



Absorptive 6-18GHz Coaxial SP3T Switch

Features

- Ultra Wide Band Operation 6-18GHz
- 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.	Units
Frequency Range	6		12	12		18	GHz
Insertion Loss		1.8	2.2		2.5	3.2	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	60	70		60	65		dB
Input VSWR		1.3	1.5		1.5	1.8	:1
Output VSWR		1.3	1.5		1.5	1.8	:1
RF Input power			30			30	dBm
Power Dissipation (CW)		0.5			0.5		W
0.1dB Compression P0.1dB		30			30		dBm
IIP3		55			55		dBm
Switching Speed	100						ns
Weight	1.06						ounces
Impedance	50						Ω
Biasing(+5V/-5V)	120/50						mA
Input /Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Seal	Hermetically Sealed (optional)						



Absolute Maximum Ratings

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

Ordering Information

Part No.	Description
DBSA0306001800C	SP3T 6-18GHz 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

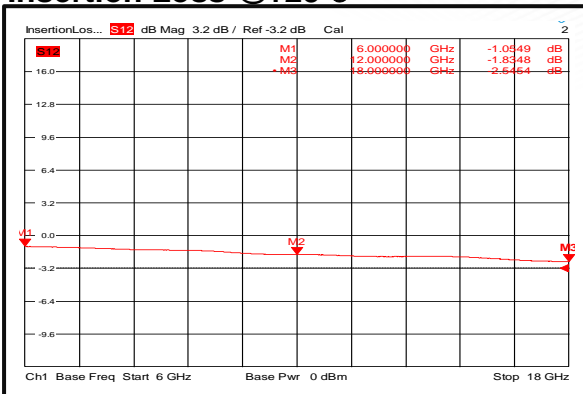
Outline Drawing:

All Dimensions in mm (inches)

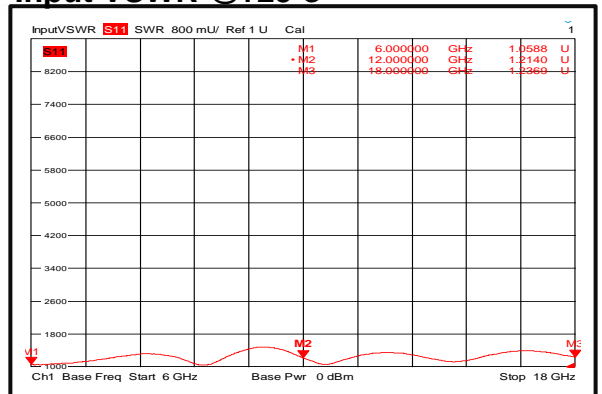
TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
			High(1)=2.8~5V
Control	Input	TTL	Signal Path State
C1	C2	C3	
0	0	0	NC
0	1	1	J0-J1
1	0	1	J0-J2
1	1	0	J0-J3
1	1	1	OFF
Control Pin Customization available upon request			



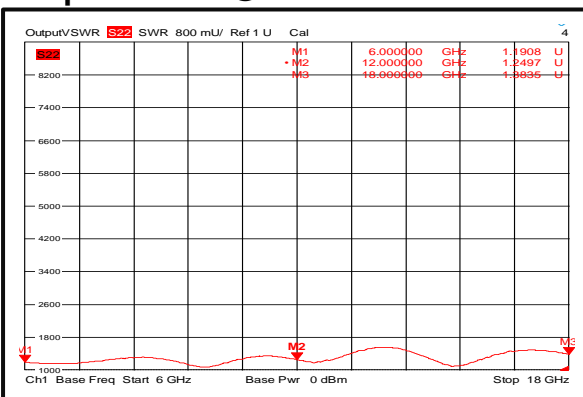
Insertion Loss @+25°C



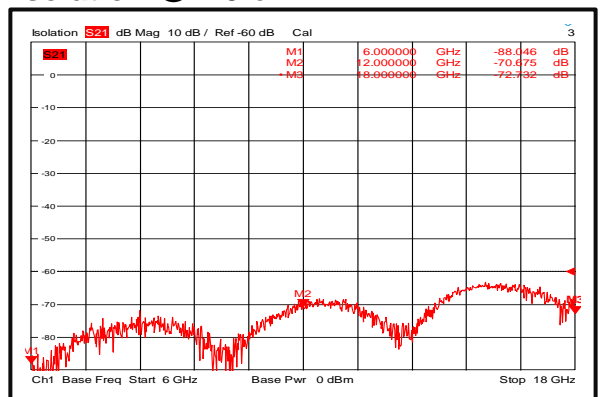
Input VSWR @+25°C



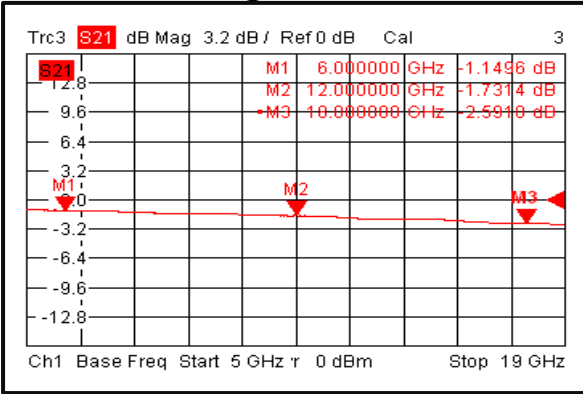
Output VSWR @+25°C



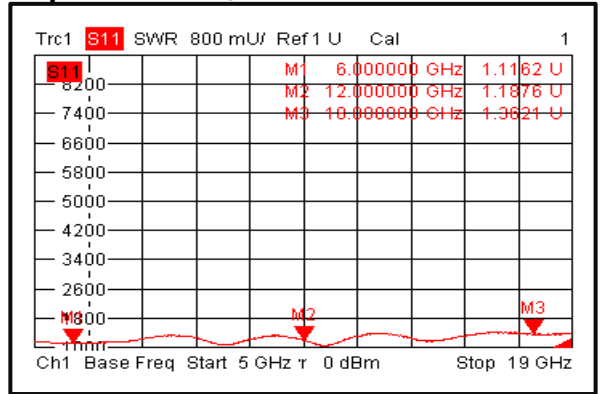
Isolation @+25°C



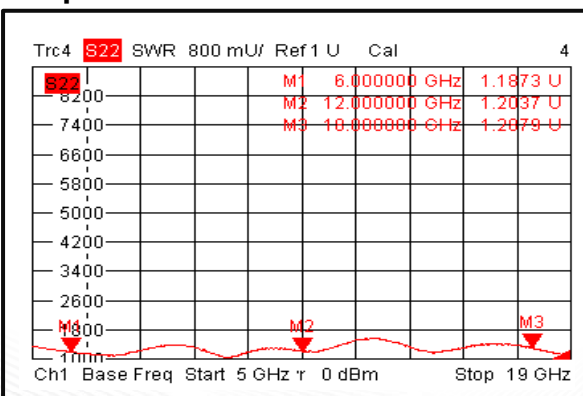
Insertion Loss @-40°C



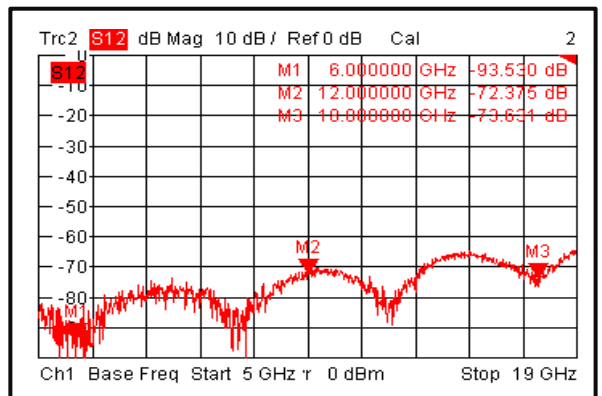
Input VSWR @-40°C



Output VSWR @-40°C

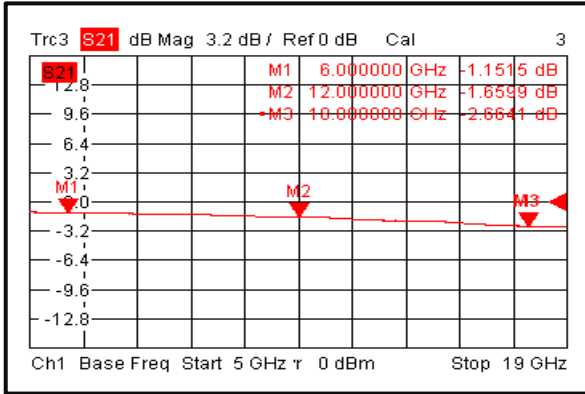


Isolation @-40°C

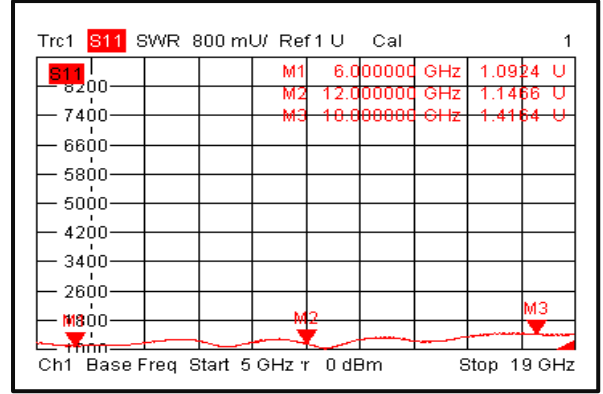




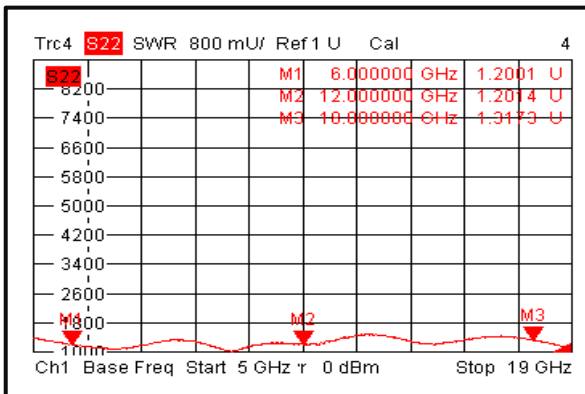
Insertion Loss @+85°C



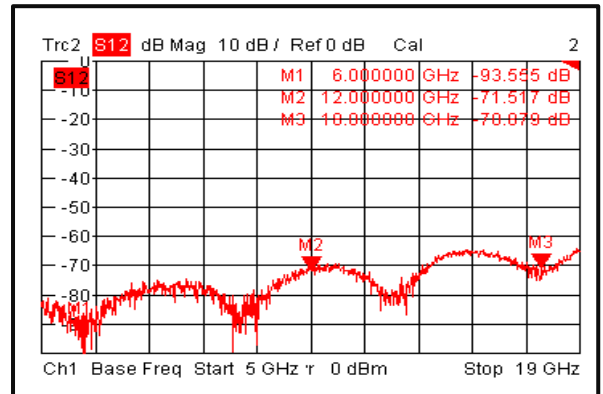
Input VSWR @+85°C



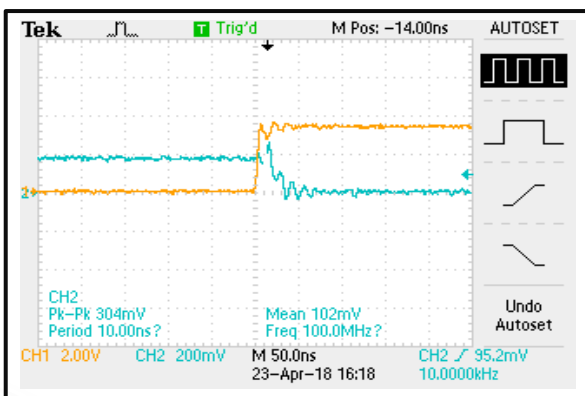
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

