

# TekVPI™ Interface Adapter

## TPA-BNC Datasheet



### Features & Benefits

- Enables Existing TekProbe® Products to Connect to Oscilloscopes with the TekVPI™ Probe Interface
- An Easy-to-use Plug-in Adapter to the Oscilloscope's TekVPI Interface
- Provides Necessary Power, Communication, and Offset Control as Needed by the Attached TekProbe Product
- Provides Overcurrent and Thermal Overload Protection for the Attached TekProbe Product
- Provides an LED Probe Status Indicator which Identifies that the Probe has Powered-up Successfully

### Applications

- Adapts Existing TekProbe® Probe Types for Application with TekVPI™ Oscilloscopes

### TekVPI™ Interface Adapter

TPA-BNC Adapter enables existing TekProbe® interface products (active, differential, high-voltage, current, and optical probes) to be used with the newest generation of Tektronix oscilloscopes which feature the TekVPI™ probe interface architecture. Existing TekProbe-BNC probe types simply plug into the TPA-BNC adapter which is then plugged directly into any channel of an oscilloscope equipped with the TekVPI probe interface. The TPA-BNC adapter recognizes and supplies the necessary power and serial communication and offset control as used by the connected TekProbe product accessory.

**Note:** Tektronix probe types using a BNC connection, or a BNC connection with a single analog encoding pin for attenuation factor detection connect directly to the oscilloscope's TekVPI probe interface and do not require a TPA-BNC adapter.

### TekProbe® Interface

TekProbe is a probe interface architecture introduced in 1986, and used on many earlier models of Tektronix oscilloscopes including the TDS300, TDS400, TDS500, TDS600, TDS700, TDS3000/B/C, TDS5000/B, and TDS7000 Series. In addition to coupling the signal from the probe to the oscilloscope, the TekProbe interface provides power and offset control to active probes. It also allows the oscilloscope to sense the probe's attenuation scale factor and/or probe type.

## Characteristics

**Bandwidth** – DC to >3 GHz.

**VSWR** – <1.23:1 up to 3 GHz.

**RF Insertion Loss** – <0.25 dB.

**Delay Time** – 245 ps.

**Maximum Input Signal Voltage** – 42 V<sub>pk-pk</sub>, 30 V<sub>RMS</sub>, 60 VDC.

## Physical Characteristics

Dimensions	mm	in.
Height	43	1.694
Width	30.5	1.200
Length	62.2	2.449
Weight	kg	lb.
Shipping	0.45	1

## Power Requirements

TPA-BNC is powered directly from oscilloscopes with the TekVPI probe interface.

## Environmental

### Temperature

**Operating** – 0 °C to +50 °C.

**Nonoperating** – -40 °C to +75 °C.

### Humidity

**Operating** – 5% to 95% Relative Humidity (RH) up to +30 °C; 5% to 85% RH above +30 °C up to +50 °C, noncondensing.

**Nonoperating** – 5% to 95% Relative Humidity (RH) up to +30 °C; 5% to 85% RH above +30 °C up to +75 °C, noncondensing.

### Altitude

**Operating** – Up to 3,000 m (10,000 ft.).

**Nonoperating** – Up to 15,240 m (50,000 ft.).

## Regulatory

**Compliance Labeling** – WEEE (European Union).

## Standard Warranty

One year parts and labor.

## Recommended Oscilloscopes

Oscilloscopes with the TekVPI probe interface.

**Note:** For best probe support, download and install the latest version of the oscilloscope software from [www.tektronix.com](http://www.tektronix.com)

## Ordering Information

### TPA-BNC

TekVPI™ Interface Adapter to TekProbe-BNC Probes

**Includes:** User manual (071-1689-xx).

### Service Options

**Opt. C3** – Calibration Service 3 years (initial certification, plus 2 calibrations).

**Opt. C5** – Calibration Service 5 years (initial certification, plus 4 calibrations).

**Opt. R3** – Repair Service. Repair warranty extended to cover 3 years.

**Opt. R5** – Repair Service. Repair warranty extended to cover 3 years.

**Opt. SILV200** – Standard Warranty Extended to 5 Years.



Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.



**Contact Tektronix:**

- ASEAN / Australasia** (65) 6356 3900
- Austria** 00800 2255 4835\*
- Balkans, Israel, South Africa and other ISE Countries** +41 52 675 3777
- Belgium** 00800 2255 4835\*
- Brazil** +55 (11) 3759 7627
- Canada** 1 800 833 9200
- Central East Europe and the Baltics** +41 52 675 3777
- Central Europe & Greece** +41 52 675 3777
- Denmark** +45 80 88 1401
- Finland** +41 52 675 3777
- France** 00800 2255 4835\*
- Germany** 00800 2255 4835\*
- Hong Kong** 400 820 5835
- India** 000 800 650 1835
- Italy** 00800 2255 4835\*
- Japan** 81 (3) 6714 3010
- Luxembourg** +41 52 675 3777
- Mexico, Central/South America & Caribbean** 52 (55) 56 04 50 90
- Middle East, Asia, and North Africa** +41 52 675 3777
- The Netherlands** 00800 2255 4835\*
- Norway** 800 16098
- People's Republic of China** 400 820 5835
- Poland** +41 52 675 3777
- Portugal** 80 08 12370
- Republic of Korea** 001 800 8255 2835
- Russia & CIS** +7 (495) 7484900
- South Africa** +41 52 675 3777
- Spain** 00800 2255 4835\*
- Sweden** 00800 2255 4835\*
- Switzerland** 00800 2255 4835\*
- Taiwan** 886 (2) 2722 9622
- United Kingdom & Ireland** 00800 2255 4835\*
- USA** 1 800 833 9200

\* European toll-free number. If not accessible, call: +41 52 675 3777

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)



Copyright © Tektronix, Inc. All rights reserved. Tektronix products are covered by U.S. and foreign patents, issued and pending. Information in this publication supersedes that in all previously published material. Specification and price change privileges reserved. TEKTRONIX and TEK are registered trademarks of Tektronix, Inc. All other trade names referenced are the service marks, trademarks, or registered trademarks of their respective companies.

26 Jul 2012

51W-19077-3

