RTSA TekConnect® Probe Adapter

RTPA2A Data Sheet

Features & Benefits

- Interface Tektronix P7000 Series High-performance Active and Differential Probes to Tektronix Real-time Spectrum Analyzers
- Seamless Integration
  - Automatically Scales Measurement for Probe Attenuation Setting
  - Simplifies Setup for Troubleshooting,Eliminates Possible Setup Errors, Requires No User Adjustment
- Extends the Troubleshooting Capabilities of Tektronix Real-time Spectrum Analyzers with the World’s Best Probes
- Troubleshoot and Determine RF Faults Directly on Circuit Boards where No Coaxial Connection is Available
- Use Differential Probes for High-impedance IQ Baseband Applications

Applications

- General RF Troubleshooting – Find Sources of Circuit Interference
- High-speed Digital Design – High Dynamic Range Phase Noise Measurements
- EMI Troubleshooting – Help Identify Components and Circuits Causing EMI Problems
- High-impedance IQ Baseband Input for Low-power RF Devices

TekConnect® Probe Adapter for Real-time Spectrum Analyzers

The RTPA2A Real-time Probe Adapter extends the capabilities of Real-time Spectrum Analyzers (RTSA) by offering additional tools to make debugging today’s high-performance electrical designs easier. Using the RTPA2A with Tektronix RTSA, design engineers can benefit from industry-leading Tektronix active and differential probes to measure signals on SMD pins and other challenging circuit features.

The RTPA2A provides probe power for up to two Tektronix P7000 Series probes through an external power supply. Probe control signals are handled through a USB cable that connects the RTPA2A to the RTSA. This allows the RTSA to automatically adjust the scale factor to account for attenuation factor of the probe in channel A. The included SMA-to-N cable allows the high-speed RF signal to travel between the RTPA2A and the RTSA.

Microsoft Windows XP is required on the RTSA to communicate with the RTPA2A. The RTSA also requires main system software shipped after August 2005 to be compatible with the RTPA2A.

Tektronix High-performance Probing Solutions

Tektronix offers a variety of industry-leading active and differential probes. Tektronix high-performance probes feature small probe heads and numerous adapters to provide a flexible and reliable connection to the Device Under Test (DUT).
Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probe Input Connectors</td>
<td>TekConnect probe interface compatible with P7000 Series probes</td>
</tr>
<tr>
<td>Signal Output Connector</td>
<td>SMA</td>
</tr>
<tr>
<td>Input/Output Impedance</td>
<td>50 Ω</td>
</tr>
<tr>
<td>Bandwidth</td>
<td>18 GHz</td>
</tr>
</tbody>
</table>

Physical Characteristics

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>mm</th>
<th>in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>70</td>
<td>2.75</td>
</tr>
<tr>
<td>Height</td>
<td>110</td>
<td>4.25</td>
</tr>
<tr>
<td>Depth</td>
<td>42</td>
<td>1.625</td>
</tr>
<tr>
<td>Cable Length</td>
<td>1000</td>
<td>36</td>
</tr>
<tr>
<td>Weight</td>
<td>1.07</td>
<td>2.36</td>
</tr>
</tbody>
</table>

Ordering Information

RTPA2A
Real-time Spectrum Analyzer TekConnect® Probe Adapter
Includes: User manual, 50 Ω SMA-to-N cable, USB cable, power cord, and power supply.

Please specify power plug option when ordering.

Options

Manual Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>L0</td>
<td>English User Manual</td>
</tr>
<tr>
<td>L5</td>
<td>Japanese User Manual</td>
</tr>
</tbody>
</table>

Power Plug Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0</td>
<td>US Plug, 115 V, 60 Hz</td>
</tr>
<tr>
<td>A1</td>
<td>Euro Plug, 220 V, 50 Hz</td>
</tr>
<tr>
<td>A2</td>
<td>UK Plug, 240 V, 50 Hz</td>
</tr>
<tr>
<td>A3</td>
<td>Australia Plug, 240 V, 50 Hz</td>
</tr>
<tr>
<td>A4</td>
<td>N. America Plug, 240 V, 50 Hz</td>
</tr>
<tr>
<td>A5</td>
<td>Switzerland Plug, 220 V, 50 Hz</td>
</tr>
<tr>
<td>A6</td>
<td>Japan Plug, 100/110/120 V, 60 Hz</td>
</tr>
<tr>
<td>A10</td>
<td>China Plug, 50 Hz</td>
</tr>
<tr>
<td>A99</td>
<td>No Power Cord</td>
</tr>
</tbody>
</table>

Real-time Spectrum Analyzers

The RTPA2A is compatible with all Tektronix Real-time Spectrum Analyzers:

- RSA2200A Series
- RSA3000B Series
- RSA3300A Series
- RSA3408A
- RSA6000 Series
- WCA200A Series

Recommended Probes

<table>
<thead>
<tr>
<th>Probe</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P7225</td>
<td>2.5 GHz Active Probe</td>
</tr>
<tr>
<td>P7240</td>
<td>4 GHz Active Probe</td>
</tr>
<tr>
<td>P7260</td>
<td>6 GHz Active Probe</td>
</tr>
<tr>
<td>P7330</td>
<td>3.5 GHz Differential Probe</td>
</tr>
<tr>
<td>P7350</td>
<td>5 GHz Differential Probe</td>
</tr>
<tr>
<td>P7350SMA</td>
<td>5 GHz Differential SMA Probe</td>
</tr>
<tr>
<td>P7340A</td>
<td>4 GHz Z-Active Differential Probe</td>
</tr>
<tr>
<td>P7360A</td>
<td>6 GHz Z-Active Differential Probe</td>
</tr>
<tr>
<td>P7380A</td>
<td>8 GHz Z-Active Differential Probe</td>
</tr>
<tr>
<td>P7380SMA</td>
<td>8 GHz Differential Signal Acquisition System</td>
</tr>
<tr>
<td>P7313</td>
<td>&gt;12.5 GHz Z-Active Differential Probe</td>
</tr>
<tr>
<td>P7313SMA</td>
<td>13 GHz Differential SMA Probe</td>
</tr>
<tr>
<td>P7500</td>
<td>4 GHz to 20 GHz TriMode Probes</td>
</tr>
</tbody>
</table>

Product(s) are manufactured in ISO registered facilities.

Data Sheet

Contact Tektronix:

ASEAN / Australasia (65) 6356 3900

Austria 0800 2255 4835*

Balkans, Israel, South Africa and other ISE Countries +41 52 675 3777

Belgium 0800 2255 4835*

Brazil +55 (11) 3759 7600

Canada 1 800 833 9200

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 0800 2255 4835*

Germany 0800 2255 4835*

Hong Kong 400 820 5835

India 000 800 650 1835

Italy 0800 2255 4835*

Japan 81 (3) 6714 3010

Luxembourg +41 52 675 3777

Mexico, Central/South America & Caribbean (52) 56 04 50 90

Middle East, Asia, and North Africa +41 52 675 3777

The Netherlands 0800 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 0800 2255 4835*

Sweden 0800 2255 4835*

Switzerland 0800 2255 4835*

Taiwan 886 (2) 2722 9622

United Kingdom & Ireland 0800 2255 4835*

USA 1 800 833 9200

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

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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

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Distribuido Por:
www.finaltest.com.mx
Calle del Ebano #16625
Tijuana B.C. Mexico
Tel. (664)681-1130
Tel. 01800 027-4848
ventas@final-test.net

www.finaltest.com.ymx
Calle del Ebano #16625
Tijuana B.C. Mexico
Tel. (664)681-1130
Tel. 01800 027-4848
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