



# Hermetically Sealed Reflective 1-26GHz Coaxial SP2T Switch

## Features

- Ultra Wide Band Operation 1-26GHz
- 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	1		8	8		26	GHz
Insertion Loss		2.2	2.8		3.0	4.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation	60	75		47	55		dB
Input VSWR		1.6	2.2		2	2.5	: 1
Output VSWR		1.6	2.2		2	2.5	: 1
RF Input power			23			23	dBm
DC Power Dissipation		0.5			0.5		W
0.1dB Compression Point (P0.1dB)		23			23		dBm
IIP3		55			50		dBm
Switching Speed		50	60		50	60	ns
Weight	0.35						ounces
Impedance	50						Ω
Bias Current (+5V / -5V)	110/50						mA
Input / Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Laser Welded)						



### Absolute Maximum Ratings

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

Part No.	Description
DBSR0201002600A	SP2T 1-26GHz 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:

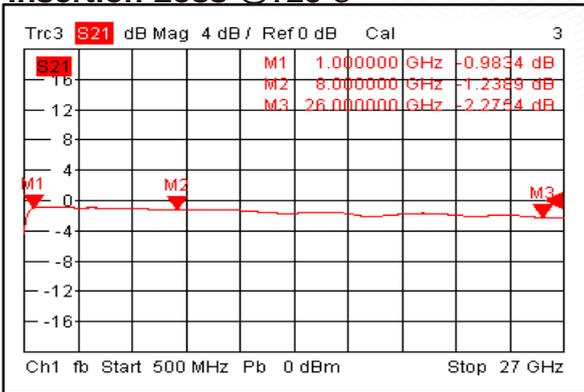
All Dimensions in mm (inches)

The drawing shows a top and side view of the switch. Key dimensions include: 3.5 [0.14], 6.5 [0.26], 4.5 [0.18], 4.5 [0.18], 8 [0.31], 4.5 [0.18], 12.5 [0.49], 2.8 [0.11], 24 [0.94], 21 [0.83], 4-∅ 2.2 [0.09] THRU, 17 [0.67], 14 [0.55], 8.5 [0.33], 6.5 [0.26]. The top view shows a central component labeled 'RFECHO' with 'F:1-26GHz' and 'SN:XXXXXXXXXX' printed on it. It has three pins labeled '+5V', '-5V', and 'TTL GND'. The side view shows two connectors labeled 'J0' and 'J1', and another connector labeled 'J2'.

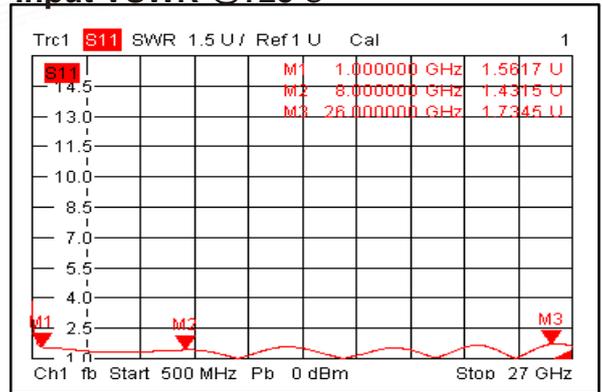
TTL Control Voltage THRESHOLD	Low(0)=0~0.8V	High(1)=2.8~5V
Control Input TTL	Signal Path State	
0	J0-J2	
1	J0-J1	
Control Pin Customization available upon request		



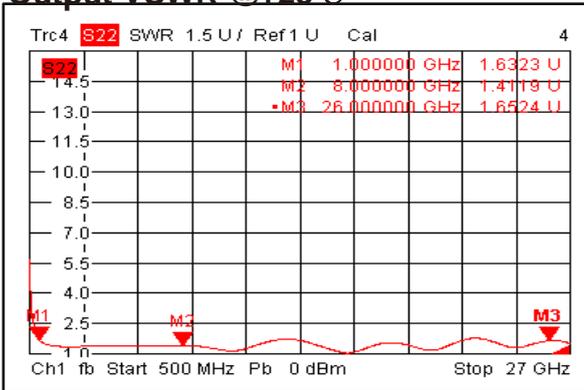
### Insertion Loss @+25°C



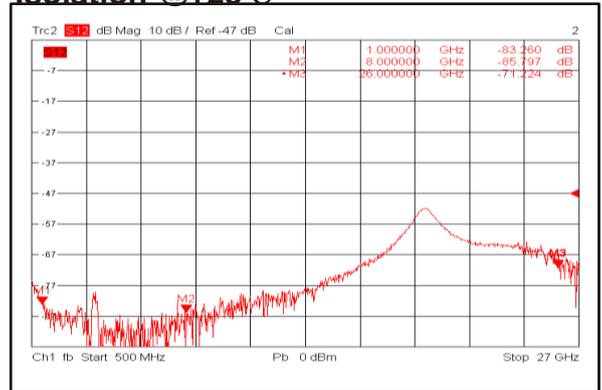
### Input VSWR @+25°C



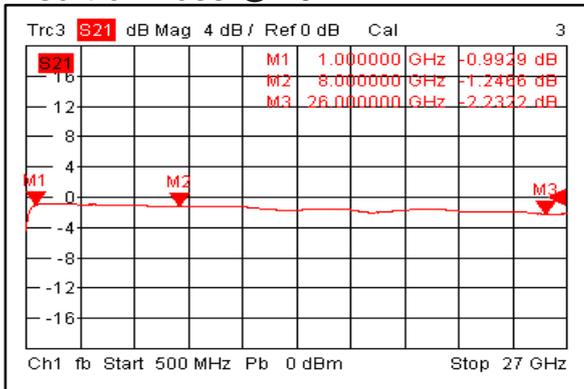
### Output VSWR @+25°C



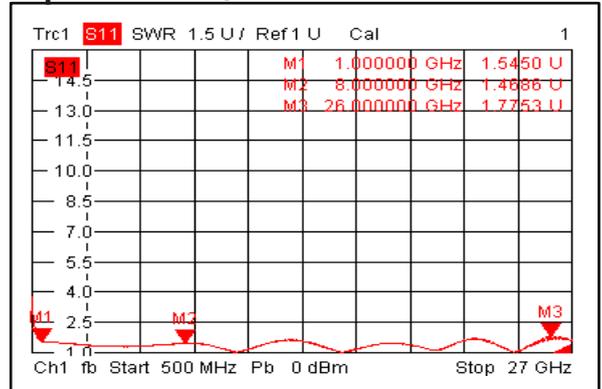
### Isolation @+25°C



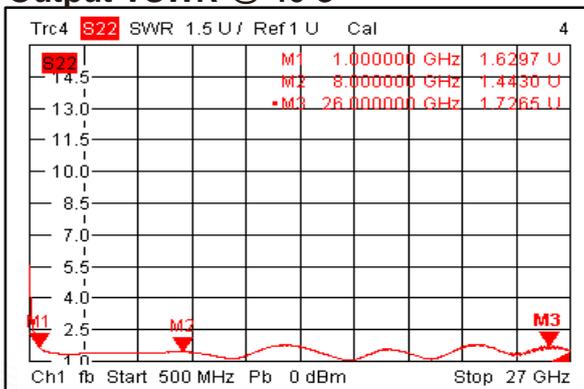
### Insertion Loss @-40°C



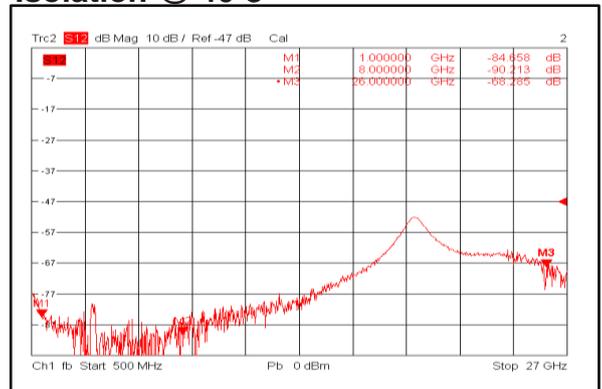
### Input VSWR @-40°C



### Output VSWR @-40°C

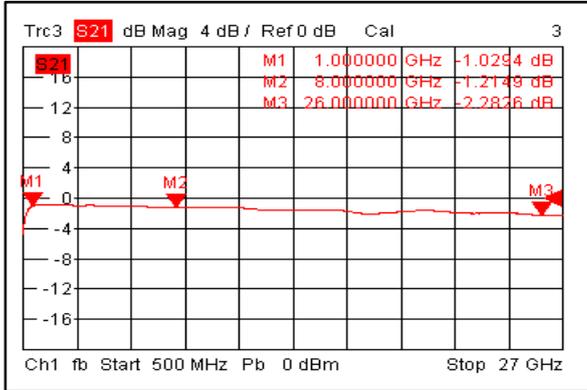


### Isolation @-40°C

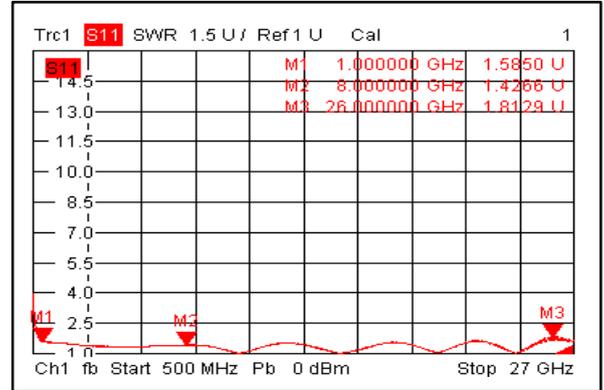




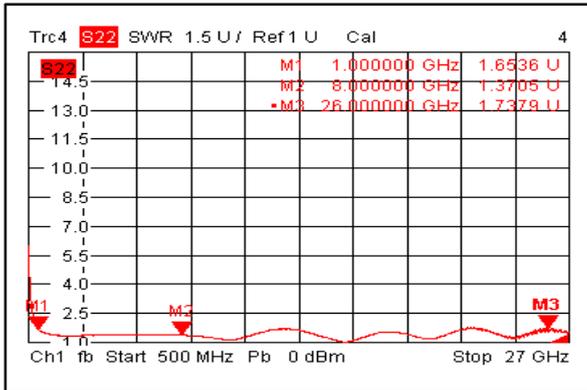
### Insertion Loss @+85°C



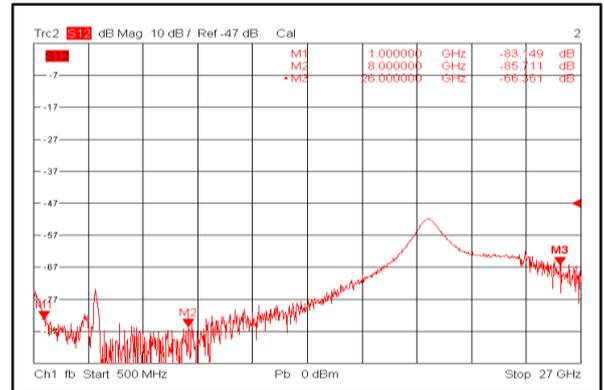
### Input VSWR @+85°C



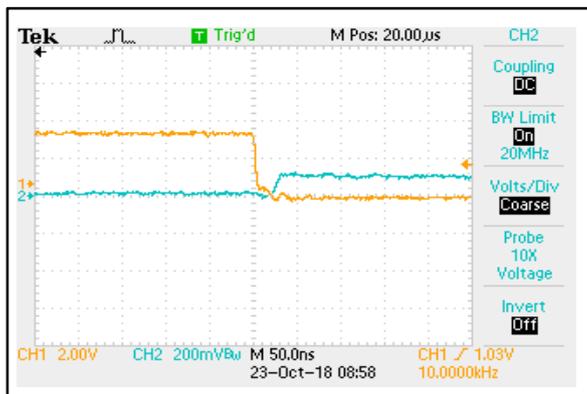
### Output VSWR @+85°C



### Isolation @+85°C



### Switching Speed



### Switching Speed

