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.

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Preliminary Specifications (typical)

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

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

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

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