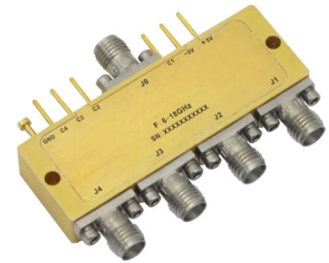




Reflective 6-18GHz Coaxial SP4T Switch

Features

- Wide Band Operation 6-18GHz
- 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	Units
Frequency Range	6		12	12		18	GHz
Insertion Loss		2.0	2.5		2.5	2.8	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	70	80		70	75		dB
Input VSWR		1.8	2.0		1.8	2.0	: 1
Output VSWR		1.8	2.0		1.8	2.0	: 1
RF Input Power			30			30	dBm
DC Power Dissipation		0.8			0.8		W
0.1dB Compression Point (P0.1dB)		30			30		dBm
IIP3		38			38		dBm
Switching Speed	100 Max.						ns
Weight	1.5 Max.						Ounces
Impedance	50						Ω
Bias Current (+5V / -5V)	160/50 Max.						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
DBSR0406001800A	SP4T6-18GHz 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)

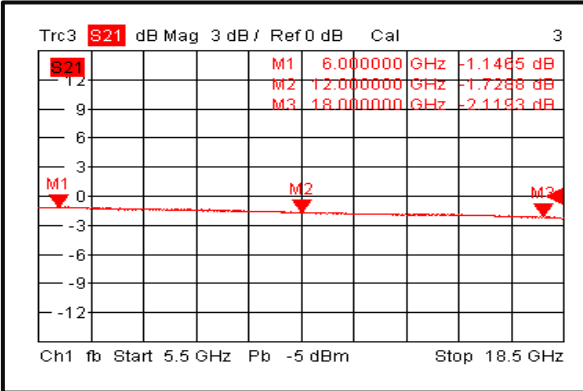
The drawing shows a top view and a side view of the component. The top view includes dimensions: 52 [2.05] total width, 48 [1.89] width between pins, and 4 [0.16] spacing between pins. Pin labels include GND, C4, C3, C2, J0, C1, -5V, +5V, J4, J3, J2, and J1. A hole is dimensioned as 2-Ø2.8 [0.11] THRU. The side view shows a height of 12.5 [0.49] and a base width of 3 [0.12].

TTL Control Voltage		Low(0)=0~0.8V		
THRESHOLD		High(1)=2.8~5V		
Control Input TTL				Signal Path State
C4	C3	C2	C1	
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	NC

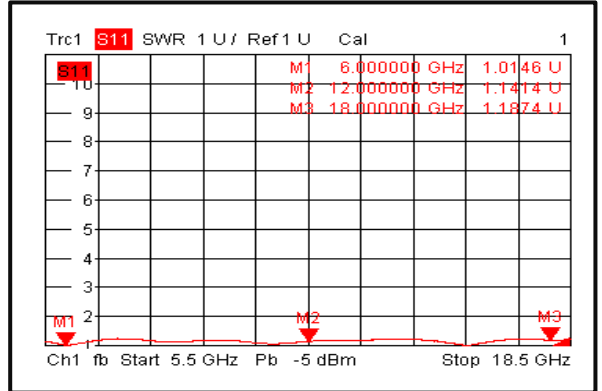
Control Pin Customization available upon request



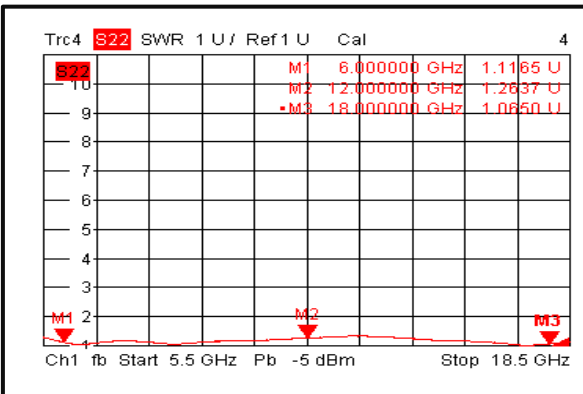
Insertion Loss @+25°C



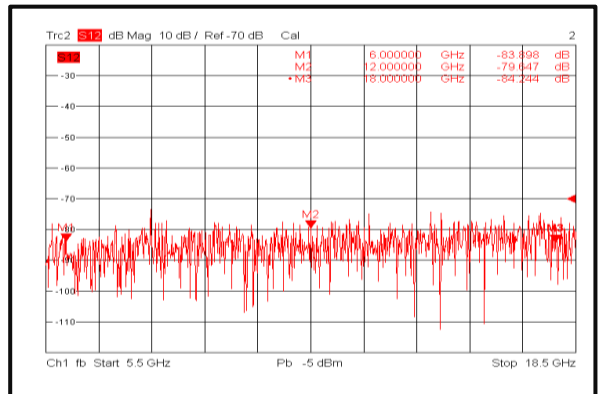
Input VSWR @+25°C



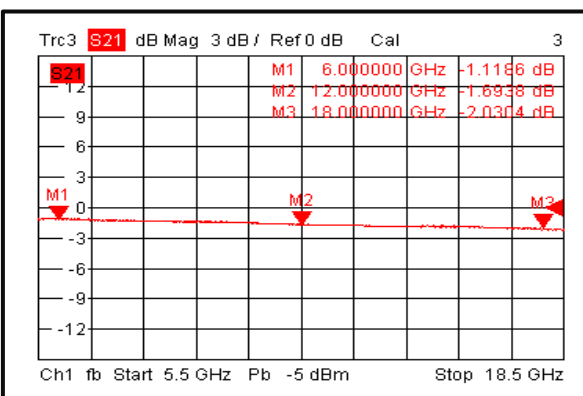
Output VSWR @+25°C



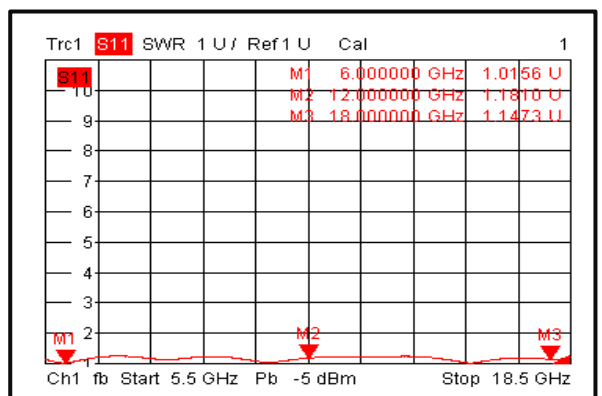
Isolation @+25°C



Insertion Loss @-40°C

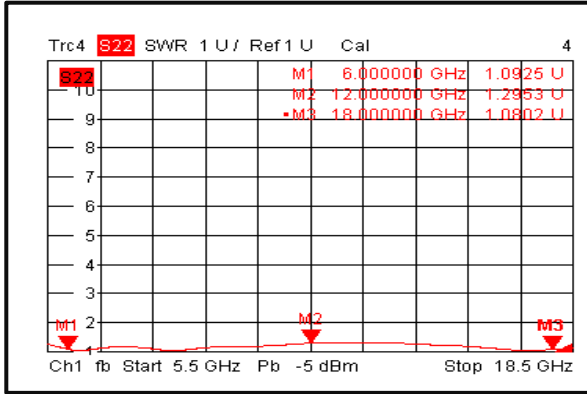


Input VSWR @-40°C

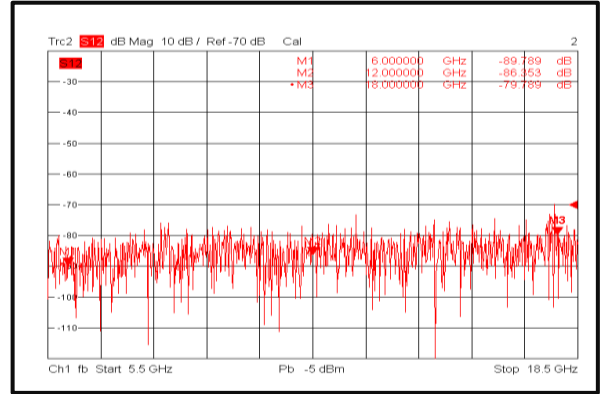




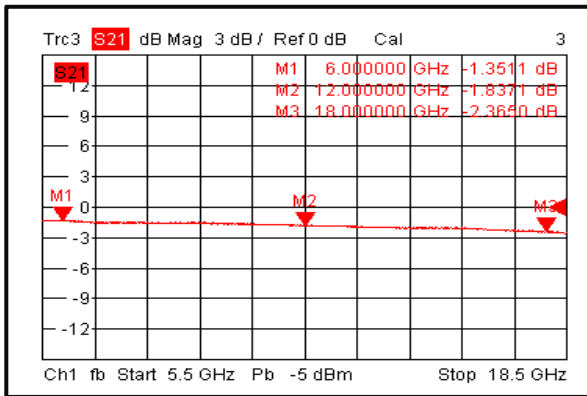
Output VSWR @-40°C



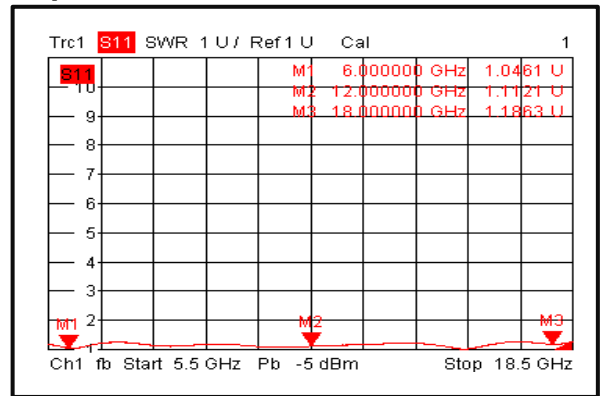
Isolation @-40°C



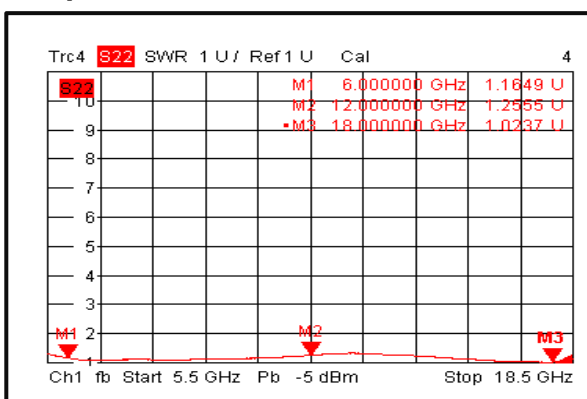
Insertion Loss @+85°C



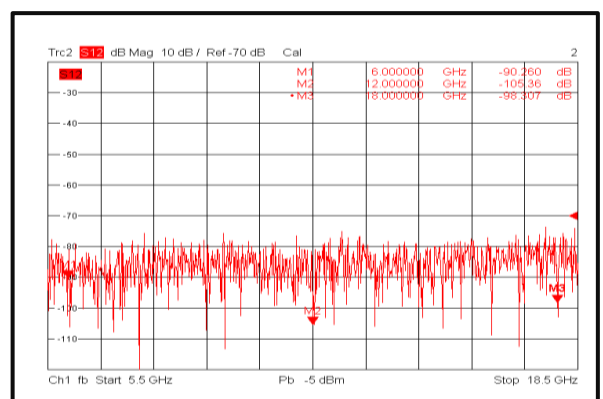
Input VSWR @+85°C



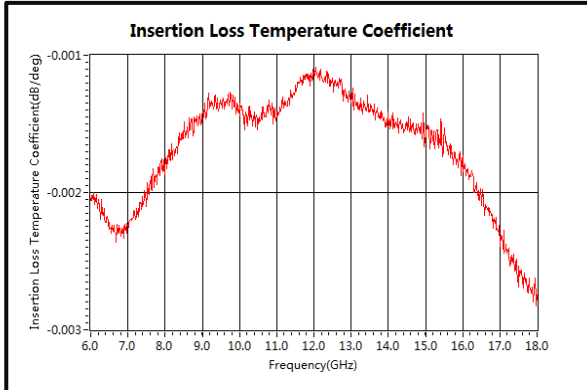
Output VSWR @+85°C



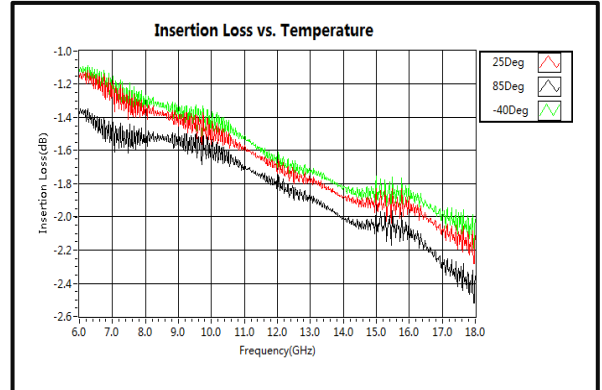
Isolation @+85°C



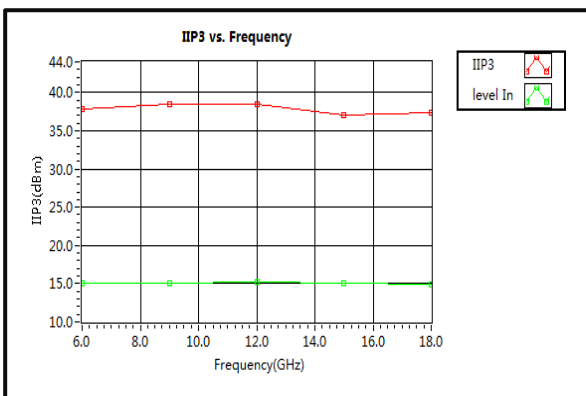
Insertion Loss Temperature Coefficient



Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

