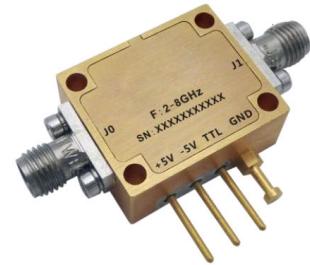


# Reflective 2-8GHz Coaxial SPST Switch

## Features

- Ultra Wide Band Operation 2-8GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request
- High Power Cold Switching



## Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT  
Fiber Optics

Parameters	Min.	Typ.	Max.	Units
Frequency Range		2-8		GHz
Insertion Loss		0.9	1.2	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation (J0→J1)	80	90		dB
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input Power (CW)			30	dBm
DC Power Dissipation		0.3		W
0.1dB Compression Point (P0.1dB)		30		dBm
IIP3		46		dBm
Switching Speed		100 Max.		ns
Weight		0.5 Max.		ounces
Impedance		50		Ω
Bias Current(+5V/-5V)		80/50Max.		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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## Environmental Specifications

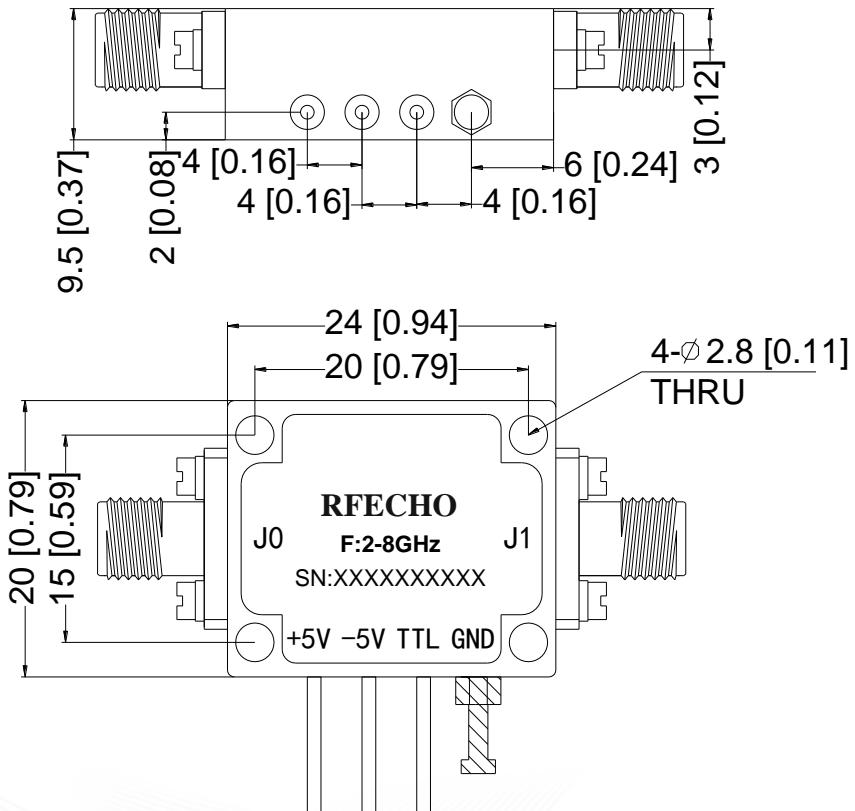
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment) 60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

## Ordering Information

Part No.	Description
DBSR0102000800A	SPST 2-8GHz PIN Diode Switch

## Outline Drawing:

All Dimensions in mm (inches)

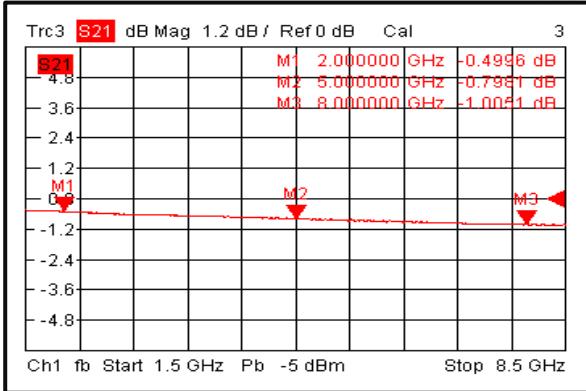


## Truth Table

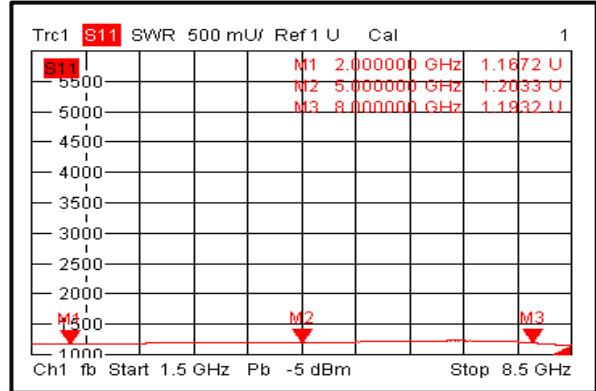
TTL Control Voltage	Low(0)=0~0.8V High(1)=2.8~5V
Control Input TTL	Signal Path State
1	ON
0	OFF

Control Pin Customization available upon request

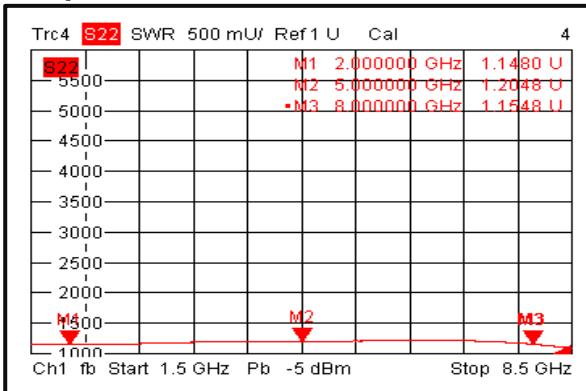
### Insertion Loss @+25°C



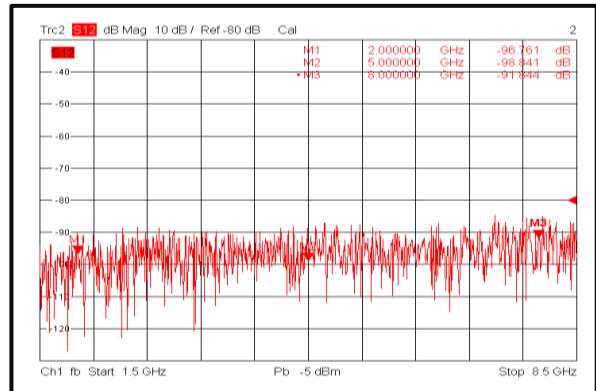
### Input VSWR @+25°C



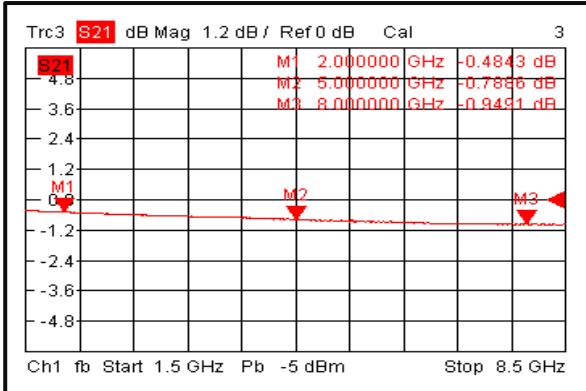
### Output VSWR @+25°C



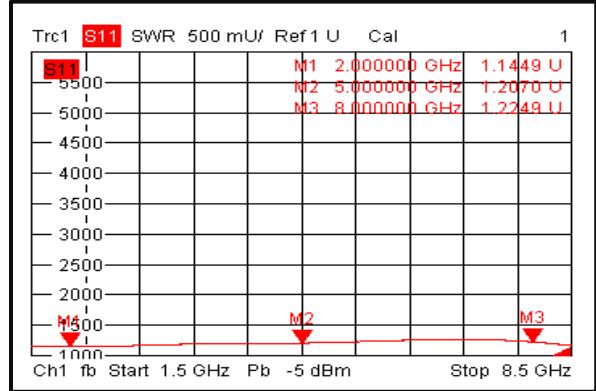
### Isolation @+25°C



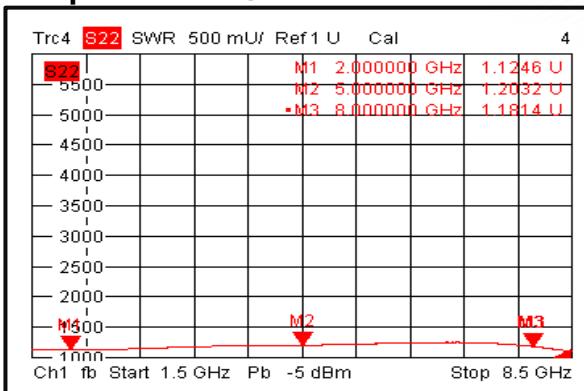
### Insertion Loss @-40°C



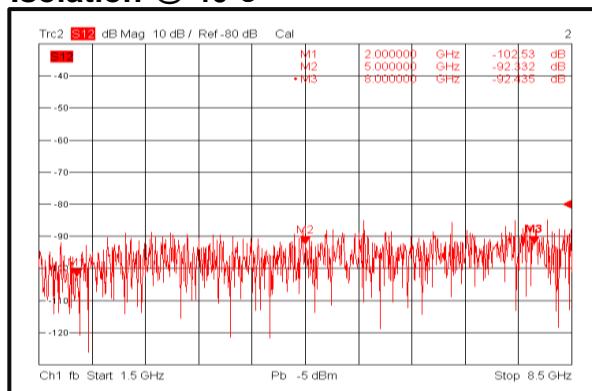
### Input VSWR @-40°C



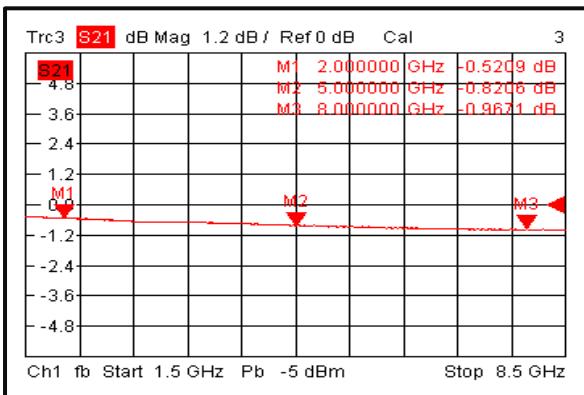
### Output VSWR @-40°C



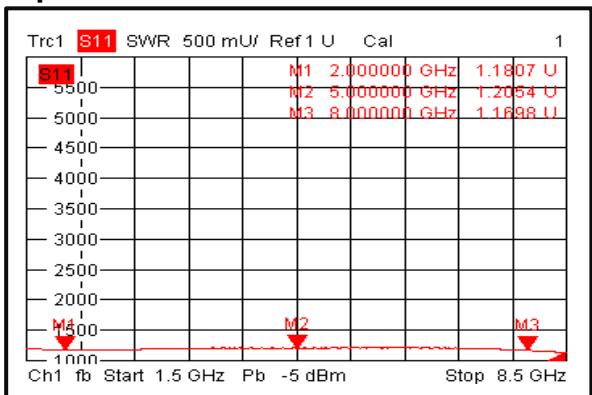
### Isolation @-40°C



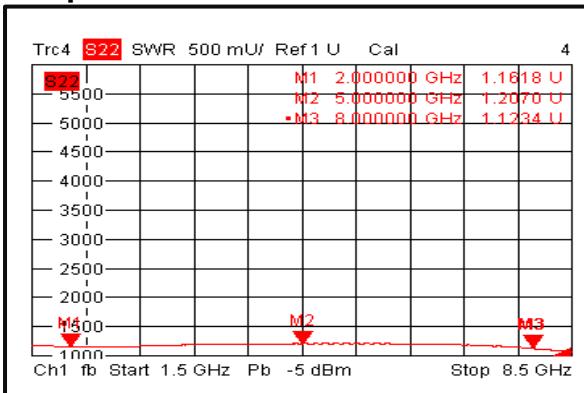
### Insertion Loss @+85°C



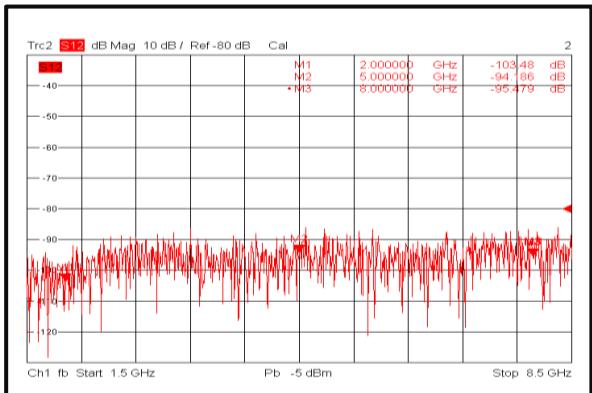
### Input VSWR @+85°C



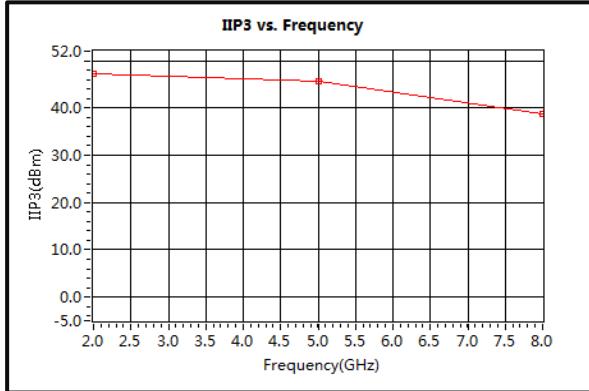
### Output VSWR @+85°C



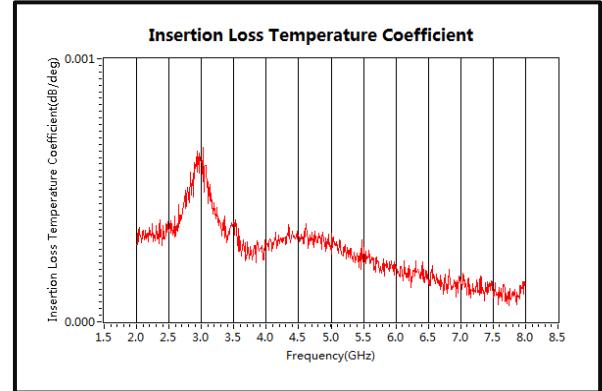
### Isolation @+85°C



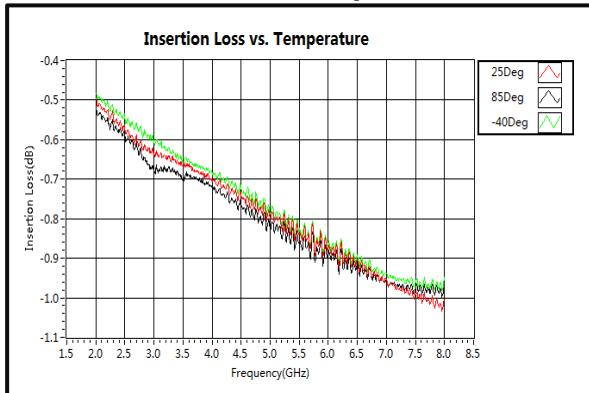
## IIP3



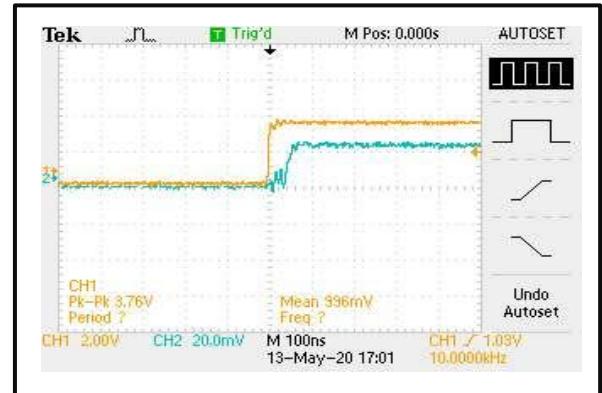
## Insertion Loss Temperature Coefficient



## Insertion Loss vs. Temperature



## Switching Speed



## Switching Speed

