Product Fact Sheet Keysight U1810B USB Coaxial Switch SPDT, DC to 18 GHz

Configurable Test Set, 2-port, 30 kHz to 4.5/8.5 GHz



The Keysight Technologies, Inc. U1810B is a USB-powered SPDT coaxial switch, and supports the standard plug-and-play functionality of typical USB devices. No additional power supply is required and the Type-N common input connector provides a rugged and robust connection with the instrument ports. In addition, the bundled soft front panel provides an alternative virtual interface to control the U1810B. Users also have the option to control the switch through commonly used software programming platforms such as C#, C++, LabVIEW, VEE, etc.

Key features and benefits

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



Key specifications

Part	Description		
Frequency range	DC to 18 GHz		
SWR	DC to 4 GHz: < 1.15		
	4 to 12.4 GHz: < 1.25		
	12.4 to 18 GHz: < 1.40		
Insertion loss (dB, max)	0.3 + (0.6/18) f, where f is specified in GHz		
Isolation (dB, min)	90 – (30/26.5) f, where f is specified in GHz		
Life	5 million cycles (typical 10 million cycles)		
Common connector	Type N (male)		
Port 1/Port 2 connector	SMA (female)		
Maximum input RF power			
Hot switching	2 W CW, 100 W peak, 10 μs max pulse width, not to exceed 2 W		
	average		

Absolute maximum rating

Parameter	Requirements
Interface	USB HID
Host operating system	32-bit operating system: Windows XP®, Windows Vista®, Windows 7®
	64-bit operating system: Windows Vista®, Windows 7®

Minimum system requirements

Parameter	Condition	Typical	Units	
Rated voltage	-	5	V	
Rated current	Switching	420	mA	
	Non switching (Quiescent)	60	mA	
Switching time	-	25	ms	

For more information, please visit: www.keysight.com/find/USBswitch

Three-Year Warranty

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Keysight Assurance Plans

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