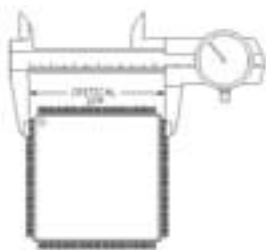


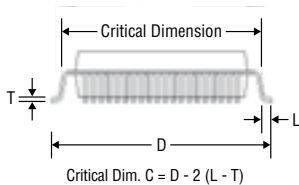
# IC Test Clips and Adapters

Innovative solutions. Pomona Electronics' IC Test Clips – designed for your chip. Uniquely designed for testing surface mount devices – easily, securely and successfully. Low-profile fine-pitch chips, densely populated boards, or vertical boards, POMONA test clips connect you with confidence.

## How to Measure or Calculate the Critical Dimension for Your QFP Test Clip



Measure Critical Dimension with calipers parallel to the plane of the PCB



## Test Clip Selection Made Easy

To select the Pomona IC Test Clip specifically designed for your chip, find the table for your chip type and follow the selection procedure outlined in this section.



### PLCC

To find your PLCC Quad Clip® test adapter, turn to the PLCC table on page 84 and reference the following characteristics of your target chip:

1. Number Of Leads
2. Body Size



### DIP

To find your DIP test clip, turn to the DIP table on page 85 and reference the following characteristics of your target chip:

1. Number Of Leads
2. Test Clip Contact Style (see Fig. 1 & 2, page 85)



### SOIC/SOJ

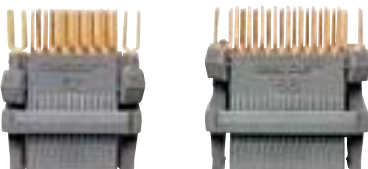
To find your SOIC Clip® test clip, turn to the SOIC/SOJ table on page 85 and reference the following characteristics of your target chip:

1. Number Of Leads
2. Confirm Body Width Compatibility
3. For Lower and Top Test Clip Width (see Fig. 1, 2 & 3, page 85)

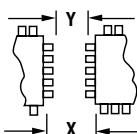
Pomona offers a wide variety of **Micro-SMD Grabber® Test Clips** for use in testing fine pitch PQFP devices. See **SMD/Micro Format Test** section for complete selection.



## PLCC Test Clips



	X Min.	Y Min.
Single Testing	0.120in (3.1mm)	0.110in (2.8mm)
Adjacent Testing	0.325 (8.3mm)	0.285 (7.2mm)



Pomona's low-cost Quad Clip® test clips quickly lock onto J-leaded PLCCs, providing easy access for testing surface-mounted devices. PLCC test clips attach to PLCC chips with a sliding cam that clamps onto the chip body. Access to chip leads is provided by 0.025in (0.635mm) pins at 0.100in (2.54mm) spacing. Pomona offers a Quad Clip® test clip to fit all currently available PLCC chip sizes.

**Lead Pitch:** 0.050in (1.27mm)

Model#	No. Leads	Lead Pattern	Body Size	Typical Applications
5279	20	5 X 5	0.36in X 0.36in (9.14mm x 9.14mm)	Intel 85C220
5280	28	7 X 7	0.46in X 0.46in (11.68mm x 11.68mm)	Intel 5C60, 85C224, Philips 8XC751, Raytheon TMC1173
5733	32	7 X 9	0.46in X 0.56in (11.68mm x 14.22mm)	AMD 29F040, Xicor X28TC256, Cypress CY7B991
5281	44	11 X 11	0.63in X 0.63in (16.00mm x 16.00mm)	AMD MACH110, 80C88, Seimens SAB-C501
5312	52	13 X 13	0.75in X 0.75in (19.05mm x 19.05mm)	Intel 87C196, 87C196, Motorola 68008
5401	68	17 X 17	0.95in X 0.95in (24.13mm x 24.13mm)	Intel 80C188, AMD MACH220, Hitachi H8/330
5402	84	21 X 21	1.15in X 1.15in (29.21mm x 29.21mm)	AMD MACH130, Altera EPF8452, Cirrus Logic CL16005
5515A	20-84			PLCC Clip Kit containing 1 of each size PLCC Clip

## DIP Test Clips



Fig. 1



Fig. 2

Model#	No. Leads	Chip Width	Contact Style	Contact Material	Typical Applications	Fig.
5108	8	0.3in (7.62mm)	Closed	Gold Plate		1
5208	8	0.3in (7.62mm)	Open	Gold Plate		2
5014	14	0.3in (7.62mm)	Closed	Nickel Silver		1
5114	14	0.3in (7.62mm)	Open	Nickel Silver		2
3916A	16	0.3in (7.62mm)	Closed	Nickel Silver	Analog Devices AD7715	1
5220	20	0.3in (7.62mm)	Open	Gold Plate		2

Pomona DIP Test Clips provide fast, reliable and secure connections to socketed and through-hole DIP chips. Available in two styles, DIP Test Clips give you the option of full coverage of clip contacts for maximum durability or open contacts at the board level for easier access to chip leads.

**Fig. 1:** Spring-actuated clip features gold-plated beryllium copper or spring-tempered nickel silver pins to assure positive contact in a firm wiping action for hands-free testing.

**Fig. 2:** Clip features same construction as Figure 1 except for an opening on the outside of the contact housing to permit probing while the clip is attached to the DIP.

## SOIC/SOJ Test Clips

SOIC Clip® test clips feature a narrow-profile design that makes testing SOIC and SOJ chips on densely-populated boards easier and safer.



Fig. 1



Fig. 2



Fig. 3

**Fig. 1:** Spring-loaded SOIC Clip® attaches to target chip and holds on with spring pressure against the chip body. Contacts on top of the clip are 0.025in (0.635mm) pins at 0.10in (2.54mm) spacing. Designed to attach to surface-mounted chips with either gull wing or "J" leads.

**Fig. 2:** This 14-pin clip features a slider that presses the contact housings against the chip and provides a more secure connection on surface mounted chips with gull wing or "J" leads. Compact design is ideal for testing on densely-populated boards.

**Fig. 3:** New 32-, 40- & 44-pin SOIC/SOJ test clip is a new design of the spring-loaded clip that features double-row .025 wire wrap pins for easy connection to ribbon cable. This clip will fit all SOIC/SOJ chips between 0.30in (7.62mm) and 0.60in (15.24mm) width.

Lead Pitch: 0.050in (1.27mm).

Model#	No. Leads	Lower Width (A)	Body Widths	Top Width (B)	Typical Applications	Fig.
5250	8	0.26in (6.60mm)	0.15in to 0.3in (3.81mm to 7.62mm)	0.430in (10.92mm)	Analog Devices AD834JR, Triquint TQ9122N	1
5251	14	0.410 (10.41mm)	0.15in to 0.3in (3.81mm to 7.62mm)	0.755in (19.18mm)	Motorola HCT08A, Philips 74HC125	1
5413	14	0.410 (10.41mm)	0.15in (3.81mm)	0.520in (13.20mm)	Harris HFSP43280, Goldstar GM76C256	2
5252	16	0.460 (11.68mm)	0.15in to 0.3in (3.81mm to 7.62mm)	0.830in (21.08mm)	Maxim MAX791, Microlinear ML6509, AMD 26LS31	1
5253	20	0.560 (14.22mm)	0.15in to 0.3in (3.81mm to 7.62mm)	1.030in (26.16mm)	Linear Tech. LT1130, Maxim MX7226, Motorola HCT373A	1
5254	24	0.660 (16.76mm)	0.15in to 0.3in (3.81mm to 7.62mm)	1.230in (31.24mm)	Altera EP610APC, Linear Tech. LT1130, Motorola MC22V10S	1
5437	28	0.760 (19.30mm)	0.15in to 0.3in (3.81mm to 7.62mm)	1.430in (36.32mm)	Texas Inst. SN74F32D, Altera EPM5032, Raytheon TMC1171	1
6107	32	0.870 (22.10mm)	0.30in to 0.60in (7.62mm to 15.24mm)	0.870in (22.10mm)	Toshiba TMPN3120, Hitachi HM628128, NEC D431000AGW	3
6108	40	1.070 (27.18mm)	0.30in to 0.60in (7.62mm to 15.24mm)	1.070in (27.18mm)	—	3
6109	44	1.170 (29.72mm)	0.30in to 0.60in (7.62mm to 15.24mm)	1.170in (29.72mm)	—	3
5514					SOIC Clip® Test Kit contains 1 each 8 - 28 pin clips	