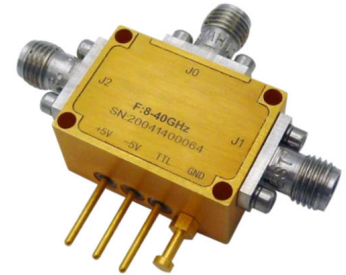




Absorptive 8-40GHz Coaxial SP2T Switch

Features

- Ultra Wide Band Operation 8-40GHz
- 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. | Min. | Typ. | Max. | Units |
|--|--------------------------------|-------|------|-------|-------|------|-------|-------|------|--------|
| Frequency Range | 8-18 | | | 18-30 | | | 30-40 | | | GHz |
| Insertion Loss | | 2.2 | 3 | | 3.0 | 4 | | 3.5 | 4.5 | dB |
| Insertion Loss Temperature Coefficient | | 0.003 | | | 0.003 | | | 0.003 | | dB/ °C |
| Isolation | 55 | 65 | | 50 | 60 | | 45 | 50 | | dB |
| Input VSWR | | 1.5 | 2 | | 1.8 | 2 | | 2 | 2.5 | : 1 |
| Output VSWR | | 2 | 2.5 | | 2.5 | 3 | | 2.5 | 3 | : 1 |
| RF Input power | | | 23 | | | 23 | | | 23 | dBm |
| DC Power Dissipation | | 0.5 | | | 0.5 | | | 0.5 | | W |
| 0.1dB Compression Point (P0.1dB) | | 23 | | | 23 | | | 23 | | dBm |
| IIP3 | | 43 | | | 40 | | | 38 | | dBm |
| Switching Speed | 60 Max. | | | | | | | | | ns |
| Weight | 0.6 Max. | | | | | | | | | ounces |
| Impedance | 50 | | | | | | | | | Ω |
| Bias Current (+5V / -5V) | 80/50 Max. | | | | | | | | | mA |
| Input / Output Connectors | 2.92mm-Female | | | | | | | | | |
| Finish | Gold Plated | | | | | | | | | |
| Material | Aluminum | | | | | | | | | |
| Sealing | Hermetically Sealed (Optional) | | | | | | | | | |



Absolute Maximum Ratings

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

Ordering Information

| Part No. | Description |
|-----------------|-------------------------------|
| DBSA0208004000A | SP2T 8-40GHz PIN Diode Switch |

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 Un-controlled 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 |

Outline Drawing:

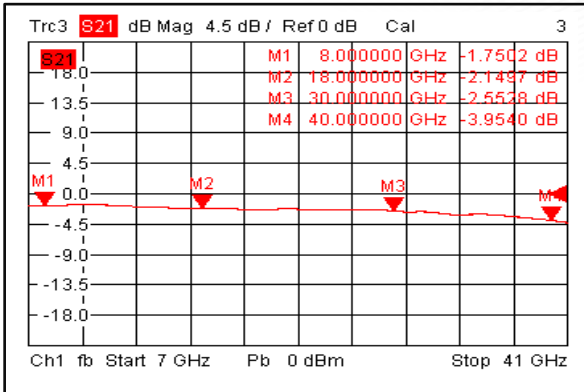
All Dimensions in mm (inches)

Truth Table

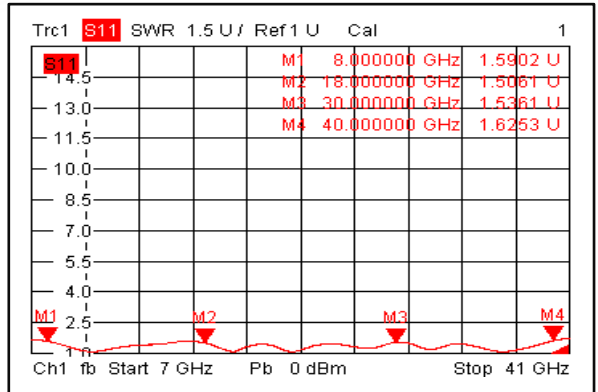
| | |
|--|-------------------|
| TTL Control Voltage THRESHOLD | Low(0)=0~0.8V |
| | High(1)=2.8~5V |
| Control Input TTL | Signal Path State |
| 0 | J0-J2 |
| 1 | J0-J1 |
| Control Pin Customization available upon request | |



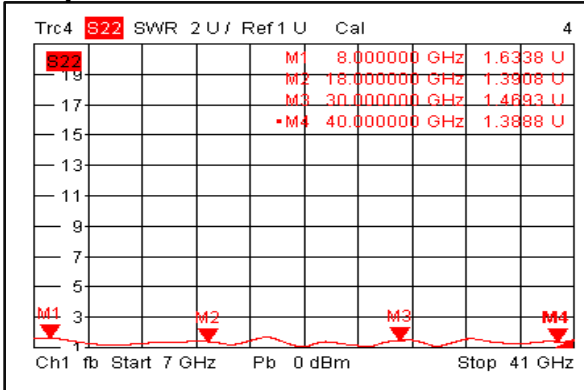
Insertion Loss @+25°C



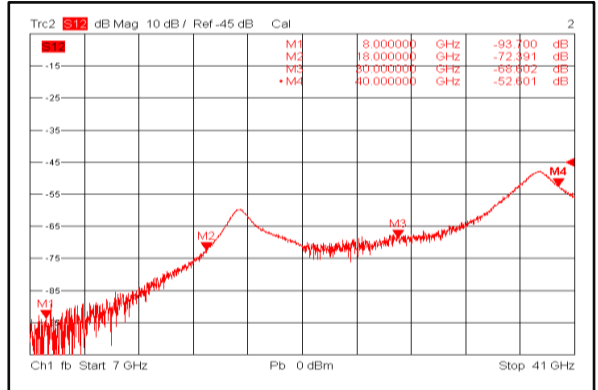
Input VSWR @+25°C



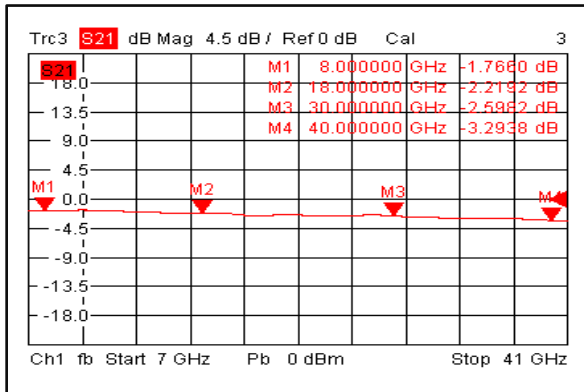
Output VSWR @+25°C



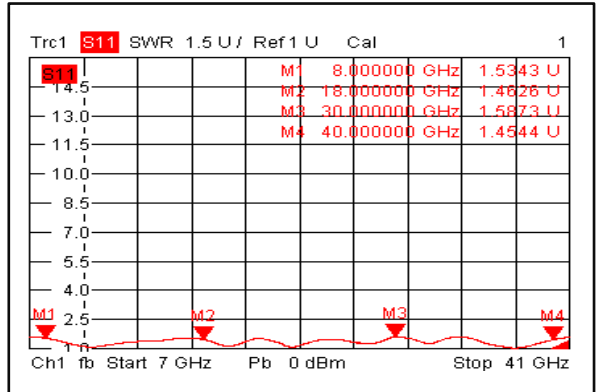
Isolation @+25°C



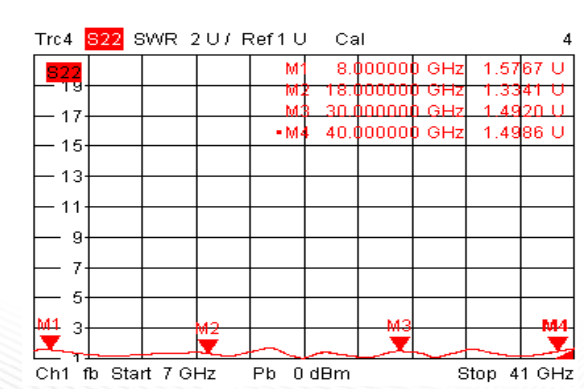
Insertion Loss @-40°C



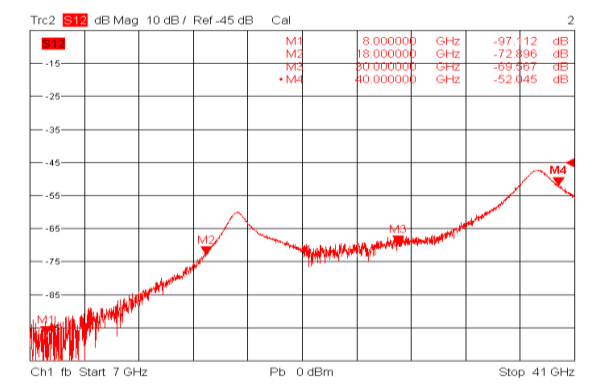
Input VSWR @-40°C



Output VSWR @-40°C

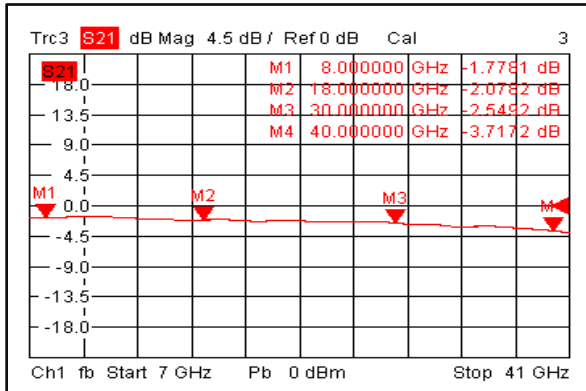


Isolation @-40°C

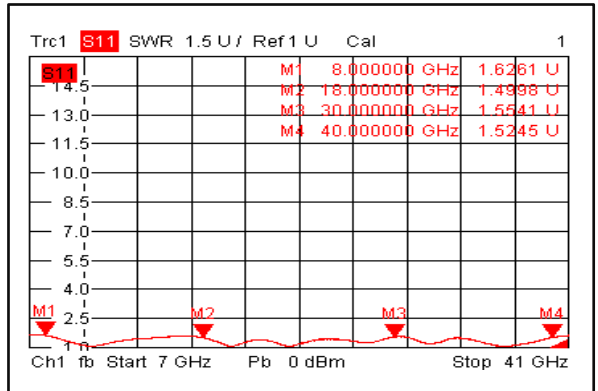




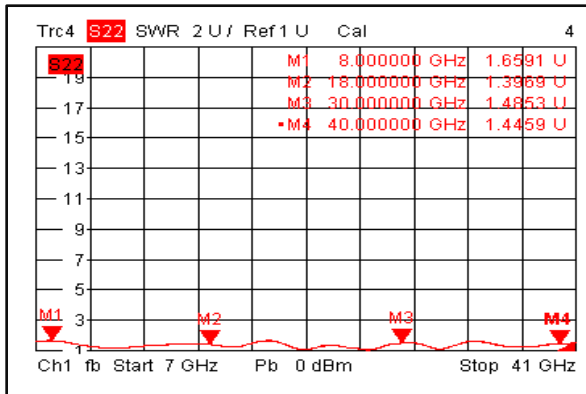
Insertion Loss @+85°C



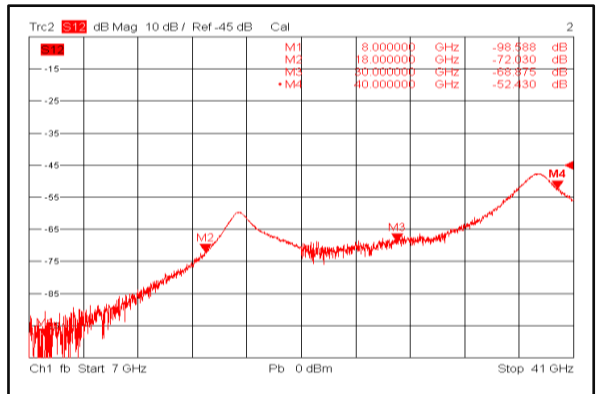
Input VSWR @+85°C



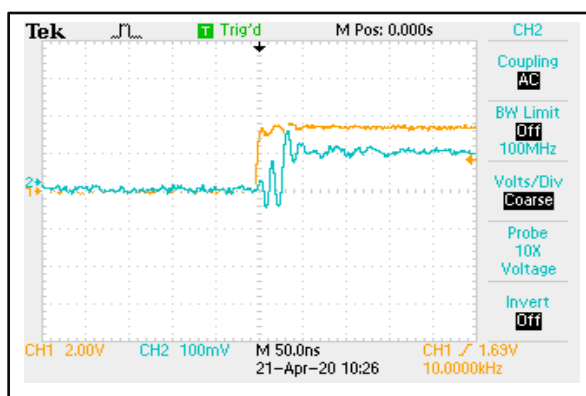
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

