

SMK4.

> **Features**

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Surface Mount Device Interconnects, Articulated Arms

**SMK4 * SMG50 * SMCK1 * SMQK1 *
SureFoot® * ST501 * PPM203B**

FEATURES

Micro KlipChip™ Adapter SMK4

- Hand Probe Fine Pitch SMD Package
 - 25 mil JEDEC
 - 0.65 mm EIAJ
 - 0.5 mm EIAJ
- Thin Clip Body Width Allows Many PQFP Clips to Be Mounted Side by Side and Simultaneously Tested

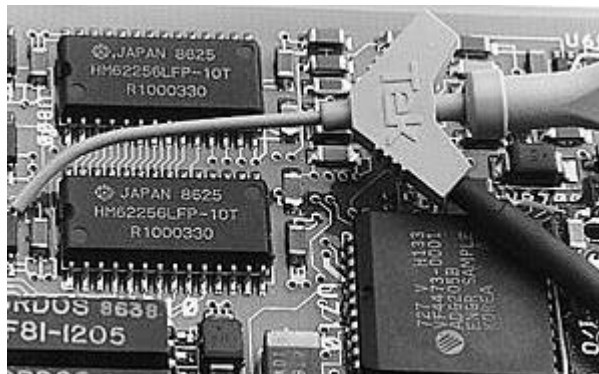
SureFoot Adapters SF200A and SF500 Series

- Hand Probe Fine Pitch SMD Packages
 - 25 mil JEDEC
 - 0.65 mm EIAJ
 - 0.5 mm EIAJ
- SF500 Series for P6561A, P6562A, P6563A, P6240, P6243 and P6245
- SF200A Series for P613X Family (3.5 mm) (P6133 Opt. 25, P6134C, P6136 Opt. 25, P6137, P6135A, P6138A, P6139A, P6158, P6339A)

APPLICATIONS

- Research and Design
- Manufacturing Test of SMD Circuitry
- Servicing of SMD Circuitry
- Prototype Debug and Design

SMT KlipChip Adapter.



SMG50 KlipChip Adapter

- Access to 0.050 in. Centers PLCC, SOIC and Other Packages

PLCC/SOIC Adapter Kits SMCK1 and SMQK1

- Assortment of SOIC or PLCC Clips
- Leads and SMT KlipChip Included
- Signal Insertion and Temporary Lead Jumpers Without Soldering

Surface Mount Device Probing and Interconnects

The increasing use of surface mount technology (SMT) brings many benefits to electronic circuit board (ECB) design and manufacture. Among these are increased circuit density, increased product reliability and lower assembly costs.

Troubleshooting and device interconnection, however, have become more difficult due to decreased device size, tighter lead spacing and increased ECB densities. Tektronix' offering of the following SMT probing and interconnect devices meets these demanding requirements.

SMK4 Micro KlipChip Adapter

The SMK4 is an interface device which can attach to fine-pitch IC leads similar to the SMG50. The difference between the SMK4 and the SMG50 is the size. The SMK4 can be used to attach to PQFP packages up to a pitch of 0.5 mm which is five times smaller than the SMG50.

The kit of four 0.5 mm SMK4 Micro KlipChip Adapters are for use as probe tip accessory replacements with the P6247/P6246 and as a recommended accessory for the probes listed below, which can attach to the SMK4 0.025 in. lead.

SM50 KlipChip Adapter

The SMT KlipChip adapter is an interface device for attachment of logic and analog probes to today's SMDs, DIPs, and discrete components. The SMT KlipChip adapter is capable of attaching to components with maximum lead diameters of 0.095 inches and

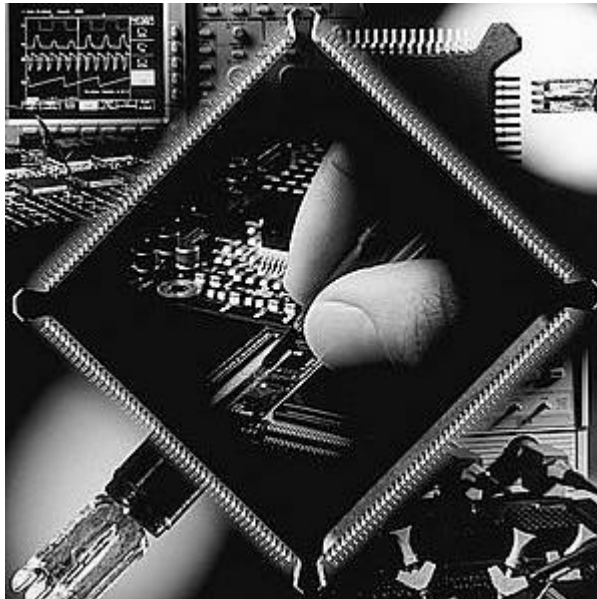
stackable on lead centers of 0.050 inches. Dual sided 0.025 inch lead contacts allow this grabber to be used in multiple signal insertion/acquisition.

Available as package of 20 (SMG50), or singularly (206-0364-00).

SureToe™ (ST501).



SureFoot SF Series.



SureFoot Adapter

Probing 25 mil JEDEC, 0.65 and 0.5 mm EIAJ Packages

SureFoot is an integral probe tip and miniature guide that enables fault-free "hands-on" probing of fine-pitch SMD packages. Guided by the IC's leads, SureFoot's miniature plastic tines align the probe before electrical contact is made. The tines also form a shield between IC leads, preventing the probe tip from shorting adjacent pins.

SureFoot conforms to EIAJ (Electronic Industry Association of Japan) or JEDEC (Joint Electron Device Engineering Council) packaging standards, assuring quick and reliable probe contact with fine-pitch IC leads.

Several color coded versions of SureFoot are available, addressing the most common SMD packages. The yellow version fits the 50 mil (JEDEC) center packages. The blue version fits both the 25 mil (JEDEC) and the .65 mm (EIAJ) center packages. Finally, the red versions fits the tighter, 0.5 mm (EIAJ) center packages.

ST501 SureToe™

For 0.010 in. spacing

Insulated SureToe protects adjacent legs. Allowing signal acquisition of its neighbor.

SMCK1/SOIC Kit.



SOIC Clips

Simplify connection to Small Outline Integrated Circuits (SOIC). The spring design provides a strong and

accurate fit. Compatible with gullwing or "J" leads on 0.050 inch centers. Gold-plated contacts for low contact resistances; 0.025 inch upper square pins provide access for probe or flying lead connection.

SMQK1/PLCC Kit.



PLCC Quad Clips

For easy connection to Plastic Leaded Chip Carriers (PLCC) with "J" leads on 0.050 inch centers. Gold-plated contacts maintain low contact resistance. 0.025 inch square pins provide contact for probes, flying leads, etc.

SureFoot Adapter Selection Guide

Package Lead Spacing	Package Standard	Color Code	3.5 mm (Compact) (P613X)	Active SMD Probes P6243/P6245/P6249	SMD Probes P6561A/2A/3A
50 mil	JEDEC	Yellow	SF201A	SF501	SF501
25 mil	JEDEC	Blue	SF202A	SF502	SF502
0.65 mm	EIAJ	Blue	SF202A	SF502	SF502
0.5 mm	EIAJ	Red	SF203A	SF503	SF503
0.010 in.	JEDEC/EIAJ			ST501	

SMK4 Use Guide

SMK4 Direct Connection	Used with Probe
Direct Connection to Probe Head	P6561A, P6562A, P6563A, P6243, P6245, P6249
196-3268-01 Ground Lead with 0.025 in. Receptacle	P6561A, P6562A, P6563A
196-3302-00 6 in. Receptacle Ground Lead	P6131, P6133, P6133 Opt. 25, P6136, 6136 Opt. 25, P6138A, P6139A
196-3305-00 6 in. Receptacle Ground Lead	P6131, P6133, P6133 Opt. 25, P6134, P6134C

196-3382-00 3 in. Receptacle Ground Lead	P6131, P6133, P6133 Opt. 25, P6134, P6134C
196-3465-00 3 in. Ground Lead	P7330/P6330, P6248, P6247, P6246
103-0177-01 Flexible Tip	P61XXB, P6202A, P6204, P6205
206-0193-00 Flex Tip for 0.025 in. Square Pin	P61XXB, P6202A, P6204, P6205
015-0325-00 Dual Lead Adapter	P61XXB, P6202A, P6204, P6205
020-2008-00 Y-lead Adapter	P6240
196-3434-00 Y-lead Adapter	P6330/P7330, P6246, P6247, P6248

Probing Fine Pitch Devices.



Probing Fine Pitch Devices

Probing today's designs with their delicate fine pitch devices is safer and more convenient with the Tektronix PPM articulating arm.

The PPM articulating arm provides high accuracy and resolution by mechanically assisted probe positioning, helping designers meet the physical demands of probing the constantly shrinking geometry of devices.

PPM203B

The PPM203B has a three axis arm system. It is a general purpose benchtop probing aid designed to be used when probing PC Boards, Hybrids and MCMs that

employ fine pitch devices and interconnects.

The PPM203B incorporates a weighted base that makes it well suited to probing fine pitches in benchtop applications.

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