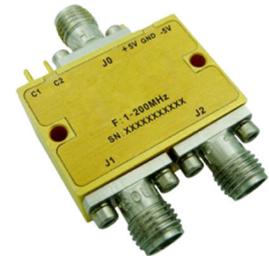




Reflective 1-200MHz Coaxial SP2T Switch

Features

- Wide Band Operation 1-200MHz
- TTL compatible driver included
- 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	1~10		10~200				MHz
Insertion Loss		1.3	2.3		0.6	1.2	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	70	75		70	80		dB
Input VSWR		1.5	1.8		1.18	1.25	: 1
Output VSWR		1.5	1.8		1.18	1.25	: 1
RF Input Power			30			30	dBm
DC Power Dissipation		0.4			0.4		W
0.1dB Compression Point (P0.1dB)		30			30		dBm
IIP3		55			55		dBm
Switching Speed			5.5			5.5	us
Weight	0.71						Ounces
Impedance	50						Ω
Bias Current (+5V / -5V)	80/50						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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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
DBSR020000020A	SP2T 1-200MHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)

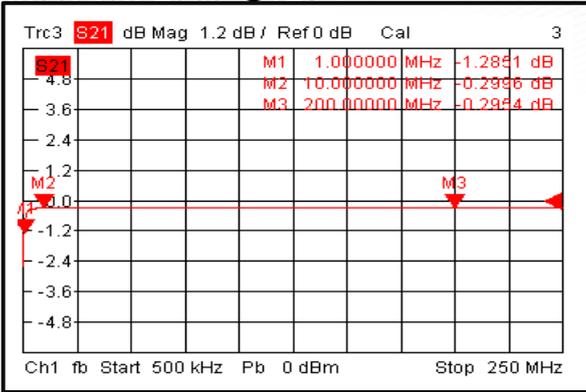
The drawing shows a top and side view of the component. Key dimensions include: overall width 26 [1.02], overall height 18 [0.71], and various pin spacings and lengths. Labels include C1, C2, J0, +5V, GND, -5V, J1, J2, and a 2-Ø 2.2 [0.09] THRU hole. The component is marked with 'RFECHO', 'F:1-200MHz', and 'SN:XXXXXXXX'.

TTL Control Voltage THRESHOLD		Low(0)=0~0.8V	High(1)=2.8~5V
Control Input TTL		State	
C1	C2		
0	0	OFF	
0	1	J0-J1	
1	0	J0-J2	
1	1	OFF	

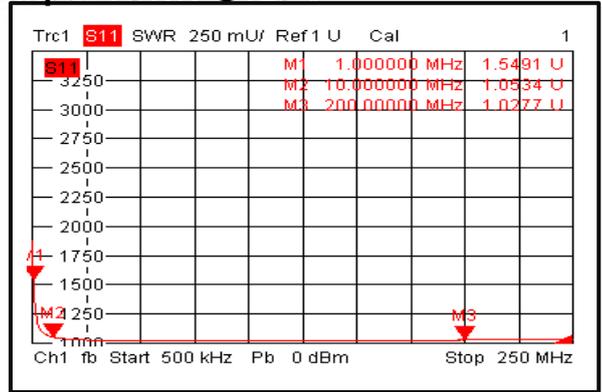
Control Pin Customization available upon request



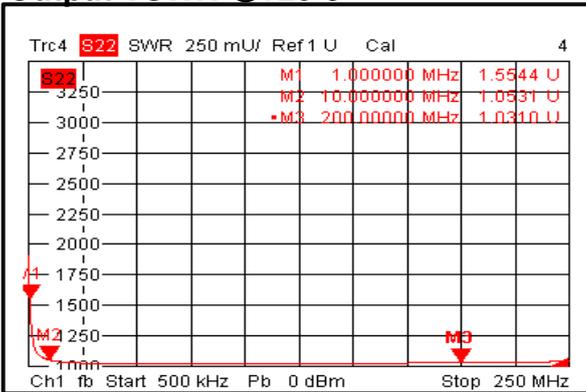
Insertion Loss @+25°C



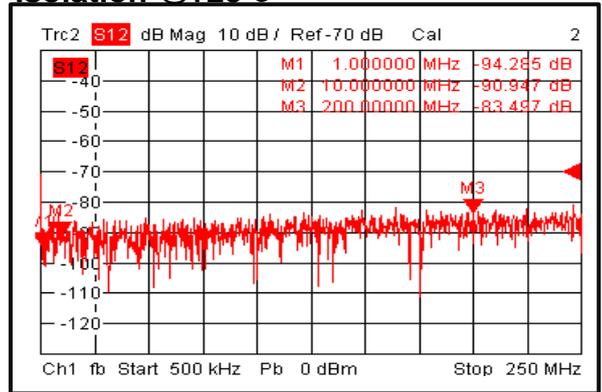
Input VSWR @+25°C



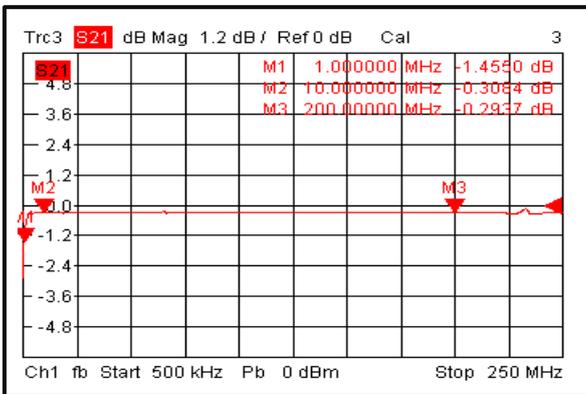
Output VSWR @+25°C



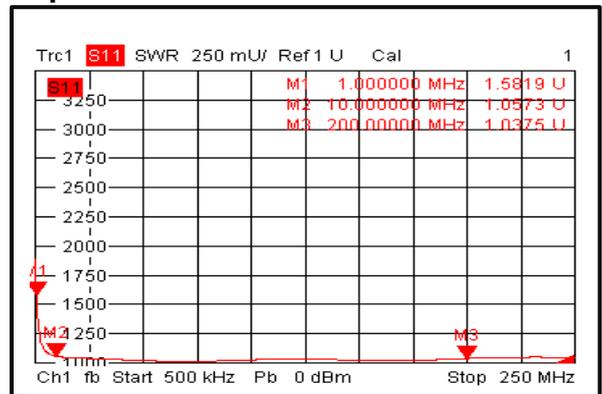
Isolation @+25°C



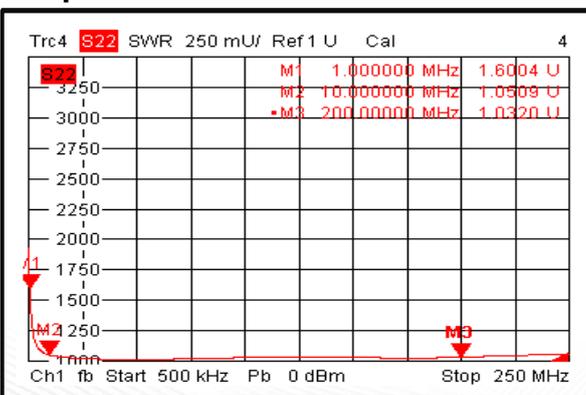
Insertion Loss @-40°C



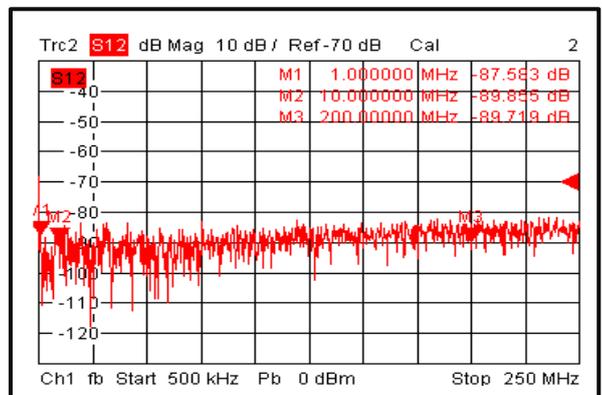
Input VSWR @-40°C



Output VSWR @-40°C

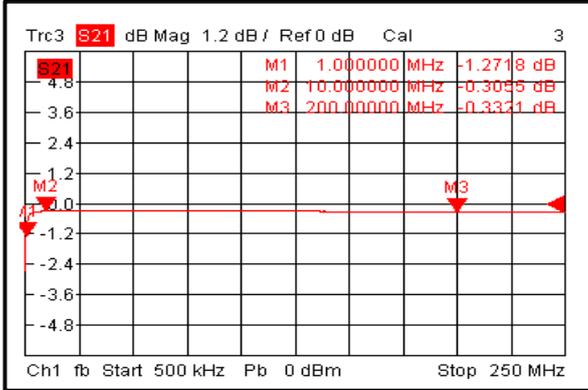


Isolation @-40°C

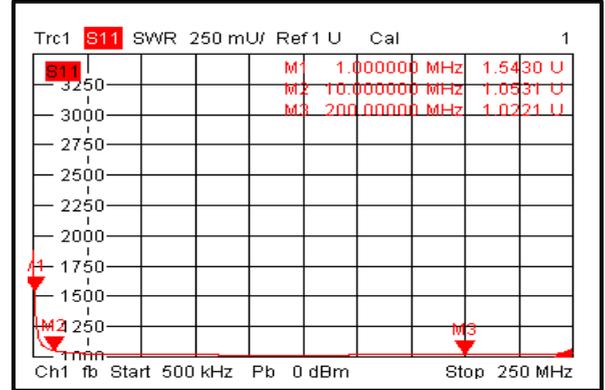




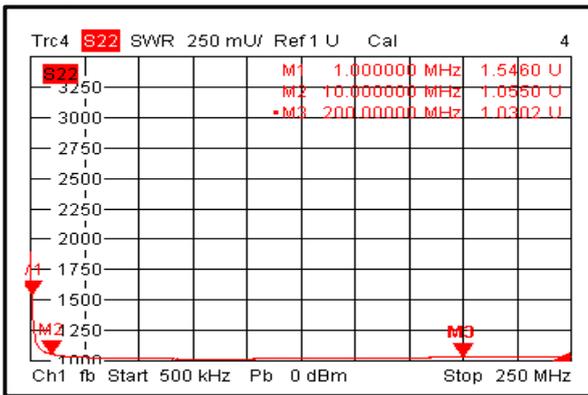
Insertion Loss @+85°C



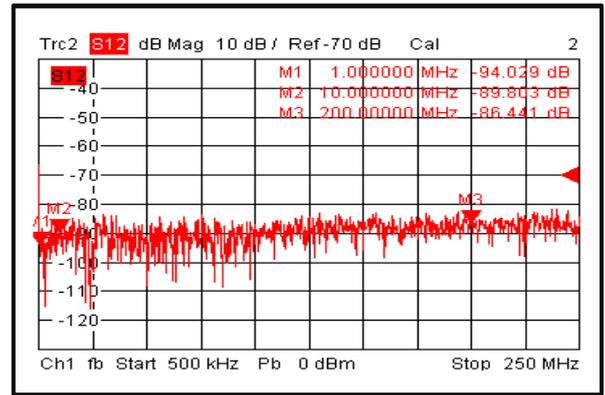
Input VSWR @+85°C



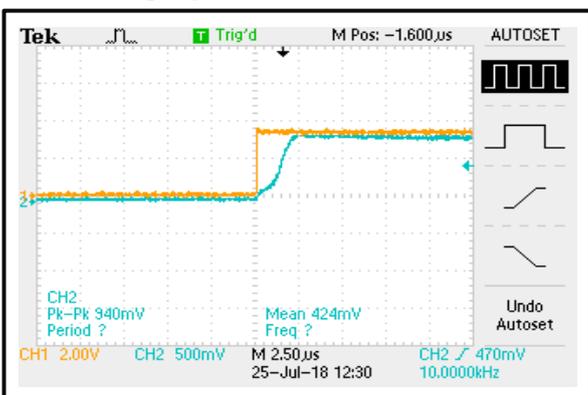
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

