

Keysight Technologies

USB Coaxial Switches

U1816A DC to 8 GHz, Dual SP6T

U1816C DC to 26.5 GHz, Dual SP6T

Data Sheet



Key features and benefits

- Allows switching of multiple signals without physically changing the connections, decrease test time and increase throughput
- Guaranteed 5 million cycles operating life (typical 10 million cycles), reduces cost-of-test and ensures reliability of the test system
- Excellent isolation minimizes cross-talk between channels to ensure signal integrity

Description

The Keysight Technologies, Inc. U1816A/C is a USB-controlled switch matrix that consists of two single-pole-six-throw (SP6T) switches. It allows switching of multiple signal paths without physically changing the connections. This allows multiple tests to be performed with the same setup, eliminating the need for frequent connects and disconnects. An entire testing process can be automated, increasing the throughput in high-volume production environments.

Specifications

Specifications refer to the performance standards or limits against which the U1816A/C is tested.

Typical characteristics are included for additional information only and they are not specifications. These are denoted as “typical”, “nominal” or “approximate” and are printed in italic.

	U1816A	U1816C
Frequency Range	DC to 8 GHz	DC to 26.5 GHz
Insertion Loss (max)	0.3 dB + 0.015 x frequency (GHz)	
Isolation (min)	100 dB	DC to 12 GHz: 100 dB 12 to 15 GHz: 80 dB 15 to 20 GHz: 70 dB 20 to 26.5 GHz: 65 dB
VSWR (max)	DC to 4 GHz: 1.20 4 to 8 GHz: 1.35	DC to 4 GHz: 1.20 4 to 12.4 GHz: 1.35 12.4 to 18 GHz: 1.45 18 to 26.5 GHz: 1.70
Insertion loss repeatability (up to 5 million cycles measured at 25° C)	0.03 dB maximum	
Connectors	SMA (f)	
Drive method	USB	
Switching time ¹	< 15 ms	
DC supply voltage (power adapter provided)	15 – 19 V	
Physical dimensions	Height	103.8 mm (4.09 in)
	Width	232.6 mm (9.16 in)
	Depth	245.0 mm (9.65 in)
	Weight	1.5 kg (3.31 lb)

1. The switching time of < 15 ms is guaranteed at the switch level only. Typically, the total effective switching time varies around 15 to 25 ms, the extra time may be attributed to the overall test system performance (eg. CPU).

Ordering information

U1816A	USB Coaxial Switch, DC to 8 GHz, Dual SP6T
U1816C	USB Coaxial Switch, DC to 26.5 GHz, Dual SP6T

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