

# TekVPI™ Interface Adapter

## TPA-BNC Data Sheet



### Features & Benefits

- Enables Existing TekProbe® Products to Connect to the TekVPI™ Probe Interface of the New DPO7000 and DPO4000 Series Oscilloscopes
- 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 Tektronix' newest generation of DPO7000 and DPO4000 Series Oscilloscopes which feature the new TekVPI™ probe interface architecture. Existing TekProbe-BNC probe types simply plug into the TPA-BNC adapter which is then plugged directly into any TekVPI probe channel of the DPO7000 and DPO4000 Series oscilloscopes. 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, 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 DPO7000 and DPO4000 Series Oscilloscopes, using 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

DPO7000 and DPO4000 Series Oscilloscopes with TekVPI probe interface.

## 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. D3** – Test Data on delivery and with future calibrations. Must be ordered with Opt. C3.

**Opt. D5** – Test Data on delivery and with future calibrations. Must be ordered with Opt. C5.

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

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



Product(s) are manufactured in ISO registered facilities.



Contact Tektronix:

- ASEAN / Australasia (65) 6356 3900
- Austria +41 52 675 3777
- Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777
- Belgium 07 81 60166
- Brazil +55 (11) 40669400
- Canada 1 (800) 661-5625
- Central East Europe, Ukraine, 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 +33 (0) 1 69 86 81 81
- Germany +49 (221) 94 77 400
- Hong Kong (852) 2585-6688
- India (91) 80-42922600
- Italy +39 (02) 25086 1
- Japan 81 (3) 6714-3010
- Luxembourg +44 (0) 1344 392400
- Mexico, Central/South America & Caribbean 52 (55) 54247900
- Middle East, Asia, and North Africa +41 52 675 3777
- The Netherlands 090 02 021797
- Norway 800 16098
- People's Republic of China 86 (10) 6235 1230
- Poland +41 52 675 3777
- Portugal 80 08 12370
- Republic of Korea 82 (2) 6917-5000
- Russia & CIS +7 (495) 7484900
- South Africa +27 11 206 8360
- Spain (+34) 901 988 054
- Sweden 020 08 80371
- Switzerland +41 52 675 3777
- Taiwan 886 (2) 2722-9622
- United Kingdom & Ireland +44 (0) 1344 392400
- USA 1 (800) 426-2200

For other areas contact Tektronix, Inc at: 1 (503) 627-7111

Updated 30 October 2008

**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.

05 Jun 2009

51W-19077-1

