot 3 mm for LC, yellow, no logo, for use with jacket retention crimp ring	100



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## **Heat-Cure Single-Fiber Connectors**

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## **Ordering Information**

### 4. Order the additional pieces (boot clips, duplex clips).

## 90° Degrees Clip for LC Connectors

Part Number	Description	Quantity per Delivery Unit
95-400-04-BPB	clip 90° for LC boot 2 mm, black	100
95-400-04-BPC	clip 90° for LC boot 2 mm, clear	100
95-400-04-BPG	clip 90° for LC boot 2 mm, green	100
95-400-04-BPN	clip 90° for LC boot 2 mm, blue	100
95-400-04-BPR	clip 90° for LC boot 2 mm, red	100
95-400-04-BPW	clip 90° for LC boot 2 mm, white	100
95-400-04-BPY	clip 90° for LC boot 2 mm, yellow	100



### 90° Degrees Clip for 3 mm Cables

Part Number	Description	Quantity per Delivery Unit
95-400-02-BP	Clip 90° boot clip for 3 mm cables, fits over normal 3 mm boot, clear, bulk pack (order in multiples of 100)	100



## 90° Degrees Clip for 3 mm Cables

Part Number	Description	Quantity per Delivery Unit
BOOTCLIP-BP100	Boot clip 90°, metal, includes plastic tool for installation bulk pack (order in multiples of 100)	100

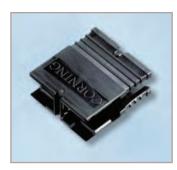


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## **Ordering Information**

## SC Duplex Clip and LC Trigger

Part Number	Description	Quantity per Delivery Unit
95-400-03-BP	SC Duplex clip with Corning logo (order in multiples of 50 pcs.)	50
Note:	SC clips are compatible with all Corning heat-cured bag of parts connectors and field installable connectors (UniCam®, Anaerobic, Anaerobic GIC and UV GIC	)



Part Number	Description	Quantity per Delivery Unit
TRIGGER-BP-D	Clip, LC Trigger, Duplex, with Corning logo (order in multiples of 50 pcs.)	50
TRIGGER-BP-S	Clip, LC Trigger, Simplex, with Corning logo (order in multiples of 100 pcs.)	100
Note:	LC duplex clips are compatible with all Corning heat-cured bag of parts connectors and all field installable connectors (Unicam® and Anaerobic).	



### Accessories

TKT-025-INT	Termination Kit for Corning Cable Systems multimode and single-mode heat-cure connectors with 2.5 mm ferrules; includes installation tools and over (220 v) for ceramic or composite connectors and consumables for up to 200 ceramic connectors; supplemental consumables must be added for composite termination (TKT-025-CA)	
TKT-025-CA Supplemental Consumables to terminate all-composite connectors; must be add when installing composite ferrule single-fiber connectors		
TKT-025-C	Ceramic Consumables Kit for TKT-025; will terminate up to 200 connectors	
TKT-025-C1	O25-C1 Composite Consumables Kit for TKT-025; will terminate up to 200 connectors	
TKT-SFF-125	Termination Kit for Corning Cable Systems multimode and single-mode heat-cure connectors with 1.25 µm ceramic ferrules: includes basic fiber preparation tools, 15 port oven, polishing puck, microscope installation tools for ceramic connectors and consumables	
3201031-01 Crimp Tool for ST compatible, SC and FC heat-cured and anaerobic connectors with 95-400-and 95-400-09-BP3 crimp ring with jacket retention		
3201032-01	Crimp Tool for LC heat-cured and anaerobic connectors with 95-400-12-BP26 and 95-400-12-BP3 crimp rings with jacket retention	
	Note: All "-BP" bulk pack items are priced and ordered per piece but must be ordered in multiples of 100, e.g., 100, 400, 1200 etc.	

## **Heat-Cure MT-RJ Connectors**

A LANscape® Solutions Product

### **Applications**

- Building wiring applications
- Ideal for connector assembly house applications in patch cord manufacturing
- Provides economic termination for high fiber counts

#### Description

Corning Cable Systems introduces the latest in high-density connectivity solutions with the MT-RJ Connector.

The MT-RJ Connector is a small-form-factor connector with two fibers in one ferrule. These connectors offer lower cost-per-termination, improved installation and greater density for both electronics and cable management hardware.

The MT-RJ Connector was designed to meet the fiber optic industry's request for a new interface technology that is significantly lower in cost and smaller in size than the SC Duplex interface. The small MT-RJ interface can be spaced the same as copper RJ-45 connectors, effectively doubling the number of fiber ports. The net effect is a reduction in the overall price per fiber port making fiber-to-the-desktop solutions more competitive with copper.



Heat-Cure MT-RJ Connector

#### Features / Benefits

- Industry-leading thermoplastic ferrule provides low cost and performance comparable to ceramic
- One-step crimp ring provides tensile strength and jacket retention
- Small size; doubles current density
- Rugged design; meets or exceeds industry standard requirements
- Bulk packaging for easier parts management
- Connectors branded as CORNING

## **Specifications**

Parameter	Single-mode	Multimode	
Insertion Loss (average)	< 0.3 dB	0.2 dB	
Reflectance	-35 dB average	-20 dB average	
Durability	< 0.3 dB change	< 0.2 dB change	
Temperature Cycling	-40° to +75°C, 21 cycles, < 0.3 dB change		

Introduction

LANscape® Solutions

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Hardware

Closures

## **Heat-Cure MT-RJ Connectors**

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## **Ordering Information**

1. Order the Bulk Connector (Single connectors are also available; to order, omit the -BP suffix on the connector part number.)

Part Number	Description	Quantity per Delivery Unit
91-200-97-BP	MT-RJ single-mode, Epoxy & Polish connector, multipiece part, rectangular, thermoplastic ferrule, 9 µm, blue housing, without boot, crimp or pins, Plus Corning Logo, bulk pack	100/1



Part Number	Description	Quantity per Delivery Unit
91-050-97-BP	MT-RJ multimode, Epoxy & Polish Connector, multipiece part, rectangular, thermoplastic ferrule, 50 µm, black housing, without boot, crimp or pins, Plus Corning Logo, bulk pack	100/1



Part Number	Description	Quantity per Delivery Unit
91-100-97-BP	MT-RJ multimode, Epoxy & Polish Connector, multipiece part, rectangular, thermoplastic ferrule, 62,5 µm, beige housing, without boot, crimp or pins, Plus Corning Logo, bulk pack	100/1



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## **Heat-Cure MT-RJ Connectors**

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## **Ordering Information**

### 2. Order the Crimp Band and Boot

95-400-28-BP3	Crimp Ring for MT-RJ, 3.0 mm, bulk pack (order multiples of 100 pcs.)
95-400-28-BP6	
93-400-28-BP0	Crimp Ring for MT-RJ for 2 x 1.8 mm Mini-Zip cable, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3	Boot 3 mm for MT-RJ, black on 3 mm cable, without logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3A	Boot, MT-RJ, 3.0 mm, aqua with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3B	Boot, MT-RJ, 3.0 mm, black with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3K	Boot, MT-RJ, 3.0 mm, beige with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3G	Boot, MT-RJ, 3.0 mm, green with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3N	Boot, MT-RJ, 3.0 mm, blue with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3R	Boot, MT-RJ, 3.0 mm, red with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP3Y	Boot, MT-RJ, 3.0 mm, yellow with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6A	Boot, MT-RJ, 1.6 mm, mini-zip, aqua with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6B	Boot, MT-RJ, 1.6 mm, mini-zip, black with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6G	Boot, MT-RJ, 1.6 mm, mini-zip, green with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6K	Boot, MT-RJ, 1.6 mm, mini-zip, beige with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6N	Boot, MT-RJ, 1.6 mm, mini-zip, blue with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6R	Boot, MT-RJ, 1.6 mm, mini-zip, red with no logo, bulk pack (order multiples of 100 pcs.)
95-400-29-BP6Y	Boot, MT-RJ, 1.6 mm, mini-zip, yellow with no logo, bulk pack (order multiples of 100 pcs.)
KG-400-07-BP2B	Boot for MT-RJ on 900 µm pigtails, black, bulk pack (order multiples of 100 pcs.)
Accessories	
1101028-01	Tracon 113SC Epoxy for (approximately 200 connectors) for multimode MT-RJs

1101028-01	Tracon 113SC Epoxy for (approximately 200 connectors) for multimode MT-RJs
1101026-01	Tracon F123 Epoxy for (approximately 200 connectors) for single-mode MT-RJs
3201033-01	Crimp Tool, MT-RJ for 3 mm round cable and 2 x 1.8 mm Mini-Zip
95-400-25-RJMM	Pin keeper assembly for MT-RJ epoxy and polish, multimode. Contains pin keeper and 2 pins (pack of 100)
95-400-25-RJSM	Pin keeper assembly for MT-RJ epoxy and polish, single-mode. Contains pin keeper and 2 pins (pack of 100)

## **Heat-Cure MTP® Connectors**

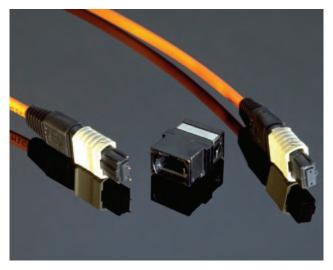
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### **Applications**

- High-fiber-count data centers
- Parallel optical interconnects between servers

#### Description

The Heat-Cure MTP <sup>®</sup> Connector is a 12-fiber connector that provides very high density in a small space. Designed for multimode and single-mode performance, the MTP Connector utilizes a push-pull design for easy mating and removal. The MTP Connector is approximately the same size as the well-known SC but provides 12 times the density, offering tremendous savings in valuable floor and rack space.



Heat-Cure MTP® Connectors

#### Features / Benefits

- High-density connection replaces 12 single-fiber connections
- Push-pull latch for easy connection
- Terminates ribbon fibers or ribbonized single fibers
- Keyed to ensure proper orientation
- Meets requirements of ANSI HIPPI-6400 and IEC 1754-7 and TIA/EIA-604-5 (FOCIS) documents
- Connectors branded as CORNING

## **Heat-Cure MTP® Connectors**

A LANscape® Solutions Product

## **Specifications**

Parameter	Multimode	Single-Mode
Insertion Loss	0.25 dB average	0.35 dB average
Durability	$\leq$ 0.2 dB change per FOTP-21 200 rematings	$\leq$ 0.2 dB change per FOTP-21 200 rematings
Temperature Cycling	$\leq$ 0.3 dB change, -40° to +75°C; 21 cycles	$\leq$ 0.3 dB change, -40° to +75°C; 21 cycles
Reflectance	N/A	$\leq$ -55 dB (Angled Polish)

## **Ordering Information**

Single pack connectors are also available; to order, omit the -BP suffix from the part number. Bulk pack (BP) versions provide all components needed for MTP® Connector except: pin keeper assembly, crimp and boot.

Part Number	Description
94-112-70-BP	12-Fiber MTP Multimode Connector thermoplastic ferrule, beige housing, no pins; (order multiples of 100 pcs.)
94-108-70-BP	8-Fiber MTP Multimode Connector thermoplastic ferrule, beige housing, no pins; (order multiples of 100 pcs.)
94-104-70-BP	4-Fiber MTP Multimode Connector thermoplastic ferrule, beige housing, no pins; (order multiples of 100 pcs.)
94-212-69-BP	12-Fiber MTP Single-mode Connector thermoset ferrule, green housing, no pins; (order multiples of 100 pcs.)
94-208-69-BP	8-Fiber MTP Single-mode Connector thermoset ferrule, green housing, no pins; (order multiples of 100 pcs.)
94-204-69-BP	4-Fiber MTP Single-mode Connector thermoset ferrule, green housing, no pins; (order multiples of 100 pcs.)
95-400-25-MTMM	Pin keeper assembly for 12-Fiber MTP Multimode Connector; 1 pinkeeper and 2 pins; bulk packaged in quantities of 100 (each mated connector pair requires two pins)
95-400-25-MTSM	Pin keeper assembly for 12-Fiber MTP Single-mode Connector; 1 pinkeeper and 2 pins; bulk packaged in quantities of 100 (each mated connector pair requires two pins)
ADP-MTPO-CNXFL-CL5	Adapter for 12-Fiber MTP Connector

#### **Accessories**

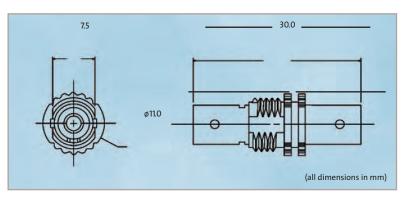
Part Number	Description	
3201027-01	Crimp Tool for MTP Connector	
95-400-24-BPRB	Boot, MTP Connector, on bare ribbon, black, bulk pack (pack of 100)	
95-400-24-BPJB	Boot, MTP Connector, Jacketed Cable (pack of 100)	
95-400-27-BP	Crimp Band, MTP Connector for jacketed cable (pack of 100)	
SP1000-MTPT-S	MTP Connector Polishing Films Kit, single-mode	
SP1000-MTP-M-TP	MTP Connector Polishing Films Kit, multimode	

## **Fiber Optic Adapters/Interconnect Sleeves**

A LANscape® Solutions Product

### ST® Adapters – Features / Dimensions

- Central mounting threaded
- Locknut included



Threaded ST ® Compatible Connector Adapter

## **Ordering Information**

### ST Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-ST00-MCNTH-NLS	ST adapter for single-mode connectors, metal housing, ceramic sleeve, matching feedthrough LAXLSN-00001-C000, with nut for screw-mounting



Part Number	Description
ADP-ST00-MCXTH-NLS	ST adapter for mutimode connectors, metal housing, ceramic sleeve, matching feedthrough LAXLSN-00001-C000, with nut for screw-mounting



Part Number	Description
ADP-ST00-CCXTH-NLS	ST adapter for mutimode connectors, composite housing, ceramic sleeve, matching feedthrough LAXLSN-00001-C000. with nut for screw-mounting



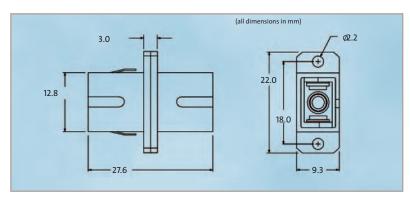
Part Number	Description
ADP-ST00-CPKTH-NLS	ST adapter for mutimode connectors, composite housing, composite sleeve, matching feedthrough LAXLSN-00001-C000, with nut for screw-mounting



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# SC Simplex Adapters – Features / Dimensions

- Flanged mounting with spring plate
- for plug-in mounting
- Composite housing

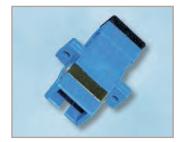


SC Simplex Adapter

### **Ordering Information**

### SC Simplex Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-SC00-CCNFL-CLS	SC adapter for single-mode connectors, composite housing (blue), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-SC00-CCGFL-CLS	SC-APC adapter for single-mode angled connectors, composite housing (green), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-SC00-CCKFL-CLS	SC adapter for multimode connectors, composite housing (beige), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-SCOO-CPKFL-CLS	SC adapter for multimode connectors, composite housing (beige), composite sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



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Cable Assemblies

Hardware

Closures

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### **Ordering Information**

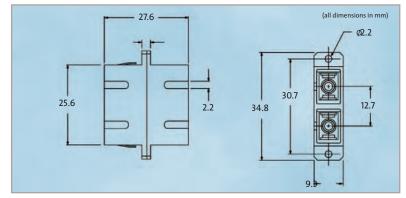
### SC Simplex Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-SC00-CCAFL-CLS	SC adapter for OM3 connectors, composite housing (aqua), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



# SC Duplex Adapters – Features / Dimensions

- Flanged mounting with spring plate
- for plug-in mounting
- Composite housing



SC Duplex Adapter

### **Ordering Information**

### SC Duplex Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-DSCO-CCNFL-CLS	SC-Duplex adapter for single-mode connectors, composite housing (blue), ceramic insert, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



Part Number	Description
ADP-DSCO-CCGFL-CLS	SC APC Duplex adapter for single-mode angled connectors, composite housing (green), ceramic insert, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



# Introduction

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Further

# **Fiber Optic Adapters/Interconnect Sleeves**

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### **Ordering Information**

### SC Duplex Adapters For Mounting in Patch Panels and Matching Feedthroughs

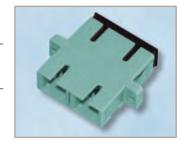
Part Number	Description
ADP-DSCO-CCKFL-CLS	SC-Duplex adapter for multimode connectors, composite housing (beige), ceramic insert, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



Part Number	Description
ADP-DSCO-CPKFL-CLS	SC-Duplex adapter for multimode connectors, composite housing (beige), composite insert, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



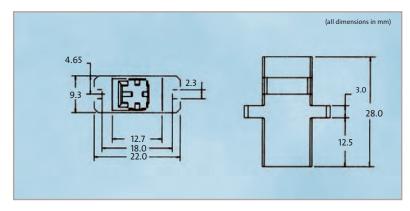
Part Number	Description
ADP-DSCO-CCAFL-CLS	SC-Duplex adapter for OM3 connectors, composite housing (aqua), ceramic insert, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



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# MT-RJ Adapters – Features / Dimensions

- Flanged mounting with spring plate
- for plug-in mounting
- Composite housing

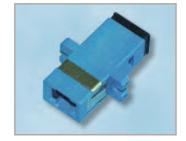


MT-RJ Adapter

### **Ordering Information**

### MT-RJ Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-MTRJ-CNNFL-CLS	MT-RJ adapter for single-mode connectors, composite housing (blue), matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-MTRJ-CNKFL-CLS	MT-RJ adapter for multimode connectors, composite housing (beige), matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



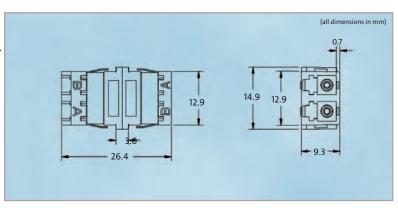
Part Number	Description
ADP-MTRJ-CNAFL-CLS	MT-RJ adapter for OM3 connectors, composite housing (aqua), matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



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# LC Duplex Adapters – Features / Dimensions

- Flanged mounting with spring plate
- for plug-in mounting
- Composite housing
- Ceramic sleeve



LC Duplex Adapter

### **Ordering Information**

### LC Duplex Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-DLCO-CCNRF-CLS	LC duplex adapter (SR/JR) for single-mode connectors, composite housing (blue), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-DLCO-CCGRF-CLS	LC APC duplex adapter (SR/SR) for single-mode angled connectors, composite housing (green), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-DLCO-CCKRF-CLS	LC duplex adapter (SR/JR) for multimode connectors, composite housing (beige), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



ADP-DLCO-CCARF-CLS  LC duplex adapter (SR/JR) for OM3 connectors, composite housing (aqua), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting	Part Number	Description
	ADP-DLCO-CCARF-CLS	composite housing (aqua), ceramic sleeve,



Introduction

LANscape® Solutions

Plug & Play"" Universal Systems

> iber Optic Cables

Fiber Termination

Cable Assemblies

Hardware

Closures

Cable nagement

Other Product Families

> Further Information

A LANscape® Solutions Product

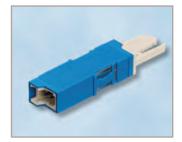
### **Ordering Information**

### E-2000™ Adapters For Mounting in Patch Panels and Matching Feedthroughs

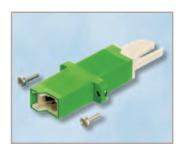
Part Number	Description
ADP-E200-CCNFL-SPS	E-2000™ adapter for single-mode connectors, composite housing (blue), ceramic sleeve, flanged adapter



Part Number	Description
ADP-E200-CCNRF-SPS	E-2000 adapter for single-mode connectors, composite housing (blue), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with clip for plug and play mounting



Part Number	Description
ADP-E200-CCGFL-SPS	E-2000 APC adapter for for single-mode angled connectors, composite housing (green), ceramic sleeve, flanged adapter



Part Number	Description
ADP-E200-CCGRF-SPS	E-2000 APC adapter for single-mode angled connectors, composite housing (green), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with clip for plug and play mounting



Part Number	Description
ADP-E200-CCKFL-SPS	E-2000 adapter for multimode connectors, composite housing (beige), ceramic sleeve, flanged adapter



# Introduction

LANscape<sup>®</sup> Solutions

### Fiber Optic Adapters/Interconnect Sleeves

A LANscape® Solutions Product

### **Ordering Information**

### E-2000™ Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-E200-CCKRF-SPS	E-2000™ adapter for multimode connectors, composite housing (beige), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with clip for plug and play mounting



### **Ordering Information**

### FO Hybrid Adapters For Mounting in Patch Panels

Part Number	Description
ADP-STFC-MMXSF-NLS	ST-FC adapter for single-mode/multimode connectors, metal housing, metal sleeve, flanged adapter



### **Ordering Information**

### FO Hybrid Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-FCSC-CMXFL-CLS	FC-SC adapter for single-mode/multimode connectors, composite housing, metal sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



A LANscape® Solutions Product

### **Ordering Information**

### FO Hybrid Adapters For Mounting in Patch Panels and Matching Feedthroughs

Part Number	Description
ADP-STSC-CCXFL-NLS	ST-SC adapter for single-mode/multimode connectors, composite housing (black), ceramic sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-STSC-CMXFL-NLS	ST-SC adapter for single-mode/multimode connectors, composite housing (black), metal sleeve, matching feedthrough LAXLSN-00001-C001, with spring plate for plug and play mounting



Part Number	Description
ADP-DSCS-CCXFL-NLS	ST-SC duplex adapter for single-mode/multimode connectors, composite housing (beige), ceramic sleeve, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



Part Number	Description
ADP-DSCS-CMXFL-NLS	ST-SC duplex adapter for single-mode/multimode connectors, composite housing (beige), metal sleeve, matching feedthrough LAXLSN-00201-C000, with spring plate for plug and play mounting



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### 10 Cable Management

Introduction

LANscape® Solutions

Plug & Play™ Universal

> Fiber Optic Cables

> > Fiber Termination

### **Cable Management Components**

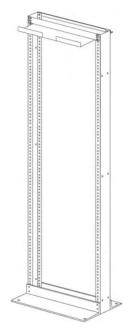
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#### Description

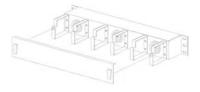
Corning Cable Systems' Cable Management Components include: the Closet Distribution Frame (CDF), Jumper Management Panels (CJP), Jumper Troughs (CDF), Blank-Out Filler Panels (BRP) and Inter-Bay Storage (IBS).

#### **Closet Distribution Frame (CDF)**

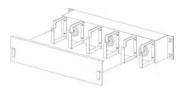
Corning Cable Systems' Closet Distribution Frame (CDF) is a 7 ft (2.13 m) black aluminum frame with 1.75 in (4.45 cm) EIA/TIA hole spacing. The unit has a pre-installed jumper trough mounted at the top of the frame. The CDF has a total of 44Us or rack spaces, and the part number for each component that works with it has a "U" designation that indicates how many rack spaces that product occupies (1U = one rack space = 1.75 in (4.45 cm)).



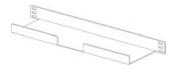
Closet Distribution Frame CDF-ER-7A-19



Jumper Management Panel CJP-01U



Jumper Management Panel CJP-02U



Jumper Trough CDF-CJT-01U-019



Blank-Out Filler Panels BRP-19-4-75

#### Features / Benefits

- Strong, yet lightweight frame allows for easy installation for rack-mountable applications
- Factory-installed jumper trough simplifies jumper routing and management
- EIA/TIA standard hole spacing

#### **Jumper Management Panels (CJP)**

The Jumper Management Panel (CJP) is an accessory that facilitates jumper routing in an equipment rack with patch panels and electronics. The jumper management panel is attached to the Closet Distribution Frame directly above or below the equipment. When jumpers are not routed through the grommets, the open space behind the CJP-o2U and CJP-o3U can be utilized for splicing.

#### **Jumper Troughs (CDF)**

The Jumper Trough Supports (CDF) jumpers passing from one equipment rack to another.

#### Blank-Out Filler Panels (BRP)

Blank-out Filler Panels (BRP) are used to fill unoccupied rack spaces in the Closet Distribution Frame.

# Introduction

LANscape<sup>®</sup> Solutions

Plug & Play"
Universal
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iber Optic Cables

Fiber ermination

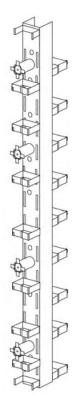
# Further

### **Cable Management Components**

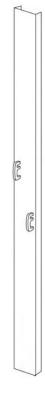
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#### Inter-Bay Storage (IBS)

Corning Cable Systems' Interbay Storage (IBS) is a jumper management and routing device that is mounted on the side of a frame. The IBS is a 7-ft (2.13 m) routing system that is black in color.



Inter-Bay Storage CDF-IBS-7



CDF-IBS-CVR Cover for CDF-IBS-7

#### Features / Benefits

- Moveable radiused jumper management guides with rounded sides to provide minimum bend radius protection and jumper retaining doors that are easy to open and secure
- Moveable round jumper hubs that provide minimum bend radius protection and retaining flanges that aid in retaining jumpers
- Flexible design can be used with all types of cable
- Grommeted holes are available that provide protection to jumpers and allow for jumper "pass through" from front to rear of rack
- Cable management guides on the rear of the unit are removable to accommodate conduit and inner duct entering into patch panel housings or equipment; also, each guide has a cable retaining door
- A removable cover is available to retain a complete, organized and neat appearance of installation

# **Cable Management Components**

A LANscape® Solutions Product

### **Specifications and Ordering Information**

Shipping Part Number	Description	Dimensions (H x W x D) cm (in)	Weight kg (lb)
CDF-ER-7A-19	Closet Distribution Frame	213 x 48 x 38 (7 ft x 19 x 15)	18.1 (40)
CDF-IBS-7	Inter-Bay Storage	213 x 15 x 30 (7 ft x 6 x 12)	20.4 (45)
CJP-01U	1U Jumper Management Panel	4 x 48 x 13 (1.75 x 19 x 5)	1.4 (3)
CJP-02U	2U Jumper Management Panel	9 x 48 x 13 (3.5 x 19 x 5)	1.8 (4)
CJP-03U	3U Jumper Management Panel	13 x 48 x 13 (5.25 x 19 x 5)	2.3 (5)
CDF-CJT-01U-19	1U Jumper Trough, 19"	4 x 48 x 13 (1.75 x 19 x 5)	1.4 (3)
CDF-CJT-02U-19	2U Jumper Trough, 19"	9 x 48 x 13 (3.5 x 19 x 5)	1.8 (4)
BRP-19-1-75	1U Blank-Out Filler Panel, 19"	4 x 48 x 0.2 (1.75 x 19 x 0.06)	0.9 (2)
BRP-19-2-75	2U Blank-Out Filler Panel, 19"	9 x 48 x 0.2 (3.5 x 19 x 0.06)	1.1 (2.5)
BRP-19-3-75	3U Blank-Out Filler Panel, 19"	13 x 48 x 0.2 (5.25 x 19 x 0.06)	1.4 (3)
BRP-19-4-75	4U Blank-Out Filler Panel, 19"	18 x 48 x 0.2 (7 x 19 x 0.06)	1.6 (3.5)
BRP-19-5-75	5U Blank-Out Filler Panel, 19"	22 x 48 x 0.2 (8.75 x 19 x 0.06)	1.8 (4)

#### **Accessories**

CDF-IBS-CVR	Cover for CDF-IBS-7	213 x 15 x 3 (7 ft x 6 x 1)	6.8 (15)

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### 11 Other Product Families

# Accessories for Communication Cables: Solutions for All Fiber Optic Networks

Corning Cable Systems offers outstanding solutions wherever cables have to be joined, branched, distributed or terminated. This applies to the transmission of voice and data over copper and fiber cable networks.

The product range extends from main distribution systems in exchanges via closures for all network levels and network types through to the terminal distribution box or distribution frame. This product range makes Corning Cable Systems one of the largest system suppliers in the world. As an example of the comprehensive product range, a few products are listed here which are used by both traditional telecommunication companies as well as by private carriers worldwide:

- Closures for FO cables (see chapter 8)
- FO splicers
- 340 OTDR Plus™ Multitester II by Fiber Optic Splice and Test Equipment
- Distribution systems for FO cables



# Fiber Optic Fusion Splices and Test Equipment

Corning Cable Systems offers a family of optical fiber fusion splicers to meet the different requirements of the various networks. The range also includes units to meet the exact splice loss demands of single-mode fibers in long-haul networks as well as special units for splicing single-mode and multi-mode fibers in LAN or CATV networks. All units can handle fibers with different core diameters and a wide variety of dopings. The necessary tools for stripping and cleaving the fibers are, of course, also offered with the fusion splicers.

Also offered is a wide range of test equipment. For more information about Corning Cable Systems Splice and Test Equipment please contact our Splice & Test Equipment Customer Service EMEA:

Tel: + 49 89 / 5111 – 3187 Fax: + 49 89 / 5111 – 3420

### **Distribution Systems**

The demands made on FO distributors employed in the various cable networks and network levels do not differ significantly from each other. The universal requirement is for high density combined with reliability, ease of service and modularity for future expansions or modifications. Corning Cable Systems offers a modular distribution system based on 19î units which can be used in all LANs. The modules are integrated in suitable cabinets, racks or wall-mount enclosures. For more information please contact Customer Service at: Tel: 00800 CORNING 1

Email: emea.cs@corning.com



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### LANscape® Cabling Solutions: A Name You Can Trust

# Meeting and Exceeding Global Standards

We guarantee that each customized Corning Cable Systems LANscape® Cabling Solution meets or exceeds the global data communication and performance standards. You can be assured that your Corning Cable Systems Solution measures up to the international cabling requirements, ISO/IEC 11801 and EN 50173 (Europe).

#### **Installation Expertise and Reliability**

Corning Cable Systems' network of LANscape® Extended Warranty Program™ (EWP) installers are carefully selected and trained.

Each partner-company meets our stringent requirements for technical experience, financial strength and proven dedication to quality. EWP partners must demonstrate ongoing commitment to extensive training and are required to update training at least once every two years.



#### LANscape® Solutions Total Package

The LANscape® end to end product offering is designed to deliver the most technologically advanced communications systems to the customer. Corning Cable Systems LANscape® products withstand rigorous field and laboratory testing with continual design enhancements in response to rapidly evolving customer environments.

#### **Ready for Your Growing Network**

Corning Cable Systems understands the critical need for flexible solutions with the rapid growth of your data communications requirements. With Corning Cable Systems' LANscape® Solutions, changes and expansions are costeffective and simple. Your cost-of-ownership is minimized!

#### **Expert Service and Support**

Corning Cable Systems' experts support and assist Extended Warranty Program installers with the planning, designing, and installing of fiber optic and high-end copper cabling systems.. With world-wide distribution channels and a high class Customer Service Center, Corning Cable Systems makes it easy for EWP installers to quickly get products to your site for installation. Highly trained sales consultants located in your area are available for on-site evaluations and cabling recommendations.

### LANscape® Cabling Solutions: A Name You Can Trust

#### **Extended Warranty – Extra Value**

Corning Cable Systems' LANscape® Extended Warranty protects your LANscape Fiber Optic and/or High-end Copper Solution for a full 25 years. The warranty covers total system performance as well as each product component of the Corning Cable Systems' solution. Corning Cable Systems guarantees to repair or replace defective products for 25 years after installation by an EWP Partner. The LANscape® EWP 25-year system warranty is offered when all products in the cabling solution (cables, connectivity, and interconnecting hardware) are Corning Cable Systems products installed by an EWP Partner.

#### **Total Corporate Assurance**

Corning Cable Systems is the only company focusing primarily on fiber cabling solutions while also offering high-end copper solutions. Our mission is to remain the world's leading developer and manufacturer of fiber optic and high-end copper products for voice, data, and video applications. Corning Cable Systems' resources for research and product development, financial strength, and mature business focus are clearly unmatched in the communications industry.

Corning is the inventor of the first commercial optical fibers and the world leader in optical fiber manufacturing for over 25 years. Our unique heritage makes Corning Cable Systems the one company that can offer a solid corporate foundation, a tradition of quality, and a name you can trust.

#### **How You Benefit**

- LANscape® 25 years warranty
- Installation by Corning Cable Systems
- Approved partners
- Partners trained on the latest technology
- Corning Cable Systems total quality

### LANscape® Training

#### **Training: Expertise for Your Employees**

Total communication solutions are becoming increasingly important for communication networks, in particular local area networks (LANs) because the future lies in the convergence of voice, video and data. Around the globe, as information infrastructures evolve, so the demands on the quality of networked communication solutions continue to grow. Meeting these demands calls for knowledge - knowledge that we can pass on to you.

Techniques and products are subject to constant change. This makes it essential to have highly trained employees who know how to exploit technical progress to your advantage. This can only be achieved with continuous training.

As a leading provider of communication cables, hardware and services, we are working with our customers to build communication highways for the future. We realize that the planning, installation and maintenance of cable systems calls for comprehensive technical knowledge - something we want to share with you in spirit of genuine partnership.

For more Information about LANscape® Training:

#### On the Internet:

http://www.corning.com/cablesystems/europe

#### Or via E-Mail:

emea.cs@corning.com

#### Or by phone under:

Freephone: 00800 2676 4644

Detailed training information is available on request.

#### We Train - You Benefit

Our worldwide knowledge in cable and network technology is channeled to our Training Center. It is from this knowledge base that we develop a wide range of seminars for your employees. Our training is aimed at all organizations involved in constructing or operating cable systems in the private networks or carrier area. By undertaking training before starting on a project, you can avoid costly installation errors, and take a decisive step towards ensuring a successful outcome to your project.

#### **Practical Orientation – Not Just Theory**

The balance between the two is critical: theory is necessary, but practice dictates what is done. From many years of practical experience, our trainers know which knowledge and skills are required for each task, and they are in constant contact with development, sales and project engineering teams at Corning Cable Systems.

Our Training Centers are located in Berlin and Neustadt / Coburg, Germany. Standard and customized courses to meet individual requirements are held locally throughout the world, where the technical facilities permit.

Course Portfolio Private Networks:

LANscape® Certified Approved Installer Courses for Structured Premises Cabling

LANscape® - FutureCom Approved Installer

LANscape® - FutureCom Approved Installer – Refresher

LANscape® - Fiber Optic Approved Installer

LANscape® - Fiber Optic Approved Installer - Refresher

#### Absorption

Weakening (loss) of radiation when it passes through a material (part of the radiant energy of light, for example, is converted into heat).

#### Adapter

A mechanical media termination device designed to align and join fiber optic connectors. Often referred to as a coupling, bulkhead or interconnect sleeve.

#### Armoring

Protective element (usually steel wire or tape) used on cables with special operational requirements e.g. direct burial, undersea, in mines and for rodent protection.

#### **ATM**

Asynchronous Transfer Mode

#### Attenuation

The factor by which the signal power at the end of the cable has decreased relative to the power at the start of the cable. Main causes in optical fibers: scattering, absorption, light losses in connectors and splices.

#### Backbone cabling

The portion of premises telecommunications cabling that provides connections between telecommunications rooms, equipment rooms and entrance facilities. The backbone cabling consists of the transmission media (optical fiber cable), main and intermediate cross-connects, and terminations for the horizontal cross-connect, equipment rooms and entrance facilities. The backbone cabling can further be classified as campus backbone (cabling between buildings) or building backbone (cabling between floors or closets within a building).

#### **Backscattering technique**

Technique for measuring the attenuation along an optical fiber.

#### Bandwidth

Frequency at which the magnitude of the transfer function of an optical fiber has fallen to half of the value that it had at 'zero' frequency; i.e. the attenuation of the light signal has risen by 3 dB.

#### **Buffering**

(1) A protective material extruded directly on the fiber coating to protect it from the environment (tight-buffered); (2) extruding a tube around the coated fiber to allow isolation of the fiber from stresses in the cable (buffer tubes).

#### **Cable Assembly**

Optical fiber cable that has connectors installed on one or both ends. General use of these cable assemblies includes the interconnection of optical fiber cable systems and optoelectronic equipment. If connectors are attached to only one end of a cable, it is known as a pigtail. If connectors are attached to both ends, it is known as a jumper or patch cord.

#### **Cable Bend Radius**

The minimum recommended bending radius during installation or after installation where cable damage will not occur. Cable bend radius during installation infers that the cable is experiencing a tensile load. Free bend infers a smaller allowable bend radius since it is at a condition of minimal load. A material put on a fiber during the drawing process to protect it from the environment and handling.

#### **Central member**

A member running through the center of a cable; in fiberoptic cables usually a strength member.

#### Cladding

The dielectric material surrounding the core of an optical fiber and having a lower refractive index than the core.

#### Coating

Composite layer applied to the surface of the fiber cladding to provide mechanical protection.

#### **Connecting Hardware**

A device used to terminate an optical fiber cable with connectors and adapters that provides an administration point for cross-connecting between cabling segments or interconnecting to electronic equipment.

#### Connector

Easily demountable plug-in connection between two optical fibers. As a rule the insertion loss (see insertion loss) of a plug-in connection is higher than that of a splice (see splice).

#### **Consolidation Point (CP)**

Interconnect distribution point located within the horizontal athway and space that links to the telecommunications outlet.

#### Core glass

Core of a glass fiber. It has a higher refractive index than the cladding glass.

#### Coupler

Passive component for the transmission of light between light source and fiber or between se veral fibers.

#### Crimping

Compressing a sleeve around the fiber/buffer in order to produce reliable mechanical protection.

#### Dielectric

Non-metallic and, therefore, non-conductive. Glass fibers are considered dielectric. A dielectric cable contains no metallic components.

#### Dispersion

The cause of bandwidth limitations in a fiber. dispersion causes a broadening of input pulses along the length of the fiber. Three major types are: (1) modal dispersion caused by differential optical path lengths in a multimode fiber; (2) chromatic dispersion caused by a differential delay of various wavelengths of light in a waveguide material; and (3) waveguide dispersion caused by light traveling in both the core and cladding materials in single-mode fibers.

#### Doping

Controlled addition of small quantities of an impurity to a pure substance in order to change its characteristics, e.g. increase the refractive index (see refractive index) of the fiber core.

#### **Electromagnetic compatibility EMC**

Electromagnetic interference immunity and interference emission of a cable/system.

#### **FDDI**

Fiber-optic network with dual, counter-rotating ring topology and (Fiber Distributed Data Interface) 100 Mbit/s bandwidth. Fiber multiplexing Transmission method in which each transmission channel is assigned a fiber.

#### <u>Fiber</u>

An optical waveguide consisting of a core and a cladding that is capable of carrying information in the form of light.

#### **Fiber Optics**

Light transmission through optical fibers for communication or signaling. cycles per second, 109 Hertz.

#### Fiber ribbon

Fibers arranged parallel to each other and equally spaced, bonded in a flat configuration by a coating. Several fiber ribbons can be placed on each other to form a stack.

#### FITL

Fiber in the local line network. A distinction is made according to where (Fiber in the Loop) the fiber terminates, as follows:

- FTTB Fiber to the building
- FTTC Fiber to the curb
- FTTH Fiber to the home
- FTTP Fiber to the pedestal

#### **Frequency**

Number of complete cycles per second (in Hz).

#### **FRNC**

Flame Retardant Non Corrosive LSZH Material.

#### FTTD (Fiber to the Desk)

Cabling in which optical fibers extend to the desk.

#### **Fusion Splice**

A permanent joint produced by the application of localized heat sufficient to fuse or melt the ends of the optical fiber, forming a continuous single fiber.

#### **Graded index profile**

Refractive index profile of an optical fiber. The refractive index of the fiber core decreases continuously – usually parabolically – toward the cladding.

#### **GRP** element

Anti-buckling and strength member made of glass filaments (GRP = glass fiber reinforced composite).

#### **Horizontal Cabling**

That portion of the telecommunications cabling that provides connectivity between the horizontal cross-connect and the work-area telecommunications outlet. The horizontal cabling consists of transmission media, the work-area outlet, the terminations of the horizontal cables and horizontal cross-connect.

#### **Indoor cables**

Cables for applications inside buildings. They are generally unsuitable for outdoor use.

#### **Insertion loss**

Attenuation caused by the insertion of an optical component into an optical transmission path.

#### **ISDN**

Data, voice and images are switched and transmitted through the digital (Integrated Services Digital Network) network via one port.

#### LAN

Local Area Network: Local network for serial transmissions between independent terminal equipment.

#### Laser

Light Amplification by Stimulated Emission of Radiation. An electro-optic device that produces coherent light with a narrow range of wavelengths, typically centered around 850 nm, 1310 nm, or 1550 nm. Lasers with wavelengths centered around 850 nm are commonly referred to as VCSEL.

#### Layer cable

Cable in which the fiber buffer tubes (transmission elements) are arranged in layers around a central member (see central member).

#### **Light Emitting Diode (LED)**

A semiconductor device used to transmit light into a fiber in response to an electrical signal. It typically has a broad spectral width.

#### Loose buffer tube

Several fibers in a common loose buffer tube.

#### Mechanical splicing

Joining two fibers together by permanent or temporary mechanical means (vs. fusion splicing or connectors) to enable a continuous signal. The CamSplice™ mechanical splice is a brand of this type of product.

#### Micro-bending

Minute curvature in a fiber causing light loss and hence increased attenuation.

#### Modes

All the light waves that can propagate in an optical fiber.

#### MT-R.

Mechanical Transfer-Registered Jack

#### Multimode fiber

Optical fiber whose core diameter is large relative to the wavelength (see wavelength) of the light, thus allowing a large number of modes (see modes) to propagate.

#### Nanometer (nm)

A unit of measurement equal to one billionth of a meter; 10-9 meters. Typically used to express the wavelength of light, e.g., 1300 nm.

#### **Optical fiber**

Transparent dielectric waveguide for transmitting signals using electromagnetic waves in the optical frequency range.

#### Optical Time Domain Reflectometer (OTDR)

An instrument that measures transmission characteristics by sending a series of short pulses of light down a fiber and providing a graphic representation of the backscattered light.

#### **Outdoor cables**

Cables designed to satisfy all the requirements for outdoor installation (e.g. buried or in ducts, in the air or under water).

#### **OVD Method**

Method of producing optical fibers by deposition from the gas phase onto (outside vapor deposition method) the outer surface of a rotating substrate rod.

#### **Pigtail**

Short length of optical fiber with a connector at one end.

#### **PON**

Network for FITL (see FITL) with passive components, such as couplers, (passive optical network) splitters and connectors.

#### Reflectance

Reflectance is the ratio of power reflected to the incident power at a connector junction or other component or device, usually measured in decibels or dB. Reflectance is stated as a negative value, e.g., -30 dB. A connector that has a better reflectance performance would be a -40 dB connector or a value less than -30 dB. The terms return loss, back reflection and reflectivity are also used synonymously in the industry to describe device reflections, but stated as positive values.

#### Refraction

Change in the direction of propagation of a ray (wave) at the interface between two media with different refractive index (see refractive index).

#### **Refractive index**

Factor by which the velocity of light in an optical medium (e.g. glass) is lower than it is in a vacuum.

#### Ribbon cable

Cable with fiber ribbons (see fiber ribbons).

#### Single-mode fiber

Optical fiber whose core diameter is so small relative to the wavelength (see wavelength) of the light that only one mode (see mode) can propagate.

#### Slotted core cable

Cable with fibers or fiber ribbons located in grooves in the surface of the central member.

#### Splice

Permanent connection between two optical fibers that is made by fusion or bonding.

#### **Splitter**

Optical component for dividing the optical power from one fiber among several other fibers.

#### Star coupler

Active or passive component which provides an even distribution of optical power in an identical number of incoming and outgoing fibers.

#### Step index profile

Fiber with an abrupt decrease in refractive index at the interface between core and cladding. The refractive indexes for core and cladding are constant.

#### Strength member

Structural element in the cable for absorbing tensile and compressive forces.

#### Tight-buffered fiber

**Corning Cable Systems** 

Fiber with a closely fitting buffer tube.

#### Time-division multiplexing

Transmission method by means of which several digital signals arriving in parallel are transmitted in a serial data stream over a single fiber.

#### VCSEL

Vertical Cavity Surface Emitting Laser

#### Wavelength

Length of the full cycles (period) of a wave. The three wavelength ranges normally used in optical communications are 850 mm, 1300 mm and 1550 mm.

# **Adapter Specifications**

### **Adapters**

Туре	Code	Mode	Fiber Class/ Application	Mounting Style	Housing Material	Color	Insert
E2000	P1	SM*/APC	9/125µm OS1	flanged	composite	green	ceramic
E2000	P2	SM/UPC	9/125µm OS1	flanged	composite	blue	ceramic
E2000	P3	MM*	62.5/125µm OM1 50/125µm OM2 50/125µm OM3	flanged	composite	beige	ceramic
FC	11	SM/MM	9/125µm OS1 62.5/125µm OM1 50/125µm OM2	threaded	metal	silver	ceramic
FC	21	SM/MM	9/125µm OS1 62.5/125µm OM1 50/125µm OM2	threaded	metal	silver	metal
LC Duplex	04	SM/UPC	9/125µm OS1	flanged	composite	blue	ceramic
LC Duplex	05	MM	62.5/125µm OM1	flanged	composite	beige	ceramic
LC Duplex	В3	SM/APC	9/125µm OS1	flanged	composite	green	ceramic
LC Duplex	D3	MM	50/125µm OM2	flanged	composite	black	ceramic
LC Duplex	E4	MM	50/125µm OM3	flanged	composite	aqua	ceramic
MTP	69	MM	62.5/125µm OM1	flanged	composite	black	
MTP	89	SM/UPC	9/125µm OS1	flanged	composite	black	
MTP	90	SM/APC	9/125µm OS1	flanged	composite	black	
MTP	G3	MM	50/125µm OM2	flanged	composite	black	
MTP	E3	MM	50/125µm OM3	flanged	composite	aqua	
MT-RJ	86	MM	62.5/125µm OM1	flanged	composite	beige	
MT-RJ	87	SM/UPC	9/125µm OS1	flanged	composite	blue	
MT-RJ	E1	MM	50/125µm OM3	flanged	composite	aqua	
MT-RJ	G1	MM	50/125µm OM2	flanged	composite	black	
SC Duplex	57	MM	62.5/125µm OM1	flanged	composite	beige	ceramic
SC Duplex	72	SM/UPC	9/125µm OS1	flanged	composite	blue	ceramic
SC Duplex	91	MM	62.5/125µm OM1	flanged	composite	beige	composite
SC Duplex	E7	MM	50/125µm OM3	flanged	composite	aqua	ceramic
SC Duplex	G7	MM	50/125µm OM2	flanged	composite	black	ceramic
SC Duplex	P5	MM	50/125µm OM2	flanged	composite	beige	metal
SC Simplex	56	MM	62.5/125µm OM1	flanged	composite	beige	composite
SC Simplex	5C	SM/UPC	9/125µm OS1	flanged	composite	blue	ceramic
SC Simplex	6C	SM/APC	9/125µm OS1	flanged	composite	green	ceramic
SC Simplex	P4	MM	50/125µm OM2	flanged	composite	beige	metal
ST® Compatible	15	MM	62.5/125µm OM1 50/125 OM2	threaded	composite	black	ceramic
ST	19	SM	9/125µm OS1	threaded	composite	black	ceramic
ST	25	MM	62.5/125µm OM1 50/125µm OM2	threaded	composite	black	composite
ST	82	SM/MM	9/125µm OS1 62.5/125µm OM1 50/125µm OM2	threaded	metal	black	ceramic
ST	H3	MM	50/125µm OM3	threaded	composite	black with aqua ring	ceramic

<sup>\*</sup> SM = Single-Mode, MM = Multimode

# **Type Codes for Fiber Optic Cables**

A-	Outdoor cable
В	Armoring
(BN)	Glass yarn, non-metallic
	armoring, e. g. for rodent
	protection
D	Loose buffer tube, filled
E	Single-mode fiber
F	Filling compound in the
	cable core
FR	Cable with improved bur-
	ning behavior
F	Attenuation coefficient
	in dB/km and dispersion
	in ps/(nm km) at a wave-
	length of 1310 nm
G	Multimode fiber
	Halogen-free jacket
Н	Attenuation coefficient
H	in dB/km and dispersion
	in ps/(nm km) at a wave-
	length of 1550 nm
J-	Indoor cable
K	Slotted core
N	Fiber in central core tube
	without buffer
NC	Non-corrosive smoke fumes
(L)	Laminated aluminum sheath
LG	Stranded in layers

S	Metallic elements in the core
Q	Dry swellable material in the
	cable core (dry core)
(SG)	Armoring with laminated,
	smooth, longitudinal,
	overlapped steel tape
(SR)	Armoring with laminated,
	corrugated, longitudinal,
	overlapped steel tape
Υ	Jacket or protective cover
	of polyvinyl chloride (PVC)
2Y	Jacket or protective cover
	of polyethylene (PE)
4Y	Jacket or protective cover
	of polyamide (PA)
(ZM)	Metallic anti-buckling and
	strength members in the
	jacket
(ZH)	Non-metallic anti-buckling
	and strength members
(ZN)	Number of non-metallic
	anti-buckling and strength
	members in the jacket

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ber Optic

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