

Oscilloscope Probes and Accessories

Pomona's oscilloscope probes give you the full range you need. Designed, rated, and specified to match the bandwidth of your instrument, they provide you with full voltage read-out over the entire rated bandwidth of each probe.

Pomona
ELECTRONICS

75



Replacement Passive Oscilloscope Probes

These general purpose monolithic passive voltage probes feature high performance for greater test flexibility. Complete accessory kit included.

See selection guide below.

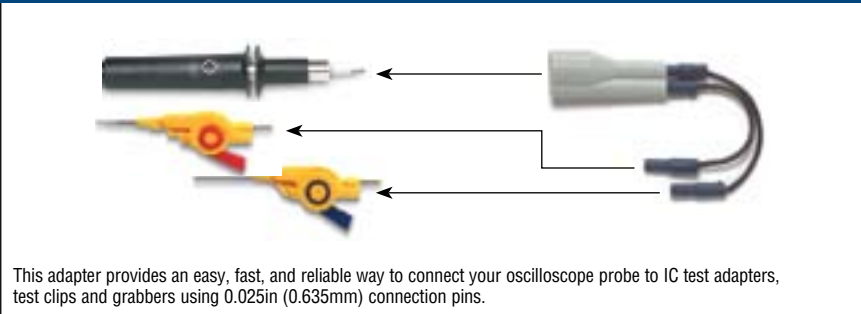
Monolithic Passive Oscilloscope Probes

Model#	Probe Ratio	Maximum Input Voltage CAT I ¹	System Bandwidth MHz (-3 dB)	System Rise-time (ns)	Probe Input Resistance (M Ω)	Probe Input Capacitance (pF)	Compensation ² Range (pF)	Readout Actuator ³	Cable Length
4550B	1:1	300 ² 300	Up to 15 ³ 100	< 23.33 ³ < 3.50	1 10	< 64 + O-Scope < 10.5	NA 10 - 60	No	4ft (1.2m)
5795A	10:1 10:1	300	100	< 3.50	10	< 9.5	10 - 60	No	4ft (1.2m)
5800A	1:1	300 ²	Up to 30 ³	< 11.66 ³	1	< 57 + O-Scope	NA	No	4ft (1.2m)
5803A	10:1	300	200	< 1.75	10	< 10	10 - 60	No	4ft (1.2m)
5806A	1:1 10:1	300 ² 300	Up to 20 ³ 200	< 17.5 ³ < 1.75	1 10	< 77 + O-Scope < 11.5	NA 10 - 60	No	4ft (1.2m)
5809A	10:1	300	300	< 1.17	10	< 17	10 - 60	No	4ft (1.2m)
5812A	10:1	300	300	< 1.17	10	< 17	10 - 60	Yes	4ft (1.2m)
5827A	100:1	300	200	< 1.75	10	< 5.5	15 - 50	No	6.6ft (2.0m)
6049A	10:1	300	150	< 2.33	10	< 10.5	10 - 30	No	4ft (1.2m)
6069A	10:1	300	250	< 1.40	10	< 10	10 - 30	No	4ft (1.2m)
6101A	10:1	300	150	< 2.33	10	< 10.5	10 - 30	Yes	4ft (1.2m)
6102A	10:1	300	250	< 1.40	10	< 10	10 - 30	Yes	4ft (1.2m)
6265	10:1	300	60	< 5.83	10	< 10.5	10 - 60	No	4ft (1.2m)
6266	1:1 10:1	300 ² 300	Up to 20 ³ 60	< 17.5 ³ < 5.83	1 10	< 65 + O-Scope < 11	NA 10 - 60	No	4ft (1.2m)
SP150B	1:1 10:1	300 ² 300	Up to 15 ³ 150	< 23.33 ³ < 3.33	1 10	< 50+ O-Scope < 15	NA 10 - 60	No	4ft (1.2m)

Replacement Accessory Kit: 6267

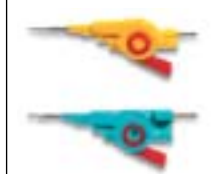
Kit includes:
Retractable Hook Tip
BNC Adapter
IC Adapter
Insulating Tip
Trimmer Tool
6in (0.15m) Ground Lead with Alligator Clip

Oscilloscope Probe Tip Adapter Model# 6443



Pomona adapters with 0.025in (0.635mm) pins

5360 6353 All "IC" test clips
5790 6490
6351 6442
6352



- 1 **Rating:** All probes are rated 300V (DC + Peak AC), CAT I, per IEC61010-2-031. Maximum voltage allowed on the LO connection including shell and housing must not exceed 30V.
2 Maximum input voltages are dependent on the oscilloscope input characteristics; take the lesser of the two specifications.

- 3 Dependent upon oscilloscope input characteristics.
4 Any oscilloscope that uses the Tektronix® style range actuator.
5 For oscilloscopes with 1 M Ω input resistance.

Modular Passive Oscilloscope Probes


Featuring a new, compact, ergonomically designed probe handle, these modular general purpose passive voltage probes are ideal for use with a wide variety of oscilloscopes. They also feature a spring-loaded, pogo-pin replaceable tip. The fine tip probes are perfectly suited for probing high-density chip leads with less than 0.060in (1.52mm) spacing. Modular in design, the probe handle is capable of receiving a variety of spring-loaded and fixed tips, providing greater testing versatility. An affordable, versatile probe for many uses.

Probe sets includes the probe, BNC adapter, ground blade, 8.7in (22cm) ground lead, IC tip adapters with 0.8mm to 1.27mm pitch, insulating tip, protection cap, solid tip, spring tip, sprung hook, trimmer tool, 2 footer positioner, and complete set of instructions and specifications.



Model#	Probe Ratio	Maximum Input Voltage CAT II ¹	System Bandwidth MHz (-3dB)	System Rise Time (ns)	Probe Input Resistance (M Ω)	Probe Input Capacitance (pF)	Compensation Range (pF)	Readout Actuator ²	Cable Length
6491	1:1	55 V	60	< 12	1	< 39.5	NA	NA	4ft (1.2m)
6493	10:1	300 V	60	< 2.4	10	< 12.5	15 - 40	No	4ft (1.2m)
6494	10:1	300 V	60	< 2.4	10	< 12.5	15 - 40	Yes	4ft (1.2m)
6495	10:1	300 V	100	< 1.4	10	< 13	10 - 35	No	4ft (1.2m)
6496	10:1	300 V	350	< 1	10	< 14.5	10 - 35	No	4ft (1.2m)
6497	10:1	300 V	350	< 1	10	< 14.5	10 - 35	Yes	4ft (1.2m)
6498	100:1	1000 V	500	< 0.9	50	< 7.5	10 - 50	No	6.6ft (2m)
6499	1:1	55 V	60	< 18	1	< 78	NA	No	4ft (1.2m)
	10:1	300 V		< 2.4	10	< 13	15 - 40		
6500	1:1	55 V	100	< 12	1	< 80	NA	No	4ft (1.2m)
	10:1	300 V		< 1.4	10	< 13	10 - 35		

Replacement Accessory Kit: 73040
Kit includes:

Retractable Hook Tip
 BNC Adapter
 Insulating Tip
 Trimmer Tool
 8.7in (22cm) Ground Lead with Alligator Clip
 1 ea. Rigid Probe Tip
 1 ea. Spring Probe Tip

Oscilloscope Probe Tip Adapter Model# 6553


This adapter provides an easy, fast, and reliable way to connect your oscilloscope probe to IC test adapters, test clips and grabbers using 0.025in (0.635mm) connection pins.

Pomona adapters with 0.025in (0.635mm) pins

5360 6353 All "IC" test clips
 5790 6490
 6351 6442
 6352



1 Rating: Per IEC61010-2-031. Maximum voltage allowed on the LO connection including shell and housing must not exceed 30V.

2 Any oscilloscope that uses the Tektronix® style range actuator

Oscilloscope Probes and Accessories

Microline Passive Oscilloscope Probes



Tips can be replaced with Pomona 0.60in (1.52mm) probe tips model number 6475, see page 66.

500 MHz X10 Passive Voltage Probe 4ft (1.2m) cable, 500V peak.

The perfect solution for accessing hard-to-reach test points, particularly fine pitch IC leads. The Microline Probe features a 500 MHz X10 passive voltage probe compactly designed for on-the-go field service or in the lab.

Pomona adapters with 0.025in (0.635mm) pins

5360	6352	6442
5790	6353	All "IC" test clips
6351	6490	



Replacement Accessory Kit: 73040

Kit includes:

- Retractable Hook Tip
- BNC Adapter
- Insulating Tip
- Trimmer Tool
- 8.7in (22cm) Ground Lead with Alligator Clip
- 1 ea. Rigid Probe Tip
- 1 ea. Spring Probe Tip

Oscilloscope Probe Tip Adapter Model# 6553



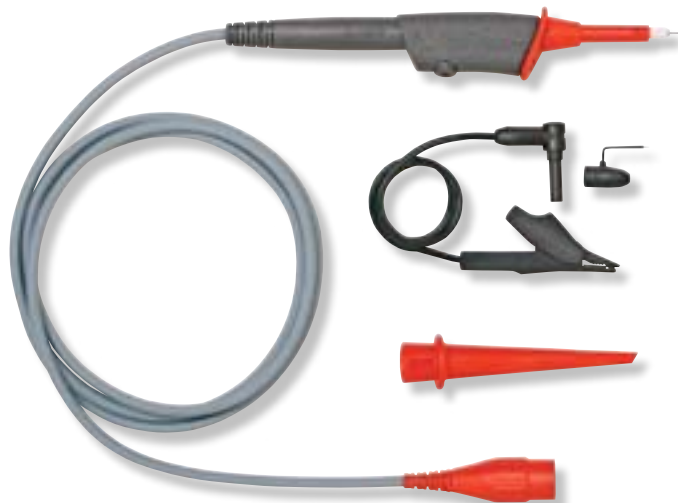
This adapter provides an easy, fast, and reliable way to connect your oscilloscope probe to IC test adapters, test clips and grabbers using 0.025in (0.635mm) connection pins.

Model#	Probe Ratio	Maximum Input Voltage CAT I ¹	System Bandwidth MHz (-3 dB)	System Rise-time (ns)	Probe Input Resistance (M Ω)	Probe Input Capacitance (pF)	Compensation Range (pF)	Readout Actuator ²	Cable Length
6551	10: 1	300 V	500	< 0.70	10	< 11	7 - 25	Yes	4ft (1.2m)
6554	10: 1	300 V	500	< 0.70	10	< 11	7 - 25	No	4ft (1.2m)

¹ Rating: Per IEC61010-2-031. Maximum voltage allowed on the LO connection including shell and housing must not exceed 30V.

² Any oscilloscope that uses the Tektronix® style range actuator

Insulated Oscilloscope Probes for Portable Applications



Features

- With a CAT II, 600 V (CAT III, 300 V) rating, these probes are perfect for use with portable oscilloscopes.
- And with a 500 MHz bandwidth, these probes provide plenty of headroom for those high frequency measurements.
- Fully Insulated.
- Meets IEC 61010-031.
- Ergonomic Design with Comfort Grip.

Accessories Included

- Push-On Hook Clip.
- Push-On Reference Contact.
- Reference lead with alligator clip for the connection to the 0.2 mm safety socket in the handle.

Model#	Probe Ratio	Maximum Input Voltage CAT II ¹	Bandwidth (MHz)	Input Resistance (MΩ)	Input Capacitance (pF)	Approximate Rise-time (ns)	Compensation Range (pF)	Cable Length
72940-*	10: 1	600 V	500	10	13	1	10 - 30	4ft (1.2m)
72941 (set)	10: 1	600 V	500	10	13	1	10 - 30	4ft (1.2m)
72942	See page 60							

¹ Derated with frequency.

² For oscilloscopes with 1MΩ input resistance.

Active Differential Probe



Pomona **Model 6731** differential voltage probe allows users to safely make floating high voltage measurements while using general purpose oscilloscopes. Using a built-in differential amplifier, the floating signal is converted and scaled to a low-voltage signal referenced to earth ground. The probe can be used on circuits associated with electronic high-power converters, motor speed controls, switching mode power supplies, and other high voltage circuits requiring isolation.

Features include switchable attenuation, high impedance to ground for both positive and negative side of the balanced input, and maximum differential voltage up to 1000V. The probe input uses shrouded banana test probe tip. The output to the oscilloscope is made with a BNC cable with a safety insulated BNC male connector.

Included with the 6731:

Large Jaw Alligator clips (one red and one black).
 Pin-Grabber Test Clips (one red and one black).
 9V Alkaline Battery.

Optional:

Model 6732: Universal Power Adapter.

Input Characteristics

Input Probe	Shrouded banana test probe
Input Cable Length	60in (1.5m)
Probe Ratio	20:1 / 200:1
Voltage to Ground	600V CAT III, 1000V CAT II
Maximum Input	1000 Vdc
Maximum Differential Input Voltage	1000 Vrms 1200V (DC + Peak AC)
Maximum Floating Voltage / Frequency	600V Category III /400 Hz (from shielding to ground)
Probe Input Resistance	5M Ω (input to shielding), 10M Ω (input to input)
Probe Input Capacitance	6 pF (input to shielding), 5 pF (input to input)
Operating Temperature	+32 to +122°F (0 to +50°C)

Output Characteristics

Output Cable	BNC cable
Output Cable Length	20in (0.5m)
Output Voltage Range	$\pm 6.5V$ (into 1MW)
Accuracy	$\pm 2.5\%$
Bandwidth	DC to 20 MHz (-3 dB)
Risetime	17.5 ns
CMRR	20:1 @ 60Hz =>70dB 200:1 @ 60Hz => 80dB 20:1 @ 1MHz =>40 dB 200:1 @ 1 MHz =>50dB

Power

9V Alkaline Battery	8 hours operation. 400 hours in standby. Unit goes into standby mode after 30 minutes (battery mode only).
Model 6732 Optional Universal Power Adapter	For continuous operation

