

# Passive Probes

- **Designed for optimal performance with your Agilent 6000 and 54600 Series scope**
- **1:1 and 10:1 attenuation**
- **20 MHz to 500 MHz**

## Rugged, high-quality probes at a reasonable price

Agilent 10070-family passive probes are a great choice if you're looking for high quality at a very reasonable price. These general-purpose probes are designed specifically to give you optimal performance with your 6000 and 54600 Series oscilloscopes. Ruggedized for general-purpose measurements, they feature a durable cable and a solid stainless steel probe body encased with a hard, fracture-resistant plastic. They're designed and tested to ensure the probes operate in the toughest of conditions.

Probes come with the following accessories:

- General-purpose retractable hook tip hooks onto wires and test points for hands-free probing
- Ground bayonet provides short, flexible ground lead for high-frequency measurements
- General-purpose alligator clip ground lead for versatile grounding
- Color tags (2 orange, 2 white, 2 blue and 2 green) to place at both ends of probe cable to help you quickly identify probes

## Accessories available for passive probes

5081-7705 Probe-tip-to-BNC (m) adapter

8710-2063 Dual-lead adapter provides easy connection from probe signal and ground to fine-pitch probing accessories.

10072A Fine-pitch probing kit includes 10 SMT clips and 2 dual-lead adapters.

10075A 0.5 mm IC probing kit. contains four 0.5 mm IC clips and 2 dual-lead adapters.

## Ordering Information for Agilent Technologies Passive Probes

All 10070-family passive probes include one retractable hook tip, one ground bayonet, one IC probing tip, one alligator ground lead and a compensation screwdriver.

10070C 1:1 20 MHz passive probe

10073C 10:1 500 MHz passive probe

10074C 10:1 150 MHz passive probe

10072A Fine-pitch probing kit

10075A 0.5 mm IC probing kit

5081-7705 Probe-tip-to-BNC (m) adapter

8710-2063 Dual-lead adapter



**10074C Passive Probe**

## Specifications for Agilent Technologies 10070 Family Passive Probes

	<b>10070C</b>	<b>10073C</b>	<b>10074C</b>
Bandwidth	20 MHz	500 MHz	150 MHz
Risetime (Calculated)	< 17.5 ns	< 700 ps	< 2.33 ns
Attenuation Ratio	1:1	10:1	10:1
Input Resistance (when terminated into 1 MΩ)	1 MΩ	2.2 MΩ	10 MΩ
Input Capacitance	Approx 70 pF	Approx 12 pF	Approx 15 pF
Maximum Input (dc + peak ac)	500 V CAT I (mains isolated) 400 V CAT II (post receptacle mains)	500 V CAT I (mains isolated) 400 V CAT II (post receptacle mains)	500 V CAT I (mains isolated) 400 V CAT II (post receptacle mains)
Compensation Range	None	6 - 15 pF	9 - 17 pF
Probe Readout	Yes	Yes	Yes
Cable Length	1.5 m	1.5 m	1.5 m

# Wedge Probe Adapters

- **Easy connection to surface mount ICs**
- **Safe, with no chance of shorting**
- **Mechanically non-invasive contact**
- **3-, 8-, and 16-signal versions**
- **Supports 0.5 mm and 0.65 mm TQFP and PQFP packages**

## Problem-free probing

The Agilent Wedge Probe Adapter eliminates many of the frustrations associated with probing surface mount components. If you've ever accidentally shorted IC pins together, experienced electrical and/or mechanical problems with soldering small wires onto leads, or gotten frustrated juggling multiple probes while you're trying to operate your scope, the Wedge was designed with you in mind.

## Make the inaccessible accessible

When you use the Wedge, you don't have to worry about shorting IC pins together on a delicate component – or worse yet on an irreplaceable prototype. The Wedge is easy to insert and it stays put. There's no need to solder small wires onto leads. The Wedge is mechanically non-invasive, so you won't damage the legs of the IC. Instead, you'll have easy access to hard-to-reach components.

## Electrical reliability

The Wedge makes two contact points with each leg of the IC. This redundant physical connection increases the electrical reliability of the connection. And the Wedge's low capacitance and inductance provides superior performance to many other alternatives.

## IC Clip Kits

An inexpensive solution for probing fine-pitch ICs, the 10072A SMT Kit includes ten IC clips and two dual-lead adapters that connect the clips directly to 10070-family probes.

The 10075A 0.5 mm IC Clip Kit is ideal for connecting to IC's as fine as 0.5 mm. The clip body allows many clips to be mounted side-by-side. The kit includes four 0.5 mm IC clips and two dual-lead adapters that connect the IC clips directly to 10070-family probes.

## Agilent Wedge Electrical Characteristics

Operating Voltage	< 40 V dc + peak ac
Operating Current	0.5 A maximum
Capacitance Between Contacts	2 pF typical (all except Agilent E2643A/44A) 4.33 pF typical at 1 MHz (Agilent E2643A/44A)
Self-Inductance	15 nH typical (all except Agilent E2643A/44A) 37 nH typical at 1 MHz (Agilent E2642A/44A)
Cross Coupling	-31 dB typical at 100 MHz (Agilent E2643A/44A)
Contact Resistance	< 0.1 $\Omega$

## Ordering Information

E2613A	0.5 mm Wedge probe adapter 3-signal, qty 1
E2613B	0.5 mm Wedge probe adapter, 3-signal, qty 2
E2614A	0.5 mm Wedge probe adapter, 8-signal, qty 1
E2643A	0.5 mm Wedge probe adapter, 16-signal, qty 1
E2615A	0.65 mm Wedge probe adapter, 3-signal, qty 1
E2615B	0.65 mm Wedge probe adapter, 3-signal, qty 2
E2616A	0.65 mm Wedge probe adapter, 8-signal, qty 1
E2644A	0.65 mm Wedge probe adapter, 16-signal, qty 1
10072A	SMT kit for 10070 probe family
10075A	0.5 mm IC clip kit

