

# 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
- 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*.

	<b>U1816A</b>	<b>U1816C</b>
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 <sup>1</sup>	< 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

### myKeysight

#### myKeysight

[www.keysight.com/find/mykeysight](http://www.keysight.com/find/mykeysight)

A personalized view into the information most relevant to you.



[www.keysight.com/go/quality](http://www.keysight.com/go/quality)

Keysight Technologies, Inc.  
DEKRA Certified ISO 9001:2008  
Quality Management System

### Keysight Infoline

#### Keysight Infoline

[www.keysight.com/find/service](http://www.keysight.com/find/service)

Keysight's insight to best in class information management. Free access to your Keysight equipment company reports and e-library.

#### Keysight Channel Partners

[www.keysight.com/find/channelpartners](http://www.keysight.com/find/channelpartners)

Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.

[www.keysight.com/find/USBswitch](http://www.keysight.com/find/USBswitch)

[www.keysight.com/find/mta](http://www.keysight.com/find/mta)

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](http://www.keysight.com/find/contactus)

### 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 11 2626
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	800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:  
[www.keysight.com/find/contactus](http://www.keysight.com/find/contactus)  
(BP-04-23-15)



Unlocking Measurement Insights

This information is subject to change without notice.  
© Keysight Technologies, 2013-2015  
Published in USA, May 12, 2015  
5991-2244EN  
[www.keysight.com](http://www.keysight.com)