

# 80A02 EOS/ESD Isolation Module for the DSA8300

## 80A02 EOS ESD Isolation Module Datasheet



The 80A02 EOS/ESD Isolation module protects the sampling bridge of Tektronix DSA8300<sup>1</sup> electrical sampling module inputs from damage due to electro-overstress (EOS) and electrostatic discharge (ESD) from circuit boards and cables. The 80A02 is for applications such as electrical TDR circuit board testing and cable testing where large static charges can be stored in the DUT.

### Notice to EU customers

This product is not updated to comply with the RoHS 2 Directive 2011/65/EU and will not be shipped to the EU. Customers may be able to purchase products from inventory that were placed on the EU market prior to July 22, 2017 until supplies are depleted. Tektronix is committed to helping you with your solution needs. Please contact your local sales representative for further assistance or to determine if alternative product(s) are available. Tektronix will continue service to the end of worldwide support life.

### Key features

- Single-channel electrostatic discharge (ESD) and electro-overstress (EOS) damage protection for Tektronix DSA8300 electrical sampling modules
- Plugs into and is powered from sampling mainframe

- Compatible with Tektronix extender cables
- <37 ps reflected rise time when used with 80E04 or SD24 electrical sampling TDR modules

### Applications

- Electrical sampling module input isolation for high-speed electrical signal analysis
- Circuit-board controlled impedance testing (TDR)

### The 80A02

The 80A02 plugs into any available electrical sampling module plug-in slot of the DSA/TDS/CSA8K Series, legacy CSA11K Series, or legacy CSA803 Series sampling oscilloscopes.

The 80A02 provides a front-panel SMA connector to connect the SMA test cable or probe signal from the DUT. The 80A02 passes the acquired DUT signal to a connected electrical sampling module input for measurement after an actuating control (from the matching P80318 or P8018 high-performance probe, or customer-provided external switch, TTL, or CMOS control logic input) signals the 80A02 that the DUT has been grounded to discharge any electrostatic charge remaining in the DUT.

When used with either matching P80318 or P8018 20 GHz handheld probe (with probe tip pressure actuating feature) the 80A02 provides a superior technique and performance capability for electrical sampling module EOS/ESD protection of acquired electrical signal and TDR measurement. (See P80318 or P8018 product description.)

You can combine the 80A02 with an 80A09 ESD Protection device to further protect sensitive module inputs from voltage spikes that can occur from operator error during highly repetitive tasks. See the 80A09 datasheet for more information (85W-30138-xx).<sup>2</sup>

<sup>1</sup> Also compatible with DSA8200, TDS/CSA8200, TDS/CSA8000B, and TDS/CSA8000 sampling oscilloscopes.

<sup>2</sup> The 80A09 is not intended for use in applications where long-duration high-voltage spikes occur, such as in PCB manufacturing and cable test. Use the 80A02 EOS/ESD Isolation Module for these conditions (alone or in combination with an 80A09).

## Specifications

All specifications are guaranteed unless noted otherwise.

<b>Bandwidth</b>	>25 GHz
<b>Applicable mainframes</b>	DSA8300 Series, DSA8200 Series, TDS8000 Series, CSA8000 Series, CSA11800 Series, CSA803 Series
<b>Connector type</b>	SMA female
<b>Manual control input</b>	Open circuit for DUT discharging standby state; Closed circuit (<100 k $\Omega$ to ground) for measurement
<b>Automated control input</b>	Open circuit or logic low (<0.3 V) for DUT discharging; Closed circuit or logic high (>1.0 V) for measurement
<b>Control signal connector</b>	Audio stereo phone mini-jack
<b>Switching time, typical</b>	20 ms

---

## Ordering information

### Models

<b>80A02</b>	EOS/ESD Isolation Module, single channel
--------------	--

### Standard accessories

<b>071-1317-xx</b>	80A02 user manual
<b>015-1022-01</b>	SMA 50 $\Omega$ termination cap
<b>174-4878-xx</b>	20 GHz SMA cable, 12 inches

### Recommended accessories

<b>174-5230-xx</b>	SlotSaver Adapter Extender Cable. Provides power and control to the 80A02 when operated externally from the DSA/TDS/CSA mainframe, saving slot space (compatible with 80A06 <sup>3</sup> and 80A02).
--------------------	--

## Warranty

<b>Warranty</b>	90 days
-----------------	---------



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



Product Area Assessed: The planning, design/development and manufacture of electronic Test and Measurement instruments.

<sup>3</sup> Not compatible with DSA8300.



**ASEAN / Australasia** (65) 6356 3900  
**Belgium** 00800 2255 4835\*  
**Central East Europe and the Baltics** +41 52 675 3777  
**Finland** +41 52 675 3777  
**Hong Kong** 400 820 5835  
**Japan** 81 (3) 6714 3086  
**Middle East, Asia, and North Africa** +41 52 675 3777  
**People's Republic of China** 400 820 5835  
**Republic of Korea** +822 6917 5084, 822 6917 5080  
**Spain** 00800 2255 4835\*  
**Taiwan** 886 (2) 2656 6688

**Austria** 00800 2255 4835\*  
**Brazil** +55 (11) 3759 7627  
**Central Europe & Greece** +41 52 675 3777  
**France** 00800 2255 4835\*  
**India** 000 800 650 1835  
**Luxembourg** +41 52 675 3777  
**The Netherlands** 00800 2255 4835\*  
**Poland** +41 52 675 3777  
**Russia & CIS** +7 (495) 6647564  
**Sweden** 00800 2255 4835\*  
**United Kingdom & Ireland** 00800 2255 4835\*

**Balkans, Israel, South Africa and other ISE Countries** +41 52 675 3777  
**Canada** 1 800 833 9200  
**Denmark** +45 80 88 1401  
**Germany** 00800 2255 4835\*  
**Italy** 00800 2255 4835\*  
**Mexico, Central/South America & Caribbean** 52 (55) 56 04 50 90  
**Norway** 800 16098  
**Portugal** 80 08 12370  
**South Africa** +41 52 675 3777  
**Switzerland** 00800 2255 4835\*  
**USA** 1 800 833 9200

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

**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.tek.com](http://www.tek.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.

