



Reflective Coaxial SP4T Switch 0.001 - 60GHz

Features

- Ultra Wide Band Operation 0.001-60GHz
- Functional Bandwidth : 0.001GHz to 72GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation



Typical Applications

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

RF Microwave & VSAT
Fiber Optics

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.001		60	GHz
Insertion Loss		8.5	9.2	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	29	35		dB
Input VSWR		2.0		: 1
Output VSWR		2.2		: 1
RF Input Power (CW)			15	dBm
DC Power Dissipation		0.8		W
0.1dB Compression Point (P0.1dB)		15		dBm
IIP3		30		dBm
Switching Speed	250 Max.			ns
Weight	1.7 Max.			ounces
Impedance	50			Ω
Bias Current (+5V)	50 Max.			mA
Input / Output Connectors	1.85mm-Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			



Absolute Maximum Ratings

Biasing	+5V ± 10%
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Environmental Specifications

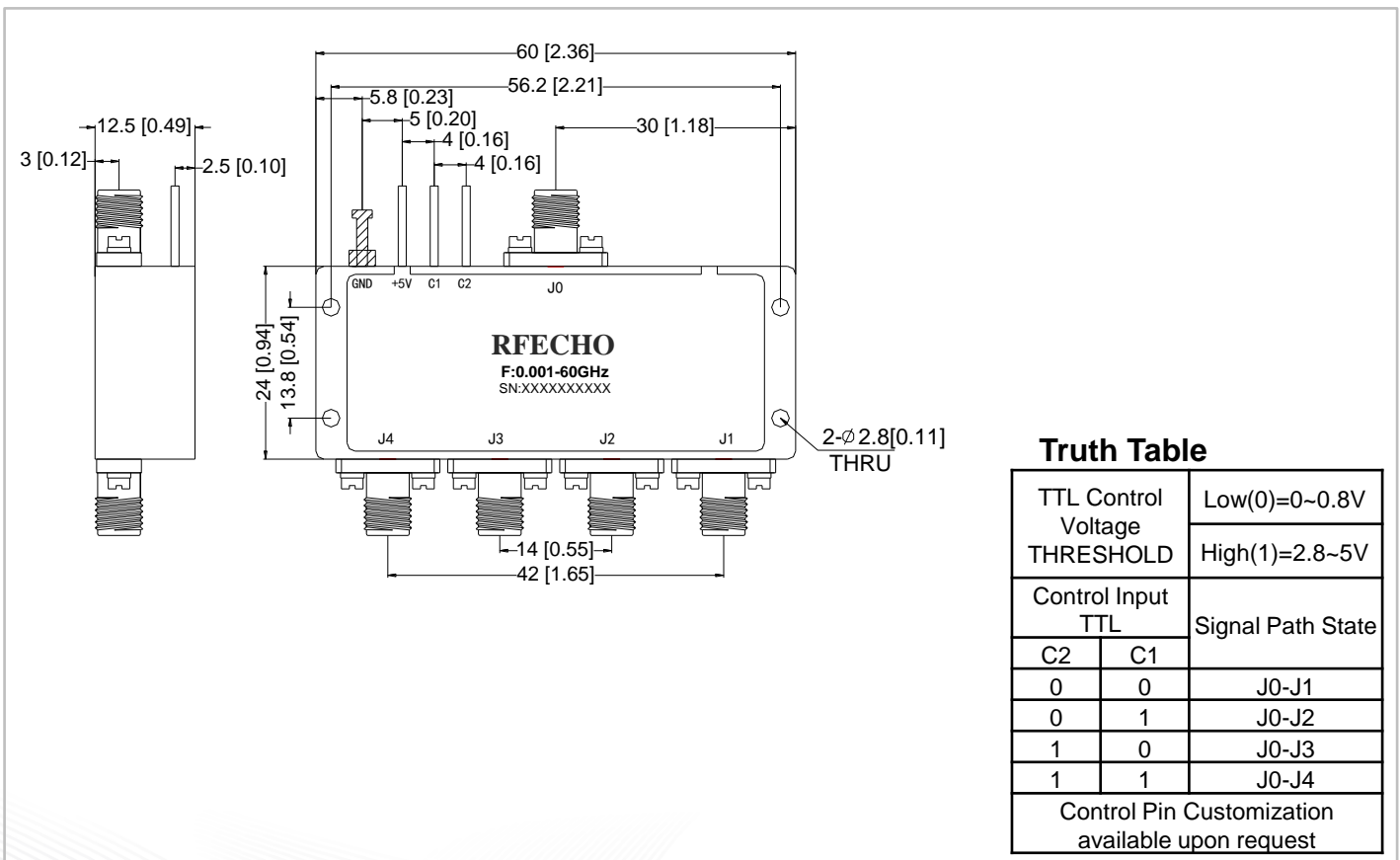
Operational Temperature	-40°C ~ +85°C (Case Temperature)
Storage Temperature	-50°C ~ +105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	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
DBSR0400006000 A	SP4T 0.001-60GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)

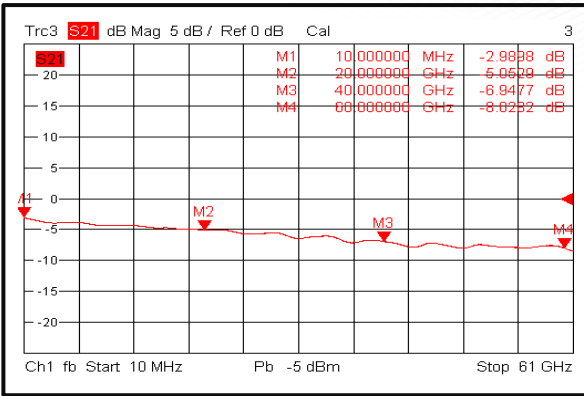


Truth Table

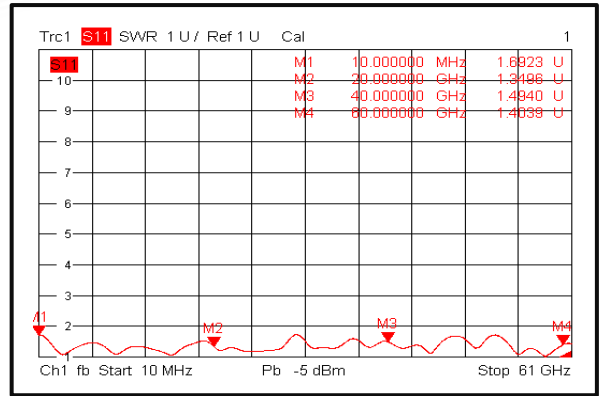
TTL Control Voltage THRESHOLD	Low(0)=0~0.8V	
	High(1)=2.8~5V	
Control Input TTL	Signal Path State	
C2	C1	
0	0	J0-J1
0	1	J0-J2
1	0	J0-J3
1	1	J0-J4
Control Pin Customization available upon request		



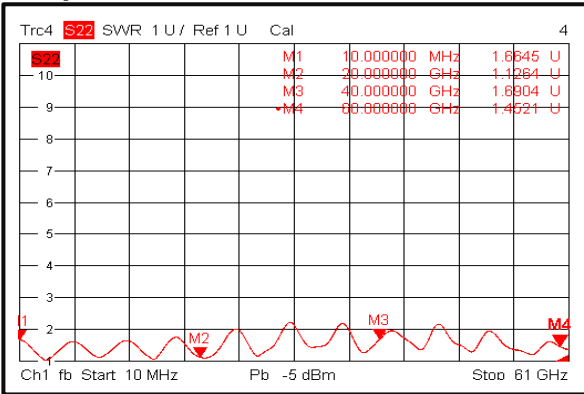
Insertion Loss @+25°C



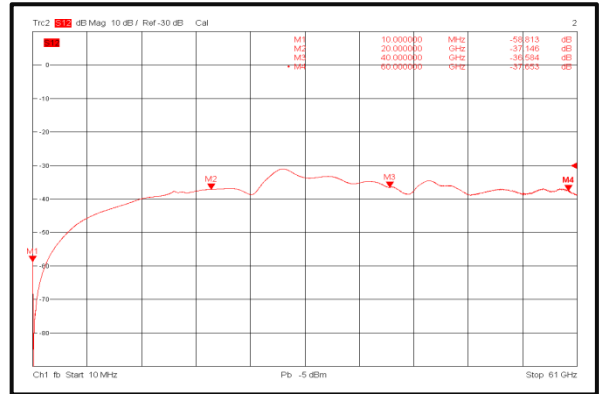
Input VSWR @+25°C



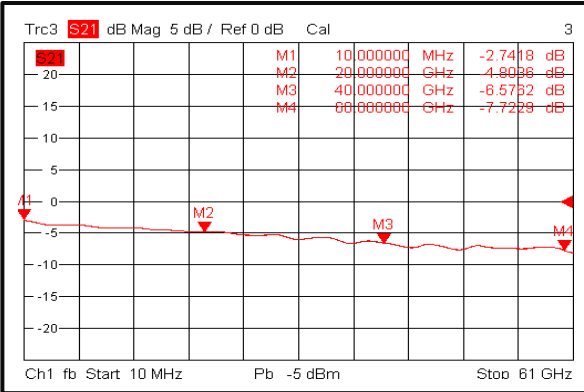
Output VSWR @+25°C



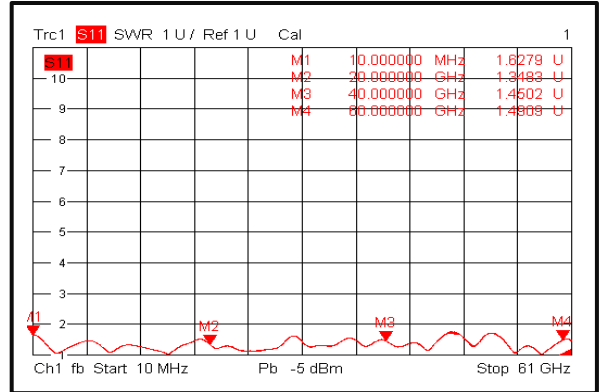
Isolation @+25°C



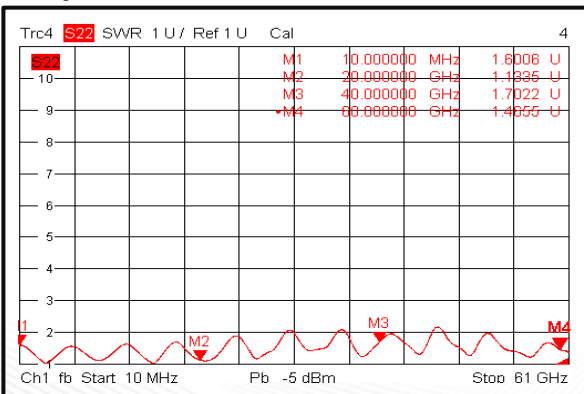
Insertion Loss @-40°C



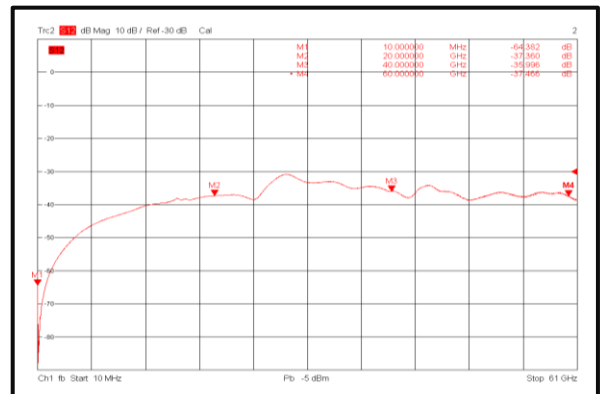
Input VSWR @-40°C



Output VSWR @-40°C

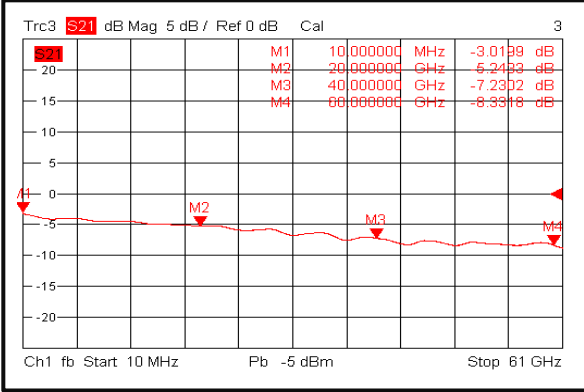


Isolation @-40°C

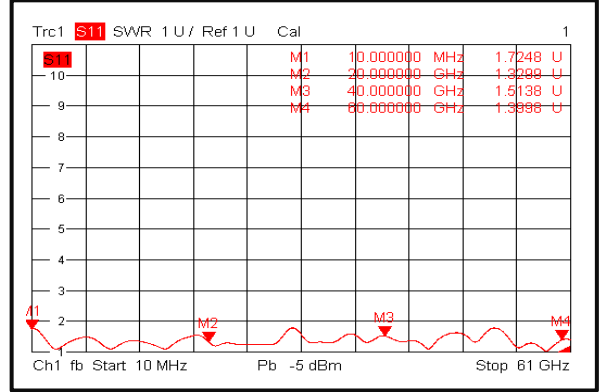




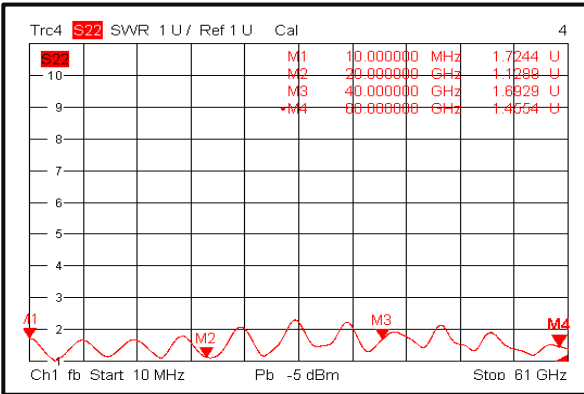
Insertion Loss @+85°C



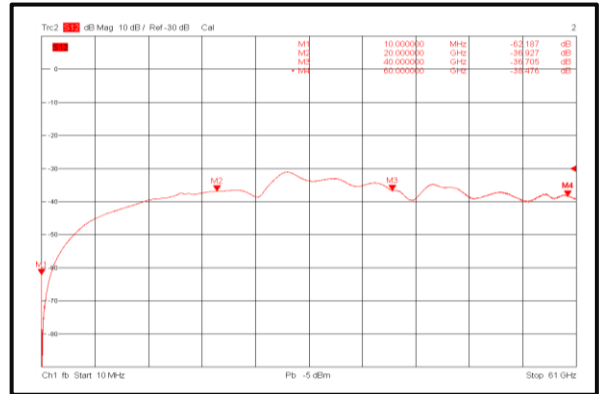
Input VSWR @+85°C



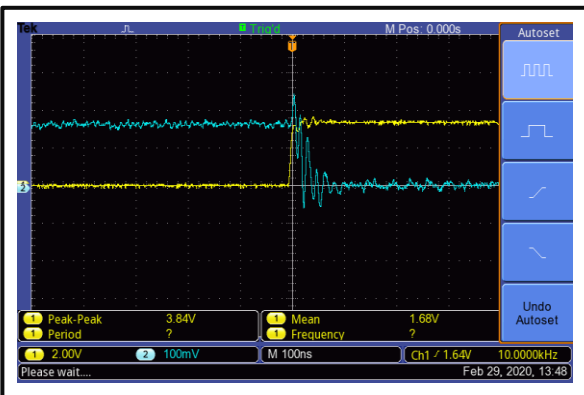
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

