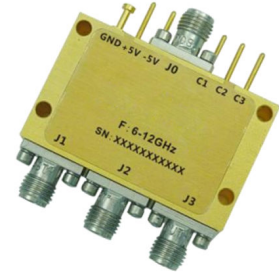




# Reflective Coaxial SP3T Switch 6 - 12GHz

## Features

- Wide Band Operation 6-12GHz
- 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

Parameter	Min.	Typ.	Max.	Units
Frequency Range		6~12		GHz
Insertion Loss		1.5	2.0	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	80	85		dB
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input power (CW)			30	dBm
Power Dissipation		0.8		W
0.1dB Compression Point (P0.1dB )		30		dBm
IIP3		55		dBm
Switching Speed		100		ns
Weight		1.06		ounces
Impedance		50		Ω
Bias Current (+5V/-5V)		120/50		mA
Input / Output Connectors	SMA-Female			
Finishing	Gold Plating			
Material	Aluminum			
Sealing	Hermetically Sealed (optional)			



### Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%
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### Ordering Information

Part No.	Description
DBSR0306001200A	SP3T 6-12GHz 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 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:

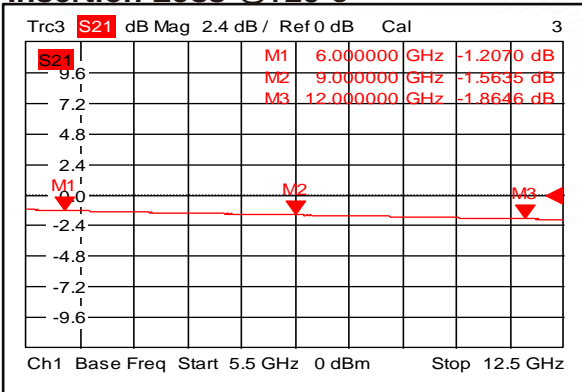
All Dimensions in mm (inches)

TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
Control Input TTL			High(1)=2.8~5V
C1	C2	C3	Signal Path State
0	0	0	Not used
0	1	1	J0-J1
1	0	1	J0-J2
1	1	0	J0-J3
1	1	1	OFF

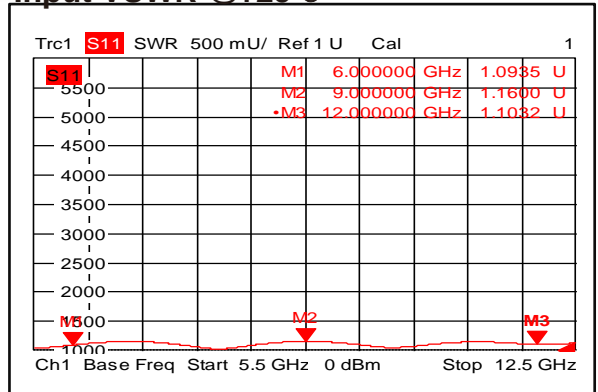
Control Pin Customization available upon request



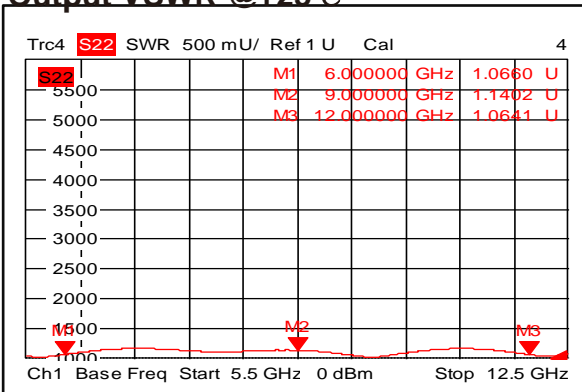
### Insertion Loss @+25°C



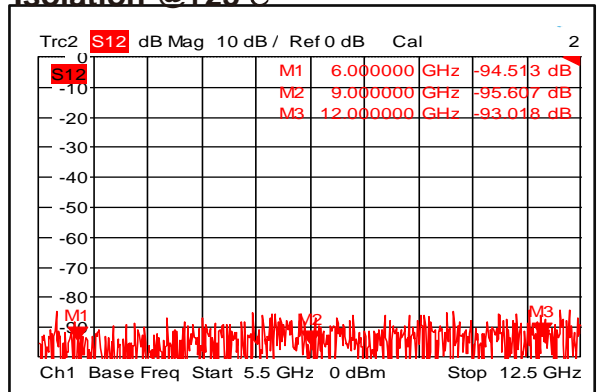
### Input VSWR @+25°C



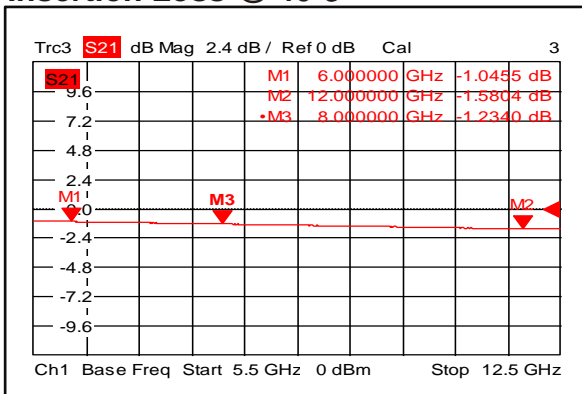
### Output VSWR @+25°C



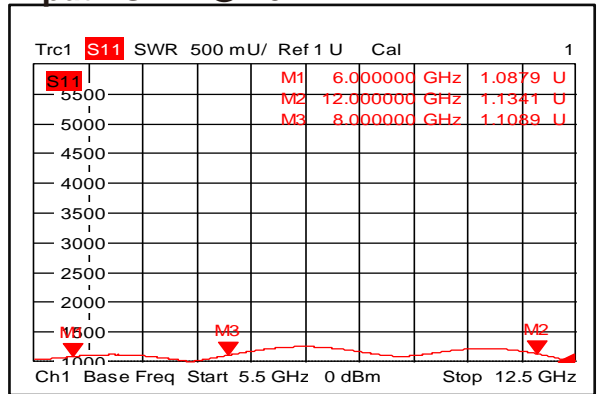
### Isolation @+25°C



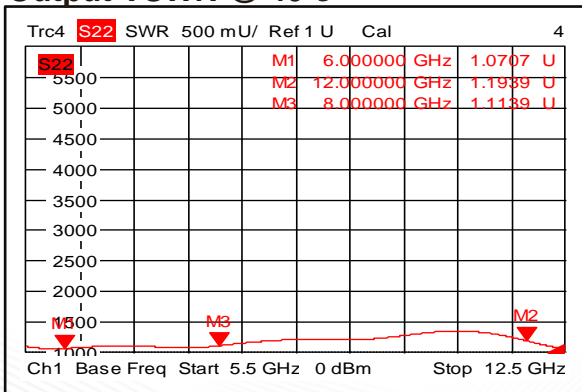
### Insertion Loss @-40°C



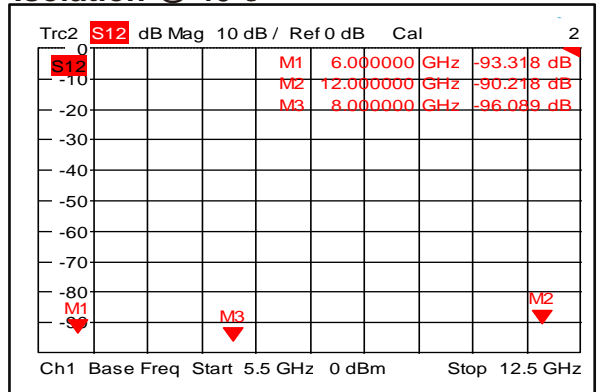
### Input VSWR @-40°C



### Output VSWR @-40°C

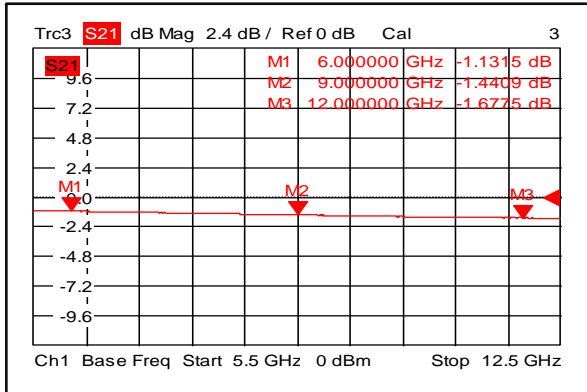


### Isolation @-40°C

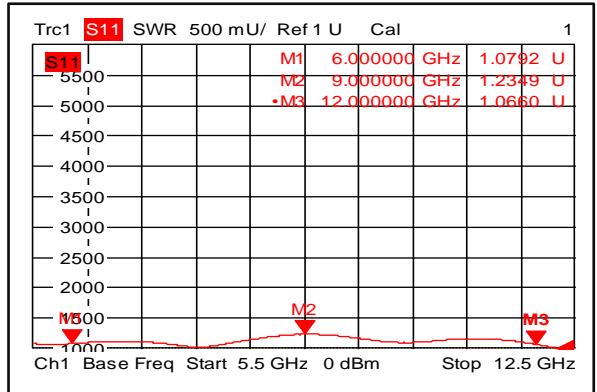




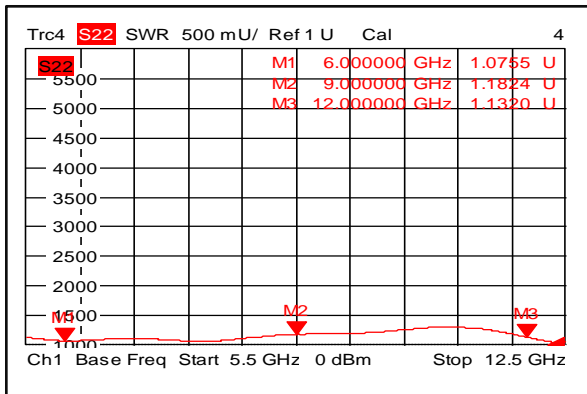
### Insertion Loss @+85°C



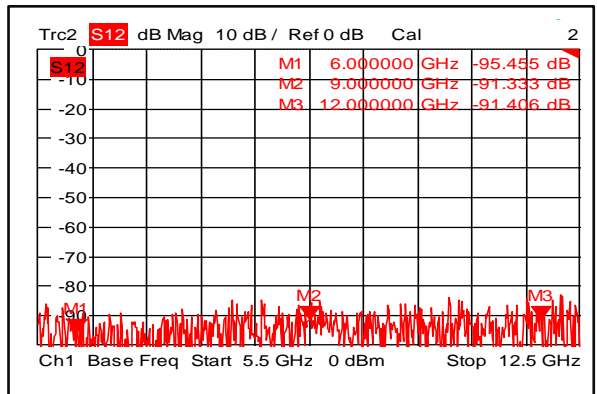
### Input VSWR @+85°C



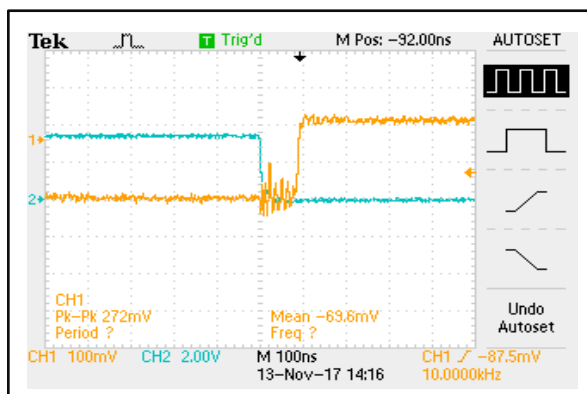
### Output VSWR @+85°C



### Isolation @+85°C



### Switching Speed



### Switching Speed

