

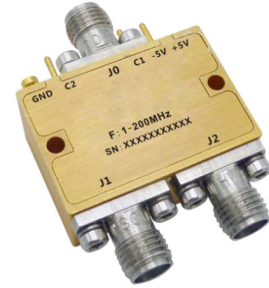


Absorptive Coaxial SP2T Switch

1 – 200MHz

Features

- Wide Band Operation 1-200MHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request



Typical Applications

- Wireless Infrastructure
- Test and measurement Instrument
- Fiber Optics

RF Microwave & VSAT

5G communication

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1		10	10		200	MHz
Insertion Loss			2.3			1.3	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	70	75		70	85		dB
Input VSWR		1.5	1.8		1.2	1.5	: 1
Output VSWR		1.5	1.8		1.2	1.5	: 1
RF Input power			30			30	dBm
DC Power Dissipation (CW)		0.4			0.4		W
0.1dB Compression Point (P0.1dB)		30			30		dBm
IIP3		50			48		dBm
Switching Speed	5.5 Typ.						us
Weight	0.7 Max.						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

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

Part No.	Description
DBSA0300021800B	SP3T 0.02-18GHz 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:

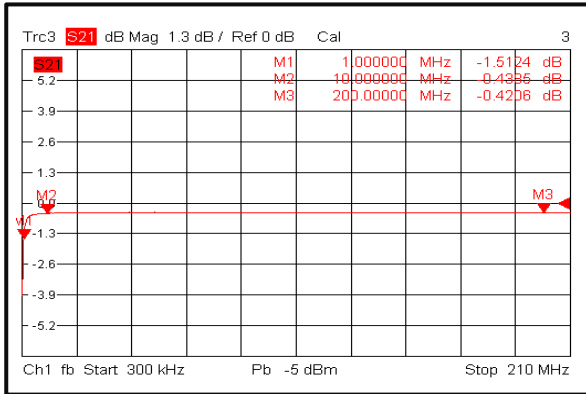
All Dimensions in mm (inches)

The drawing shows a top view and a side view of the component. The top view includes dimensions: 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], 22 [0.87], 26 [1.02], 13 [0.51], and 9 [0.35]. The side view shows dimensions: 12.5 [0.49], 2 [0.08], and 3 [0.12]. Pin labels include GND, C2, J0, C1, -5V, +5V, J1, and J2. A note indicates '2-Ø 2.8 [0.11] THRU'. The component is labeled 'RFECHO F:1-200MHz SN:XXXXXXXXXX'.

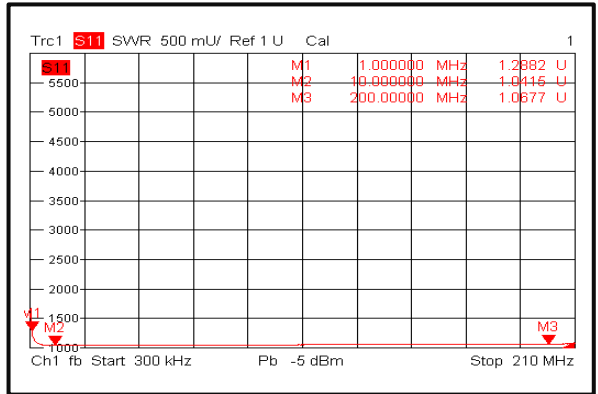
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V	High(1)=2.8~5V
Control Input TTL		State	
C1	C2		
0	0	OFF	
0	1	J0-J1	
1	0	J0-J2	
1	1	OFF	
Control Pin Customization available upon request			



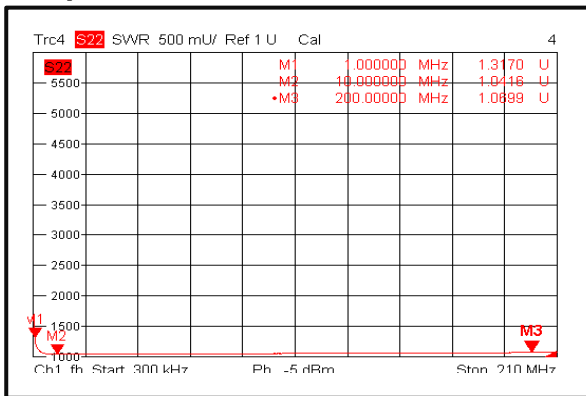
Insertion Loss @+25°C



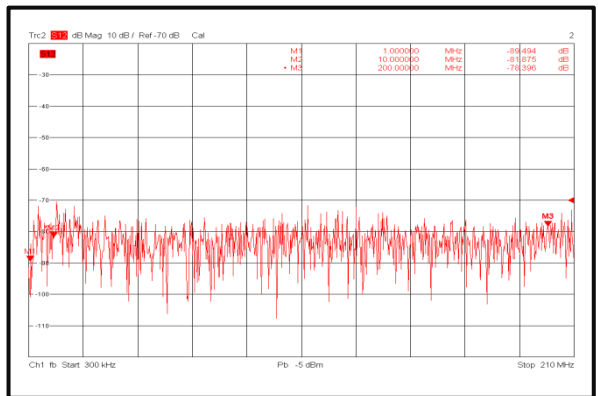
Input VSWR @+25°C



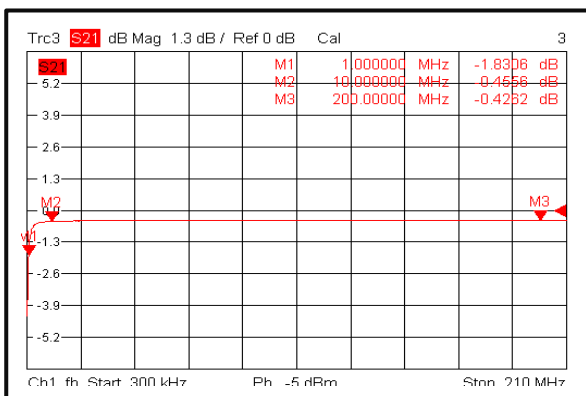
Output VSWR @+25°C



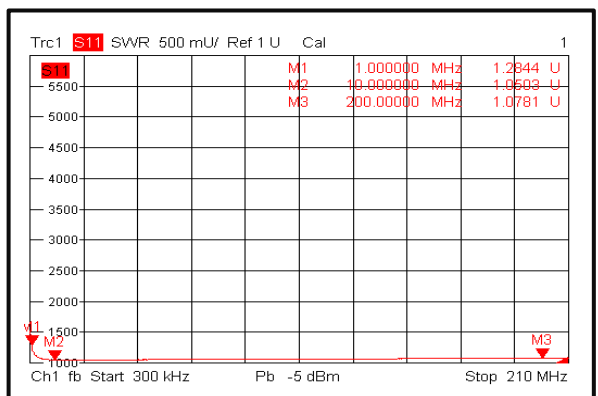
Isolation @+25°C



Insertion Loss @-40°C

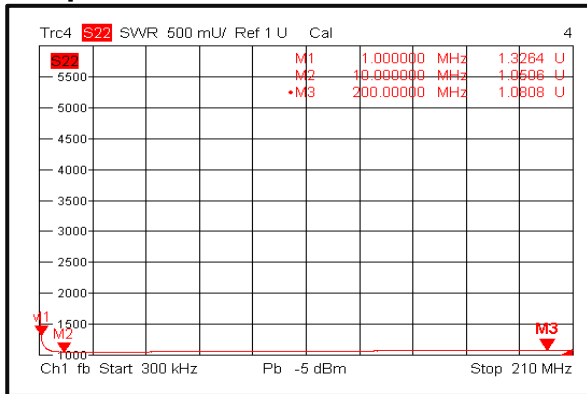


Input VSWR @-40°C

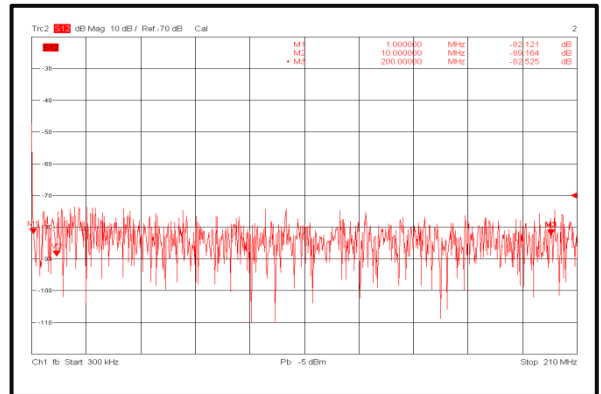




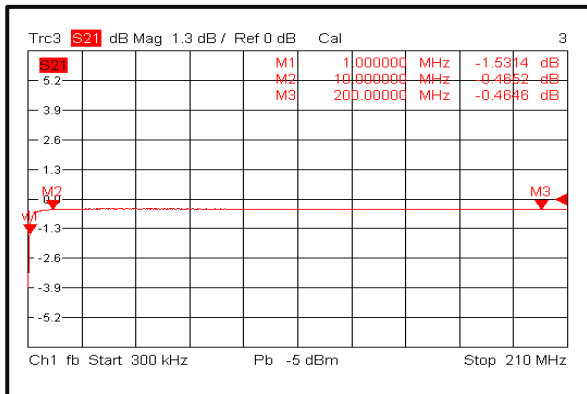
Output VSWR @-40°C



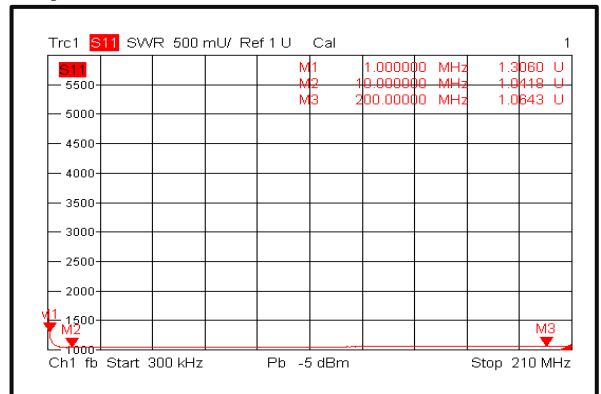
Isolation @-40°C



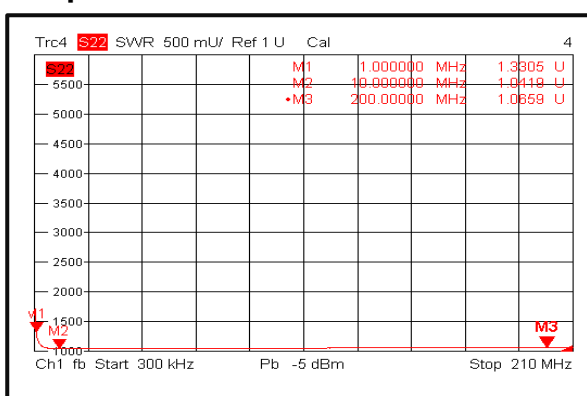
Insertion Loss @+85°C



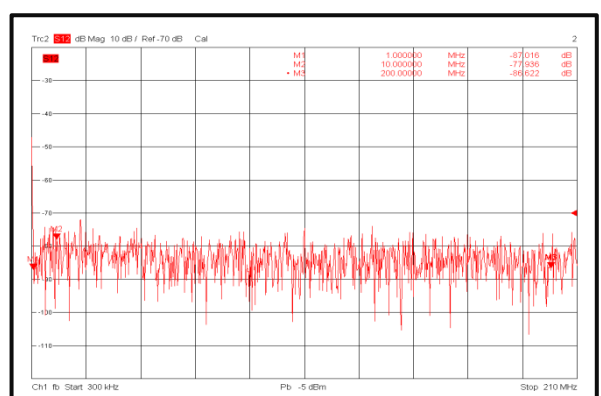
Input VSWR @+85°C



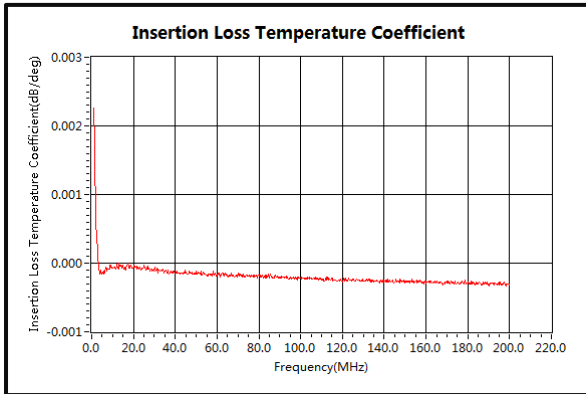
Output VSWR @+85°C



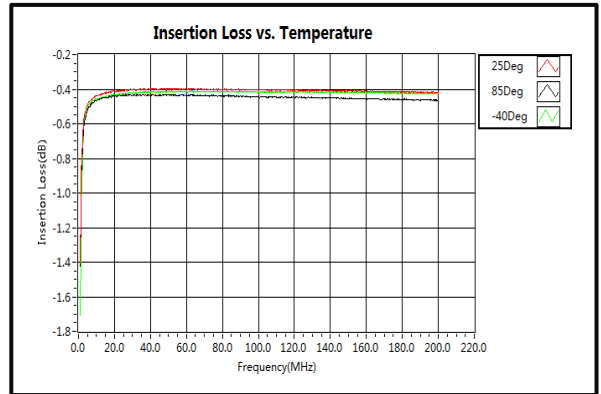
Isolation @+85°C



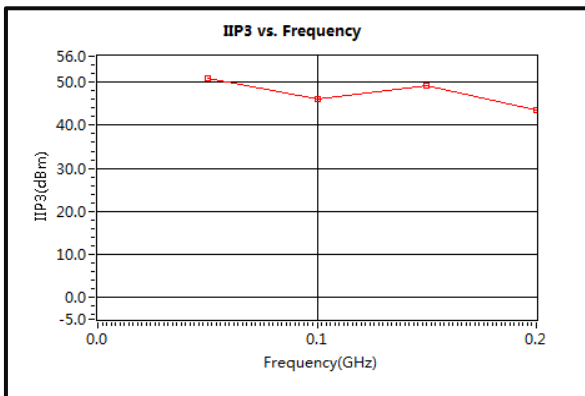
Insertion Loss Temperature Coefficient



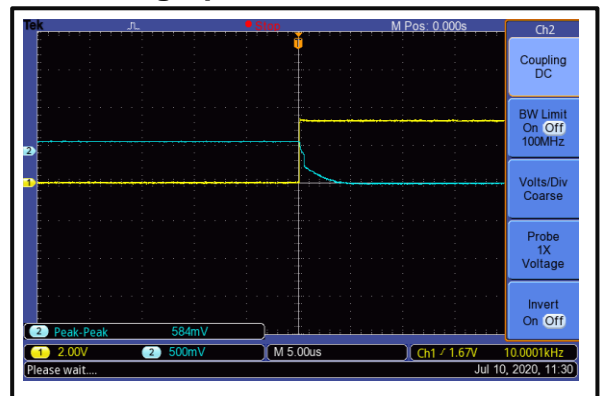
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

