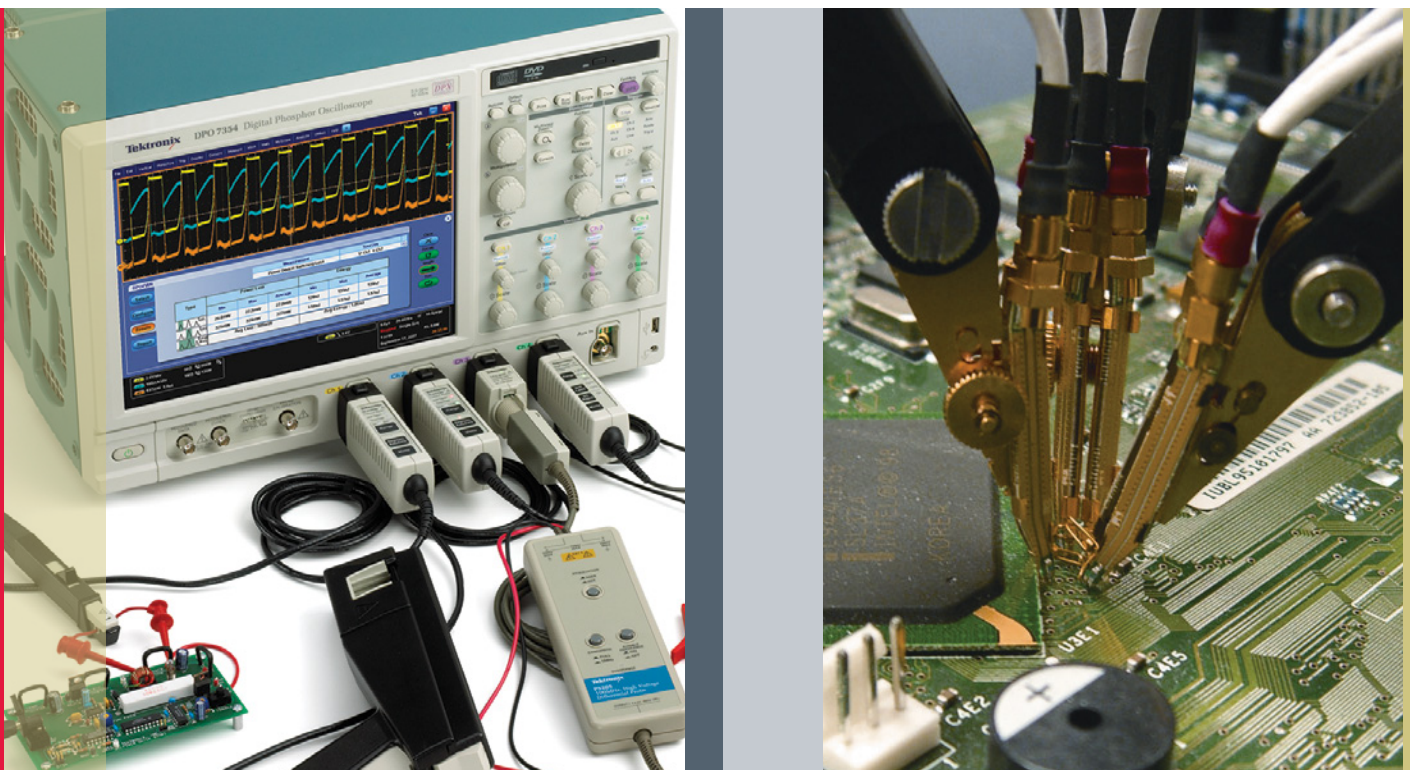
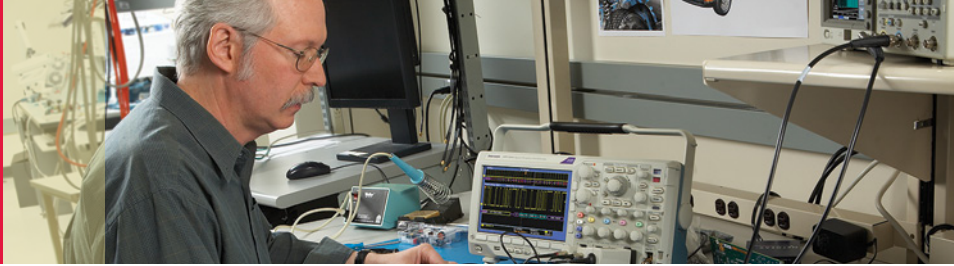


# Probes and Accessories

Your Guide to Selecting the Right Probe





# Measurement Accuracy Begins at the Probe Tip

Tektronix probes ensure the highest signal fidelity possible from your device-under-test to your oscilloscope. With over 100 probe choices available, all perfectly matched to our industry-leading oscilloscopes, you can find the probe you need for your specific testing application.

## Interactive Probe Selector Tool

Need help finding the right probe for your application? The online Tektronix Probe Selector Tool will guide you through a few easy questions to match your need to the right probe. Visit us anytime, anywhere at: [www.tektronix.com/probes](http://www.tektronix.com/probes)

Select your requirements below. The list of matching products will update with each click.

**1** Select By Instrument Series: (Click To Expand)

**Instrument Series:**

|                                     |                                   |                                   |                                   |
|-------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <input type="checkbox"/> Don't Know | <input type="checkbox"/> 400      | <input type="checkbox"/> 2200     | <input type="checkbox"/> 2400     |
| <input type="checkbox"/> CSA7000B   | <input type="checkbox"/> DPO2000  | <input type="checkbox"/> DPO3000  | <input type="checkbox"/> DPO4000  |
| <input type="checkbox"/> DPO4000B   | <input type="checkbox"/> DPO5000  | <input type="checkbox"/> DPO7000  | <input type="checkbox"/> DPO70000 |
| <input type="checkbox"/> DSA70000   | <input type="checkbox"/> DSA8200  | <input type="checkbox"/> MSO2000  | <input type="checkbox"/> MSO3000  |
| <input type="checkbox"/> MSO4000    | <input type="checkbox"/> MSO4000B | <input type="checkbox"/> MSO5000  | <input type="checkbox"/> MSO70000 |
| <input type="checkbox"/> RSA3000A   | <input type="checkbox"/> RSA3408A | <input type="checkbox"/> RSA6100A | <input type="checkbox"/> TDS1000  |
| <input type="checkbox"/> TDS2000    | <input type="checkbox"/> TDS300   | <input type="checkbox"/> TDS500   | <input type="checkbox"/> TDS3000  |
| <input type="checkbox"/> TDS400     | <input type="checkbox"/> TDS6000  | <input type="checkbox"/> TDS5000  | <input type="checkbox"/> THS700   |
| <input type="checkbox"/> TDS600     | <input type="checkbox"/> TDS7000  | <input type="checkbox"/> TDS700   | <input type="checkbox"/> TPS2000  |

**Probe Type:** (Select all applicable types)  
☐ Voltage ☐ Current ☐ Optical ☐ Logic

**Signal Type:**  
☐ AC/DC Split Core ☐ AC Split Core ☐ AC Fixed Core  
☐ Active Single-Ended ☐ Active Differential ☐ Logic Single-Ended  
☐ Passive Single-Ended ☐ Passive Differential ☐ Passive Single-Ended Zo

**Signal Bandwidth:**  
☐ 0 to 5 MHz ☐ > 5 to 50 MHz ☐ > 50 to 200 MHz  
☐ > 200 MHz to 1 GHz ☐ > 1 to 4 GHz ☐ > 4 to 8 GHz  
☐ > 8 GHz

**Maximum Voltage Capabilities:**  
☐ 0 to 5 V ☐ 5 to 10 V ☐ 10 to 100 V  
☐ 100 to 500 V ☐ 500 V to 1.5 kV ☐ > 1.5 kV

**Maximum Current Capabilities:**  
☐ 0 to 10 A ☐ > 10 to 50 A ☐ > 50 to 150 A  
☐ > 150 A

**Minimum Current Capabilities:**  
☐ 0 to 1 mA ☐ > 1 to 5 mA ☐ > 5 to 50 mA  
☐ > 50 mA

**Other Accessories:**  
☐ Adaptor ☐ Battery Power ☐ Cart  
☐ Case ☐ Rackmount

**108 Matches** Compare Start Over

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Images appear for the first 15 matches. The rest of the matches are listed below.

|         |       |           |
|---------|-------|-----------|
| 1103    | P6158 | RM2000B   |
| 80A02   | P6205 | RM3000    |
| A621    | P6241 | RM4000    |
| A622    | P6243 | RMD2000   |
| AC2100  | P6245 | RMD3000   |
| AC3000  | P6246 | RTPA2A    |
| AC4000  | P6247 | TAP1500X2 |
| ACD2000 | P6248 | TAP2500   |
| ACD4000 | P6251 | TAP3500   |
| ADA400A | P6330 | TCA-1MEG  |

**1** Select your Oscilloscope Series.

**2** Select your application and test specifications.

**3** Compare selected probes and instantly create a PDF or print your results!



## Choosing the Right Probe

The first step to proper probe selection is to consider the signals you plan to measure. Do you need to measure voltage, current or both? What frequency is your signal? How large is the amplitude of your signal? Does the device under test have low or high source impedance? Do you need to measure the signal differentially? Answers to these questions will allow you to pinpoint the best probing solution from the many probe types that Tektronix offers.



### Bandwidth

Choose a probe with bandwidth that matches the Tektronix oscilloscope you will be using. A good rule of thumb is that the oscilloscope and probe bandwidth should be 3 to 5 times greater than the highest signal frequency of interest. It is equally important to consider the bandwidth of the risetime of the signal. At frequencies above 500 MHz, active probes will often provide better small signal performance.

### Probe Loading

Ideally, you want to choose a probe that has as little effect as possible on the signal to be measured. The value of the device under test's source impedance can significantly influence the net effect of any probe loading. For example, with low source impedances, the loading effect of a typical high-impedance 10X passive probe would be hardly noticeable. This is because high impedance added in parallel with low impedance produces no significant change in total impedance. Passive probes are a good low cost, general purpose solution, in this case. However, the story changes dramatically for higher bandwidth signals with high source impedances. For high source impedances, an active single-ended or differential probe will be a better choice.

### Voltage or Current Amplitude

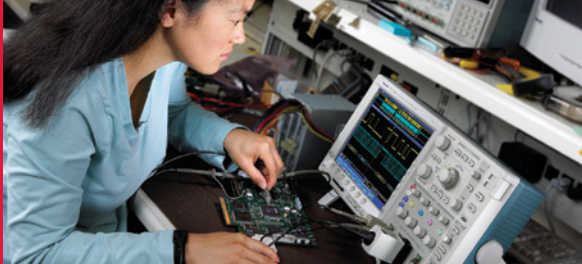
Probe selection will vary widely depending on signal amplitude and type. Obviously a current probe is used for current measurements. However, you need to consider if an AC or AC/DC current probe is necessary. Also current probes come with solid toroid or split core designs. A split core design can offer important ease of use advantages in clamping around a conductor without having to unsolder and resolder as is the case for solid toroid current probes.

Voltage probes come in a variety of configurations ranging from small signal passive, active, differential, high voltage differential and high voltage passive types. Consider the amplitude and whether you need to make floating measurements when making your probe selection.

### Probe Tip Connectivity

Most probes come with a package of standard accessories. These accessories often include a ground lead clip that attaches to the probe, a compensation adjustment tool, and one or more probe tip accessories to aid in attaching the probe to various test points. Probes that are designed for specific application areas, such as probing surface mount devices, may include additional probe tip adapters in their standard accessories package. Also, various special purpose accessories may be available as options for the probe.





## Probe-to-Oscilloscope Interfaces

Tektronix oscilloscopes are equipped with different oscilloscope-to-probe interfaces, depending on the performance level of the oscilloscope. These interfaces range from a standard BNC connector for our basic oscilloscopes to smart interfaces like TekVPI™ and TekConnect®. The smart interfaces provide unique features like AutoZero, On Screen Menu from Probe Menu Button, and more. Depending on the interface, an adapter may be required to use your existing Tektronix probes.

### TekProbe™

Developed by Tektronix to provide greater ease of use, TekProbe equipped probes communicate scale information to the oscilloscope so that the oscilloscope correctly conveys accurate amplitude information. Some oscilloscopes with TekProbe interfaces also provide power for a whole host of active electronic probe designs.



### TekVPI™

The TekVPI probe interface sets the standard for ease of use in probing. Current probes can be directly attached to the oscilloscope without using a separate power supply. In addition, the TekVPI interface allows smart communication between the oscilloscope and probe. Pushing the probe menu button will launch the probe control menu on the oscilloscope display with all relevant settings and controls for the probe. The correct measurement unit and scaling for the probe will also be automatically displayed on the oscilloscope. TekVPI probes feature status indicators and controls right on the probes allowing you to easily remove probe offset or degauss your current probe. They can also be controlled remotely through USB, GPIB or Ethernet, enabling more versatile solutions in ATE environments.



### TekConnect®

The TekConnect® signal connection system ensures the best signal fidelity for high-bandwidth oscilloscopes when probing signal bandwidths above 1 GHz. This interface provides a convenient locking mechanism that makes it easy to preserve a reliable, robust electrical connection and ensures signal fidelity at speeds beyond the capabilities of the traditional BNC connector. In addition, the TekConnect interface provides probe power and automated communication of probe parameters and probe controls, including scale factor and offset voltage levels, to the oscilloscope.





| Oscilloscope Series | Maximum Bandwidth | Probing Interface |
|---------------------|-------------------|-------------------|
| TDS1000B            | 200 MHz           | BNC               |
| TDS2000C            | 200 MHz           | BNC               |
| TPS2000             | 200 MHz           | BNC               |
| TDS3000C            | 500 MHz           | TekProbe™         |
| TDS5000B            | 1 GHz             | TekProbe          |
| TDS6000B/C          | 15 GHz            | TekConnect®       |
| TDS7000             | 1 GHz             | TekProbe          |
| TDS7000             | 7 GHz             | TekConnect        |
| MSO/DPO2000         | 200 MHz           | TekVPI™           |
| MSO/DPO3000         | 500 MHz           | TekVPI            |
| MSO/DPO4000B        | 1 GHz             | TekVPI            |
| MSO/DPO5000         | 2 GHz             | TekVPI            |
| DPO7000             | 4 GHz             | TekVPI            |
| MSO/DPO/DSA70000    | 20 GHz            | TekConnect        |
| DSA8200             | 70 GHz            | SMA/TekConnect    |
| RSA Series          | 14 GHz            | Type N            |

Tektronix offers adapters to match a wide-range of probes to each oscilloscope series. To determine if an adapter is required for a particular probe, use the Interactive Probe Selector Tool at [www.tektronix.com/probes](http://www.tektronix.com/probes). In addition to helping you find the right probe for your application, the Selector Tool will help you determine if an adapter is required, and if so which one, for your new or old Tektronix oscilloscope.



## Current Probes

Tektronix offers the widest selection of high performance current probes, enabling you to find the probe you need to match your application – from troubleshooting industrial power systems to debugging and characterizing device power supplies.



In addition to performance specifications, there are several key attributes to consider when choosing a current probe. First, you should consider the signal type you need to measure. Some current probes measure AC signals only while other probes measure both AC and DC signals. If you're evaluating DC signals, ensure the probe is capable of making a DC measurement.

Second, some current probes have a split core construction while other current probes offer a fixed core construction. A split core current probe has a sliding jaw that enables you to quickly attach or

detach the probe to the device under test. A fixed core probe is permanently attached to the device under test by inserting a wire through the probe and soldering the wire to test points. The probe head is detachable and multiple probe heads may be soldered in to the board.

Finally, it is also important to consider the feature set of the current probe. Some current probes read out in volts on the oscilloscope requiring you to mathematically convert the measurement from volts to amps. A Tektronix current probe attached to a Tektronix oscilloscope will auto-scale the measurement in amps. Several Tektronix current probes also offer degauss. With degauss, a simple button push removes any residual DC flux in the core of the probe's transformer, reducing offset errors. Tektronix TekVPI current probes also offer "Jaw Open" and "Overload" indicators on the probe body.

| Product Series      | Maximum Current<br>DC / RMS / Peak AC | Minimum Current | Bandwidth | Rise Time | Interface Type |
|---------------------|---------------------------------------|-----------------|-----------|-----------|----------------|
| TCP0030             | 30 A / 30 A / 42 A                    | 1 mA            | 120 MHz   | < 2.92 ns | TekVPI         |
| TCP202              | 15 A / 10.6 A / 15 A                  | 10 mA           | 50 MHz    | < 7 ns    | TekProbe       |
| TCP0150             | 150 A / 150 A / 212 A                 | 5 mA            | 20 MHz    | < 17.5 ns | TekVPI         |
| TCP312 with TCPA300 | 30 A / 21.2 A / 30 A                  | 1 mA            | 100 MHz   | < 3.5 ns  | TekProbe       |
| TCP305 with TCPA300 | 50 A / 35.4 A / 50 A                  | 5 mA            | 50 MHz    | < 7 ns    | TekProbe       |
| TCP303 with TCPA300 | 150 A / 150 A / 212 A                 | 5 mA            | 15 MHz    | < 23 ns   | TekProbe       |



## Passive Probes

Passive voltage probes are the most commonly used oscilloscope probe. A general purpose, passive voltage probe is the working end of the oscilloscope, a tool used every day by engineers and technicians. Tektronix passive probes are carefully designed to match the input characteristics of the oscilloscopes they complement. It is important to purchase replacement probes that also match the oscilloscope's input characteristics.

| Product Series | Attenuation | Max. Voltage                                              | Bandwidth        | Input Impedance at the Probe Tip                                        | Interface Type |
|----------------|-------------|-----------------------------------------------------------|------------------|-------------------------------------------------------------------------|----------------|
| TPP1000        | 10:1        | 300 V <sub>RMS</sub> CAT II                               | 1 GHz            | 10 M $\Omega$   3.9 pF (Rigid Tip)<br>10 M $\Omega$   5.1 pF (Pogo Tip) | TekVPI         |
| TPP0500        | 10:1        | 300 V <sub>RMS</sub> CAT II                               | 500 MHz          | 10 M $\Omega$ , 3.9 pF (Rigid Tip)<br>10 M $\Omega$ , 5.1 pF (Pogo Tip) | TekVPI         |
| TPP0502        | 2:1         | 300 V <sub>RMS</sub> CAT II                               | 500 MHz          | 2 M $\Omega$ , 12.7 pF                                                  | TekVPI         |
| P6139B         | 10:1        | 300 V <sub>RMS</sub> CAT II                               | 500 MHz          | 10 M $\Omega$   8 pF                                                    | BNC            |
| TPP0201        | 10:1        | 300 V <sub>RMS</sub> CAT II                               | 200 MHz          | 10 M $\Omega$   12 pF                                                   | BNC            |
| TPP0101        | 10:1        | 300 V <sub>RMS</sub> CAT II                               | 100 MHz          | 10 M $\Omega$   12 pF                                                   | BNC            |
| P2220          | 1:1<br>10:1 | 150 V <sub>RMS</sub> CAT I<br>300 V <sub>RMS</sub> CAT II | 6 MHz<br>200 MHz | 1 M $\Omega$   110 pF<br>10 M $\Omega$   17 pF                          | BNC            |

## Active Single-ended Probes

Active voltage probes provide Tektronix oscilloscopes the ability to faithfully acquire real-time signal information from today's high speed designs. Active probes provide a wide signal acquisition bandwidth and ensure reduced device under test loading. An active probe is the best choice when your application involves high-impedance, high-frequency circuit elements that demand minimal loading. DC offset capability allows you to use the probe's full dynamic range when measuring AC signals in the presence of DC offset voltages.



| Product Series | Attenuation | Max Voltage | Bandwidth | Input Impedance at the Probe Tip | Interface Type |
|----------------|-------------|-------------|-----------|----------------------------------|----------------|
| TAP1500        | 10:1        | +/- 8 V     | 1.5 GHz   | 1 M $\Omega$   $\leq$ 1 pF       | TekVPI         |
| TAP2500        | 10:1        | +/- 4 V     | 2.5 GHz   | 40 k $\Omega$   $\leq$ 0.8 pF    | TekVPI         |
| TAP3500        | 10:1        | +/- 4 V     | 3.5 GHz   | 40 k $\Omega$   $\leq$ 0.8 pF    | TekVPI         |
| P6205          | 10:1        | +/- 10 V    | 750 MHz   | 1 M $\Omega$   2 pF              | TekProbe       |
| P6243          | 10:1        | +/- 8 V     | 1 GHz     | 1 M $\Omega$   $\leq$ 1 pF       | TekProbe       |
| P6245          | 10:1        | +/- 8 V     | 1.5 GHz   | 1 M $\Omega$   $\leq$ 1 pF       | TekProbe       |
| P7225          | 10:1        | +/- 4 V     | 2.5 GHz   | 40 k $\Omega$   $<$ 0.8 pF       | TekConnect     |
| P7240          | 5:1         | +/- 2 V     | 4 GHz     | 20 k $\Omega$   $<$ 1 pF         | TekConnect     |



## Differential Probes

Differential probes are ideal for measuring differential signals due to their broad frequency ranges, high common mode rejection ratio (CMRR), and skew matched inputs. Tektronix offers a full range of differential probes with a wide variety of connection options for handheld, solder-in and fixtured probing.



| Product Series | Attenuation | Max Voltage                                        | Bandwidth | Input Impedance at the Probe Tip          | Interface Type |
|----------------|-------------|----------------------------------------------------|-----------|-------------------------------------------|----------------|
| <b>TDP0500</b> | 5:1<br>50:1 | $\pm 4.25$ V (dc + pkac)<br>$\pm 42$ V (dc + pkac) | 500 MHz   | $1\text{ M}\Omega \mid < 1\text{ pF}$     | TekVPI         |
| <b>TDP1000</b> | 5:1<br>50:1 | $\pm 4.25$ V (dc + pkac)<br>$\pm 42$ V (dc + pkac) | 1 GHz     | $1\text{ M}\Omega \mid < 1\text{ pF}$     | TekVPI         |
| <b>TDP1500</b> | 1:1<br>10:1 | $\pm 850$ mV<br>$\pm 8.5$ V                        | 1.5 GHz   | $200\text{ k}\Omega \mid < 1\text{ pF}$   | TekVPI         |
| <b>TDP3500</b> | 5:1         | $\pm 2$ V                                          | 3.5 GHz   | $100\text{ k}\Omega \mid < 0.3\text{ pF}$ | TekVPI         |
| <b>P6246</b>   | 1:1<br>10:1 | $\pm 850$ mV<br>$\pm 8.5$ V                        | 400 MHz   | $200\text{ k}\Omega \mid < 1\text{ pF}$   | TekProbe       |
| <b>P6251</b>   | 5:1<br>50:1 | $\pm 4.2$ V (dc + pkac)<br>$\pm 42$ V (dc + pkac)  | 1 GHz     | $1\text{ M}\Omega \mid < 1\text{ pF}$     | TekProbe       |
| <b>P6247</b>   | 1:1<br>10:1 | $\pm 850$ mV<br>$\pm 8.5$ V                        | 1 GHz     | $200\text{ k}\Omega \mid < 1\text{ pF}$   | TekProbe       |
| <b>P6248</b>   | 1:1<br>10:1 | $\pm 850$ mV<br>$\pm 8.5$ V                        | 1.5 GHz   | $200\text{ k}\Omega \mid < 1\text{ pF}$   | TekProbe       |
| <b>P6330</b>   | 5:1         | $\pm 2$ V                                          | 3.5 GHz   | $100\text{ k}\Omega \mid < 0.3\text{ pF}$ | TekProbe       |
| <b>P7330</b>   | 5:1         | $\pm 2$ V                                          | 3.5 GHz   | $100\text{ k}\Omega \mid < 0.3\text{ pF}$ | TekConnect     |

### TriMode™ Differential Probes

The P7500 Series probes feature TriMode™ probing to streamline the task of measuring differential signals. TriMode probing enables one probe to make differential, single-ended, and common mode measurements, all with a single probe setup.



| Product Series | Attenuation   | Max Voltage                                 | Bandwidth                         | Input Impedance at the Probe Tip | Interface Type |
|----------------|---------------|---------------------------------------------|-----------------------------------|----------------------------------|----------------|
| <b>P7504</b>   | 5:1<br>12.5:1 | $\pm 0.75$ V (5:1)<br>$\pm 1.75$ V (12.5:1) | $> 4$ GHz                         | $100\text{ k}\Omega$             | TekConnect     |
| <b>P7506</b>   | 5:1<br>12.5:1 | $\pm 0.75$ V (5:1)<br>$\pm 1.75$ V (12.5:1) | $> 6$ GHz                         | $100\text{ k}\Omega$             | TekConnect     |
| <b>P7508</b>   | 5:1<br>12.5:1 | $\pm 0.75$ V (5:1)<br>$\pm 1.75$ V (12.5:1) | $> 8$ GHz                         | $100\text{ k}\Omega$             | TekConnect     |
| <b>P7513A</b>  | 5:1<br>12.5:1 | $\pm 0.75$ V (5:1)<br>$\pm 1.75$ V (12.5:1) | $> 13$ GHz                        | $100\text{ k}\Omega$             | TekConnect     |
| <b>P7516</b>   | 5:1<br>12.5:1 | $\pm 0.75$ V (5:1)<br>$\pm 1.75$ V (12.5:1) | $> 16$ GHz<br>(Typical)           | $100\text{ k}\Omega$             | TekConnect     |
| <b>P7520</b>   | 5:1<br>12.5:1 | $\pm 0.625$ V (5:1)<br>$\pm 1.6$ V (12.5:1) | $> 20$ GHz, A-B<br>mode (Typical) | $100\text{ k}\Omega$             | TekConnect     |





## SMA Probes

Tektronix offers a line of SMA probes for measuring high speed differential signals in a  $50\ \Omega$  environment. These SMA probes enable differential signal acquisition on each channel of a multiple channel oscilloscope. This is the ideal system for compliance testing of the many new multi-lane high speed serial data standards. The SMA probes also offer termination voltage control for signals that are not AC coupled or DC referenced. Input signals are attached through a pair of precision matched SMA cables.



| Product Series  | Attenuation     | Max Voltage                                    | Bandwidth             | Input Impedance at the Probe Tip | Interface Type |
|-----------------|-----------------|------------------------------------------------|-----------------------|----------------------------------|----------------|
| <b>P7380SMA</b> | 2.5:1<br>12.5:1 | 0.625 V <sub>p-p</sub><br>3.0 V <sub>p-p</sub> | 8 GHz<br>(Typical)    | 100 $\Omega$                     | TekConnect     |
| <b>P7313SMA</b> | 2.5:1<br>12.5:1 | 0.800 V <sub>p-p</sub><br>3.6 V <sub>p-p</sub> | > 13 GHz<br>(Typical) | 100 $\Omega$                     | TekConnect     |

## Z-Active™ Differential Probes

Tektronix has created a revolutionary Z-Active probe architecture that is a hybrid approach composed of a distributed attenuator topology feeding an active probe amplifier. The Z-Active probes use a tiny passive probe tip element that is separate from the amplifier, extending the usable reach of the probe. In traditional active probes, adding this much length can introduce signal fidelity problems. However, this architecture maintains high DC input resistance and presents higher AC impedance than previous probe architectures. It accomplishes this while providing significant length between the probe body and the probe attachment point to the DUT. This architecture provides the best of both worlds: high DC impedance like existing active probes and the stable high frequency loading of  $Z_0$  probes.



| Product Series | Attenuation | Max Voltage                                                     | Bandwidth              | Input Impedance at the Probe Tip                  | Interface Type |
|----------------|-------------|-----------------------------------------------------------------|------------------------|---------------------------------------------------|----------------|
| <b>P7340A</b>  | 5:1<br>25:1 | $\pm 1\text{ V}$<br>$\pm 2.5\text{ V}$ ( $\pm 3\text{ V}$ @ 2%) | >4 GHz<br>(Typical)    | 100 k $\Omega$ Loading $Z_{min}$<br>>290 $\Omega$ | TekConnect     |
| <b>P7360A</b>  | 5:1<br>25:1 | $\pm 1\text{ V}$<br>$\pm 2.5\text{ V}$ ( $\pm 3\text{ V}$ @ 2%) | >6 GHz<br>(Typical)    | 100 $\Omega$ Loading $Z_{min}$<br>>290 $\Omega$   | TekConnect     |
| <b>P7380A</b>  | 5:1<br>25:1 | $\pm 1\text{ V}$<br>$\pm 2.5\text{ V}$ ( $\pm 3\text{ V}$ @ 2%) | >8 GHz<br>(Typical)    | 100 $\Omega$ Loading $Z_{min}$<br>>290 $\Omega$   | TekConnect     |
| <b>P7313</b>   | 5:1<br>25:1 | $\pm 0.625\text{ V}$<br>$\pm 2.0\text{ V}$                      | >12.5 GHz<br>(Typical) | 100 k $\Omega$ Loading $Z_{min}$<br>>200 $\Omega$ | TekConnect     |



## High Voltage Probes

It is critical to safely and accurately capture real-time signal information from "elevated" or "floating" voltage systems. The Tektronix portfolio of high voltage probes provides the safety you need for single-ended, differential or isolated measurements. High-voltage differential probes measure signals that are referenced to each other instead of ground. High-voltage single-ended probes enable users to make ground-referenced, high-voltage measurements. Tektronix also offers probes that are capable of making isolated measurements, which isolate the measurement from earth ground and the common mode voltage between oscilloscope channels.

### High-Voltage Differential Probes



| Product Series | Maximum Voltage                             | Bandwidth | Input Impedance at the Probe Tip | Interface Type |
|----------------|---------------------------------------------|-----------|----------------------------------|----------------|
| TMDP0200       | ± 750 V                                     | 200 MHz   | 5 M $\Omega$   2 pF              | TekVPI         |
| THDP0200       | ± 1500 V                                    | 200 MHz   | 10 M $\Omega$   2 pF             | TekVPI         |
| THDP0100       | ± 6000 V                                    | 100 MHz   | 40 M $\Omega$   2.5 pF           | TekVPI         |
| P5200A         | ± 1300 V<br>1000 V CAT II<br>600 V CAT III  | 50 MHz    | 10 M $\Omega$   2 pF             | BNC            |
| P5202A         | ± 640 V<br>300 V CAT II                     | 100 MHz   | 5 M $\Omega$   2 pF              | TekProbe       |
| P5205A         | ± 1300 V<br>1000 V CAT II<br>600 V CAT III  | 100 MHz   | 10 M $\Omega$   2 pF             | TekProbe       |
| P5210A         | ± 5600 V<br>2200 V CAT II<br>1000 V CAT III | 50 MHz    | 40 M $\Omega$   2.5 pF           | TekProbe       |

### High-Voltage Single-ended Probes

| Product Series | Maximum Voltage              | Bandwidth | Input Impedance at the Probe Tip | Interface Type |
|----------------|------------------------------|-----------|----------------------------------|----------------|
| TPP0850        | 2500 V <sub>Peak</sub>       | 800 MHz   | 40 M $\Omega$   1.5pF            | TekVPI         |
| P5150*         | 2500 V <sub>Peak</sub>       | 500 MHz   | 40M $\Omega$   3.8 pF            | BNC            |
| P5100A         | 2500 V                       | 500 MHz   | 40 M $\Omega$   1.5 pF           | BNC            |
| P5122*         | 1000 V <sub>RMS</sub> CAT II | 200 MHz   | 100 M $\Omega$   4 pF            | BNC            |
| P6015A         | 20,000 V                     | 75 MHz    | 100 M $\Omega$   3 pF            | BNC            |

\* May be used for floating measurements - for use with TPS2000 Series only



## Adapters and Connection Accessories

Tektronix provides a complete line of coaxial adapters and connectors. Please visit [www.tektronix.com/accessories](http://www.tektronix.com/accessories) to view the complete selection.

### Probe Adapters

Probe adapters expand the functionality of Tektronix oscilloscopes by allowing a probe and oscilloscope with two different interface types to be connected.



### TekProbe™ Adapters

The TPA-BNC and TCA-BNC adapters enable existing TekProbe interface products (active, differential, high-voltage, current, and optical probes) to be used with oscilloscopes featuring the TekVPI or TekConnect probe interface. These adapters recognize and supply the necessary power, serial communication and offset control as used by the connected TekProbe product accessory.

| Model   | Connector | Termination                 | Bandwidth   | Scope Interface |
|---------|-----------|-----------------------------|-------------|-----------------|
| TPA-BNC | BNC       | 50 $\Omega$<br>1 M $\Omega$ | DC to 4 GHz | TekVPI          |
| TCA-BNC | BNC       | 50 $\Omega$                 | DC to 4 GHz | TekConnect      |

### TekConnect™ Adapters

This family of adapter systems provides less signal distortion and better performance than traditional connections used to move a signal from one environment to another, such as BNC to N or BNC to SMA. The adapters can be used to connect a device with a specific connector type to an oscilloscope with a TekConnect probe interface.

| Model     | Connector | Termination  | Bandwidth     | Scope Interface |
|-----------|-----------|--------------|---------------|-----------------|
| TCA-BNC   | BNC       | 50 $\Omega$  | DC to 4 GHz   | TekConnect      |
| TCA-SMA   | SMA       | 50 $\Omega$  | DC to 18 GHz  | TekConnect      |
| TCA-N     | N         | 50 $\Omega$  | DC to 11 GHz  | TekConnect      |
| TCA75     | BNC       | 75 $\Omega$  | DC to 8 GHz   | TekConnect      |
| TCA-1MEG  | BNC       | 1 M $\Omega$ | DC to 500 MHz | TekConnect      |
| TCA-292MM | SMA       | 50 $\Omega$  | DC to 20 GHz  | TekConnect      |



# Connectors and Adapters

## Connectors

| Connector Type           | Part Number |
|--------------------------|-------------|
| <b>BNC Connectors</b>    |             |
| BNC Female to BNC Female | 103-0028-00 |
| BNC Male to BNC Male     | 103-0029-00 |
| BNC "T"                  | 103-0030-00 |
| BNC Elbow Male to Female | 103-0031-00 |
| <b>SMA Connectors</b>    |             |
| SMA Male to SMA Male     | 015-1011-00 |
| SMA Female to SMA Female | 015-1012-00 |
| SMA "T"                  | 015-1016-00 |
| SMA Male to BNC Female   | 015-1018-00 |

## Adapters

| Adapter Configuration                  | Part Number |
|----------------------------------------|-------------|
| <b>BNC Adapters</b>                    |             |
| BNC Male to GR                         | 017-0064-00 |
| BNC Male to Dual Binding Post          | 103-0035-00 |
| BNC Female to Dual Banana Plug         | 103-0090-00 |
| BNC Female 75 to 50 ½ Type N Min. Loss | 131-4199-00 |
| <b>SMA Adapters</b>                    |             |
| SMA Male to BNC Female                 | 015-0554-00 |
| SMA Male to SMA Female                 | 015-0549-00 |
| SMA Kit                                | 020-1693-00 |
| SMA Female to BNC Male                 | 015-0572-00 |
| SMA Female to SMA Slide On Male        | 015-0553-00 |
| SMA Male to SMA Male                   | 015-0551-00 |
| <b>N Style Adapters</b>                |             |
| N Female to BNC Male                   | 103-0058-00 |
| N Male to BNC Female                   | 103-0045-00 |





## Attenuators, Terminators and Cables

A full range of attenuators, terminators and cables allows you to take full advantage of your test instrument.

| Part Number                                                                                                                                                                                                                           | Impedance<br>Ohms | Avg Power<br>Watts | Maximum<br>VSWR        | Atten. | Atten. dB | Tolerance dB | Type                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|------------------------|--------|-----------|--------------|----------------------------------|
| <b>Attenuators w/ BNC Connectors</b>                                                                                                                                                                                                  |                   |                    |                        |        |           |              |                                  |
| 011-0069-03                                                                                                                                                                                                                           | 50 ± 2%           | 2                  | 1.2 DC to 2 GHz        | 2X     | 6         | ± 0.5        | Attenuator                       |
| 011-0060-03                                                                                                                                                                                                                           | 50 ± 2%           | 2                  | 1.2 DC to 2 GHz        | 5X     | 14        | ± 0.6        | Attenuator                       |
| 011-0059-03                                                                                                                                                                                                                           | 50 ± 2%           | 2                  | 1.2 DC to 2 GHz        | 10X    | 20        | ± 0.6        | Attenuator                       |
| 011-0057-01                                                                                                                                                                                                                           | 50 to 75          | 2                  | 1.1 DC to 100 MHz      | 2.3X   | 7.2       | ± 0.5        | Min. Loss<br>Attenuator          |
| <b>Terminators w/ BNC Connectors</b>                                                                                                                                                                                                  |                   |                    |                        |        |           |              |                                  |
| 011-0049-02                                                                                                                                                                                                                           | 50 ± 2%           | 2                  | 1.2 DC to 1 GHz        | NA     | NA        | NA           | Feed-through<br>Termination      |
| 011-0129-00                                                                                                                                                                                                                           | 50 ± 0.1%         | 2                  | –                      | NA     | NA        | NA           | Feed-through<br>Termination      |
| 011-0055-02                                                                                                                                                                                                                           | 75 ± 1.33%        | 1                  | 1.1 DC to 100 MHz      | NA     | NA        | NA           | Feed-through<br>Termination      |
| 011-0102-03                                                                                                                                                                                                                           | 75 ± 0.07%        | 0.5                | –                      | NA     | NA        | NA           | Coax.<br>Termination             |
| 011-0103-02                                                                                                                                                                                                                           | 75 ± 0.5%         | 0.125              | –                      | NA     | NA        | NA           | Return Loss<br>Bridge            |
| 011-0155-00                                                                                                                                                                                                                           | 50 ± 2%           | 0.5                | 1.09 DC to<br>26.5 MHz | NA     | NA        | NA           | Coax.<br>Termination             |
| <b>Attenuators w/ SMA Connectors</b>                                                                                                                                                                                                  |                   |                    |                        |        |           |              |                                  |
| 015-1001-01                                                                                                                                                                                                                           | 50 ± 2%           | 1                  | 1.35 DC to 18 GHz      | 2X     | 6         | ± 0.3        | Attenuator                       |
| 015-1002-01                                                                                                                                                                                                                           | 50 ± 2%           | 1                  | 1.35 DC to 18 GHz      | 5X     | 14        | ± 0.5        | Attenuator                       |
| 015-1003-00                                                                                                                                                                                                                           | 50 ± 2%           | 2                  | 1.35 DC to 18 GHz      | 10X    | 20        | ± 0.5        | Attenuator                       |
| <b>Terminators w/ SMA Connectors</b>                                                                                                                                                                                                  |                   |                    |                        |        |           |              |                                  |
| 015-1020-00                                                                                                                                                                                                                           | –                 | –                  | –                      | NA     | NA        | NA           | Short Circuit<br>Termination (M) |
| 015-1021-00                                                                                                                                                                                                                           | –                 | –                  | –                      | NA     | NA        | NA           | Short Circuit<br>Termination (F) |
| 015-1022-01                                                                                                                                                                                                                           | 50 ± 1%           | 0.5                | –                      | NA     | NA        | NA           | Termination (M)                  |
| <b>Coaxial, Delay, Interface Cables</b>                                                                                                                                                                                               |                   |                    |                        |        |           |              |                                  |
| Tektronix offers a wide array of coaxial, delay, and interface cables. Please contact your local Tektronix representative or visit <a href="http://www.tektronix.com/accessories">www.tektronix.com/accessories</a> for more details. |                   |                    |                        |        |           |              |                                  |

(M)=Male (F)=Female



## Mobility Accessories for Oscilloscopes

Tektronix provides a wide variety of accessories to make your instrument more useable in a range of applications such as test systems and field work.

### Instrumentation Travel Cases

Designed for travel, Tektronix hard sided or convenient soft-sided travel cases protect your instrument investment. Tektronix travel cases are specifically designed for each instrument for maximum protection and storage space for your probes, battery packs, and manuals. The HCTEK4321 hard-sided case, used along with the oscilloscope associated soft case, provides maximum protection for your valuable instrumentation.

### Instrumentation Carts/Workstation

Tektronix can free up your valuable work space, make sharing and moving instrumentation easy and get you closer to your device under test. Tektronix instrument carts and workstations bring you a high level of functionality while safeguarding your instrument investment. Carts are shipped ready to assemble, allowing maximum configuration flexibility.

### Rack Mount Kits

Tektronix rack mount kits are designed specifically for Tektronix instrumentation. They provide access to rear panel connections and maximize the space used in your rack mount applications.



## Interactive Accessory Selector Tool

Need help finding the right accessory for your oscilloscope? The online Tektronix Probe Selector Tool includes important accessories, as well as a complete listing of probes. To find the cart, rack mount kit or carrying case to meet your need, visit us anytime, anywhere at: [www.tektronix.com/probes](http://www.tektronix.com/probes).

3

Select your requirements below. The list of matching products will update with each click.

1

**Select By Instrument Series:** (Click To Expand)

**Instrument Series:**

☐ Don't Know

☐ 400

☐ 2200

☐ 2400

☐ CSA7000B

☐ DPO2000

☐ DPO3000

☐ DPO4000

☐ DPO4000B

☐ DPO5000

☐ DPO7000

☐ DPO70000

☐ DSA70000

☐ DSA8200

☐ MSO2000

☐ MSO3000

☐ MSO4000

☐ MSO4000B

☐ MSO5000

☐ MSO70000

☐ RSA3000A

☐ RSA3408A

☐ RSA6100A

☐ TDS1000

☐ TDS2000

☐ TDS300

☐ TDS500

☐ TDS3000

☐ TDS400

☐ TDS6000

☐ TDS5000

☐ THS700

☐ TDS600

☐ TDS7000

☐ TDS700

☐ TPS2000

2

**Probe Type:** (Select all applicable types)

☐ Voltage ☐ Current ☐ Optical ☐ Logic

**Signal Type:**

☐ AC/DC Split Core

☐ AC Split Core

☐ AC Fixed Core

☐ Active Single-Ended

☐ Active Differential

☐ Logic Single-Ended

☐ Passive Single-Ended

☐ Passive Differential

☐ Passive Single-Ended Zo

**Signal Bandwidth:**

☐ 0 to 5 MHz

☐ > 5 to 50 MHz

☐ > 50 to 200 MHz

☐ > 200 MHz to 1 GHz

☐ > 1 to 4 GHz

☐ > 4 to 8 GHz

☐ > 8 GHz

**Maximum Voltage Capabilities:**

☐ 0 to 5 V

☐ 5 to 10 V

☐ 10 to 100 V

☐ 100 to 500 V

☐ 500 V to 1.5 kV

☐ > 1.5 kV

**Maximum Current Capabilities:**

☐ 0 to 10 A

☐ > 10 to 50 A

☐ > 50 to 150 A

☐ > 150 A

**Minimum Current Capabilities:**

☐ 0 to 1 mA

☐ > 1 to 5 mA

☐ > 5 to 50 mA

☐ > 50 mA

**Other Accessories:**

☐ Adaptor

☐ Battery Power

☐ Cart

☐ Case

☐ Rackmount

108 Matches
Compare
Start Over



TCP0030



P7520



TPP1000



TPP0201



TCPA300



TPP0500



TAP1500



TCP202



P7313SMA



P6015A



P6139B



TCP0150



P5205



P7516



TDP1000

Images appear for the first 15 matches  
The rest of the matches are listed below.

1103

80A03

A621

A622

AC2100

AC3000

AC4000

ACD2000

ACD4000

ADA400A

P6158

P6205

P6241

P6243

P6245

P6246

P6247

P6248

P6251

P6330

RM2000B

RM3000

RM4000

RMD2000

RMD3000

RTD2A

TAP1500X2

TAP2500

TAP3500

TCA-1MEG

1 Select your Oscilloscope Series.

2 Select your application and test specifications.

3 Compare selected probes and instantly create a PDF or print your results!

For a comprehensive listing of probes, visit [www.tektronix.com/probes](http://www.tektronix.com/probes) 15

## Contact Tektronix:

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Contact List Updated 10 February 2011

### For Further Information

Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit [www.tektronix.com](http://www.tektronix.com)



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