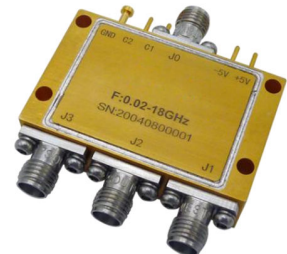




Hermetically Sealed Absorptive Coaxial SP3T Switch 0.02 - 18GHz

Features

- Ultra Wide Band Operation 0.02-18GHz
- 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.	Min.	Typ.	Max.	Units
Frequency Range	0.02~6			6~12			12~18			GHz
Insertion Loss		2.0	2.2		3.5	3.8		4.2	4.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	60	80		60	75		60	68		dB
Input VSWR		1.5	1.8		1.5	1.8		1.5	1.8	: 1
Output VSWR		1.5	1.8		1.5	1.8		1.5	1.8	: 1
RF Input Power (CW)			30			30			30	dBm
Power Dissipation		0.85			0.85			0.85		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		45			45			43		dBm
Switching Speed	250 Max.									ns
Weight	1.2 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 (Laser Welded)									



Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10% @25°C
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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:

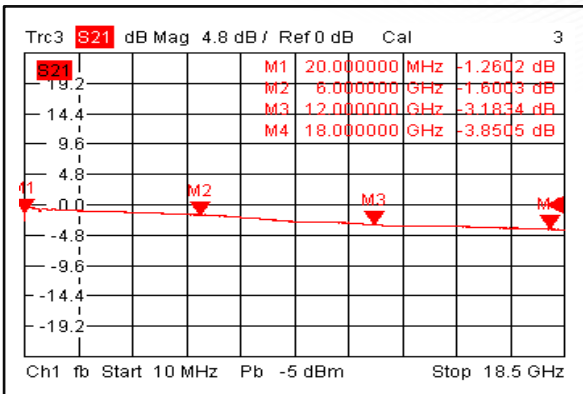
All Dimensions in mm (inches)

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

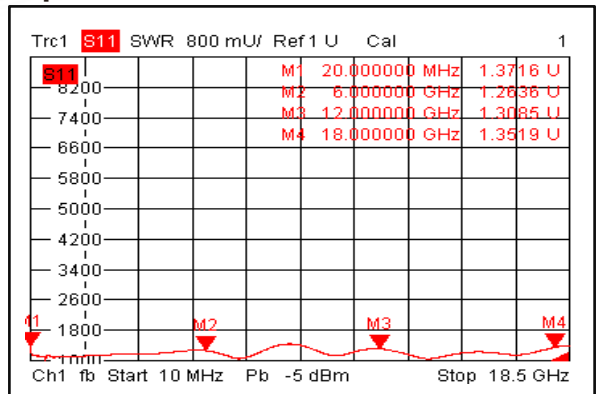
Control Pin Customization available upon request



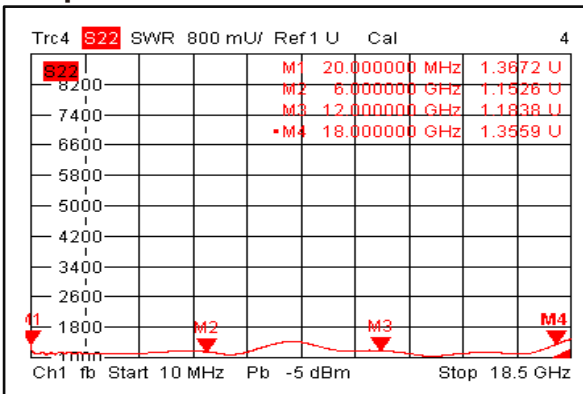
Insertion Loss @+25°C



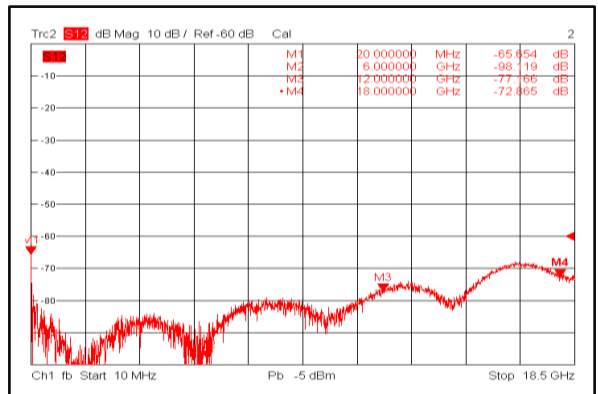
Input VSWR @+25°C



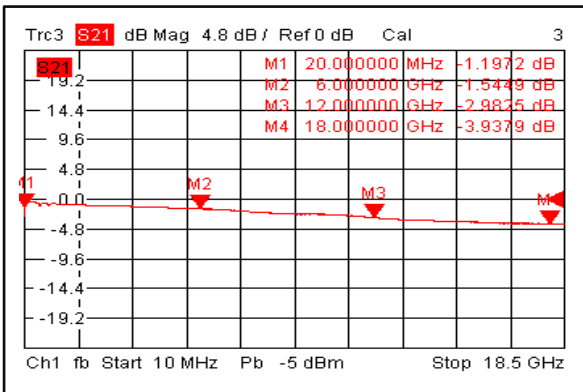
Output VSWR @+25°C



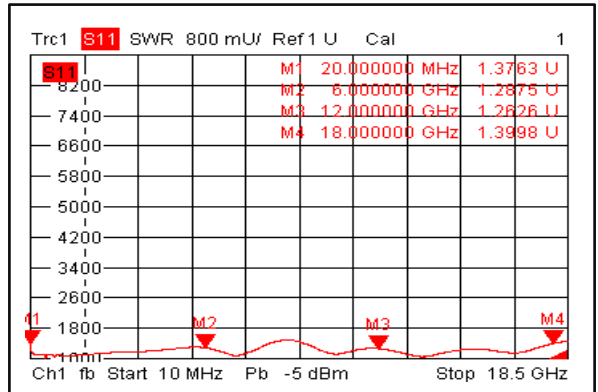
Isolation @+25°C



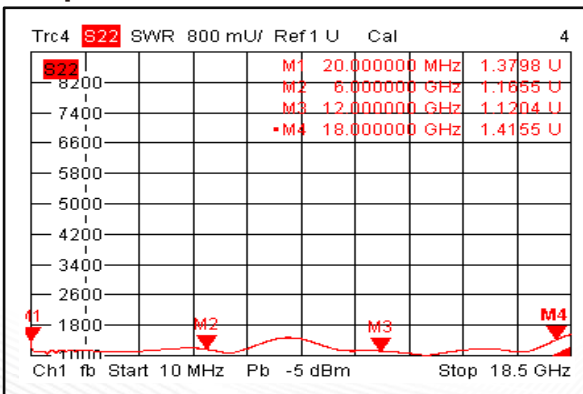
Insertion Loss @-40°C



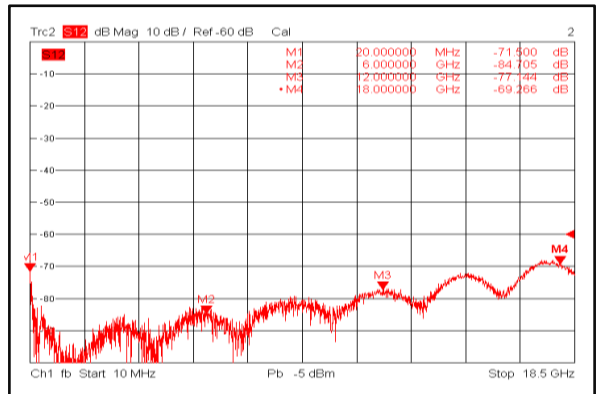
Input VSWR @-40°C



Output VSWR @-40°C

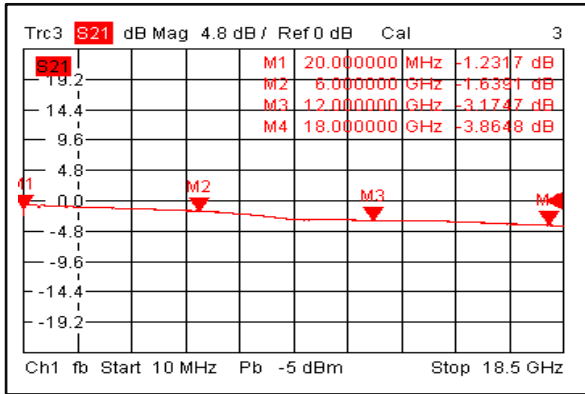


Isolation @-40°C

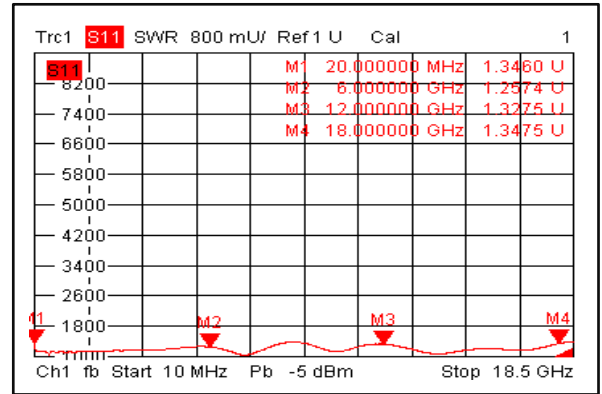




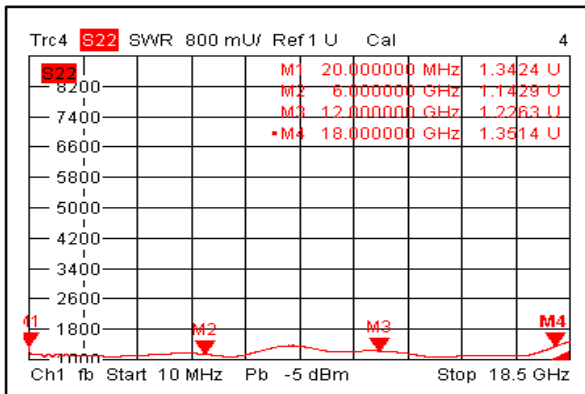
Insertion Loss @+85°C



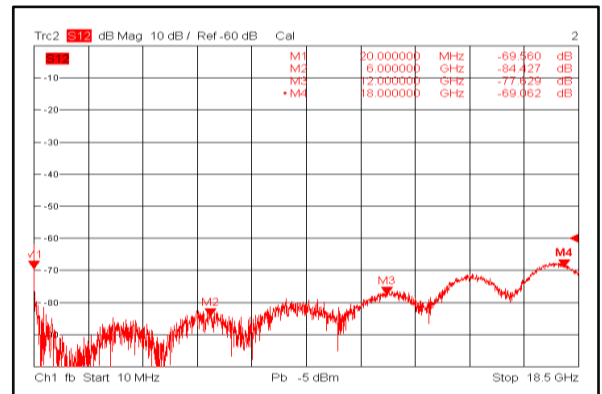
Input VSWR @+85°C



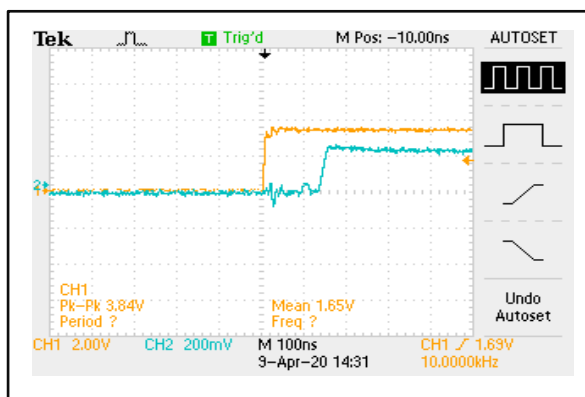
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

