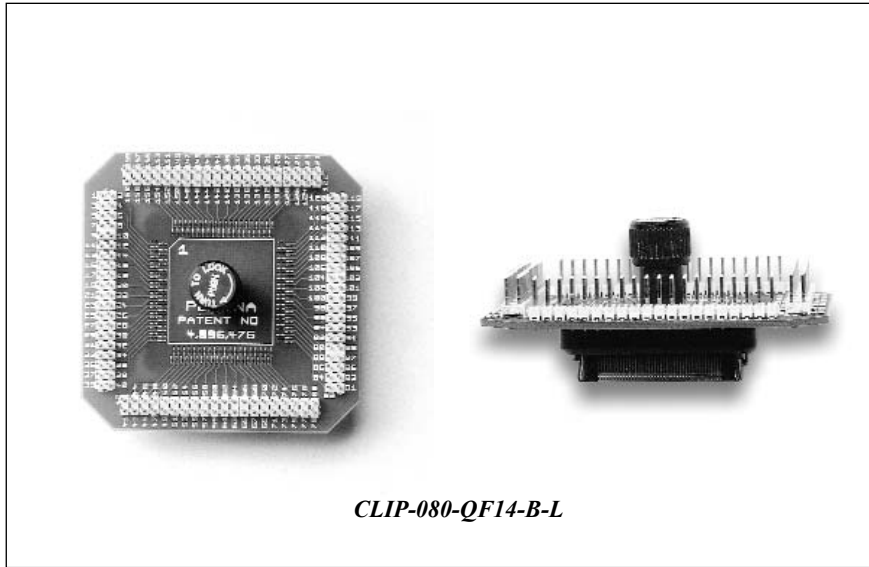


LOCKING TEST CLIPS - EIAJ



LOCKING TEST CLIPS EIAJ TYPE

This ET PQFP Clip[®] is specifically designed for testing EIAJ metric Plastic Quad Flatpack (PQFP) surface mounted ICs. It piggybacks onto a soldered-in PQFP, and converts the PQFP leads to standard .1" test points, for easy attachment of test instruments.

As an option, on most ET PQFP Test Clips you can solder a known "good" PQFP device to the top of the PQFP clip, disable the device at board level, and then run your target system diagnostics.

In addition, the PQFP clip can be used to convert a PQFP to any other IC package type for easy emulation.

Ordering Information Example

Pin Count _____ Clip Type _____
 Product Code _____ CLIP-160-QF07-A-L _____ Locking Test Clip
 _____ QFP Footprint
 (see Footprint Section)

METRIC PQFP/TQFP TEST CLIPS

Pin Count	Package Shape	Lead Pitch in./mm	Body Size (+/- .4mm)	Critical Dimensions (+/- .1mm)	Drawing#	Part Number
80	RECT.	.0315/.80	14X20	16.3X22.3	F4145	CLIP-080-QF08-A-L
80	RECT.	.0315/.80	14X20	15.6X21.6	F4146	CLIP-080-QF08-B-L
100	RECT.	.0256/.65	14X20	16.3X22.3	F5031	CLIP-100-QF06-A-L
100	RECT.	.0256/.65	14X20	15.6X21.6	F4149	CLIP-100-QF06-B-L
144	SQ.	.019/.50	20X20	21.4 SQ.	F4671	CLIP-144-QF63-D-L
160	SQ.	.0256/.65	28X28	30.3 SQ.	F4150	CLIP-160-QF07-A-L
160	SQ.	.0256/.65	28X28	29.6 SQ.	F4151	CLIP-160-QF07-B-L
176	SQ.	.0196/.50	24X24	25.0 SQ.	F4672	CLIP-176-QF67-D-L
208	SQ.	.0196/.50	28X28	29.6 SQ.	F4152	CLIP-208-QF21-C-L
240	SQ.	.0196/.50	32X32	33.6 SQ.	F4822	CLIP-240-QF62-C-L
304	SQ.	.0196/.50	40X40	41.6 SQ.	F5244	CLIP-304-QF61-C-L

HOW TO ORDER

Use the tables on these pages to select your test clip, based on the package drawing for your chip.

- 1) Select pin count.
- 2) Select lead pitch and body size.
- 3) Verify the footprint in the Footprint Section.

Try our SOIC Flying Test Leads. Female. Plugs onto .025" wire wrap post; maintains 1/10" spacing.
Web Link: www.1800adapter.com/089

For a complete test clip listing, pricing and delivery information, please see:
Web Link: www.1800adapter.com/040

LOCKING QFP TEST CLIPS JEDEC TYPE

Now you can test your PQFP devices—even while they're soldered to a PC board! The ET PQFP Clip[®] is specifically designed to allow testing of surface mounted JEDEC plastic or ceramic Quad Flat Packs. It piggybacks onto a soldered-in PQFP, and converts the PQFP leads to standard .1" test points, for easy attachment of test instruments.

The special "locking" feature ensures positive electrical interconnection while providing a solid mechanical connection in either the vertical or horizontal plane. The mechanism locks to the body of the IC, avoiding damage to the leads.

CONTACTS: Selectively gold plated Beryllium Copper.

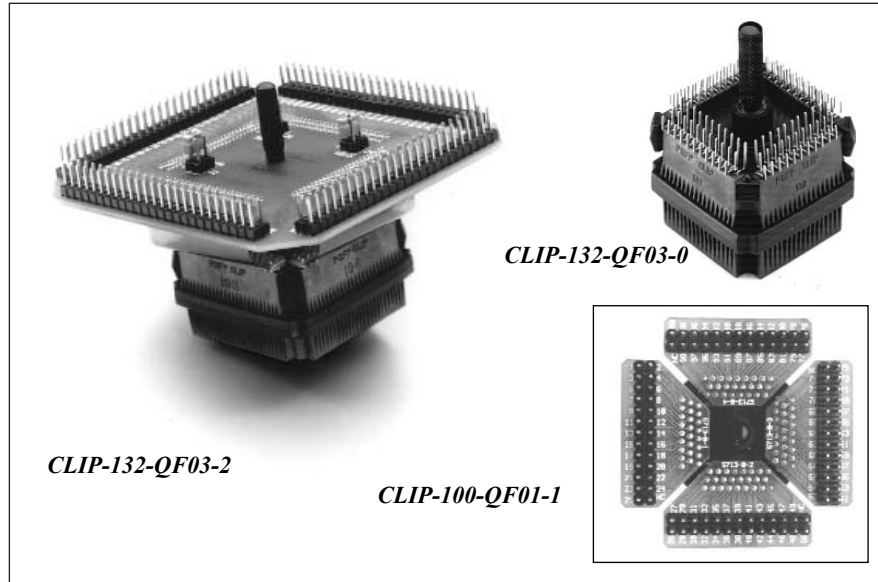
INSULATION: Liquid crystal polymer and Nylon, black.

RATING: 250 VRMS Max., 1 Amp Max., +110° C (+230°F) Max.

HOW TO ORDER

Use the tables on these pages to select your test clip, based on the package drawing for your chip.

- 1) Select pin count.
- 2) Select lead pitch and body size.
- 3) Verify the footprint in the Footprint Section.



CLIP-132-QF03-2

CLIP-100-QF01-1

CLIP-132-QF03-0

Ordering Information Example

Pin Count _____
 Product Code _____ CLIP-132-QF03-1 _____
 JEDEC = Joint Electronic Device Engineering Council

Clip Type (see table, below)
 QFP Footprint (see Footprint Section)

JEDEC QFP TEST CLIPS

Pin Count	Lead Pitch in./mm	Body Size	Package/ Footprint Drawing #	Part Number	Drawing #
100	.025/.635	.750" SQ.	100-QF01	CLIP-100-QF01-0	F3718
100	.025/.635	.750" SQ.	100-QF01	CLIP-100-QF01-1	F2067
100	.025/.635	.750" SQ.	100-QF01	CLIP-100-QF01-2	F1447
132	.025/.635	.950" SQ.	132-QF03	CLIP-132-QF03-0	F3833
132	.025/.635	.950" SQ.	132-QF03	CLIP-132-QF03-1	F1795
132	.025/.635	.950" SQ.	132-QF03	CLIP-132-QF03-2	F1648

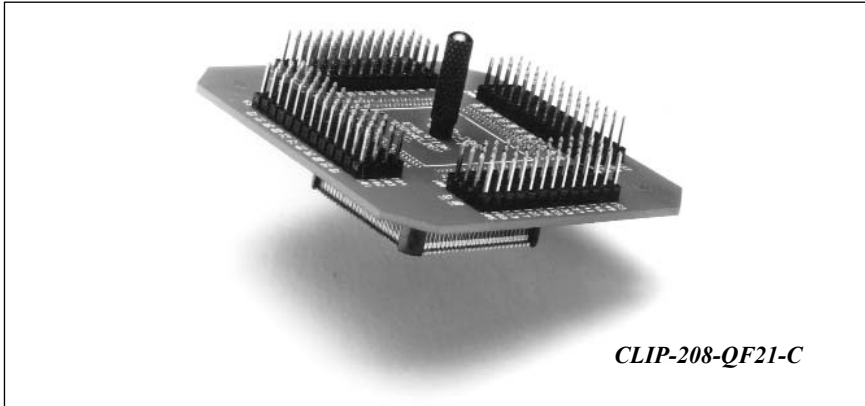
Note: (1) PQFP Only

Clip Type

Type	Top Circuit Board	Height	Test Points
-0	None	1.7" Typ.	.075" Stagger
-1	4-Piece Assembly	1.9" Typ.	.100" In-Line
-2	1-Piece with Flex Cable	1.9" Typ.	.100" In-Line

For a complete test clip listing, pricing and delivery information, please see
 Web Link: www.1800adapter.com/040

TEST CLIPS - EIAJ



CLIP-208-QF21-C

Ordering Information Example

Pin Count _____
 Product Code _____ CLIP-080-QF08-B(C) _____
 EIAJ = Electronic Industry Association of Japan

Clip Version
 (see Table below, at right)
 Clip for Ceramic Package
 QFP Footprint
 (see Footprint Section)

METRIC QFP TEST CLIPS

Pin Count	Package Shape	Lead Pitch in./mm	Body Size (+/- .4mm)	Critical Dimensions (+/- .1mm)	Part Number	Drawing #
44	SQ.	0.80	10X10	12.3 SQ.	CLIP-044-QF16-A	F1446
44	SQ.	0.80	10X10	11.6 SQ.	CLIP-044-QF16-B	F1832
64	RECT.	1.00	14X20	16.6X22.3	CLIP-064-QF09-A	F1670
64	RECT.	1.00	14X20	15.6X21.6	CLIP-064-QF09-B	F1672
64	SQ.	0.80	14X14	16.3 SQ.	CLIP-064-QF29-A	F3712
64	SQ.	0.80	14X14	15.6 SQ.	CLIP-064-QF29-B	F3713
80	RECT.	0.80	14X20	16.3X22.3	CLIP-080-QF08-A	F1628
80	RECT.	0.80	14X20	15.6X21.6	CLIP-080-QF08-B	F1339
80	SQ.	0.65	14X14	16.3 SQ.	CLIP-080-QF14-A	F2175
80	SQ.	0.65	14X14	15.6 SQ.	CLIP-080-QF14-B	F2176
80	SQ.	0.50	12X12	N/A	CLIP-080-QF47-2	F6625
100	RECT.	0.65	14X20	16.3X22.3	CLIP-100-QF06-A	F1629
100	RECT.	0.65	14X20	15.6X21.6	CLIP-100-QF06-B	F1340
100	RECT.	0.65	14X20	14.8X20.8	CLIP-100-QF06-2	F5677
112	SQ.	0.65	20X20	22.3 SQ.	CLIP-112-QF36-B/C	F3721
120	SQ.	0.80	28X28	30.3 SQ.	CLIP-120-QF05-A	F1608
120	SQ.	0.80	28X28	29.6 SQ.	CLIP-120-QF05-B	F1609
128	SQ.	0.80	28X28	30.3 SQ.	CLIP-128-QF13-A	F1192
128	SQ.	0.80	28X28	29.6 SQ.	CLIP-128-QF13-B	F1342
144	SQ.	0.65	28X28	30.3 SQ.	CLIP-144-QF10-A	F1606
144	SQ.	0.65	28X28	29.6 SQ.	CLIP-144-QF10-B	F1607
144	SQ.	0.65	28X28	29.6 SQ.	CLIP-144-QF10-BC	F1807
160	SQ.	0.65	28X28	30.3 SQ.	CLIP-160-QF07-A	F5237
160	SQ.	0.65	28X28	29.6 SQ.	CLIP-160-QF07-B	F3722
168	SQ.	0.65	28X28	29.6 SQ.	CLIP-168-QF25-B	F1344
208	SQ.	0.50	28X28	30.3 SQ.	CLIP-208-QF21-2	F5875
208	SQ.	0.50	28X28	29.6 SQ.	CLIP-208-QF21-C	F1415
240	SQ.	0.50	32X32	33.6 SQ.	CLIP-240-QF62-C	F2164
240	SQ.	0.50	32X32	33.6 SQ.	CLIP-240-QF62-CM	F1297
240	SQ.	0.50	32X32	33.6 SQ.	CLIP-240-QF62-2	F1716
304	SQ.	0.50	40X40	41.6 SQ.	CLIP-304-QF61-C	F3729

For a complete SOIC Flying Test Leads listing, pricing and delivery information, please see:
Web Link: www.1800adapter.com/089

For a complete test clip listing, pricing and delivery information, please see:
Web Link: www.1800adapter.com/040

QFP TEST CLIPS

EIAJ TYPE

This ET PQFP Clip[®] is specifically designed for testing EIAJ or JEDEC metric Plastic Quad Flatpack (PQFP) surface mounted ICs. It piggybacks onto a soldered-in PQFP, and converts the PQFP leads to standard .1" test points, for easy attachment of test instruments.

As an option, on most ET PQFP Test Clips you can solder a known "good" PQFP device to the top of the PQFP clip, disable the device at board level, and then run your target system diagnostics.

In addition, the PQFP clip can be used to convert a PQFP to any other IC package type for easy emulation.

CONTACTS: 0.30mm (.010") Sq. pins, Beryllium Copper, gold plated.

INSULATION: Liquid crystal polymer. Vectra A-130, black.

RATING: 250 VRMS Max.,
 5 Amps, +110°C
 (+230°F) Max.

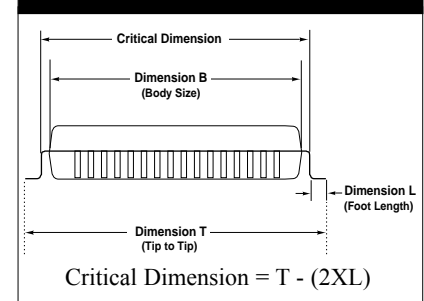
HOW TO ORDER

- 1) Select pin count.
- 2) Select lead pitch and body size.
 Tolerance on body size is +/- .4mm.
- 3) Calculate critical dimension.
Tolerance on Critical Dimension is +/- .1mm. See example below.

Clip Version

Type	Tip to Tip Dimension (T)
-A	Body size + 3.9mm
-B	Body size + 3.2mm
-C	Body size + 2.6mm
-D	Body size + 2.0mm

Calculating your Critical Dimension



PLCC - TEST CLIPS

PLCC QUAD CLIP™

QUAD CLIP™ is designed for Plastic Leaded Chip Carriers (PLCC) with "J" leads. Latches on diagonal sides allow the adapter to be positively held in place providing hands free testing.

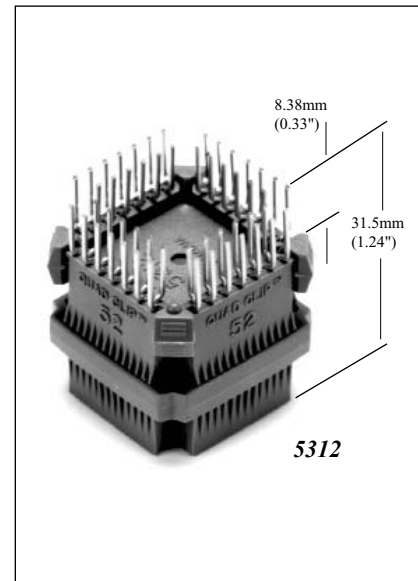
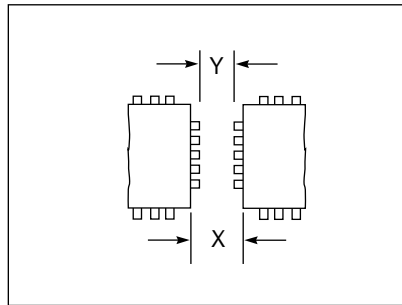
UPPER

CONTACTS: .635mm (.025") Sq. pins. Phosphor Bronze, gold plated.

INSULATION: Glass-filled nylon, gray.

CONTACT: Beryllium Copper, gold plated.

RATING: 500 VRMS; 1 Amp; +102°C (+216°F) Max.

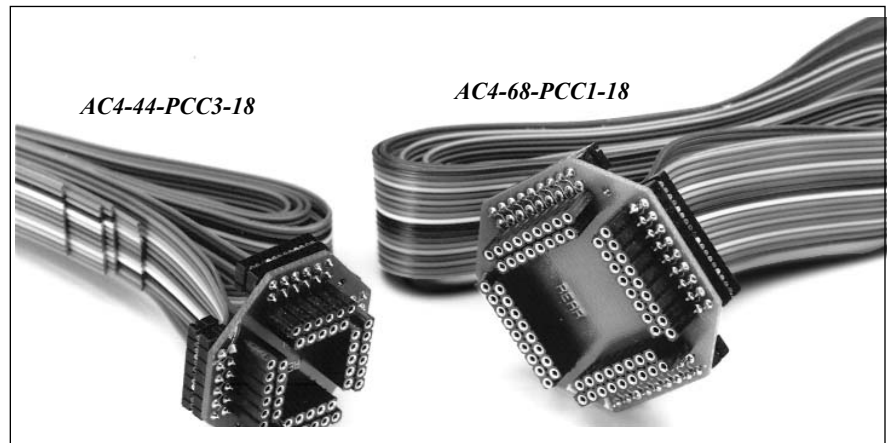


	X Min.	Y Min.
Single Chip Testing	3.05mm (.120")	2.79mm (.110")
Adjacent Testing	8.26mm (.325")	7.24mm (.285")

Pin Count	Pins per Side	Pitch	Part #
20	5X5	.050"	5279
28	7X7	.050"	5280
32	7X9	.050"	5733
44	11X11	.050"	5281
52	13X13	.050"	5312
68	17X17	.050"	5401
84	21X21	.050"	5402

PLCC TEST CLIP CABLE ATTACHMENTS

- Clip extenders work with the PLCC QUAD Clips above.



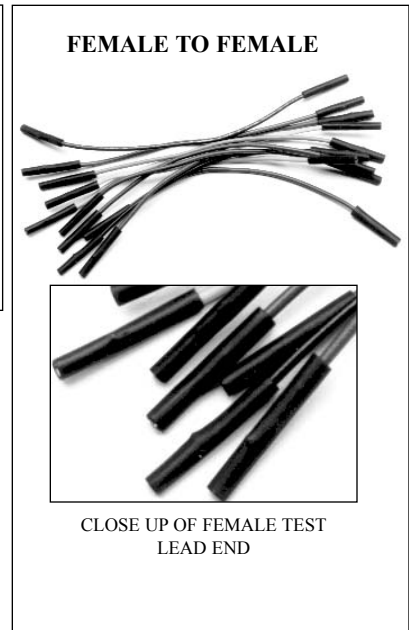
Pin Count	Dimensions	Part #	Drawing #
32	1.250X1.350	AC4-32-PCC7-18	F5378
44	1.45" SQ.	AC4-44-PCC3-18	F3703
52	1.55" SQ.	AC4-52-PCC4-18	F3704
68	1.75" SQ.	AC4-68-PCC1-18	F3705
84	1.95" SQ.	AC4-84-PCC5-18	F3706

For a complete test clip listing, pricing and delivery information, please see
Web Link: www.1800adapter.com/040

TEST CLIPS - SOIC / FLYING TEST LEADS

FEMALE TO FEMALE		
Part #	Length	Quantity
03-3103	76 mm (3.0")	10/pkg
03-3104	101.5 mm (4.0")	10/pkg
03-3106	152.4 mm (6.0")	10/pkg
03-3110	254 mm (10.0")	10/pkg
03-3112	305 mm (12.0")	10/pkg

FEMALE TO MALE		
Part #	Length	Quantity
04-3103	76 mm (3.0")	10/pkg
04-3104	101.5 mm (4.0")	10/pkg
04-3106	152.4 mm (6.0")	10/pkg
04-3110	254 mm (10.0")	10/pkg
04-3112	305 mm (12.0")	10/pkg
04-3136	915 mm (36.0")	10/pkg



CLOSE UP OF FEMALE TEST LEAD END

FEMALE TO MALE NOT SHOWN.

FEMALE TO FEMALE

WIRE: 26 AWG, 19X38 t.c., polyvinyl insulation.
1ST END: Female. Plugs onto .025" wire wrap post; maintains 1/10" spacing.
2ND END: Female.
RATING: Operating Voltage: 500 VRMS Max.; +50⁰ (+122⁰F)

FEMALE TO MALE

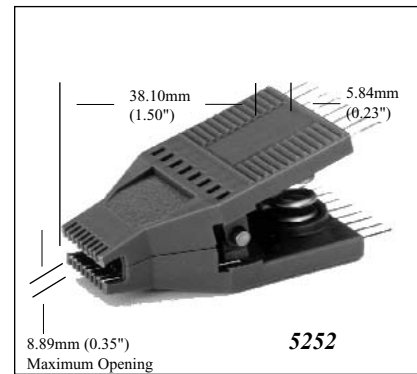
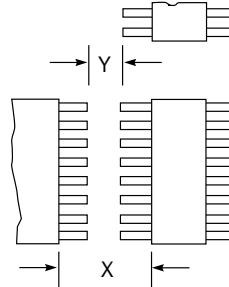
WIRE: 26 AWG, 19X38 t.c., polyvinyl insulation.
1ST END: Female. Plugs onto .025" wire wrap post; maintains 1/10" spacing.
2ND END: Male.
RATING: Operating Voltage: 500 VRMS Max.; +50⁰ (+122⁰F)

*For a complete SOIC Flying Test Leads listing, pricing and delivery information, please see:
Web Link: www.1800adapter.com/089*

SOIC CLIP™

This test clip is designed specifically for testing Small Outline Integrated Circuits (SOIC). The SOIC Clip™ assures a positive connection and provides hands-free testing convenience.

- 0.64mm (.025") square access pins on upper end permits either individual pin testing or the use of 2.54mm (.100") spaced connectors. Lead pitch is .050".
- Molded barrier between each contact allows connections to be made on live boards without accidental shorting of adjacent contacts



INSULATION: Glass-filled nylon, blue.

CONTACT: Beryllium Copper, gold plated.

RATING: 500 VRMS; 1 Amp; +102⁰C (+216⁰F) Max.

	X Min.	Y Min.
Single Chip Testing	4.06mm (.160")	1.52mm (.060")
Narrow Body (Adjacent)	15.24mm (.600")	12.70mm (.500")
Wide Body (Adjacent)	8.51mm (.335")	5.97mm (.235")

Pin Count	Part #
8	5250
14	5251
16	5252
20	5253
24	5254
28	5437
32	6107
40	6108
44	6109

*For a complete test clip listing, pricing and delivery information, please see
Web Link: www.1800adapter.com/040*

SSOP TEST CLIPS

These test clips provide you with an easy means to connect your instrument to the fine pitch plastic SSOP chip leads. SSOP test clips are perfect for emulation, field service testing, and failure analysis.

The locking mechanism holds the clip to the device by gripping the chip body at the ends of the package. Each contact is individually canted to assure positive contact, regardless of coplanarity. The top interface connects with high density IDC cable connectors.

MATERIAL:

Upper Contacts - .018 sq. pins, Phosphor Bronze, gold plated, 30 microinches Max

Lower Contacts - Beryllium Copper, gold plated. Handle, Aluminum alloy, black anodized

INSULATION: Body, Ultem and nylon.

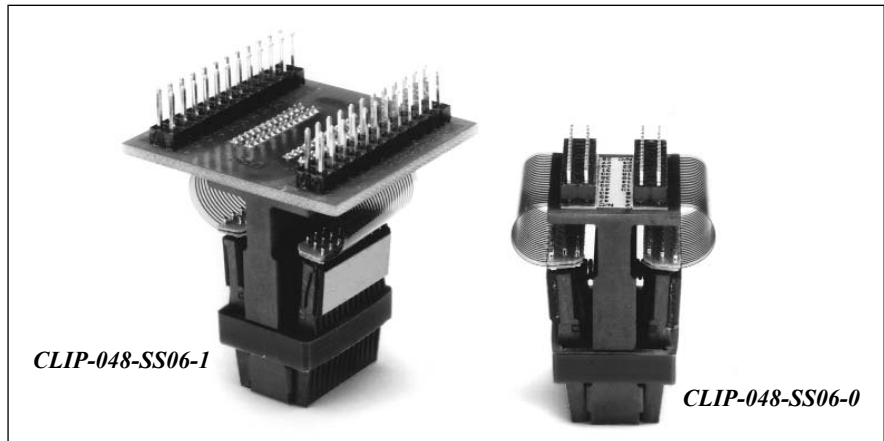
CONDUCTOR: Beryllium Copper, gold plated. Insulation, Kapton

RATING: 250 VRMS; 1 Amp; +110°C (+230°F) Max.

FEATURES

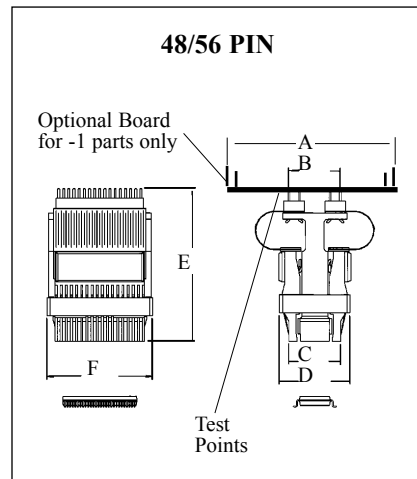
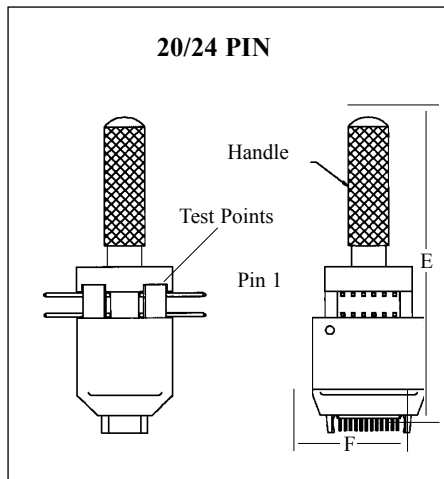
- Interfaces with high density SSOP chip leads
- Locking feature insures positive retention on the chip in either vertical or horizontal position
- Label on top of clip provides a guide for pin numbering
- Gold plated contacts for the chip leads and the connector pins assure noise free connection

Note: Will not work on .110" or thicker IC



Ordering Information Example

Pin Count _____
 Product Code _____ CLIP-048-SS06-1 _____ Clip Version:
 SSOP Footprint (see Footprint Section) _____ -0 = .05" Test Point Spacing
 -1 = .1" Test Point Spacing



48/56 SSOP Test Clip Dimensions

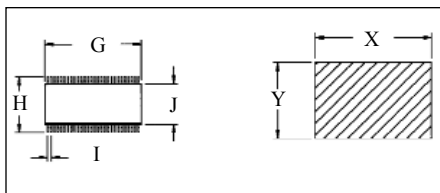
Part #	Document #	A	B	C	D	E	F
CLIP-048-SS06-0	F2013	1.15	.500	.506	.695	1.50	.835
CLIP-048-SS06-1	F2012	1.15	.500	.506	.695	1.50	.835
CLIP-048-SS15-2	Consult Drawing						
CLIP-056-SS06-0	F2011	1.15	.500	.506	.695	1.50	1.02
CLIP-056-SS06-1	F2008	1.15	.500	.506	.695	1.50	1.02

48/56 SSOP Dimensions/Required Board Space

Package Type	G	H	I	J	X	Y
48-SS06	.625"	.420"	.025"	.300"	.720"	.570"
56-SS06	.725"	.420"	.025"	.300"	.870"	.570"

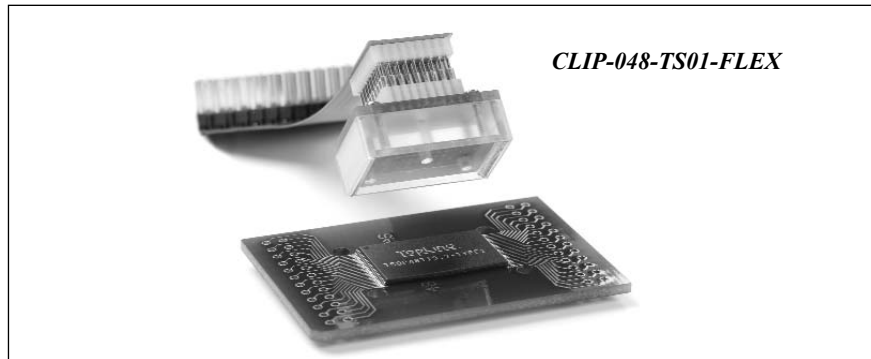
20/24 SSOP Test Clip Dimensions/Required Board Space

Part #	Document #	Pin Ct	E	F	I	J	X	Y
CLIP-020/24-SS12-1	F3708	20/24	1.54"	.54"	.025"	.154"	.540"	.530"
CLIP-020-SS04-1	F3707	20	1.54"	.54"	.065"	.209"	.370"	.310"
CLIP-024-SS04-1	F3709	24	1.54"	.54"	.065"	.209"	.400"	.310"



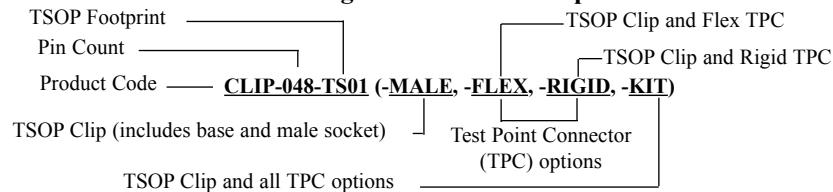
For a complete test clip listing, pricing and delivery information, please see
Web Link: www.1800adapter.com/040

TEST CLIPS - TSOP



CLIP-048-TS01-FLEX

Ordering Information Example



TSOP CLIP WITH MALE SOCKET

Part #	Document #	Lead Pitch	Body Size	Footprint Code
CLIP-028-TS05-MALE	F4235	.55mm	11.8mm	028-TS05
CLIP-032-TS01-MALE	F4234	.50mm	18.4mm	032-TS01
CLIP-032-TS04-MALE	F4234	.50mm	12.4mm	032-TS04
CLIP-040-TS01-MALE	F4233	.50mm	18.4mm	040-TS01
CLIP-048-TS01-MALE	F4232	.50mm	18.4mm	048-TS01
CLIP-048-TS02-MALE	F4236	.50mm	16.4mm	048-TS02
CLIP-056-TS01-MALE	F4231	.50mm	18.4mm	056-TS01

TSOP CLIP WITH FLEX TEST POINT CONNECTOR

Part #	Document #	Lead Pitch	Body Size	Footprint Code
CLIP-028-TS05-FLEX	F4243	.55mm	11.8mm	028-TS05
CLIP-032-TS01-FLEX	F4242	.50mm	18.4mm	032-TS01
CLIP-032-TS04-FLEX	F4242	.50mm	12.4mm	032-TS04
CLIP-040-TS01-FLEX	F4241	.50mm	18.4mm	040-TS01
CLIP-048-TS01-FLEX	F4240	.50mm	18.4mm	048-TS01
CLIP-048-TS02-FLEX	F4244	.50mm	16.4mm	048-TS02
CLIP-056-TS01-FLEX	F4239	.50mm	18.4mm	056-TS01

TSOP CLIP WITH RIGID TEST POINT CONNECTOR

Part #	Document #	Lead Pitch	Body Size	Footprint Code
CLIP-028-TS05-RIGID	F4251	.55mm	11.8mm	028-TS05
CLIP-032-TS01-RIGID	F4250	.50mm	18.4mm	032-TS01
CLIP-032-TS04-RIGID	F4254	.50mm	12.4mm	032-TS04
CLIP-040-TS01-RIGID	F4249	.50mm	18.4mm	040-TS01
CLIP-048-TS01-RIGID	F4248	.50mm	18.4mm	048-TS01
CLIP-048-TS02-RIGID	F4252	.50mm	16.4mm	048-TS02
CLIP-056-TS01-RIGID	F4247	.50mm	18.4mm	056-TS01

TSOP CLIP KIT (Includes all of the Above)

Part #	Document #	Lead Pitch	Body Size	Footprint Code
CLIP-028-TS05-KIT	N/A	.55mm	11.8mm	028-TS05
CLIP-032-TS01-KIT	N/A	.50mm	18.4mm	032-TS01
CLIP-032-TS04-KIT	N/A	.50mm	12.4mm	032-TS04
CLIP-040-TS01-KIT	N/A	.50mm	18.4mm	040-TS01
CLIP-048-TS01-KIT	N/A	.50mm	18.4mm	048-TS01
CLIP-048-TS02-KIT	N/A	.50mm	16.4mm	048-TS02
CLIP-056-TS01-KIT	N/A	.50mm	18.4mm	056-TS01

TSOP TEST CLIPS

This is the first clip-on solution specifically designed for testing Thin Small Outline Packages (TSOPs). Its low-profile design and use of directionally conductive elastomeric connectors make it ideal for probing units up to .030" apart and with a lead pitch of 0.50mm to 0.55mm.

MATERIAL:

Body: Vespel^{®E}
Pins: 10 μ " Gold over 100 μ " Nickel
Posts: 10 μ " Gold over 50 μ " Nickel

OPERATING CHARACTERISTICS:

Elastomer Base:
250 milliohms
Flex Test Point Connector:
150 milliohms
Rigid Test Point Connector:
350 milliohms

HOW TO ORDER

- 1) Select pin count.
- 2) Determine lead pitch and body size.
Tolerance on body size is +/- .4mm.
- 3) Verify the correct footprint (See footprint section in catalog).

For a complete test clip listing, pricing and delivery information, please see:

Web Link: www.1800adapter.com/040

DIP CLIP™

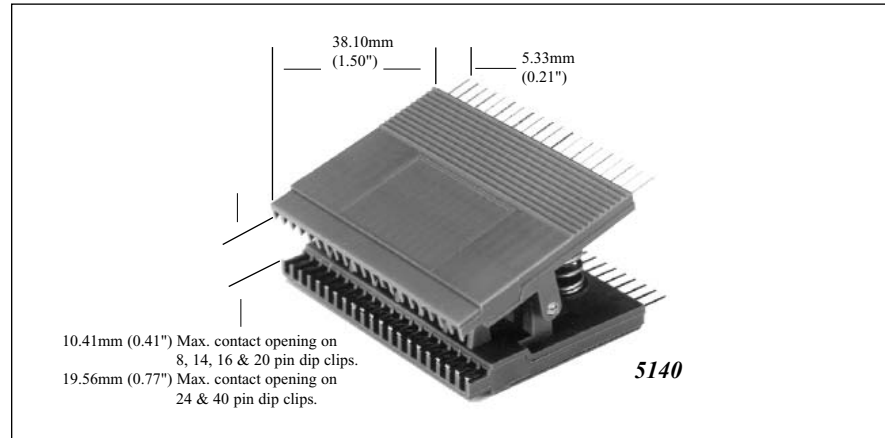
Emulation Technology test adapters are designed especially for testing dual-in-line IC packages on high-density PC boards. The DIP CLIP™ test adapter has many built-in features that assure a positive electrical connection while providing hands-free testing.

The high density DIP CLIP™ test adapters are used for ultra-dense packaged chips located adjacent to each other on 2.54mm (.100") spacing.

MATERIAL: Contact, tarnish resistant Nickel, Silver or Gold plated Beryllium Copper. Stainless steel hinge pin and spring.

INSULATION: Glass filled nylon, blue.

RATING: 500 VRMS; 1 Amp; +102°C (+126°F) Max.

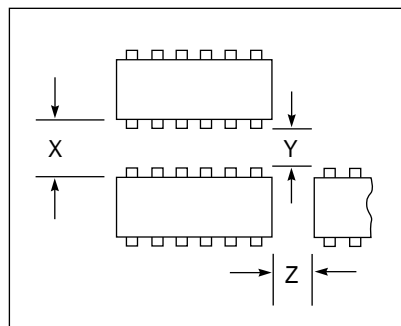


Part #	No. of Pins	Contact Material	Type
5108	8	Gold Plated Beryllium Copper	Standard
5208	8	Gold Plated Beryllium Copper	High Density
5014	14	Spring Tempered Nickel Silver	Standard
5114	14	Spring Tempered Nickel Silver	High Density
5214	14	Gold Plated Beryllium Copper	Standard
5314	14	Gold Plated Beryllium Copper	High Density
3916A	16	Spring Tempered Nickel Silver	Standard
4236A	16	Spring Tempered Nickel Silver	High Density
5116	16	Gold Plated Beryllium Copper	Standard
5216	16	Gold Plated Beryllium Copper	High Density
5120	20	Gold Plated Beryllium Copper	Standard
5220	20	Gold Plated Beryllium Copper	High Density
4124A	24	Spring Tempered Nickel Silver	Standard*
4324A	24	Spring Tempered Nickel Silver	High Density*
5124	24	Gold Plated Beryllium Copper	Standard*
5224	24	Gold Plated Beryllium Copper	High Density*
4140A	40	Spring Tempered Nickel Silver	Standard*
4340A	40	Spring Tempered Nickel Silver	High Density*
5140	40	Gold Plated Beryllium Copper	Standard*
5240	40	Gold Plated Beryllium Copper	High Density*

FEATURES

- Contacts 1.02 mm (.040") wide on lower end are serrated for good electrical connection
- 0.64mm (.025")X0.71mm (.028") square serrated test points on upper end will accept wire wraps or mini test clips
- Molded barrier between each contact allows connections to be made on live boards without accidental shorting of adjacent contacts

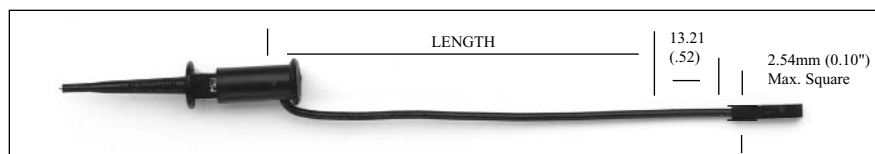
*For .600 MIL DIP Only.



	X Min.	Y Min.	Z Min.
Single Chip Testing Standard	3.30mm (.130")	1.91mm (.075")	1.02mm (.040")
Single Chip Testing High Density	2.67mm (.105")	1.27mm (.050")	1.02mm (.040")
Adjacent	7.62mm (.300")	5.72mm (.225")	2.03mm (.080")

For a complete test clip listing, pricing and delivery information, please see
Web Link: www.1800adapter.com/040

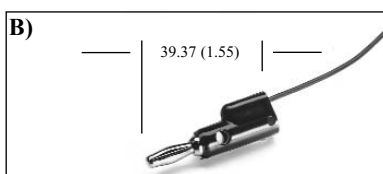
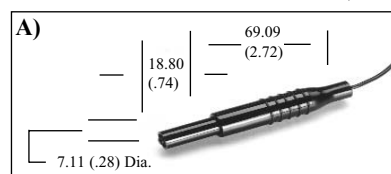
SMD GRABBERS®



0.64mm (.025") Sq. Pin Receptacle End: Gold plated Phosphor Bronze. ABS insulation.

Part #	2nd End	Length
5302-12-*	Stacking Banana Plug	304.8mm (12.0")
5302-24-*	Stacking Banana Plug	609.6mm (24.0")
5302-36-*	Stacking Banana Plug	914.4mm (36.0")
5412-12-*	.064 mm Sq. Pin Receptacle	304.8mm (12.0")
5412-24-*	.064 mm Sq. Pin Receptacle	609.6mm (24.0")
5412-36-*	.064 mm Sq. Pin Receptacle	914.4mm (36.0")

*STD COLORS: -0 Black, -2 Red.



SMD GRABBER TEST CLIP TO VARIOUS ENDS

1ST END: SMD Grabber Test Clip. Contact, selectively gold plated stainless steel. Insulation; glass filled nylon.

WIRE: 22 AWG, 26x36 t.c., PVC insulated, 1.63mm (.064") O.D.

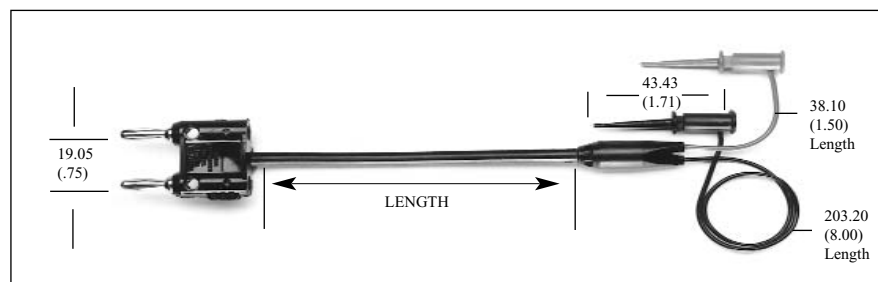
RATING: 1000 WVDC; 0.5 Amps; +50°C (+122°F) Max.

A) Sheathed Banana Plug End:

Brass body, Beryllium Copper spring, Nickel plated. Nylon insulation.

B) Stacking Banana Plug End:

Brass body, Beryllium Copper spring, Nickel plated. Polypropylene insulation.



Double Banana Plug End: Nickel plated Brass body. Beryllium Copper spring. Black polyethylene insulation. Rating: 1000WVDC; 0.5 Amp; +55°C (+131°F) Max.



Part #	2nd End	Length
5304-K-24	BNC Male	609.6mm(24.0")
→ 5304-K-36	BNC Male	914.4mm(36.0")
5411-C-36	Dbl. Banana Plug	914.4mm(36.0")
5411-C-60	Dbl. Banana Plug	1524.0mm(60.0")

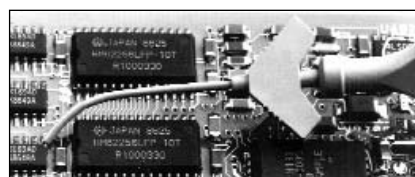
SMD GRABBER TEST CLIPS TO VARIOUS ENDS

1ST END: SMD Grabber Test Clips. Contact, selectively gold plated stainless steel. Insulation; glass filled nylon. One black, one red.

CABLE: Shielded coax., RG 174/U, 2.54mm (.100) and RG58C/U, 4.95mm (.195) O.D. Y-Mold insulation, PVC, black.

BNC Male End:

Brass body, tarnish resistant plated. Brass center contact, gold plated. Nominal impedance: 50 Ohms. Boot, PVC, black. Rating: 500 VRMS Max.; +50°C (+122°F) Max.



SMT GRABBER VALUE PACK

- Includes 20 SMT Grabber Clips.

Specifications: Grabbers
 Elect. Connector Point: 2 (0.025" connections)
 Resistance: 12-30 millions
 Dimensions: Shaft: 0.05" O.D.
 Length: 2.30"
 Weight: 1.0 grams
 Wire: .011".
 Leads: N/A

SMT GRABBER CLIPS WITH FLEXIBLE TIP

The flexible tip sleeve allows for bending up to a 35 degree angle to accommodate for hard-to-reach circuit locations.

Part #
SMG50

For a complete test clip listing, pricing and delivery information, please see
Web Link: www.1800adapter.com/040

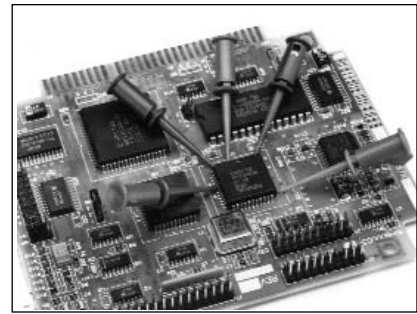
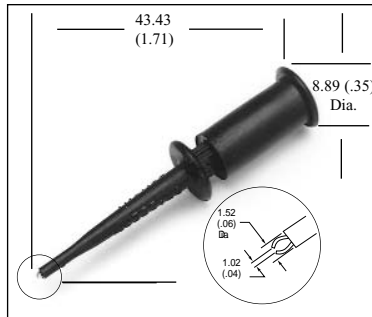
TEST CLIPS - SMD GRABBER®

The SMD Grabber Test Clip is especially suited for testing surface mounted packages on centers as small as 0.76mm (.030"). Pincer-like contacts grasp individual legs of SMDs such as those in SOIC, SOJ, PLCC packages. Its circular design and small size have been developed for easy use and handling.

SMD GRABBER TEST CLIP, DO-IT-YOURSELF

Part #
5243-*

*STD COLORS: -0 Black, -1 Brown, -2 Red, -3 Orange, -4 Yellow, -5 Green, -6 Blue, -7 Violet, -8 Gray, -9 White.



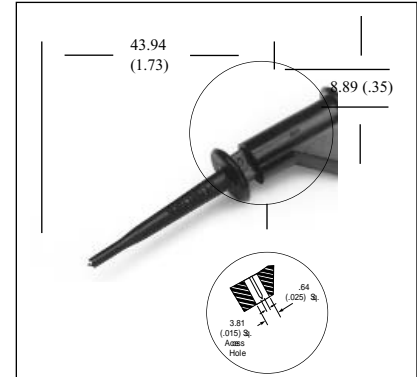
MATERIAL: Contact, stainless steel.
FINISH: Selectively gold plated on tip.
INSULATION: Glass filled nylon.
RATING: 1000 WVDC; 0.5 Amp; +102°C (+216°F) Max.

SMD GRABBER TEST CLIP, with 0.64mm (.025") SQ. PIN

Part #
5360-*

*STD COLORS: -0 Black, -1 Brown, -2 Red, -3 Orange, -4 Yellow, -5 Green, -6 Blue, -7 Violet, -8 Gray, -9 White.

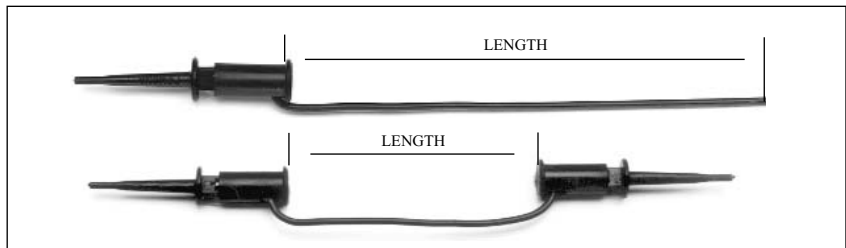
1ST END: Contact, stainless steel, selectively gold plated.
INSULATION: Glass filled nylon.
2ND END: Square pin, phosphor bronze, gold plated.
RATING: 1000 WVDC; 0.5 Amps; +102°C (+216°F) Max.



SMD GRABBER TEST CLIP, ONE and TWO ENDS

Part #	Length	Ends
5303-36-*	914.4mm (36.0")	1
5301-06-*	152.4mm (6.0")	2
5301-12-*	304.8mm (12.0")	2
5301-24-*	609.6mm (24.0")	2
5301-36-*	914.4mm (36.0")	2

*STD COLORS: -0 Black, -2 Red

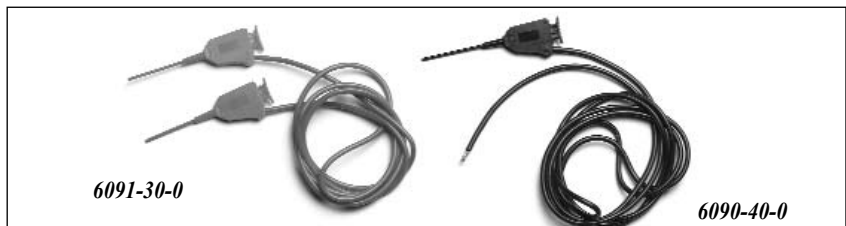


1ST END: SMD Grabber Test Clip. Contact, selectively gold plated stainless steel. Insulation; glass filled nylon.
WIRE: 22 AWG, 26x36 t.c., PVC insulated, 1.63mm (.064") O.D.
2ND END: One end only - none. Two ends - same as first end.
RATING: 1000 WVDC; 0.5 Amps; +102°C (+216°F) Max.

ULTRA-THIN GRABBER TEST CLIP, ONE and TWO ENDS

These test clips are especially designed for testing today's fine-pitched, surface mount devices. This ultra-thin body contour combined with a 1.2mm/0.5" shaft maximizes the users' ability to stack the clips tightly onto fine-pitched devices with up to 50 mils spacing. The shaft flexes (up to 36°) for easy access from different angles.

Part #
6090-40-0 (Black) One end only
6090-40-2 (Red) One end only
6091-30-0 One each end
6091-30-2 One each end



WIRE: Silicone insulated, 2mm (.08") O.D. Overall length of 54mm/2.13"
2ND END: One end only - none. Two ends - same as first end.
TEMP: -20° to 80° C.

For a complete test clip listing, pricing and delivery information, please see
Web Link: www.1800adapter.com/040