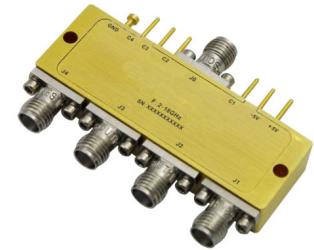




Reflective 2-18GHz Coaxial SP4T Switch

Features

- Wide Band Operation 2-18GHz
- 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	2~8			8~12			12~18			GHz
Insertion Loss		1.8	2		2	2.2		2.2	2.8	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation		75	80		70	75	70	75		dB
Input VSWR		1.5	1.8		1.5	1.8		1.5	1.8	: 1
Output VSWR		1.5	1.8		1.5	1.8		1.5	1.8	: 1
RF Input power (CW)			30			30			30	dBm
DC Power Dissipation		0.8			0.8			0.8		W
0.1dB Compression Point(P0.1dB)		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed		100			100			100		ns
Weight	1.06									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	160/50									mA
Input / Output Connectors	SMA-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (optional)									



Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
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Ordering Information

Part No.	Description
DBSR0402001800A	SP4T 2-18GHz 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:

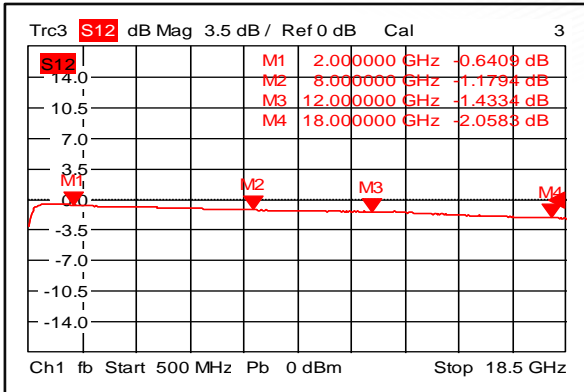
All Dimensions in mm (inches)

The drawing shows a rectangular component with a top view and a side view. The top view includes dimensions: 52 [2.05] mm total width, 48 [1.89] mm width excluding pins, 6 [0.24] mm pin spacing, 5-4 [0.16] mm pin spacing, 16 [0.63] mm central pin spacing, and 4 [0.16] mm pin spacing. Pin labels include GND, C4, C3, C2, J0, C1, -5V, +5V, J4, J3, J2, and J1. A 2-Ø 2.8 [0.11] THRU hole is shown. The side view shows a height of 9.5 [0.37] mm and a pin height of 2 [0.08] mm. A bottom view shows a 13 [0.51] mm spacing between connectors and a 39 [1.54] mm total length.

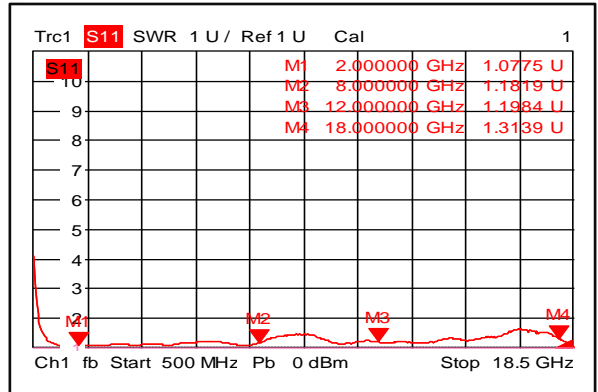
TTL Control Voltage THRESHOLD					Low(0)=0~0.8V
Control Input TTL					High(1)=2.8~5V
Signal Path State					
C4	C3	C2	C1	Signal Path State	
1	1	1	1	OFF	
1	1	1	0	J0-J1	
1	1	0	1	J0-J2	
1	0	1	1	J0-J3	
0	1	1	1	J0-J4	
0	0	0	0	not used	
Control Pin Customization available upon request					



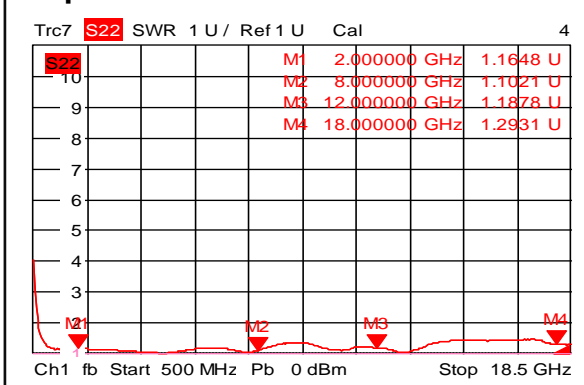
Insertion Loss @+25°C



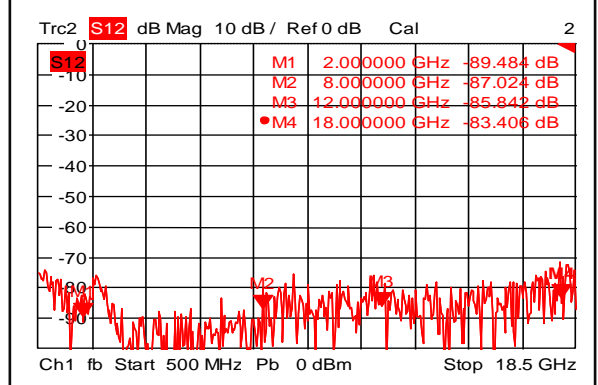
Input VSWR @+25°C



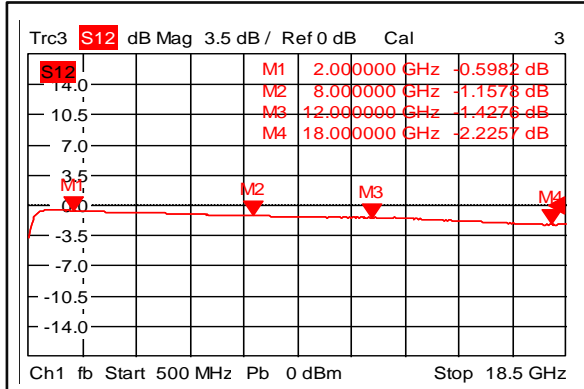
Output VSWR @+25°C



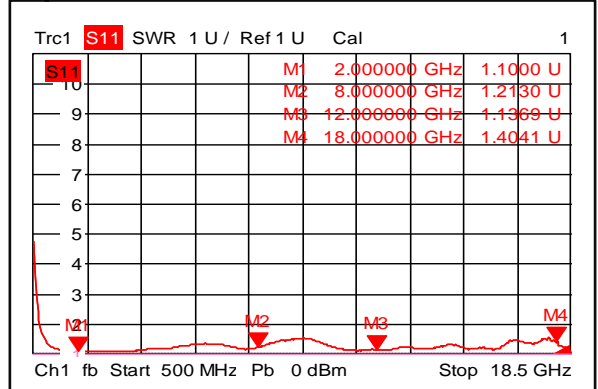
Isolation @+25°C



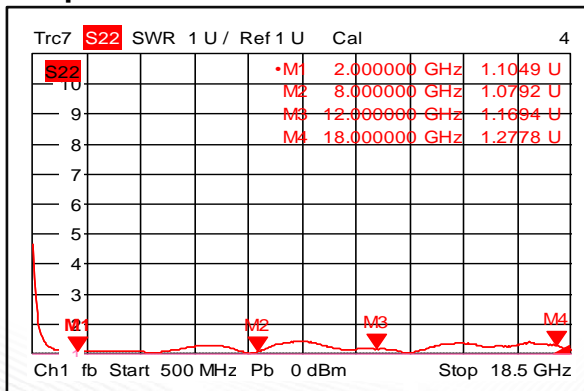
Insertion Loss @-40°C



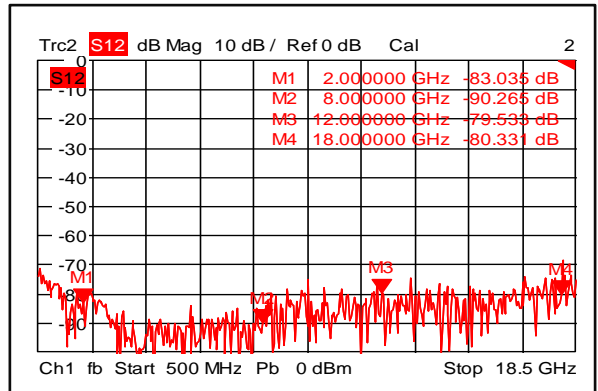
Input VSWR @-40°C



Output VSWR @-40°C

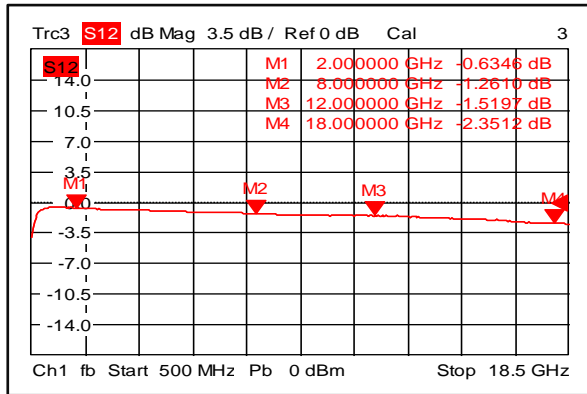


Isolation @-40°C

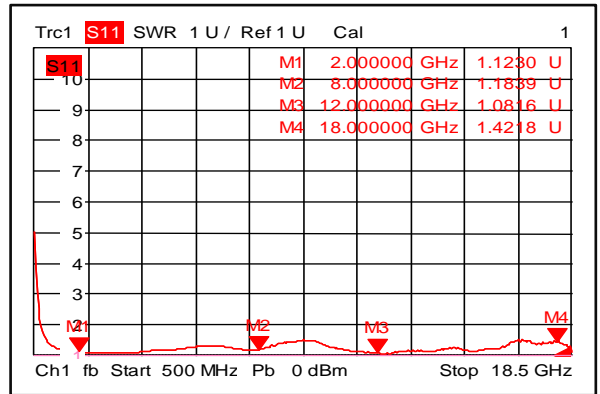




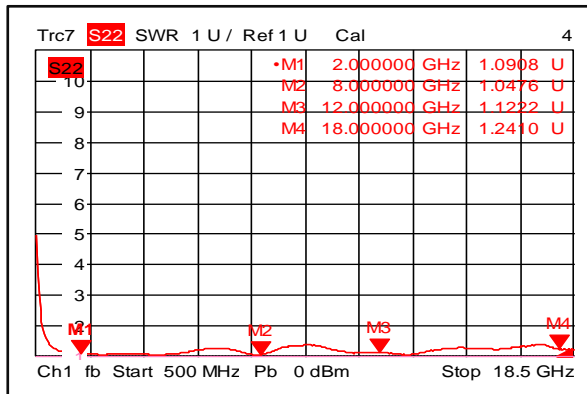
Insertion Loss @+85°C



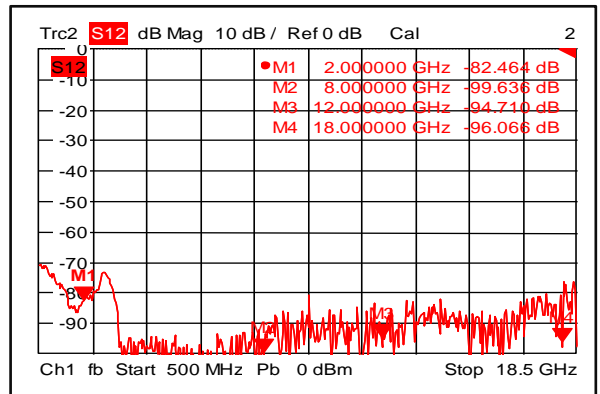
Input VSWR @+85°C



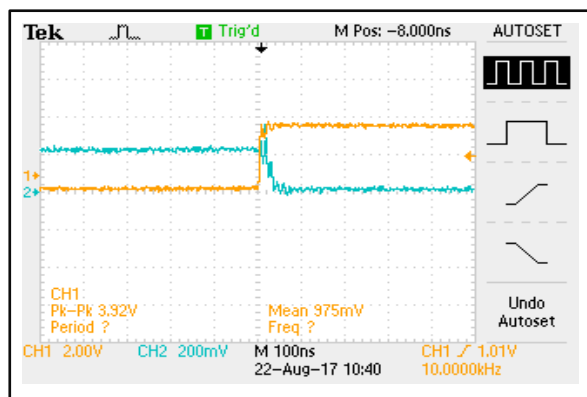
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

