



Reflective 13-14GHz Coaxial SP3T Switch

Features

- Wide Band Operation 13-14GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- High Power Cold Switching
- Customization available upon request



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameters	Min	Typ.	Max	Units
Frequency Range	13 - 14			GHz
Insertion Loss		1.8	2.2	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	45	50		dB
Input VSWR		1.35	1.5	: 1
Output VSWR		1.35	1.5	: 1
RF Input Power (CW)			40	dBm
DC Power Dissipation		1.5		W
0.1dB Compression Point(P0.1dB)		40		dBm
IIP3		55		dBm
Switching Speed		250	500	ns
Weight	1.76			ounces
Impedance	50			Ω
Bias Current (+5V/-28V)	250/100			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~+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

Ordering Information

Part No.	Description
DBSR0313001400A	SP3T 13-14GHz PIN Diode Switch

Outline Drawing:

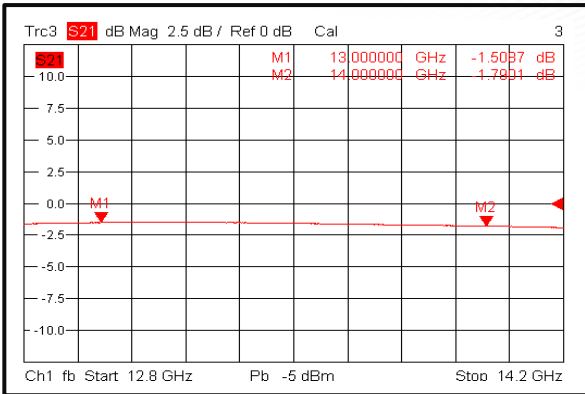
All Dimensions in mm (inches)
Housing Tolerances ± 0.1 [0.004]

TTL Control Voltage THRESHOLD		Low(0)=0~0.8V High(1)=2.8~5V	
Control Input TTL			Signal Path State
c3	C2	C1	
0	0	0	OFF
0	0	1	J0-J1
0	1	0	J0-J2
1	0	0	J0-J3
1	1	1	Not Used

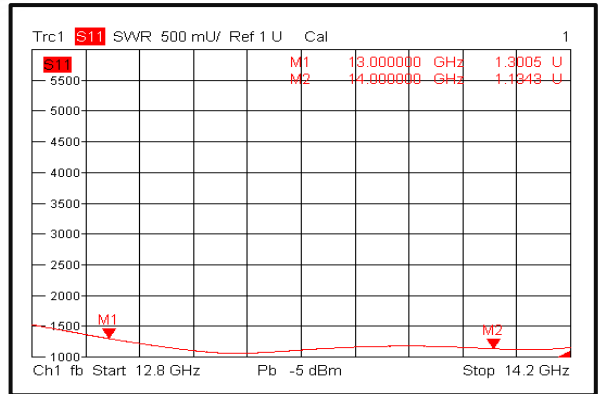
Control Pin Customization available upon request



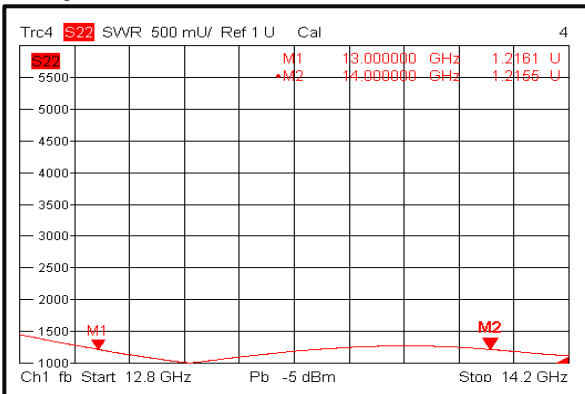
Insertion Loss @+25°C



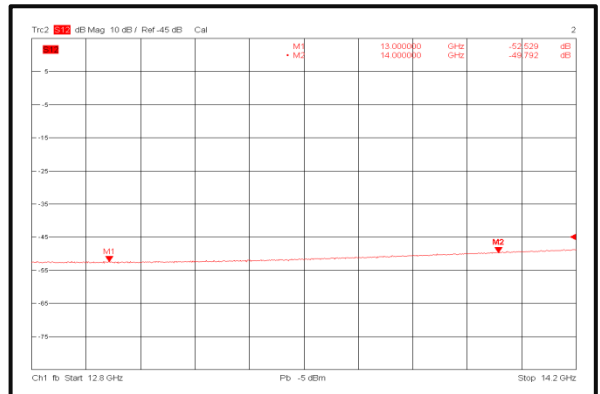
Input VSWR @+25°C



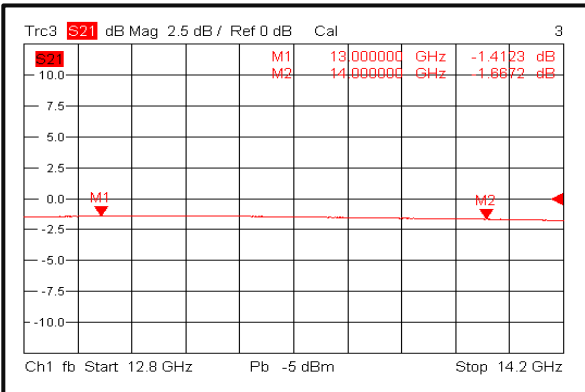
Output VSWR @+25°C



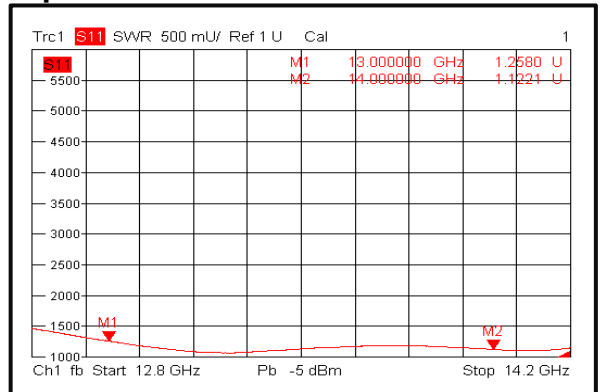
Isolation @+25°C



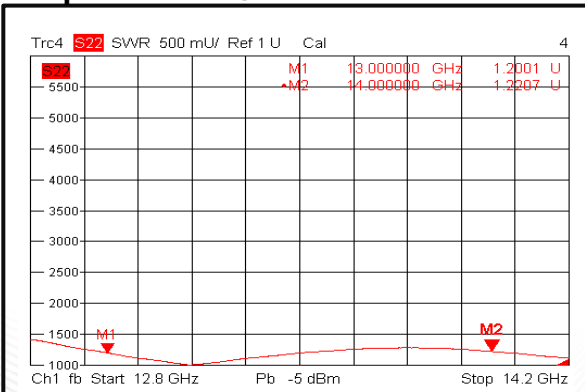
Insertion Loss @-40°C



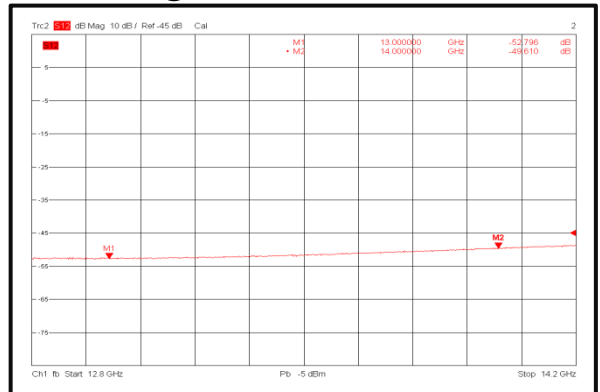
Input VSWR @-40°C



Output VSWR @-40°C

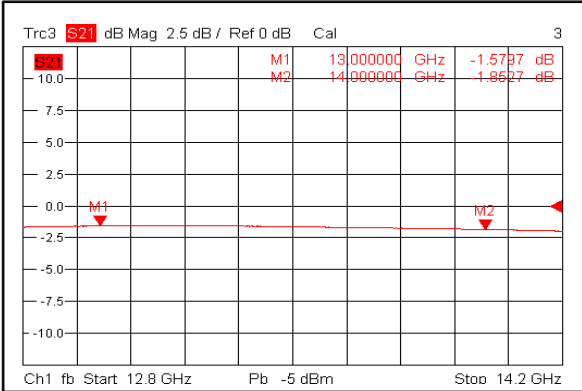


Isolation @-40°C

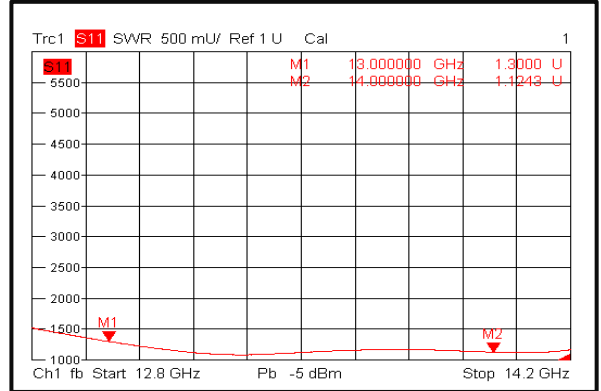




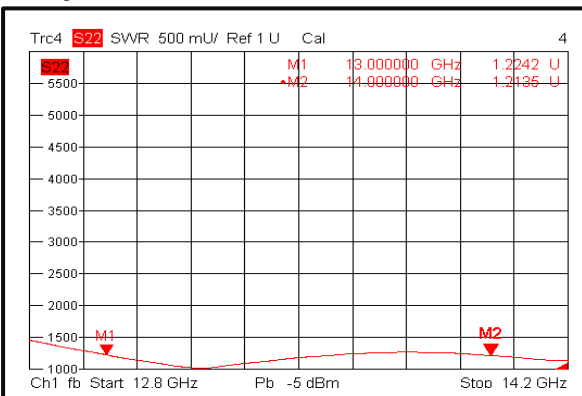
Insertion Loss @+85°C



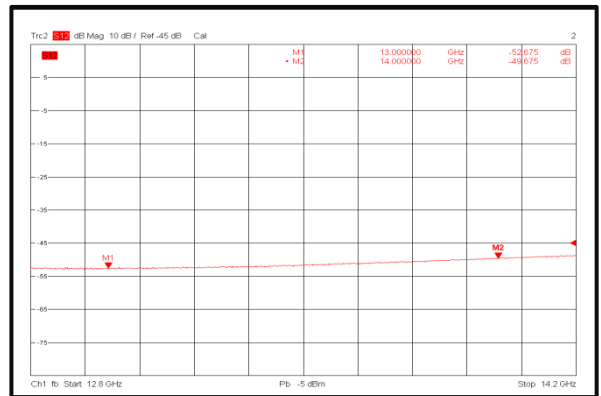
Input VSWR @+85°C



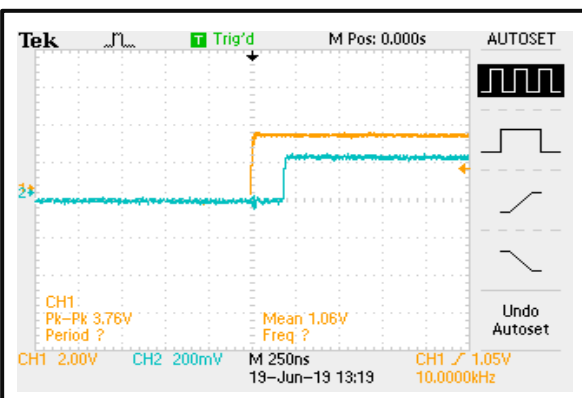
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

