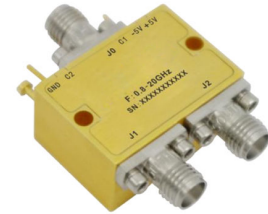




Absorptive 0.8-20GHz Coaxial SP2T Switch

Features

- Wide Band Operation 0.8-20GHz
- 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	0.8		8	8		12	12		20	GHz
Insertion Loss		1.5	1.7		1.8	2.2		2.8	3.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	60	70		60	70		60	65		dB
Input VSWR		1.6	1.8		1.6	1.8		1.6	1.8	: 1
Output VSWR		1.6	1.8		1.6	1.8		1.6	1.8	: 1
RF Input Power (CW)			30			30			30	dBm
DC Power Dissipation		0.5			0.5			0.5		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		47			45			42		dBm
Switching Speed	100 Max.									ns
Weight	0.75Max.									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	80/50 Max.									mA
Input / Output Connectors	SMA-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									



Absolute Maximum Ratings

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

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
DBSA0200802000B	SP2T 0.8-20GHz PIN Diode Switch

Outline Drawing:

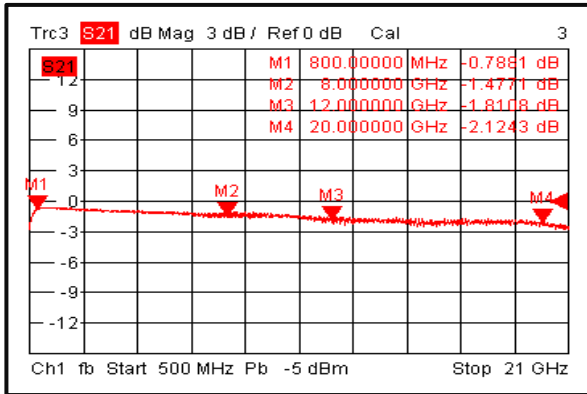
All Dimensions in mm (inches)

The drawing shows a top view and a side view of the component. The top view includes dimensions: 4 [0.16], 3.5 [0.14], 8.5 [0.33], 3.5 [0.14], 3.5 [0.14], 18 [0.71], 9 [0.35], 2-Ø 2.8 [0.11] THRU, 9 [0.35], 13 [0.51], 22 [0.87], and 26 [1.02]. The side view includes dimensions: 12.5 [0.49], 2 [0.08], and 3 [0.12]. The component is labeled with 'RFECHO', 'F:0.8-20GHz', 'SN:XXXXXXXXXX', and pins J1, J2, GND, C2, J0, C1, -5V, +5V.

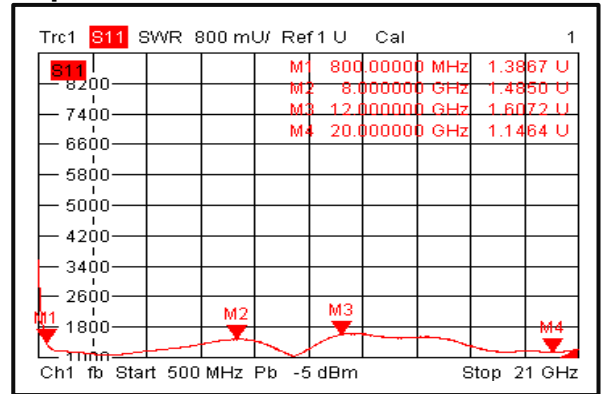
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V
Control Input TTL		High(1)=2.8~5V
C1	C2	State
0	1	J0-J1
1	0	J0-J2
0	0	OFF
1	1	OFF
Control Pin Customization available upon request		



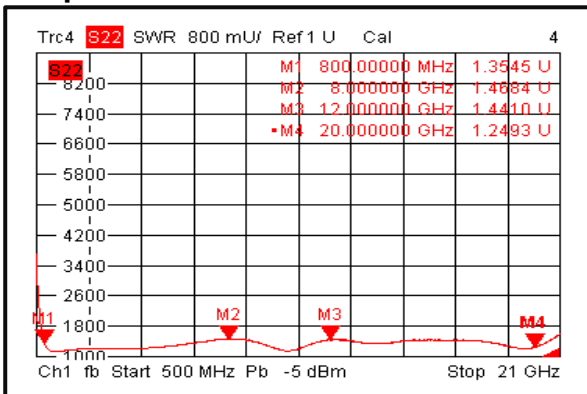
Insertion Loss @+25°C



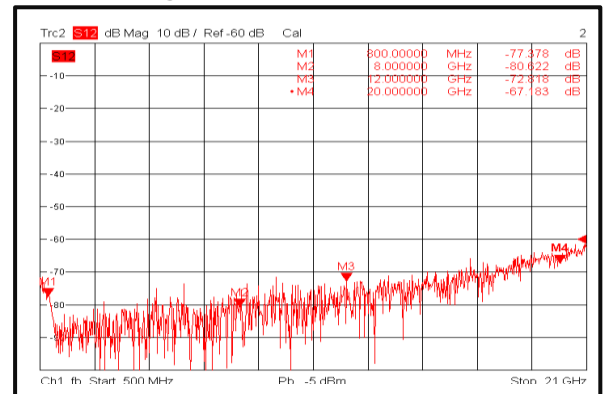
Input VSWR @+25°C



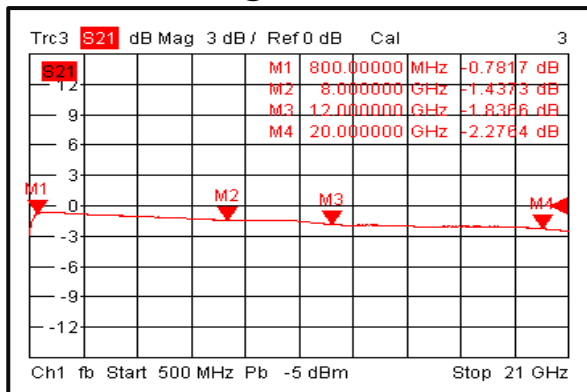
Output VSWR @+25°C



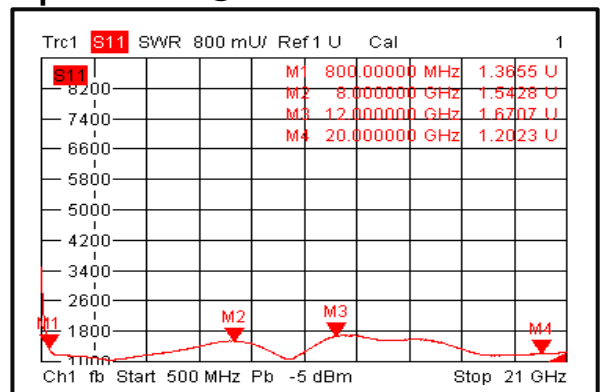
Isolation @+25°C



Insertion Loss @-40°C

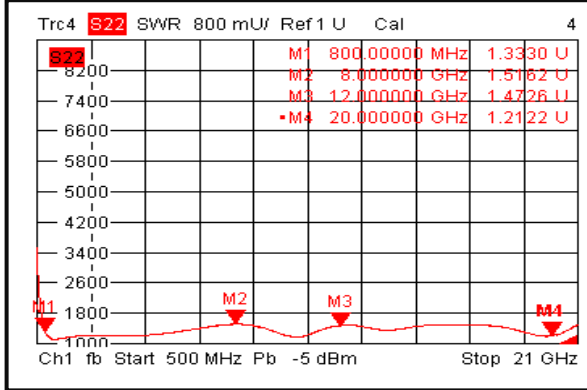


Input VSWR @-40°C

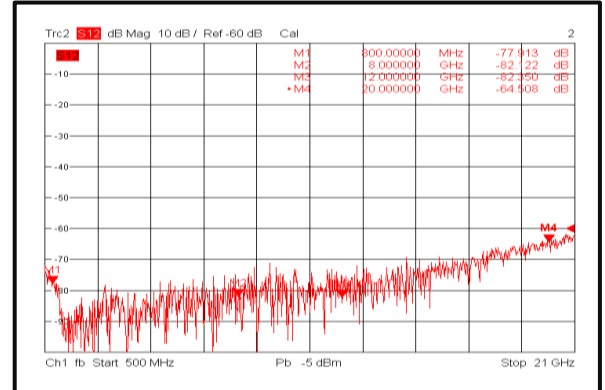




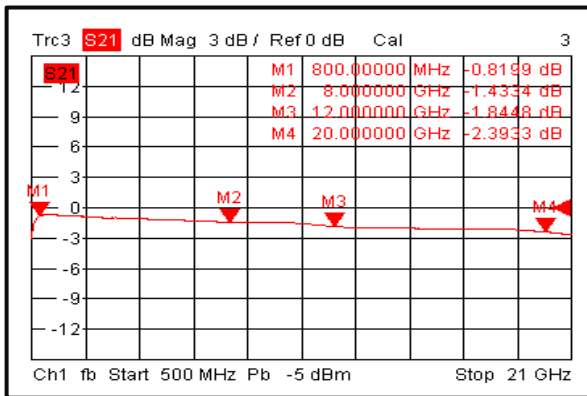
Output VSWR @-40°C



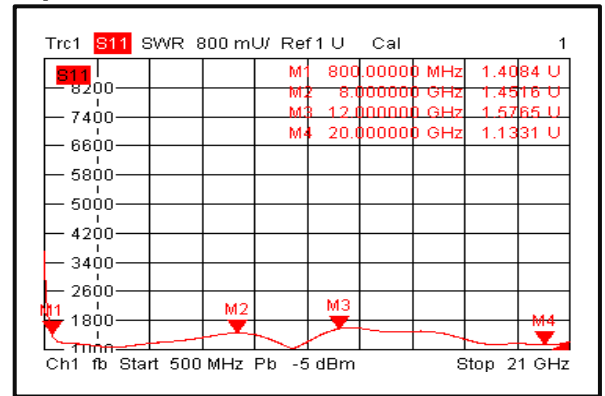
Isolation @-40°C



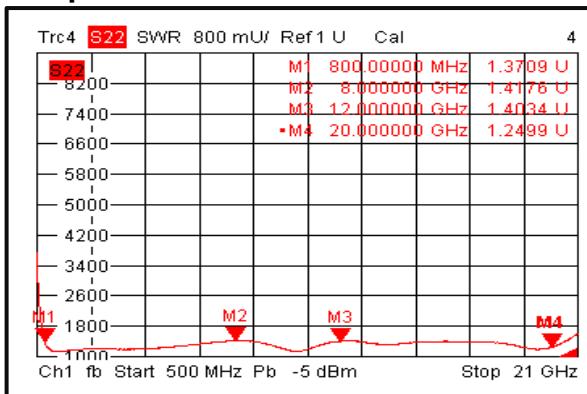
Insertion Loss @+85°C



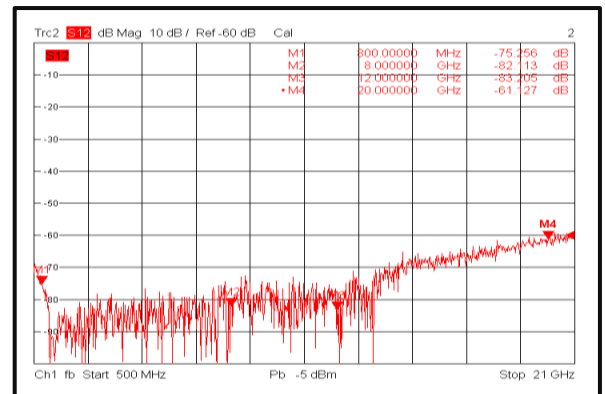
Input VSWR @+85°C



Output VSWR @+85°C

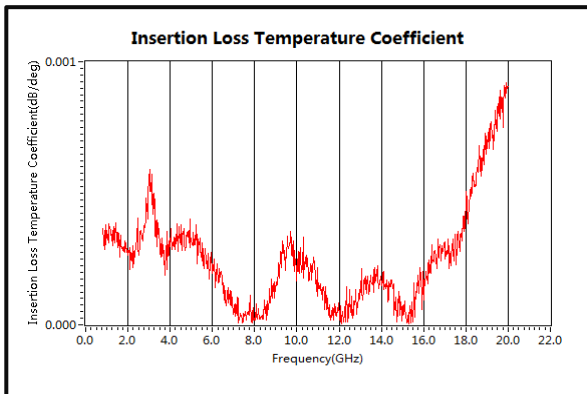


Isolation @+85°C

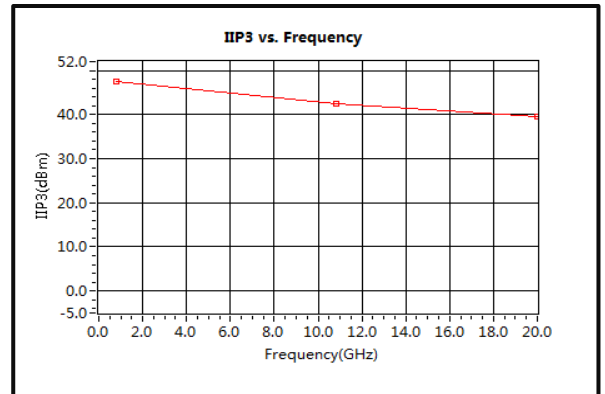




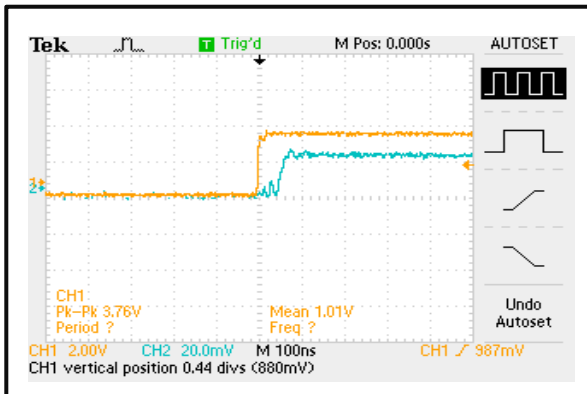
Insertion Loss Temperature Coefficient



IIP3



Switching Speed



Switching Speed

