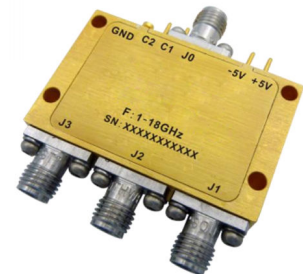




Absorptive Coaxial SP3T Switch 1 - 18GHz

Features

- Wide Band Operation 1-18GHz
- 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

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1~6		6~12		12~18					GHz
Insertion Loss		1.5	2.0		2.5	3.0		3.0	3.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	70	75		65	70		60	65		dB
Input VSWR		1.5	2.0		1.5	2.0		1.5	2.0	: 1
Output VSWR		1.5	2.0		1.5	2.0		1.5	2.0	: 1
RF Input Power (CW)			30			30			30	dBm
DC Power Dissipation		0.65			0.65			0.65		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed	100									ns
Weight	1.06									ounce s
Impedance	50									Ω
Bias Current (+5V/-5V)	100/50									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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Ordering Information

Part No.	Description
DBSA0301001800A	SP3T 1-18GHz 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:

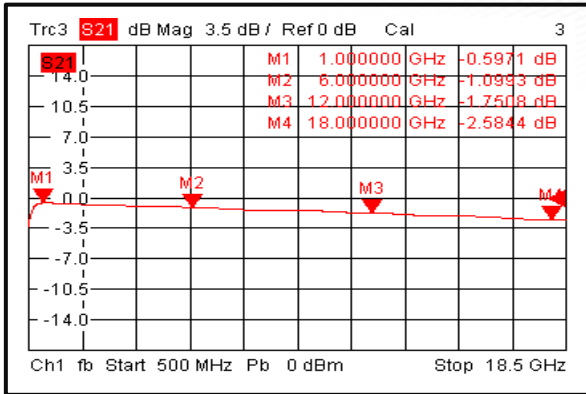
All Dimensions in mm (inches)

The drawing shows a rectangular component with dimensions: 40 [1.575] mm width, 25 [0.984] mm height, and 16.5 [0.650] mm mounting hole spacing. Pin configurations include: 4 [0.157] mm pitch pins at the top; 4 [0.157] mm pitch pins at the bottom; 6 [0.236] mm pitch pins at the bottom; and 4-Ø 2.8 [0.11] THRU holes. Labels on the component include: GND, C2, C1, J0, -5V +5V, RFECHO, F:1-18GHz, SN:XXXXXXXXXX, J3, J2, J1, and 3 [0.118] mm pitch pins on the right side.

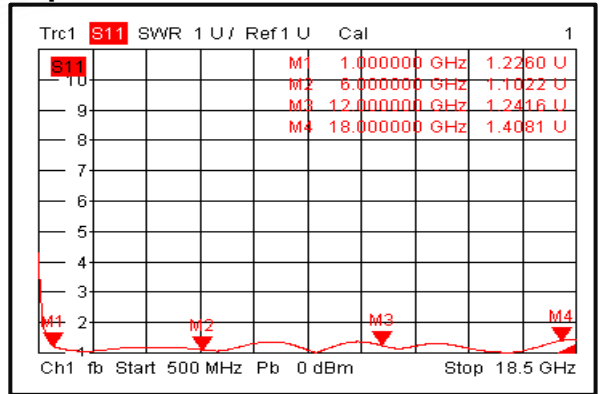
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V	High(1)=2.8~5V
Control Input TTL		Signal Path State	
C2	C1		
0	0	J0-J1	
1	0	J0-J2	
0	1	J0-J3	
1	1	Not used	
Control Pin Customization available upon request			



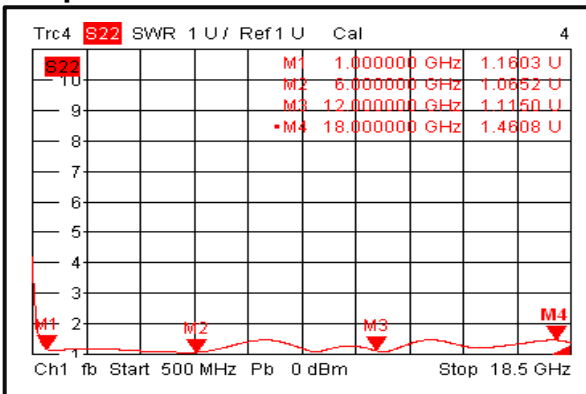
Insertion Loss @+25°C



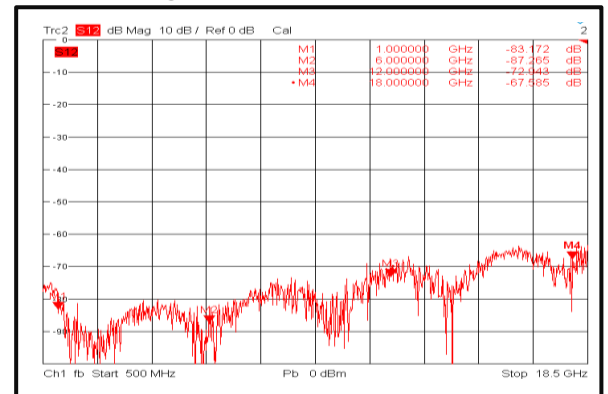
Input VSWR @+25°C



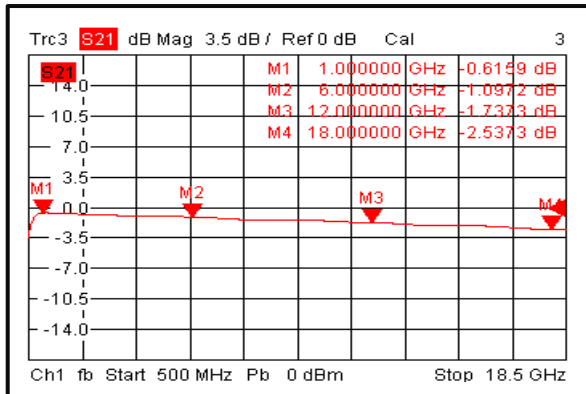
Output VSWR @+25°C



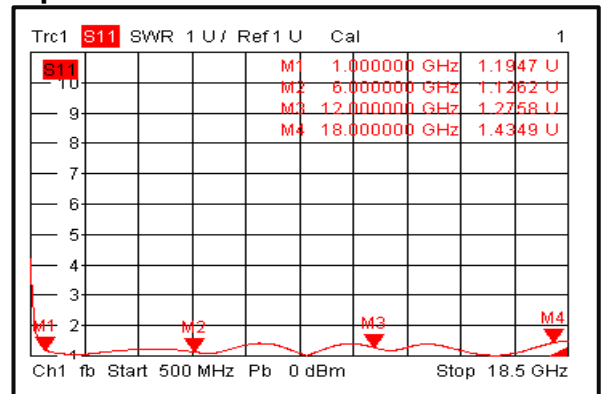
Isolation @+25°C



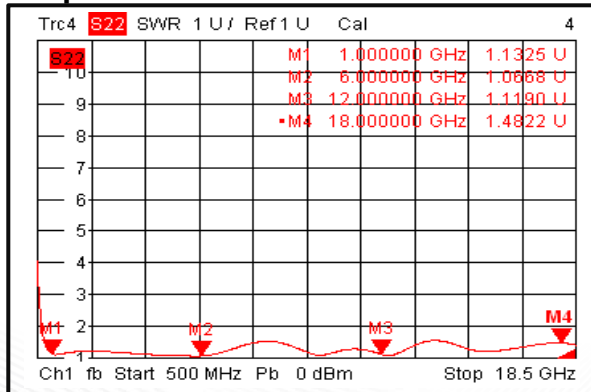
Insertion Loss @-40°C



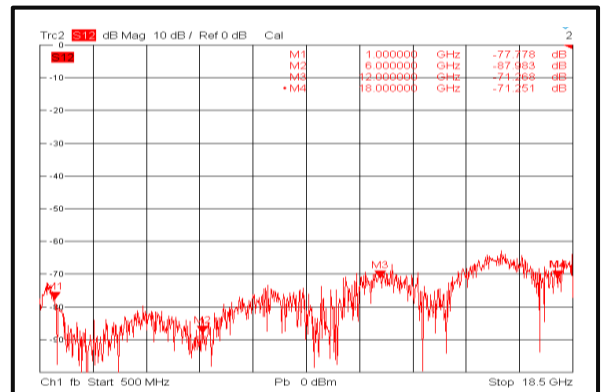
Input VSWR @-40°C



Output VSWR @-40°C

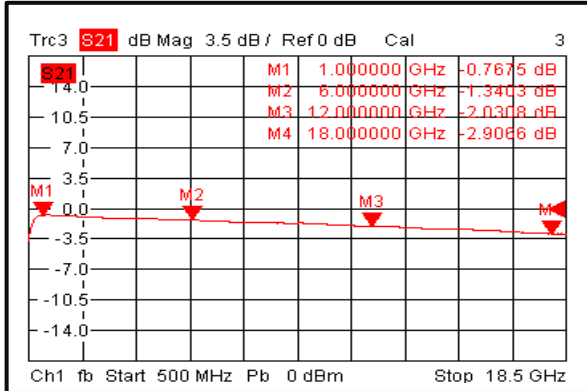


Isolation @-40°C

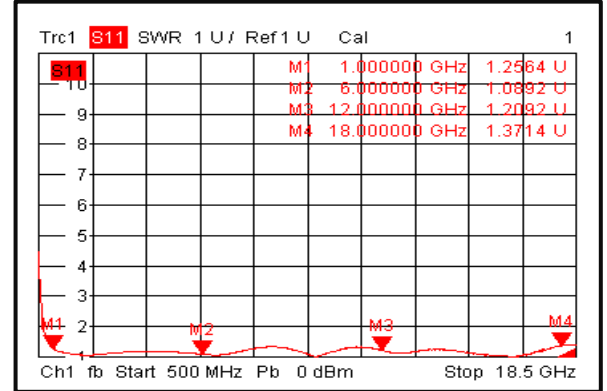




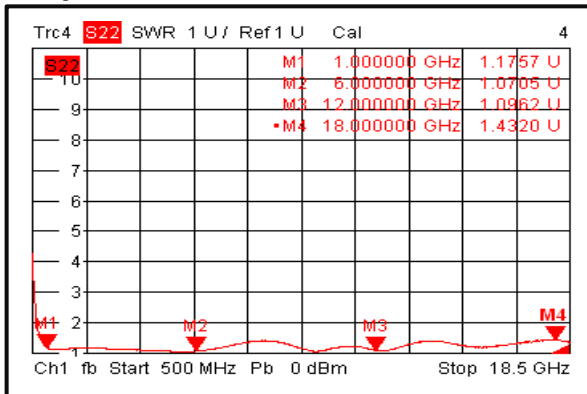
Insertion Loss @+85°C



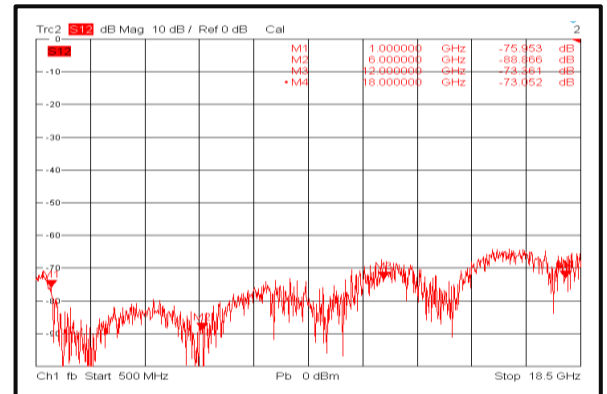
Input VSWR @+85°C



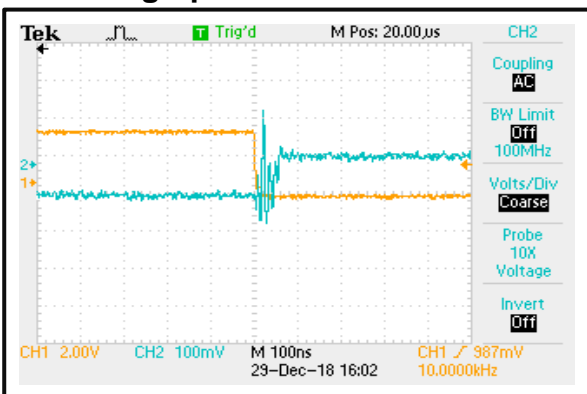
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

