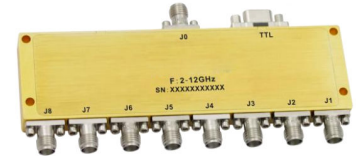




Reflective Coaxial SP8T Switch 2-12GHz

Features

- Wide Band Operation 2-12GHz
- 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	2-8		8-12				GHz
Insertion Loss		1.6	2.0		1.8	2.4	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	60	75		60	70		dB
Input VSWR		1.6	2.0		1.6	2.0	: 1
Output VSWR		1.6	2.0		1.6	2.0	: 1
RF Input Power(CW)			30			30	dBm
Power Dissipation		1.5			1.5		W
0.1dB Compression Point (P0.1dB)		30			30		dBm
IIP3		55			55		dBm
Switching Speed	100						ns
Weight	2.82						ounces
Impedance	50						Ω
Bias Current (+5V/-5V)	280/50						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
DBSR0802001200B	SP8T 2-12GHz 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 Uncontrolled 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)

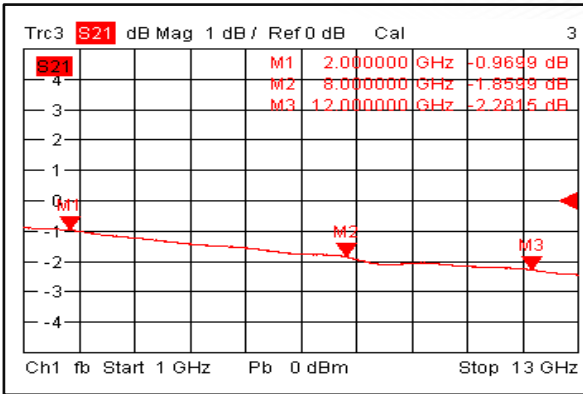
Truth Table

TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
TTL Control Input			High(1)=2.8~5V
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	J0-J8

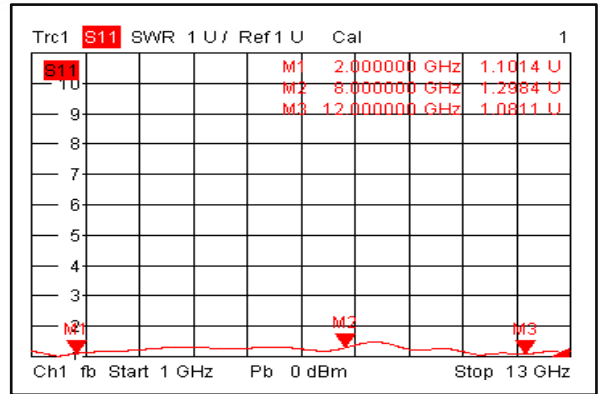
Control Pin Customization available upon request



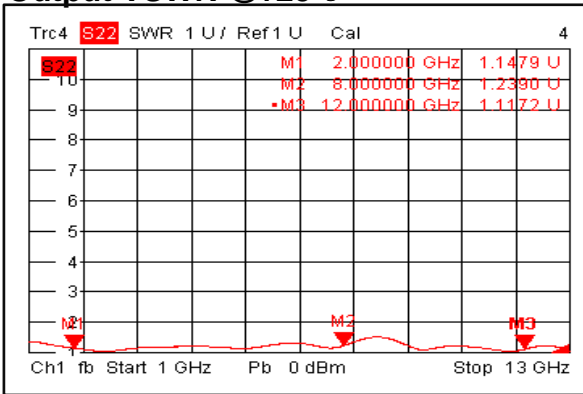
Insertion Loss @+25°C



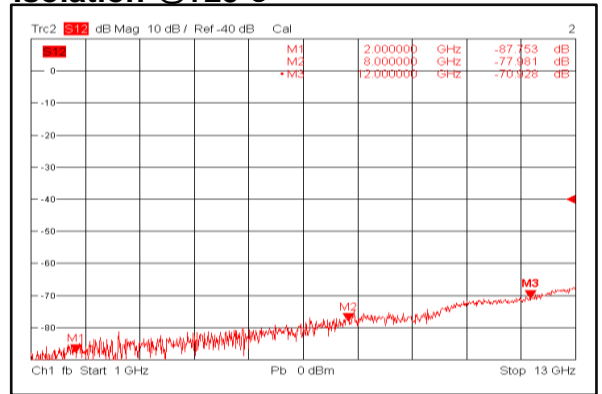
Input VSWR @+25°C



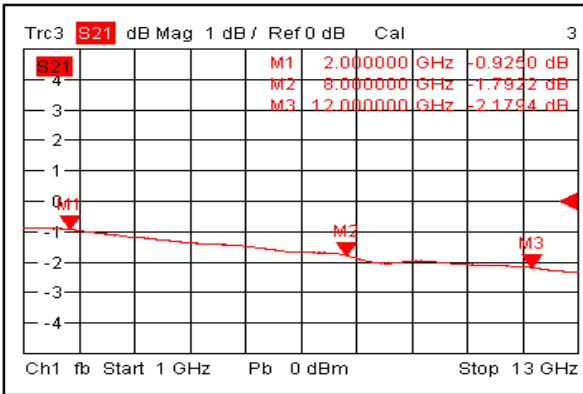
Output VSWR @+25°C



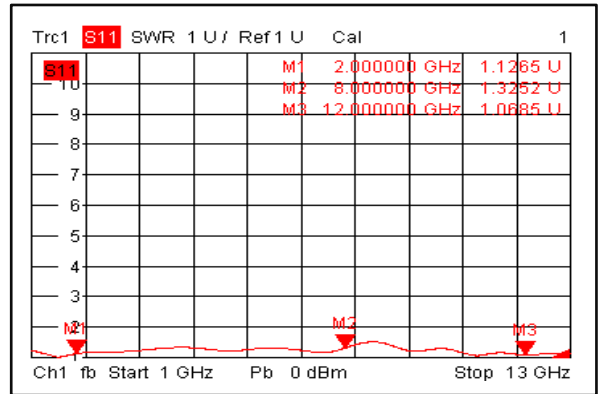
Isolation @+25°C



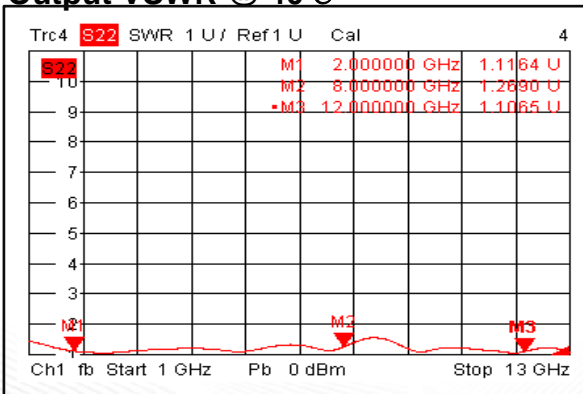
Insertion Loss @-40°C



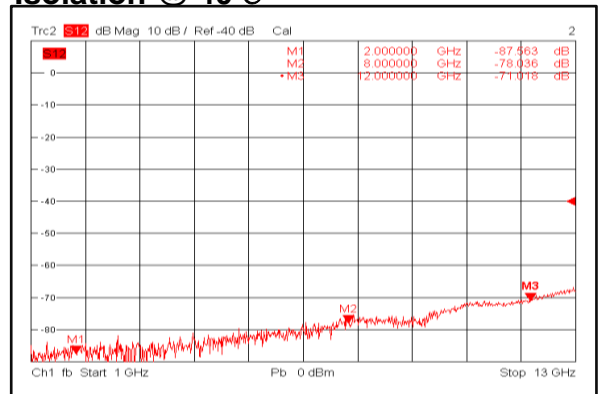
Input VSWR @-40°C



Output VSWR @-40°C

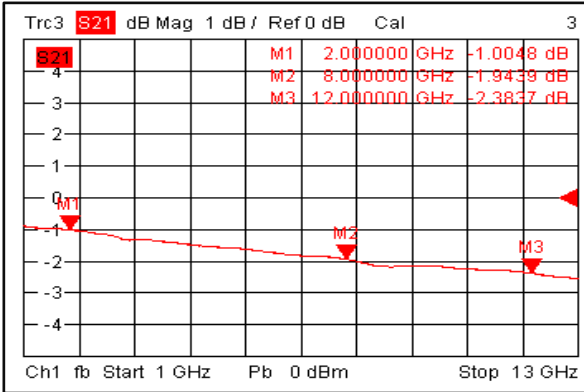


Isolation @-40°C

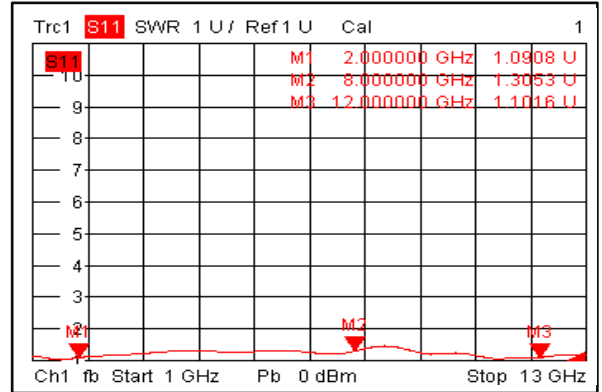




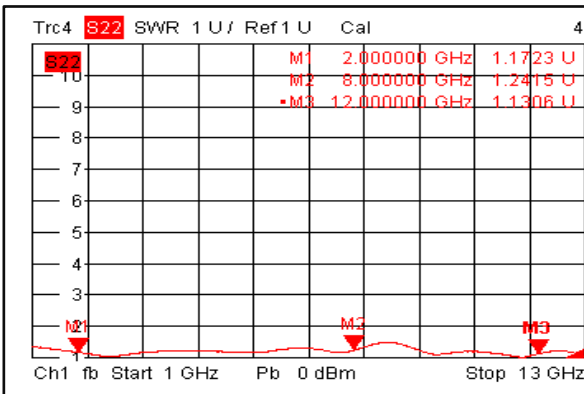
Insertion Loss @+85°C



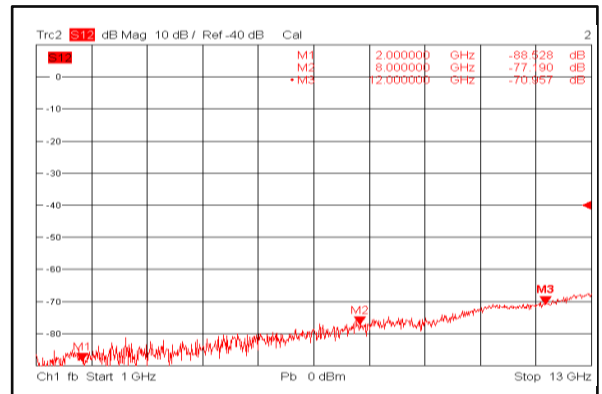
Input VSWR @+85°C



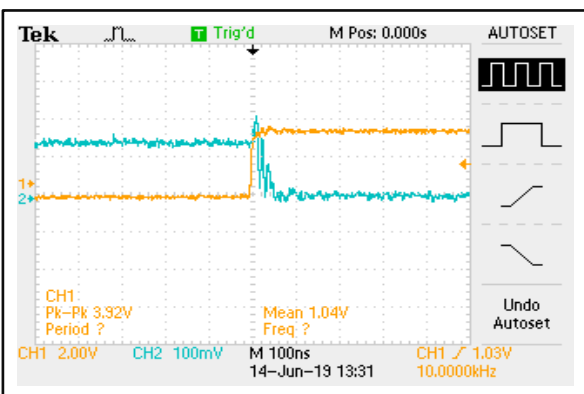
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

