

# 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.