

Keysight Technologies

U1810B USB Coaxial Switch

SPDT, DC to 18 GHz

Product Fact Sheet

Key Features

- USB plug-and-play eliminates the need for additional power adapters or drivers, simplifies complex switching setup
- Guaranteed 0.03 dB insertion loss repeatability, ensures accuracy and reduces calibration cycles
- Guaranteed 5 million cycles operating life (typical 10 million cycles), reduces cost of test and ensures reliability of the test system
- Excellent isolation (typically > 70 dB at 18 GHz) minimizes cross-talk between channels to ensure signal integrity
- Instant switch toggling via the push-button on the casing provides quick test setup validation



Product Description

The Keysight Technologies, Inc. U1810B is a USB-powered SPDT coaxial switch, operating from DC to 18 GHz, and supports the standard plug-and-play functionality of typical USB devices. The unique combination of excellent RF performance with the convenience of USB connectivity presents an invaluable alternative for users to optimize the efficiency of their test systems. No additional power supply is required and the Type-N common input connector provides a rugged and robust connection with the instrument ports. A push-button is provided on the switch casing for direct toggling between the two output ports, without the need of any software interface.

In addition, the bundled soft front panel provides an alternative virtual interface to control the U1810B. Users also have the option to dictate the control of the switch through various software platforms such as C, LabVIEW, VEE, etc.

Inheriting Keysight's unique switch technology, the U1810B is designed to operate for more than 10 million cycles. The exceptional 0.03 dB insertion loss repeatability is warranted for 5 million cycles at 25°C. This excellent RF characteristic significantly reduces downtime for recalibration, improves testing efficiency and ultimately maximizes test throughput.

Preliminary Specifications (typical)

Specifications refer to the performance standards or limits against which the U1810B USB switch is tested.

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

Frequency range

DC to 18 GHz

SWR

DC to 4 GHz: < 1.12
4 to 14 GHz: < 1.22
14 to 17 GHz: < 1.33
17 to 18 GHz: < 1.38

Insertion loss (dB, max)

0.2 + (0.8/18)f, where f is specified in GHz

Isolation (dB)

90 - (30/26.5)f, where f is specified in GHz



Using two U1810B, extend a 2-port ENA to a 4-port ENA.

Ordering information

U1810B USB Coaxial Switch, SPDT DC to 18 GHz

www.keysight.com/find/pxi-switch
www.keysight.com/find/mta
www.keysight.com/find/USBswitch

Americas

| | |
|---------------|------------------|
| Canada | (877) 894 4414 |
| Brazil | 55 11 3351 7010 |
| Mexico | 001 800 254 2440 |
| United States | (800) 829 4444 |

Asia Pacific

| | |
|--------------------|----------------|
| Australia | 1 800 629 485 |
| China | 800 810 0189 |
| Hong Kong | 800 938 693 |
| India | 1 800 112 929 |
| Japan | 0120 (421) 345 |
| Korea | 080 769 0800 |
| Malaysia | 1 800 888 848 |
| Singapore | 1 800 375 8100 |
| Taiwan | 0800 047 866 |
| Other AP Countries | (65) 6375 8100 |

Europe & Middle East

| | |
|----------------|---------------|
| Austria | 0800 001122 |
| Belgium | 0800 58580 |
| Finland | 0800 523252 |
| France | 0805 980333 |
| Germany | 0800 6270999 |
| Ireland | 1800 832700 |
| Israel | 1 809 343051 |
| Italy | 800 599100 |
| Luxembourg | +32 800 58580 |
| Netherlands | 0800 0233200 |
| Russia | 8800 5009286 |
| Spain | 0800 000154 |
| Sweden | 0200 882255 |
| Switzerland | 0800 805353 |
| Opt. 1 (DE) | Opt. 2 (FR) |
| Opt. 3 (IT) | 0800 0260637 |
| United Kingdom | Opt. 1 (DE) |
| | Opt. 2 (FR) |
| | Opt. 3 (IT) |
| | 0800 0260637 |

For other unlisted countries:
www.keysight.com/find/contactus
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