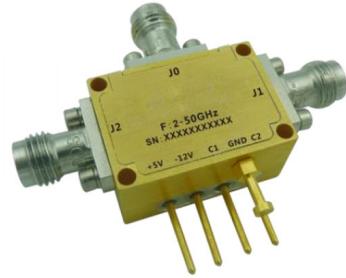


Reflective 2-50GHz Coaxial SP2T Switch

Features

- Ultra Wide Band Operation 2-50GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

| Parameters | Min | Typ. | Max | Min | Typ. | Max | Units |
|--|-----|-------|-----|--------------------------------|-------|-----|---------|
| Frequency Range | | 2-26 | | | 26-50 | | GHz |
| Insertion Loss | | 2.5 | 3.2 | | 4.5 | 5.5 | dB |
| Insertion Loss Temperature Coefficient | | 0.003 | | | 0.003 | | dB/ ° C |
| Isolation | 38 | 45 | | 37 | 45 | | dB |
| Input VSWR | | 1.8 | 2.5 | | 2 | 2.5 | : 1 |
| Output VSWR | | 1.8 | 2.5 | | 2 | 2.5 | : 1 |
| RF Input power (CW) | | | +23 | | | +23 | dBm |
| DC Power Dissipation (CW) | | 0.5 | | | 0.5 | | W |
| 0.1dB Compression Point(P0.1dB) | | 23 | | | 23 | | dBm |
| IIP3 | | 50 | | | 45 | | dBm |
| Switching Speed | | | 100 | | | 100 | ns |
| Weight | | 0.71 | | | | | ounces |
| Impedance | | 50 | | | | | Ω |
| Bias Current (+5V/-12V) | | 70/80 | | | | | mA |
| Input / Output Connectors | | | | 2.4mm-Female | | | |
| Finish | | | | Gold Plated | | | |
| Material | | | | Aluminum | | | |
| Sealing | | | | Hermetically Sealed (Optional) | | | |

Absolute Maximum Ratings

| | |
|---------|------------------|
| Biasing | +5V±10%/-12V±10% |
|---------|------------------|

Environmental Specifications

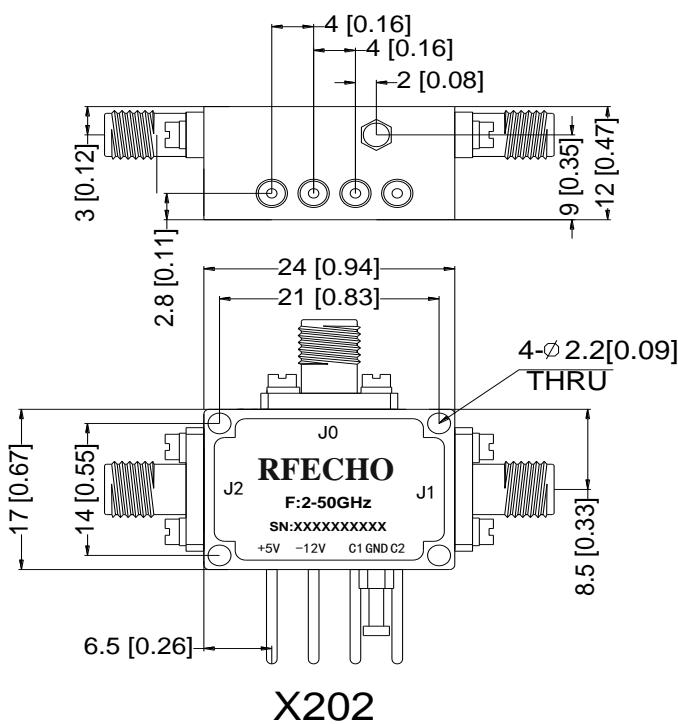
| | |
|-------------------------|---|
| Operational Temperature | -40°C~+85°C |
| Storage Temperature | -50°C~+105°C |
| Altitude | 30,000 ft. (Epoxy Sealed Controlled environment) 60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional) |
| Vibration | 25g RMS (15 degrees 2KHz) endurance, 1 hour per axis |
| Humidity | 100% RH at 35°C, 95%RH at 40°C |
| Shock | 20G for 11msec half sine wave, 3 axis both directions |

Ordering Information

| Part No. | Description |
|-----------------|-------------------------------|
| DBSR0202005000A | SP2T 2-50GHz PIN Diode Switch |

Outline Drawing:

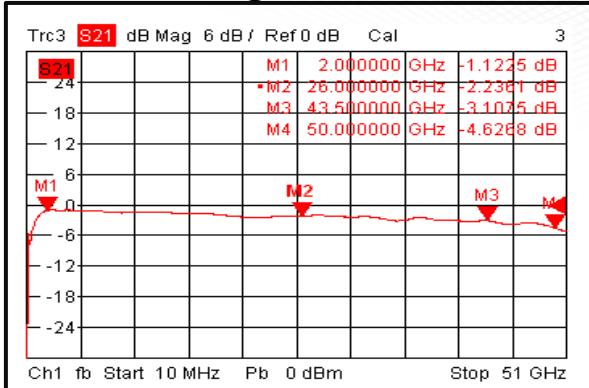
All Dimensions in mm (inches)



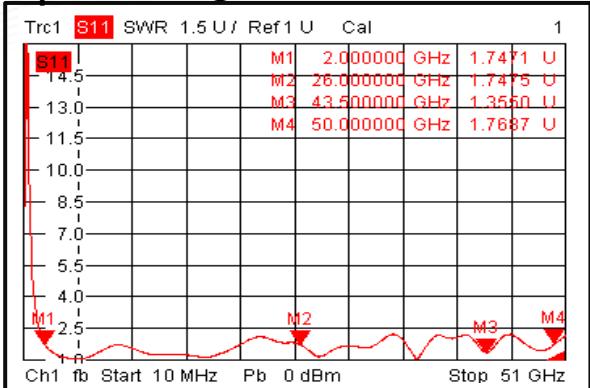
Truth Table

| | | |
|--|-------------------|-------|
| TTL Control Voltage THRESHOLD | Low(0)=0~0.8V | |
| | High(1)=2.8~5V | |
| Control Input TTL | Signal Path State | |
| C2 | C1 | |
| 1 | 0 | J0-J1 |
| 0 | 1 | J0-J2 |
| Control Pin Customization available upon request | | |

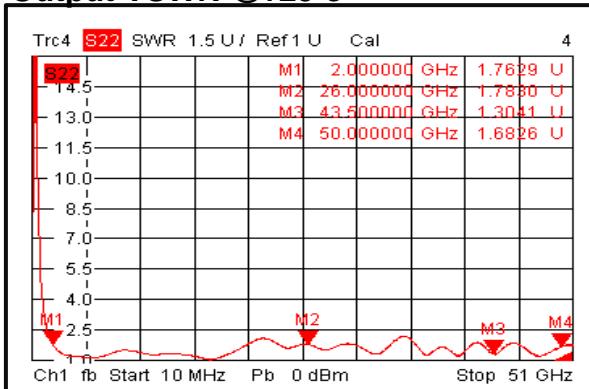
Insertion Loss @+25°C



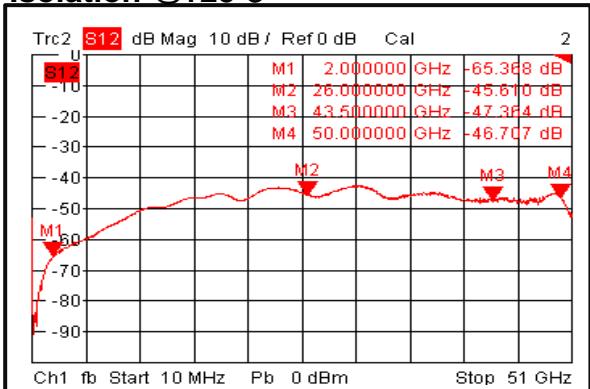
Input VSWR @+25°C



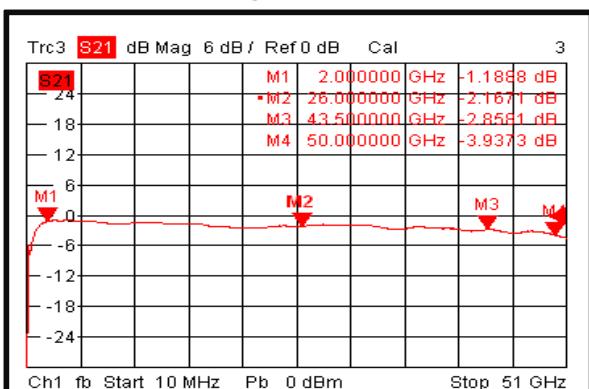
Output VSWR @+25°C



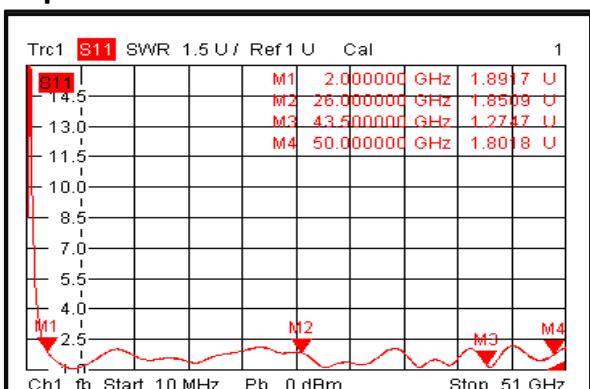
Isolation @+25°C



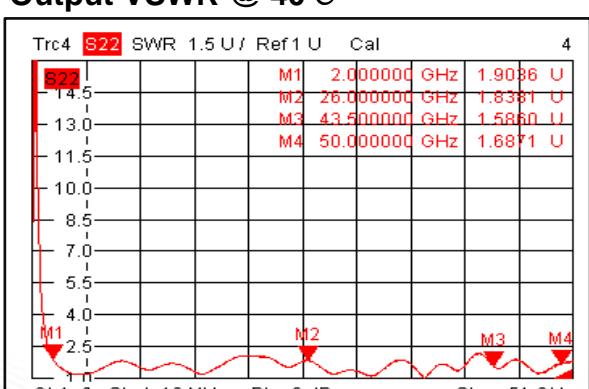
Insertion Loss @-40°C



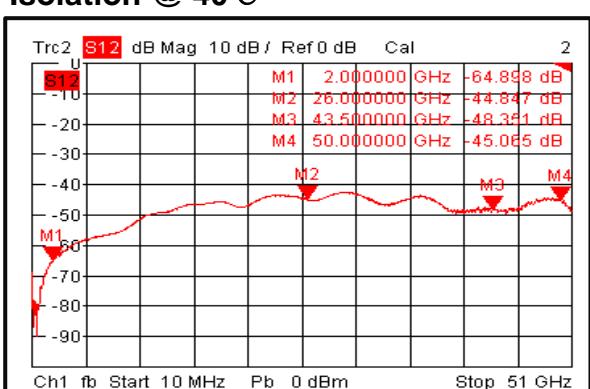
Input VSWR @-40°C



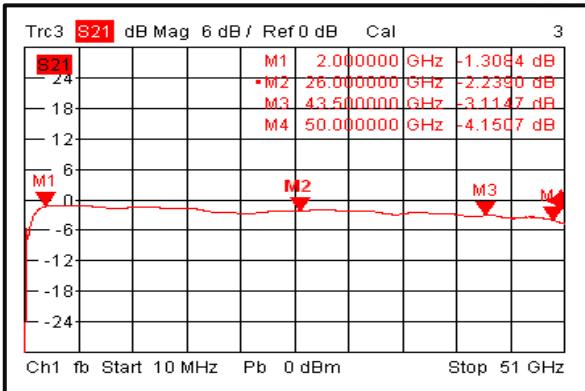
Output VSWR @-40°C



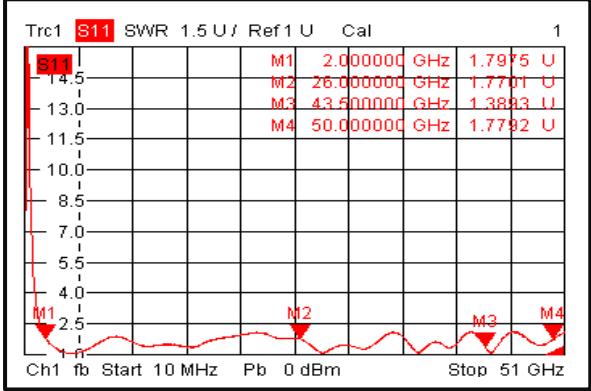
Isolation @-40°C



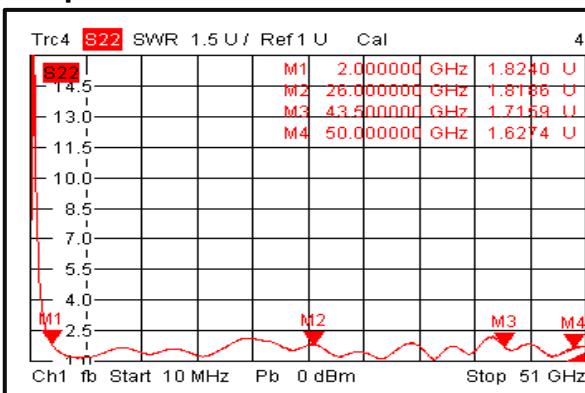
Insertion Loss @+85°C



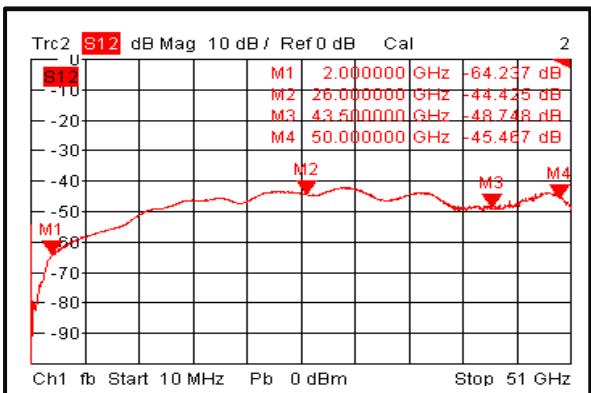
Input VSWR @+85°C



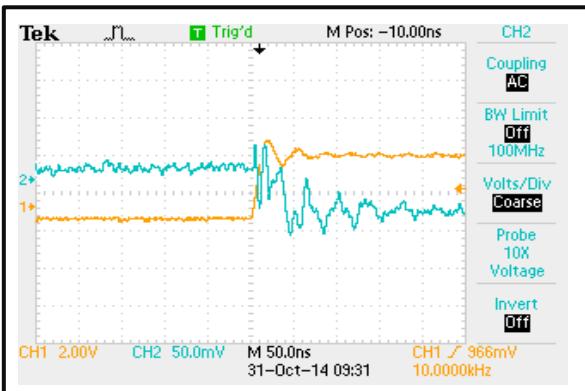
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

