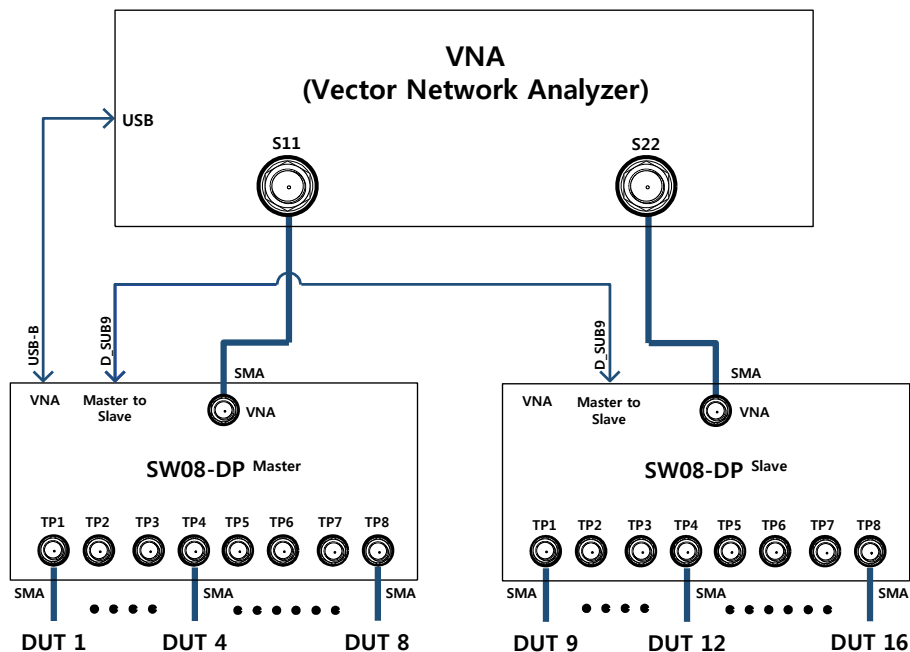# Switch Matrix - SW08-DP

## Description

The Polaris SW08-DP Switch Matrix provides automatic routing between Vector Network Analyzer and the device under test (DUT) in an RF/microwave ATE system. This Switch Matrix provides consistent signal paths, enable automation of tests.

The SW08-DP consists of 8 switch channels, and each channel can be used up to 8GHz. In addition, it is possible to expand the switch channels up to 16 by connecting two SW08-DPs to master or slave, respectively.

This provides the capability to test a wide range of RF and telecommunication products and devices.

## Application

## Specifications

| Parameters | | | Unit | Min. | Typ. | Max. |
|---|---|---|---|---|---|---|
| | | | Specifications @25°C & static | | | |
| General | Number of VNA ports | | | | 1 | |
| | Number of test ports | | | | 8 | |
| | Switching configuration | | | Direct, Non Crossbar | | |
| | Impedance | | Ω | | 50 | |
| | Operating temperature range | | °C | 18 | | 28 |
| RF | Operating frequency range | | GHz | 0.01 | | 8 |
| | Insertion loss | 0.01 GHz to 2 GHz | dB | | | 5.5 |
| | | 2 GHz to 4 GHz | | | | 6.5 |
| | | 4 GHz to 6 GHz | | | | 7 |
| | | 6 GHz to 7GHz | | | | 7.5 |
| | | 7GHz to 8 GHz | | | | 9 |
| | VSWR | any selected port | 0.01 GHz to 7 GHz | : 1 | | 1.2 | 1.5 |
| | | | 7 GHz to 8 GHz | | | 1.4 | 1.8 |
| | | any unselected port | 0.01 GHz to 6 GHz | | | 1.2 | 1.5 |
| | | | 6 GHz to 7 GHz | | | 1.3 | 1.7 |
| | | | 7 GHz to 8 GHz | | | 1.5 | 1.9 |
| | Isolation | | dB | 40 | 60 | |
| | Damage RF power at VNA port | | dBm | | 20 | 23 |
| Switching time | | | ms | | 1 | 5 |
| Connectors | Front Panel | VNA | | SMA – Female | | |
| | | TP1 to TP8 | | SMA – Female | | |
| | Rear Panel | VNA [Note1] | | USB - type B | | |
| | | Master to Slave [Note2] | | 9 way D_Sub_Plug | | |
| | | Instrument ID [Note3] | | 4 pin Dip Switch | | |
| | | Grounding | | Metal Round Terminal | | |
| Supply Voltage | | Voltage | Vac | 90 | | 264 |
| | | Frequency | Hz | 47 | | 63 |
| Dimension with rubber supporter (W × L × H) | | | mm | 257 x 252 x 53 | | |
| Dimension without rubber supporter for rack mount (W × L × H) | | | mm | 257 x 252 x 43 | | |
| Weight | | | Kg | 1.3 | | |

Note 1: Interface between VNA and SW08-DP

Note 2: Interface between SW08-DP-master and SW08-SP-slave

Note 3: Switch to select whether to use SW08-DP in master mode or slave mode

      LSB (Pin 1) OFF: Master Mode, LSB (Pin 1) ON: Slave Mode