

Keysight Technologies
U3020AS26
Switching Test Set
DC to 26.5 GHz

Data Sheet



Description

The Keysight Technologies U3020AS26 is a 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.

Key Features and Benefits

- Allows switching of multiple signals without physically changing the connections, reduce test time and increase throughput
- Supported by the Keysight Infiniium Series compliance application framework where switch support is enabled
- 5 million cycles operating life (typical 10 million cycles), reduces cost-of-test and ensures reliability of the test system

Specifications

Specifications refer to the typical performance standards or limits against which the U3020AS26 is tested.

| | | |
|---|--|--------------------|
| Frequency range | DC to 26.5 GHz | |
| Insertion loss (dB) | DC to 1 GHz | < 0.5 |
| | 1 to 6 GHz | < 1.2 |
| | 6 to 12 GHz | < 2.0 |
| | 12 to 20 GHz | < 2.5 |
| | 20 to 26.5 GHz | < 3.7 |
| Amplitude tracking (dB), Channel A to B | DC to 1 GHz | ± 0.05 |
| | 1 to 6 GHz | ± 0.10 |
| | 6 to 12 GHz | ± 0.20 |
| | 12 to 20 GHz | ± 0.30 |
| | 20 to 26.5 GHz | ± 0.80 |
| Phase tracking (Skew) (pS), Channel A to B | DC to 1 GHz | ± 40 |
| | 1 to 6 GHz | ± 5 |
| | 6 to 12 GHz | ± 6 |
| | 12 to 20 GHz | ± 8 |
| | 20 to 26 GHz | ± 20 |
| | 26 to 26.5 GHz | ± 40 |
| Port match (dB) | | |
| Output ports A & B | DC to 1 GHz | > 30 |
| | 1 to 6 GHz | > 18 |
| | 6 to 12 GHz | > 10 |
| | 12 to 20 GHz | > 10 |
| | 20 to 26.5 GHz | > 7 |
| Input ports 1 to 6 | DC to 1 GHz | > 30 |
| | 1 to 6 GHz | > 18 |
| | 6 to 12 GHz | > 10 |
| | 12 to 20 GHz | > 10 |
| | 20 to 26.5 GHz | > 7 |
| | 20 to 26.5 GHz | > 8 |
| Input ports 1 to 6 (internal termination) | DC to 1 GHz | > 32 |
| | 1 to 6 GHz | > 20 |
| | 6 to 12 GHz | > 12 |
| | 12 to 20 GHz | > 11 |
| Life | 5 million cycles (typical 10 million cycles) | |
| Connector | SMA (female) | |
| Maximum input RF power | 1 W CW | |
| Power requirements | 100 – 240 V ± 10% | |
| | 50/60 Hz 50 W | |
| I/O ports | LAN | |
| | GPIB | |
| Physical dimensions | | |
| Height | 8.9 cm (3.5 in) | |
| Width | 42.5 cm (16.73 in) | |
| Depth | 58 cm (22.83 in) | |
| Weight | 8 kg (17.64 lb) | |
| Typical cable performance | Option C01/C02 | Option C03/C04 |
| Return loss (dB) | > 12 at 12 GHz | > 12 at 12 GHz |
| Insertion loss (dB) | < 2.6 at 12 GHz | < 1.2 at 12 GHz |
| Skew (ps) | < 2.5 ps at 12 GHz | < 2.5 ps at 12 GHz |

Ordering information

| U3020AS26 Switching Test Set | |
|------------------------------|---|
| U3020AS26-C01 | SMP (male) to SMA (male) cable, 1 meter |
| U3020AS26-C02 | SMP (female) to SMA (male) cable, 1 meter |
| U3020AS26-C03 | SMP (male) to SMA (male) cable, 16 inches |
| U3020AS26-C04 | SMP (female) to SMA (male) cable, 16 inches |



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