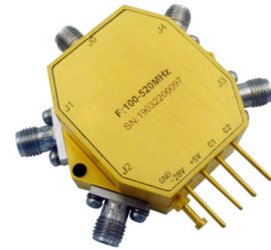




Reflective 100-520MHz Coaxial SP4T Switch

Features

- Wide Band Operation 100-520MHz
- 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	100 - 520			MHz
Insertion Loss		0.35	0.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	50	65		dB
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input Power (CW)			100	W
DC Power Dissipation		1.3		W
0.1dB Compression Point(P0.1dB)		49		dBm
IIP3		50		dBm
Switching Speed		0.5	1.2	us
Weight	1.76			ounces
Impedance	50			Ω
Bias Current (+5V/-28V)	250/120			mA
Input / Output Connectors	SMA - Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			



Absolute Maximum Ratings

Biasing	+5V±10%/-28V±10%
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Environmental Specifications

Operational Temperature	-40°C~+60°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

Ordering Information

Part No.	Description
DBSR0400100052A	SP4T 100-520MHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches) Housing Tolerances ±0.1 (0.004)

The drawing includes the following views and dimensions:

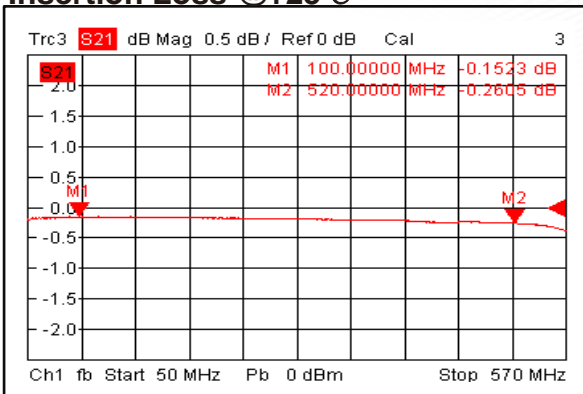
- Top View:** Shows the octagonal housing with dimensions: 39.69 [1.56] (width), 35.61 [1.40] (height), 17.32 [0.68] (radius), and 34.64 [1.36] (width of the central area). It also shows 2-Ø2.8 [0.111] THRU holes.
- Side View:** Shows the housing height of 9.5 [0.37] mm and a mounting hole diameter of 6.5 [0.26] mm.
- Detail View:** Shows the mounting holes with a diameter of 6.5 [0.26] mm and a distance of 19.5 [0.77] mm between them.
- Bottom View:** Shows the base of the housing with dimensions: 40 mm (width), 50 mm (length), and 80 mm (height).
- Heat Sink View:** Shows the heat sink with a height of 6.5 mm and a width of 34.5 mm.

Truth Table

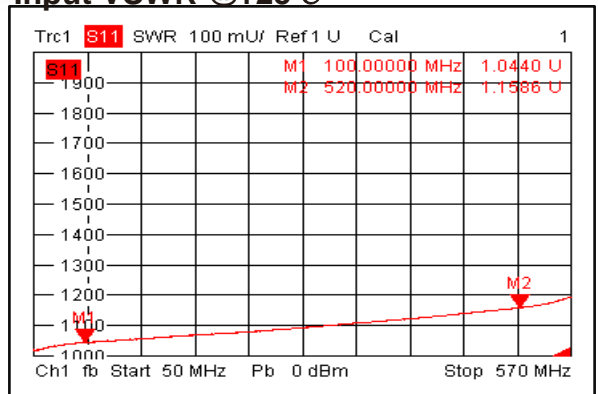
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V High(1)=2.8~5V
Control Input TTL		Signal Path State
C2	C1	
0	0	J0-J1
0	1	J0-J2
1	0	J0-J3
1	1	J0-J4
Control Pin Customization available upon request		



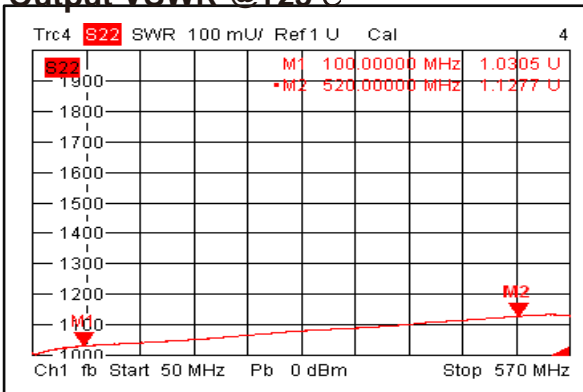
Insertion Loss @+25°C



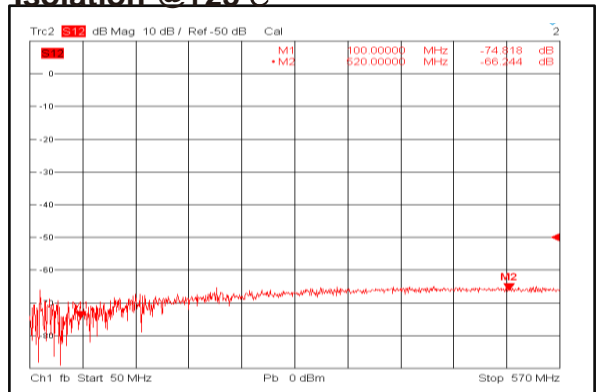
Input VSWR @+25°C



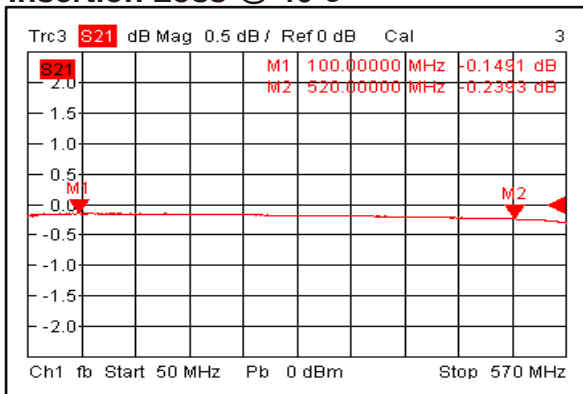
Output VSWR @+25°C



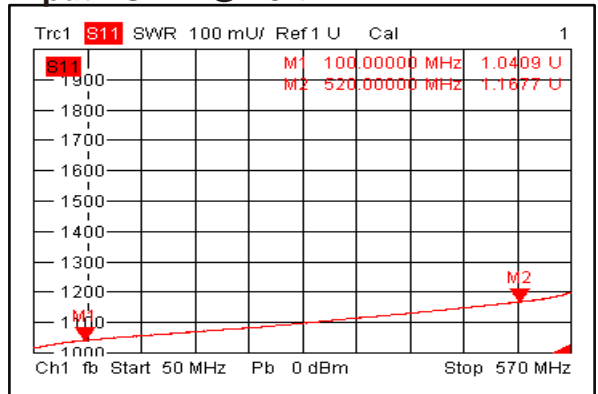
Isolation @+25°C



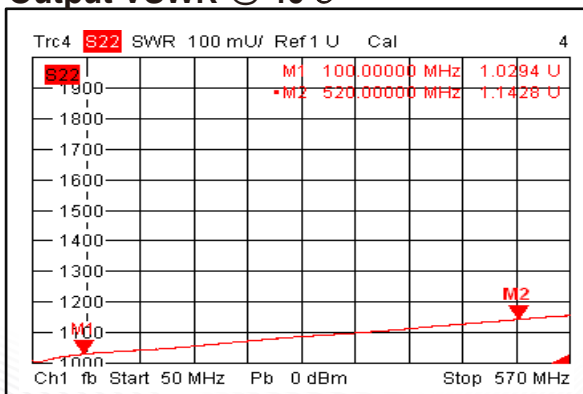
Insertion Loss @-40°C



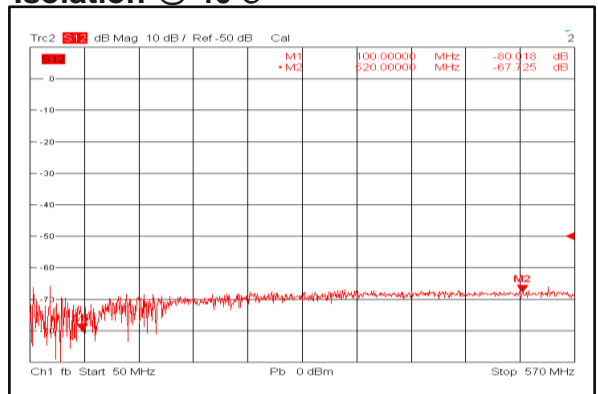
Input VSWR @-40°C



Output VSWR @-40°C

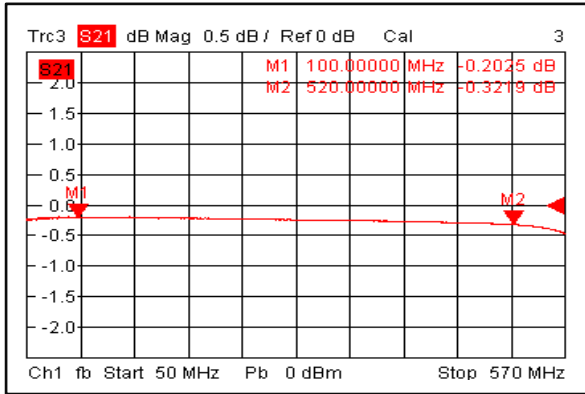


Isolation @-40°C

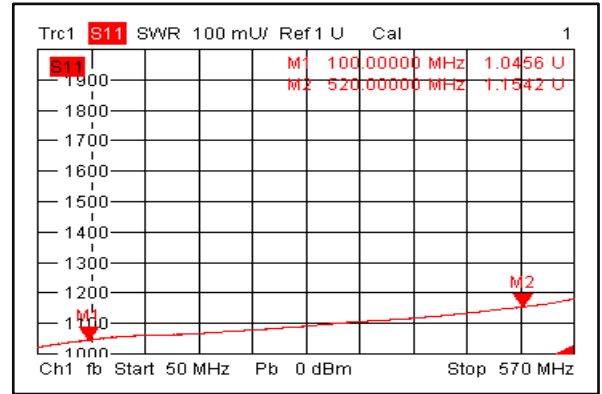




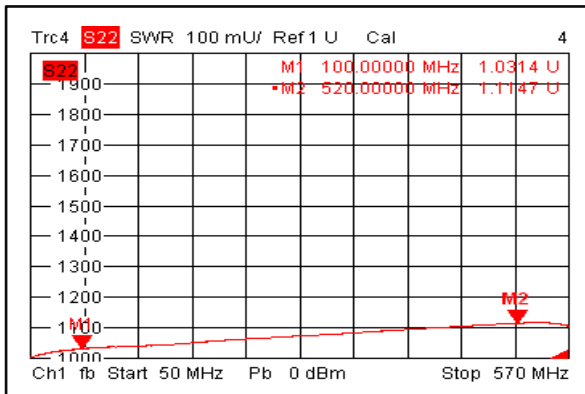
Insertion Loss @+60°C



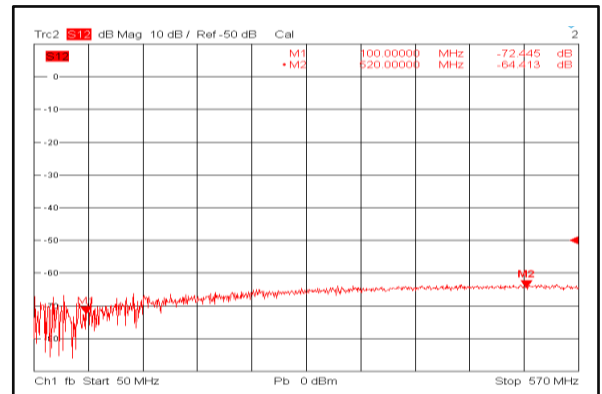
Input VSWR @+60°C



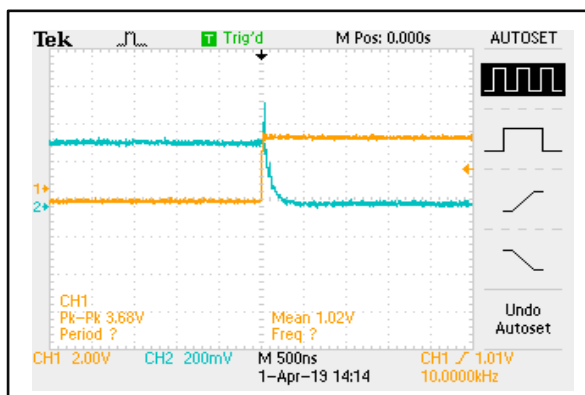
Output VSWR @+60°C



Isolation @+60°C



Switching Speed



Switching Speed

