

BLUELIGHT TECHNOLOGY, INC.

BlueScope



**1 and 10 Gigabit Ethernet
Handheld Tester**

Product Features and Specifications

BlueScope Specifications and Features

BlueScope Models

BL200A

- 1 Port Electrical Ethernet 10/100/1000M
- 1 Port Optical Ethernet SFP: 100M or 1000M

BL400A

- 2 Ports Electrical Ethernet 10/100/1000M
- 2 Ports Optical Ethernet SFP: 100M or 1000M

BL1000A

- 1 Port Optical Ethernet XFP: 10GBASE-X (LAN/WAN)

BL1400A

- 1 Port Optical Ethernet XFP: 10GBASE-X (LAN/WAN)
- 2 Ports Electrical Ethernet 10/100/1000M
- 2 Ports Optical Ethernet SFP: 100M or 1000M

BL2000A

- 2 Ports Optical Ethernet XFP: 10GBASE-X (LAN/WAN)

Management Port

- 1 port RJ45
- 1 port USB 1.0

Test Modes

- Throughput Analysis (Traffic Generation/Filter/Capture)
- IP Tools (Ping, Trace Route, DHCP, ARP)
- Monitoring(Tapping); In-service Test mode
- Loopback (Layer 1, 2, 3, 4)
- RFC2544
- BERT(Framed(Layer 1, 2, 3, 4)/Unframed)
- Cable Test (TDR, Cable Finder, optic power measurement)
- Packet Flooding
- VLAN/IP scan

Traffic Testing

- Link Configuration
- Duplex Modes (Full/Half)
- Flow Control

- Auto negotiation (Link Partner Status Display)
- Ethernet Traffic Generation (Up to 4 Streams):
 - Generate layer 1/2/3/4 frame
 - Continuous, Burst-once, Random Length, Flooding
 - Configurable MAC/VLAN/MPLS/IS/TCP/UDP Header
 - Configurable Payload (PRBS, Increment, Decrement, User Pattern)
 - Frame Length (40~10,000bytes)
 - Frame Payload, Utilization(% , BPS, FPS)
- 3 VLAN tags (QinQ: TPID, Priority, CFI, VID)
- 3 MPLS labels(Stacks; Lable, Exp., EoS, TTL)
- Pause Injection(editable delay)
- Error Injection (FCS, Duplicated, Lost, Late Frame, L3/L4 Checksum, Bit Error)
- Ping, ARP, Trace Route, DHCP

Ethernet Traffic Filtering (Up to 4 Streams)

- Source/Destination MAC Address
- VLAN(3 QinQ; TPID, Priority, CFI, VID)
- MPLS(3 Stacks; Lable, Exp., EoS, TTL)
- Source/Destination IP address
- TOS/DSCP
- Protocol
- TCP/UDP Port
- User Defined Pattern Filter

Traffic Capture & Decode

- All Packet Capture
- Filtered Capture (Filter Criteria-Refer to Filtering)
- Event Triggered (Event Criteria-VLAN, Pause Frame, Multicast Packet, Broadcast Packet, FCS Error, Length, L3/L4 checksum error)
- Result: Protocol Decoding/

Raw Data

- Export to USB/FTP (Tcpcdump/Wireshark/ Ethereal Compatible Format)

In Service Traffic Monitoring (Dual Port)

- Frame/Packet Performance & Statistics
- In Line Packet Filter/Capture
- Error Injection
- Media Convertor (Copper ←→ Optic)

Loopback

- L1/L2/L3/L4 Loopback (Address Swapping)
- Frame/Packet Performance & Statistics

RFC2544 Testing

- Throughput Test
- Latency Test
- Frame Loss Test
- Back to Back Test
- Report: Printable report, Configuration, Tabular and graphical results, Convert to CSV format

BERT Testing

- Unframed Test Pattern: PRBS(15, 20, 23, 31 and inverted selections)
- Framed (L2/L3/L4) Test Pattern: PRBS 31 and inverted selections
- Lost/Duplicate/Late frame measurement
- Error Injection: Burst once or Rate

Physical Testing

- Link Speed, Link Status, Cable Status
- Optical Power Measurement
- Rx Power
- Wavelength
- Vendor name , Serial Number, Part Number/Rev. CJPAT, CRPAT Generation

BlueScope Specifications and Features

Language Support

- English, French, German, Italian, Japanese, Korean, and Spanish

Key Results

- Interface Status :
 - Link Up/Down, Speed, Duplex
 - Activity, Optic Power, Auto negotiation
 - negotiation Acknowledgement
 - Auto negotiation Advertise
 - Status
- Stream Status:
 - Frame/Packet Format
 - Selected Stream Status
 - ARP Status, MAC Address by ARP
- Measurement:
 - Timed measurement
 - Tx/Rx Independent/Sync'd Mode
 - Throughput Summary
 - Aggregation Status:
 - Tx/Rx Frame Statistics
 - Tx/Rx Packet Type Statistics (Uni/Multi/Broadcast/Extra)
 - FCS Error
 - Num. of Tx/Rx Pause
 - Num. of Runt/Jumbo
 - Tx/Rx Frame Size Distribution
- Usage:
 - Current Bandwidth (%) –Instantaneous
 - Max/Average/Min BW- Cumulative
 - Current Frame Per Second- Instantaneous
 - Max/Average/Min FPS - Cumulative
- Stream Statistics:

- TX/RX Frame Statistics
- Num. of Stream Error
- Num. of Runt/Jumbo
- TX/RX Frame Size Distribution
- Stream Error:
 - Num. of Late Frame
 - Num. of Duplicated Frame
 - Num. of Lost Frame
 - Num. of L3 Checksum Error
 - Num. of L4 Checksum Error
 - Num. of Bit Error
- Jitter:
 - Latency (Max/Avg/Min in Micro Sec.)
 - PAI (Packet Arrival Interval) (Max/Avg/Min in Micro Sec.)
 - Jitter(Max/Avg/Min in Nano Sec.)

- Permissible Ambient Temperature : 0°C~40°C
- Storage Temperature: 20°C~+70°C
- Humidity : 10% ~ 90%
- Dimension: 172.5 (W) x 227 (H) x 58.5 (D) mm
- Weight: 1.3 Kg (2.87 lbs) with Battery
- User Interface:
 - 5.6" Color TFT-LCD (Touch Panel)
 - Keypad
- Power:
 - AC/DC Adapter: Input 100~240V, 50 ~ 60 Hz, 1.7A Output 14Vdc ~ 21 Vdc, 3A
 - Battery:
 - Removable/Rechargeable Li-Ion
 - Battery Life : 4 hours typical
- Internal Memory: 2GB SD

File Management

- Interface: USB & RJ45
- Type:
 - Measured Log Data(Text/CSV)
 - Screen Captured File(.png file)
 - Packet Captured Data(.cap file)
- File Manager Menu:
 - View, Rename, Delete(All), Print, Export to CSV
- File Transfer: USB / FTP

Remote Control

- Remote Control Using VNC Client
- Remote Software Download

Screen Capture

- Capture Snapshot of Screen Display Output

General Specifications

Contact Information

Web: <http://www.bluelighttec.com>
Support: support@bluelighttec.com
Sales: sales@bluelighttec.com

US and Canada
Telephone: (408) 435-3897
Fax: (408) 435-2719

Asia (Korea)
Telephone: +82-2-555-2294
Fax: +82-2-555-2042