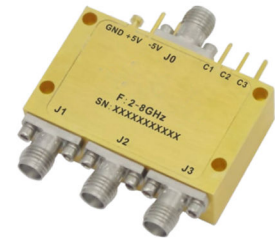




Absorptive 2-8GHz Coaxial SP3T Switch

Features

- Wide Band Operation 2-8GHz
- 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	Units
Frequency Range	2		8	GHz
Insertion Loss		1.5	1.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	70	80		dB
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input Power			30	dBm
DC Power Dissipation		0.65		W
0.1dB Compression Point (P0.1dB)		30		dBm
IIP3		43		dBm
Switching Speed		100 Max.		ns
Weight		1.5 Max.		ounces
Impedance		50		Ω
Bias Current (+5V / -5V)		120/50 Max.		mA
Input / Output Connectors		SMA - Female		
Finish		Gold Plated		
Material		Aluminum		
Sealing		Hermetically Sealed (Optional)		



Absolute Maximum Ratings

Biassing	+5V ± 10%/-5V ± 10%
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Environmental Specifications

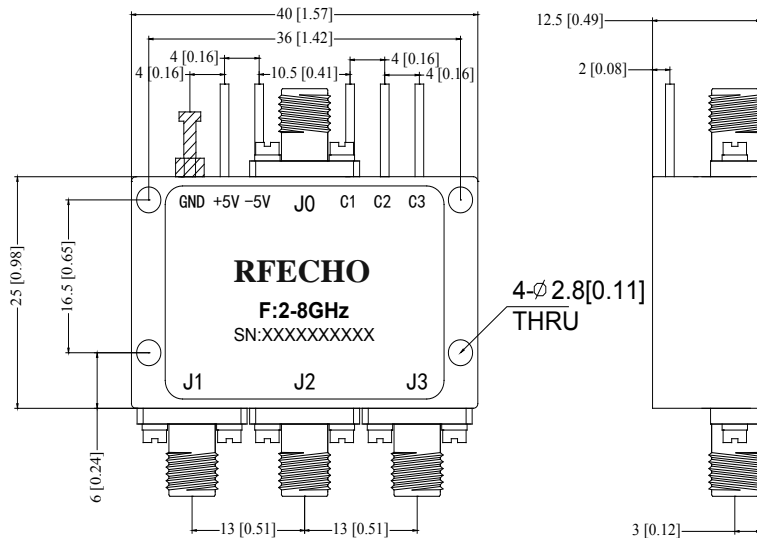
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

Ordering Information

Part No.	Description
DBSA0302000800A	SP2T 2-8GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)
Housing Tolerances ±0.1 (0.004)

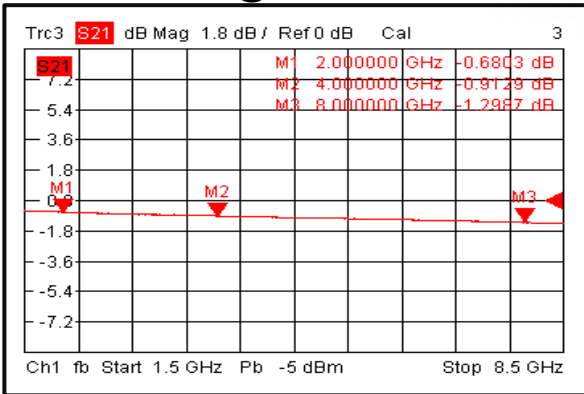


Truth Table

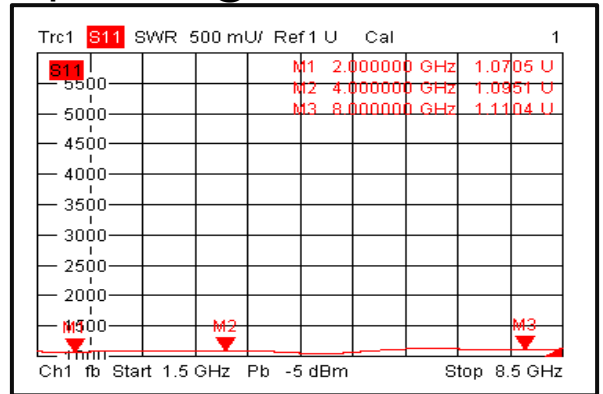
TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
			High(1)=2.8~5V
Control Input TTL			Signal Path State
C3	C2	C1	
1	1	0	J0-J1
1	0	1	J0-J2
0	1	1	J0-J3
1	1	1	OFF
Control Pin Customization available upon request			



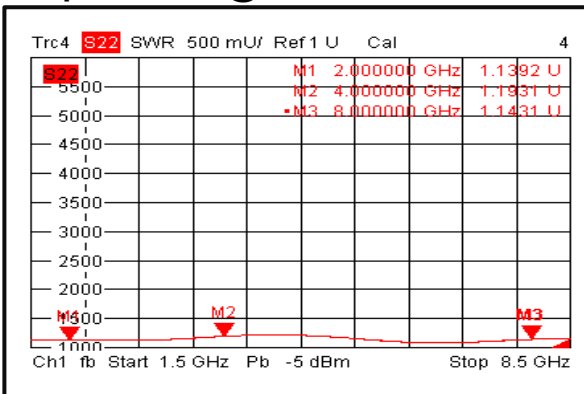
Insertion Loss @+25°C



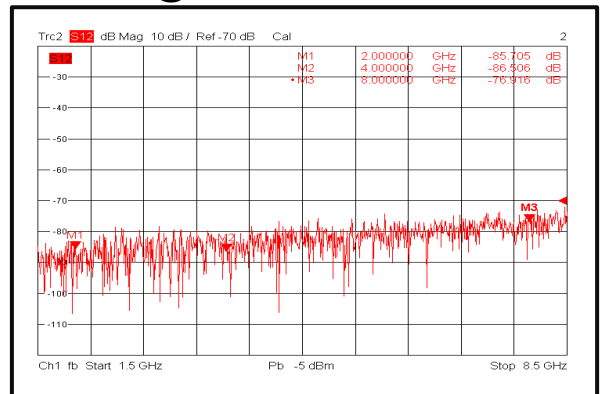
Input VSWR @+25°C



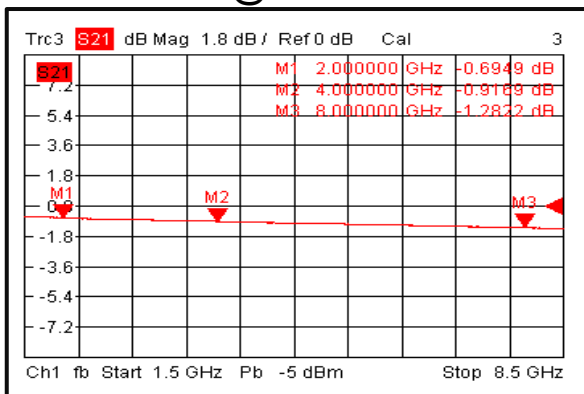
Output VSWR @+25°C



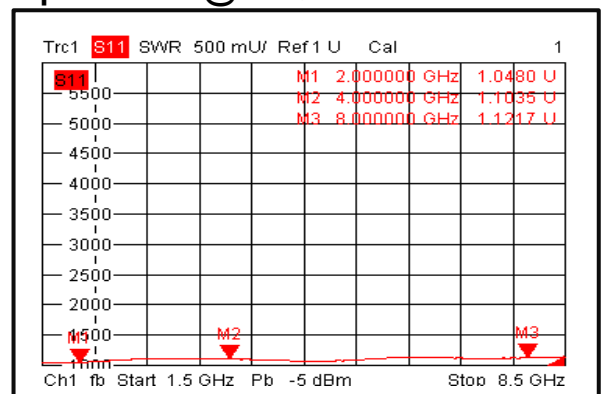
Isolation @+25°C



Insertion Loss @-40°C

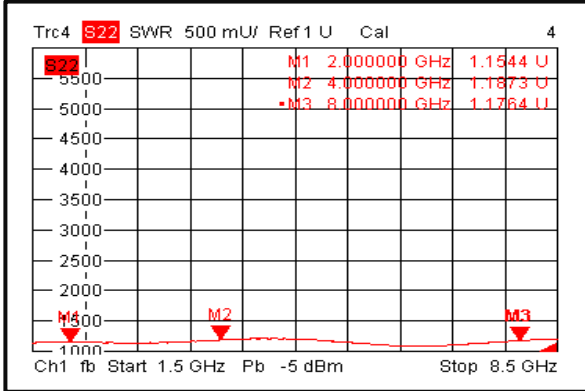


Input VSWR @-40°C

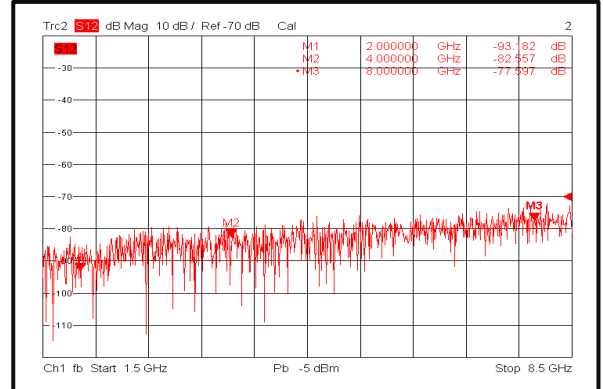




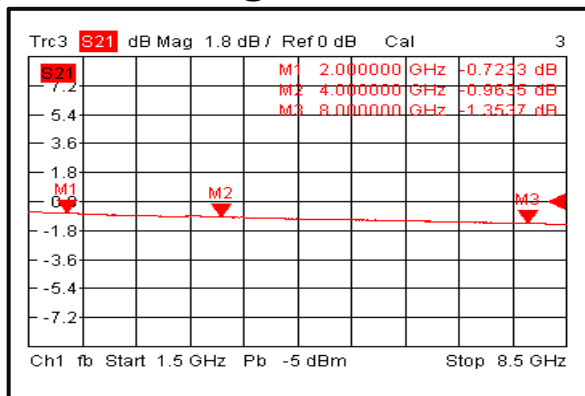
Output VSWR @-40°C



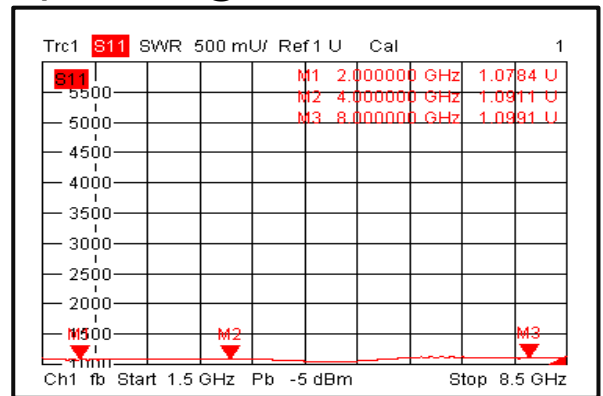
Isolation @-40°C



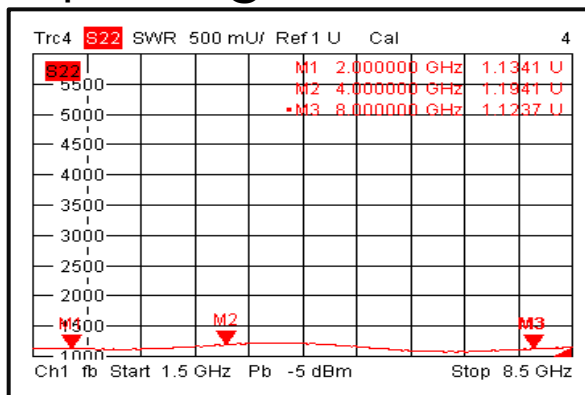
Insertion Loss @+85°C



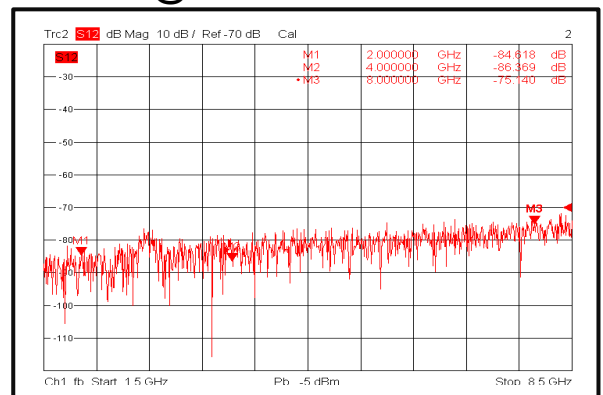
Input VSWR @+85°C



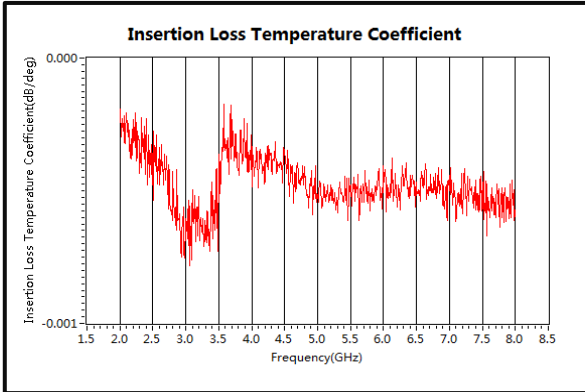
Output VSWR @+85°C



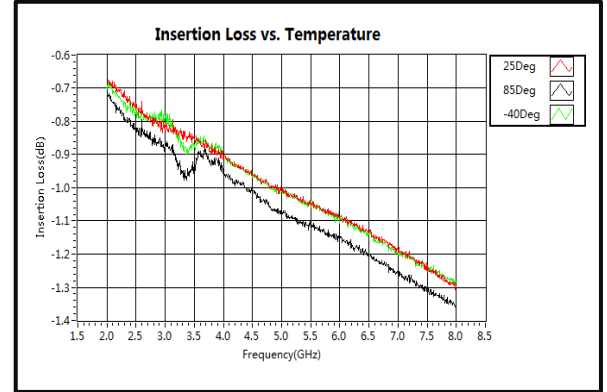
Isolation @+85°C



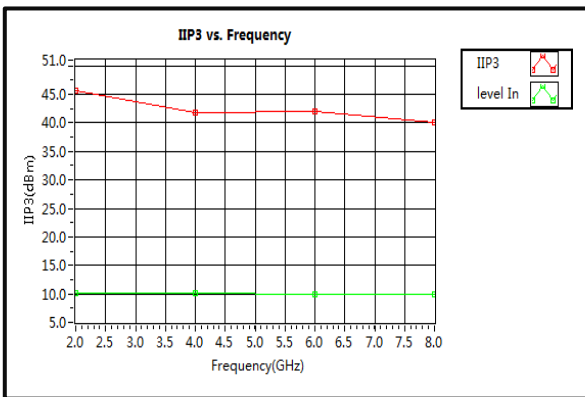
Insertion Loss Temperature Coefficient



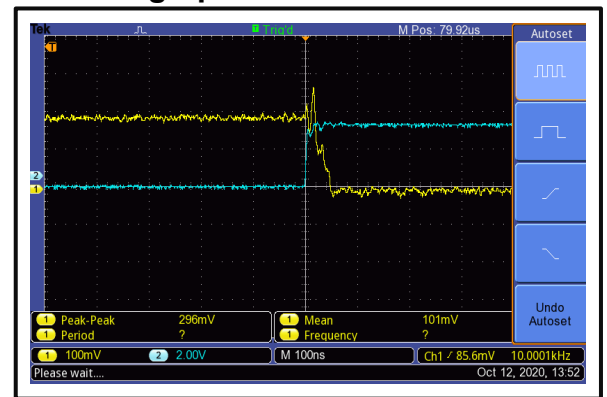
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

