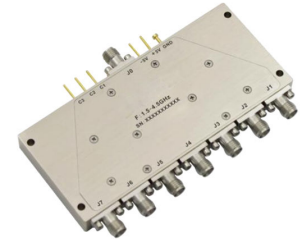




Absorptive 1.5-4.5GHz Coaxial SP7T Switch

Features

- Ultra Wide Band Operation 1.5-4.5GHz
- 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.	Units
Frequency Range	1.5-4.5			GHz
Insertion Loss			2.0	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Loss Imbalance		0.25	0.5	dB
Isolation	60	70		dB
Input VSWR			1.5	: 1
Output VSWR			1.5	: 1
RF Input power (CW)			30	dBm
DC Power Dissipation		1.5		W
0.1dB Compression Point (P0.1dB)		30		dBm
IIP3		55		dBm
Switching Speed			150	ns
Weight	3.53			ounces
Impedance	50			Ω
Bias Current (+5V / -5V)	300 / 50			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
DBSA0701500450A	SP7T 1.5-4.5GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-40°C~+85°C(Case Temperature)
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:

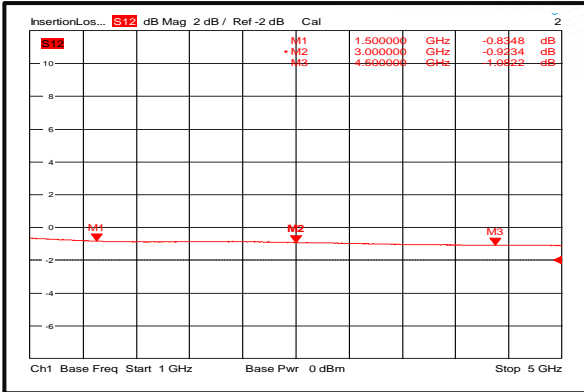
All Dimensions in mm (inches)

TTL Control Voltage THRESHOLD			Low(0)=0~0.8V	High(1)=2.8~5V
Control Input TTL			Signal Path State	
C3	C2	C1		
0	0	0	J0-J1	
0	0	1	J0-J2	
0	1	0	J0-J3	
0	1	1	J0-J4	
1	0	0	J0-J5	
1	0	1	J0-J6	
1	1	0	J0-J7	
1	1	1	OFF	

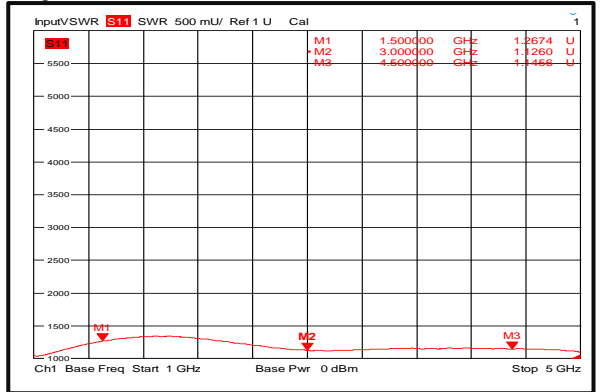
Control Pin Customization available upon request



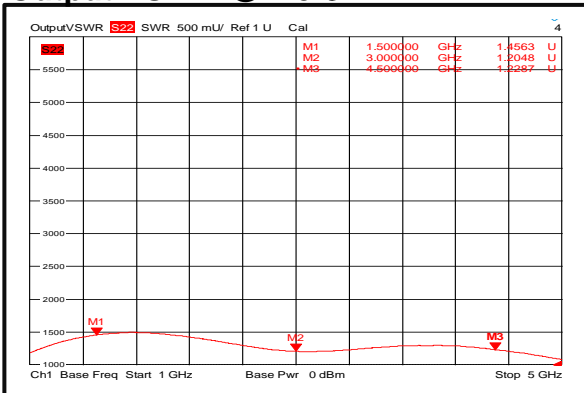
Insertion Loss @+25°C



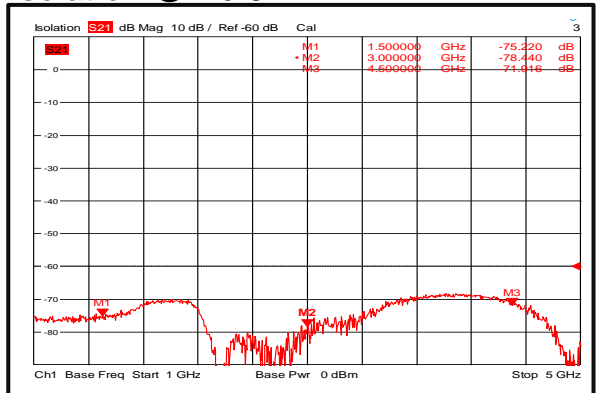
Input VSWR @+25°C



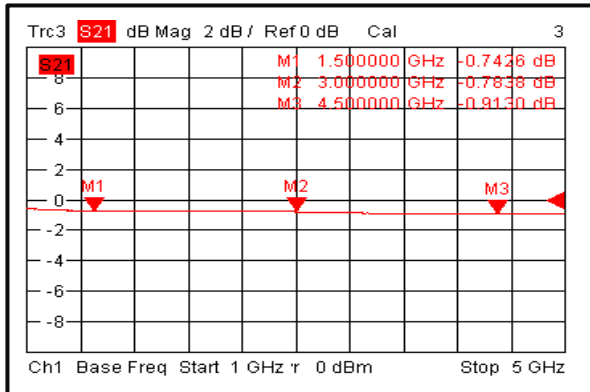
Output VSWR @+25°C



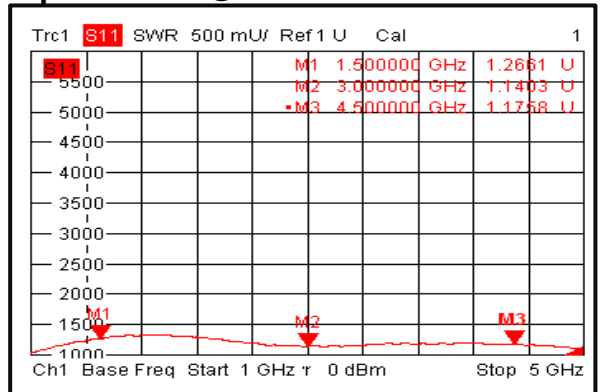
Isolation @+25°C



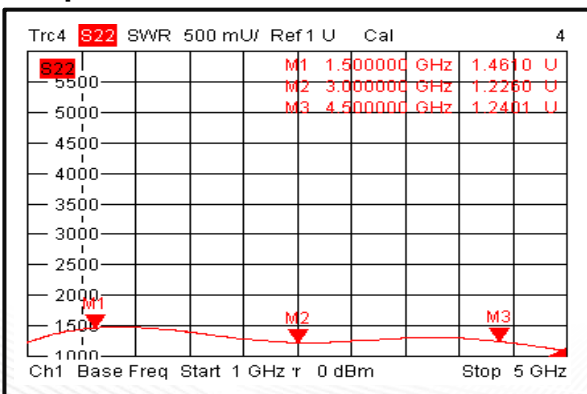
Insertion Loss @-40°C



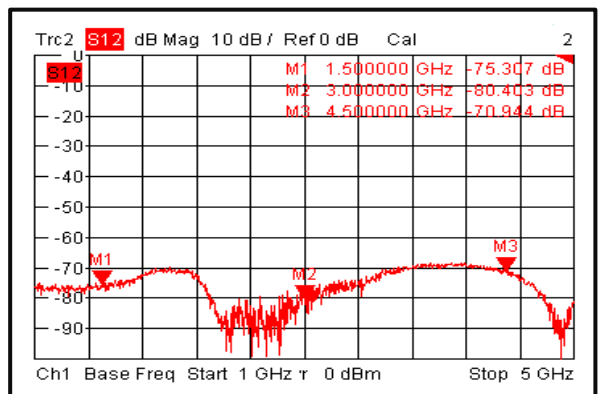
Input VSWR @-40°C



Output VSWR @-40°C

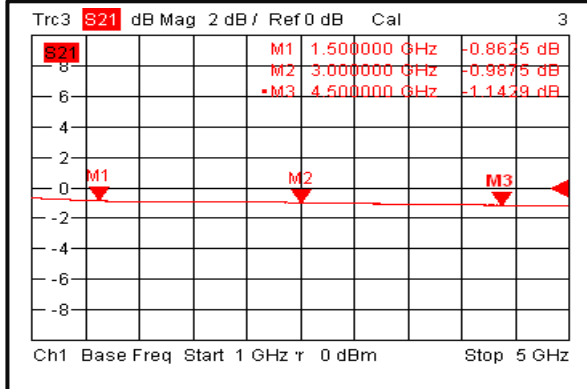


Isolation @-40°C

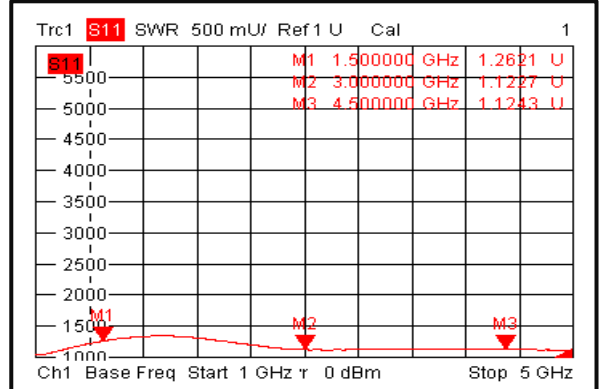




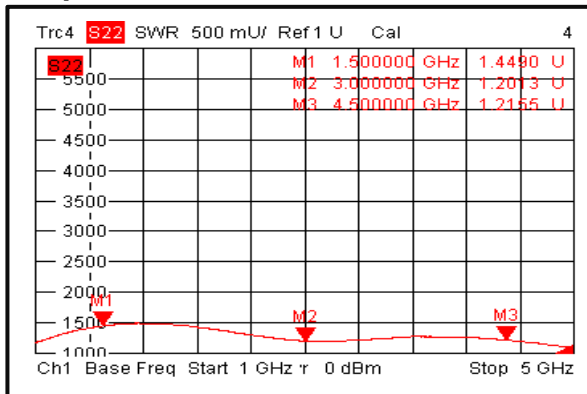
Insertion Loss @+85°C



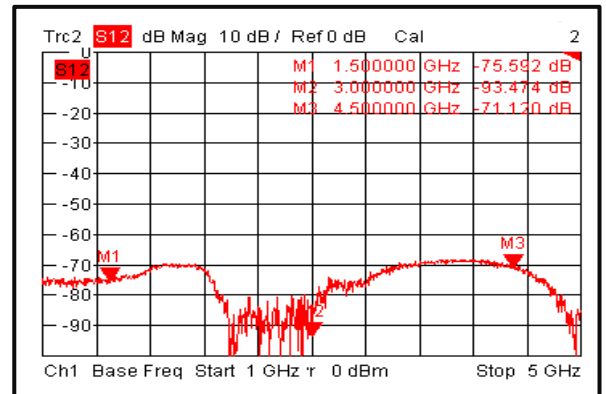
Input VSWR @+85°C



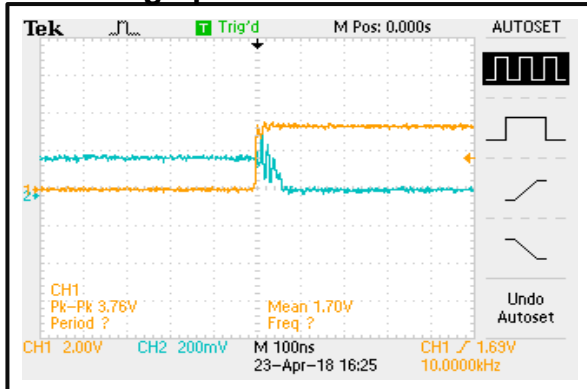
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

