



Reflective Coaxial SP2T Switch 0.001-75GHz

Features

- Ultra Wide Band Operation 0.001-75GHz
- 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.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.001-26.5			26.5-40			40-75			GHz
Insertion Loss		3.5	4.8		4.8	6.0		6.0	7.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	30	35		26	30		27	30		dB
Input VSWR		2.0	2.5		2.0	2.5		2.0	2.5	: 1
Output VSWR		2.0	2.5		2.0	2.5		2.0	2.5	: 1
RF Input Power (CW)			15			15			15	dBm
DC Power Dissipation		0.5			0.5			0.5		W
0.1dB Compression Point (P0.1dB)		15			15			15		dBm
IIP3		45			45			45		dBm
Switching Speed		400	500		400	500		400	500	ns
Weight	0.6 Max.									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	80/50 Max.									mA
Input / Output Connectors	1.85mm – Female (Standard) 1.0mm – Female (Optional)									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									



Absolute Maximum Ratings

Biassing	+5V ± 10%/-5V ± 10%
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Environmental Specifications

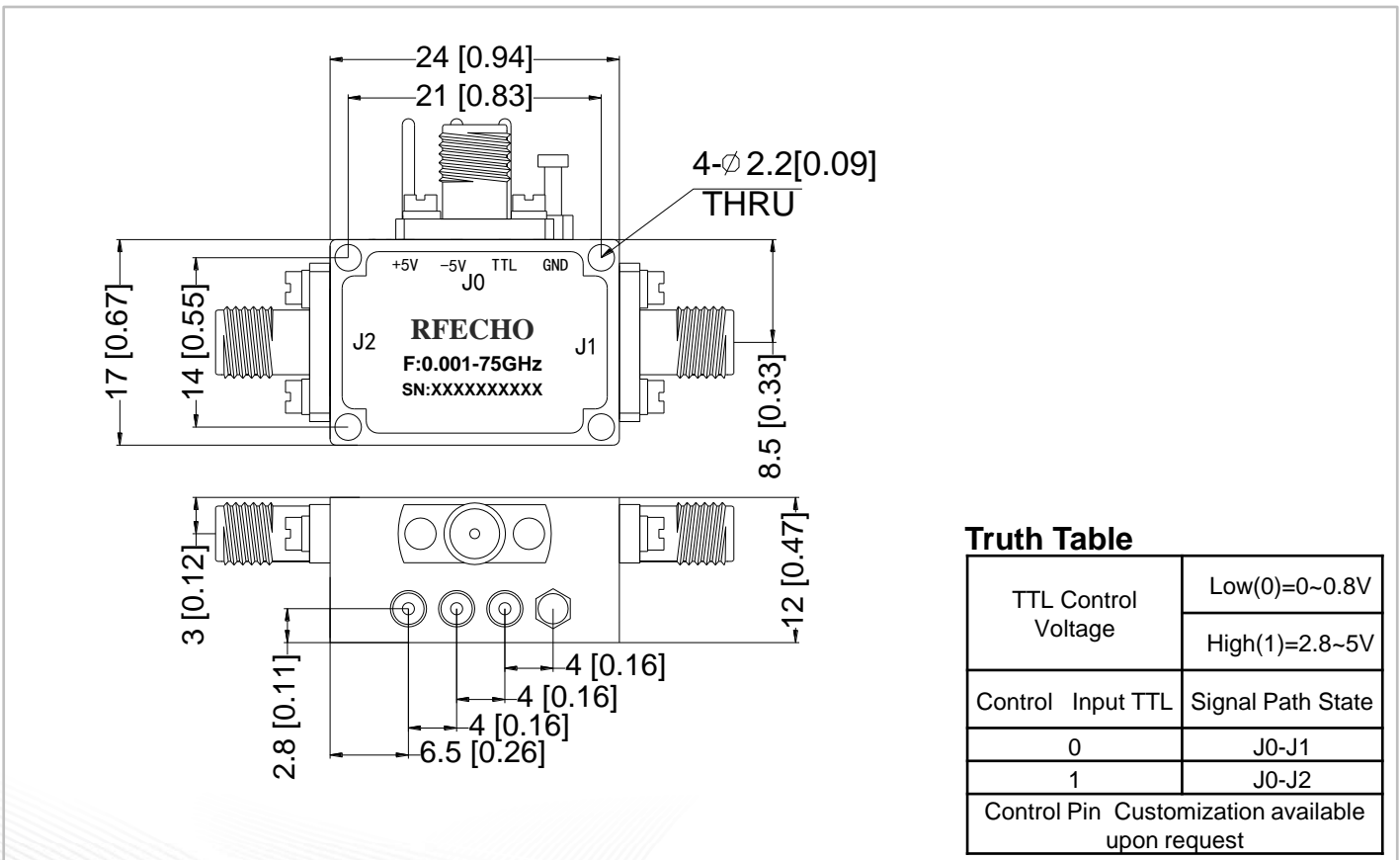
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Ordering Information

Part No.	Description
DBSR0200007500A	SP2T 0.001-75GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)

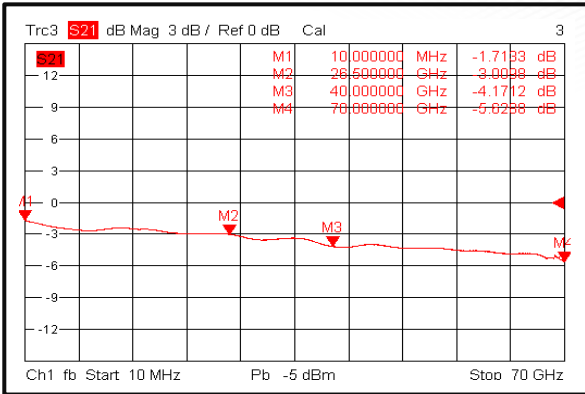


Truth Table

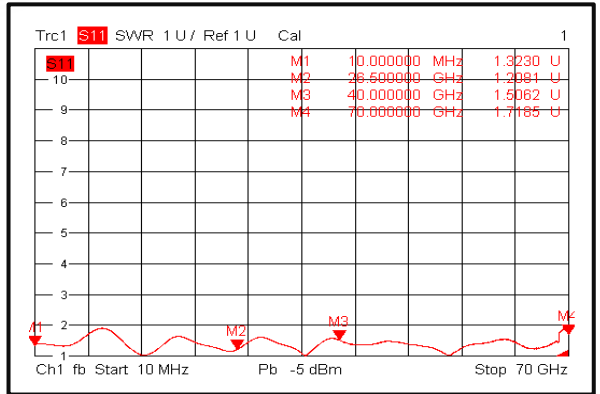
TTL Control Voltage		Low(0)=0~0.8V
TTL Control Voltage		High(1)=2.8~5V
Control	Input TTL	Signal Path State
0		J0-J1
1		J0-J2
Control Pin Customization available upon request		



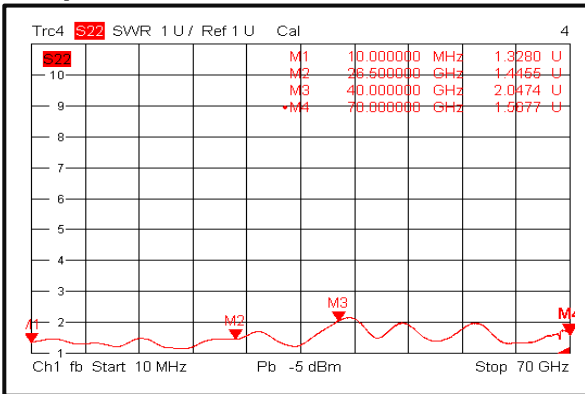
Insertion Loss @+25°C



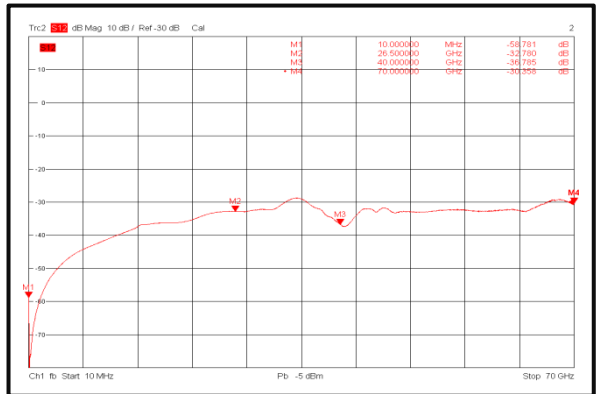
Input VSWR @+25°C



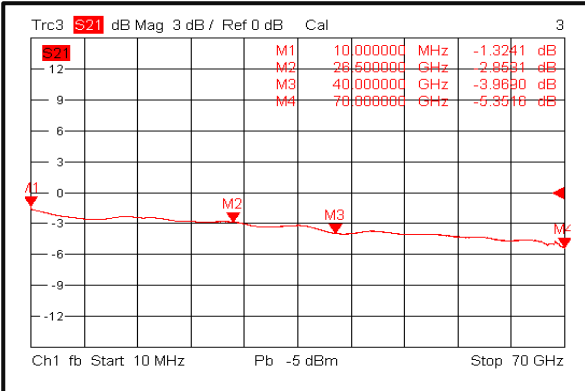
Output VSWR @+25°C



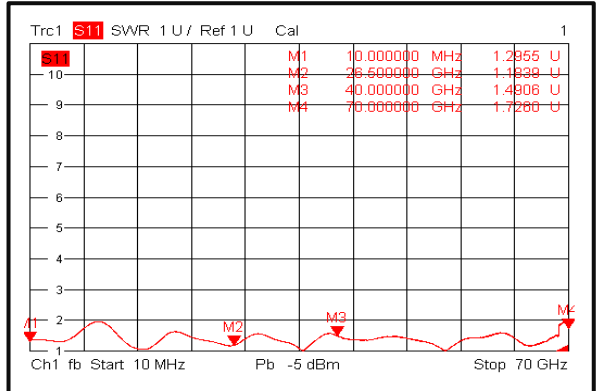
Isolation @+25°C



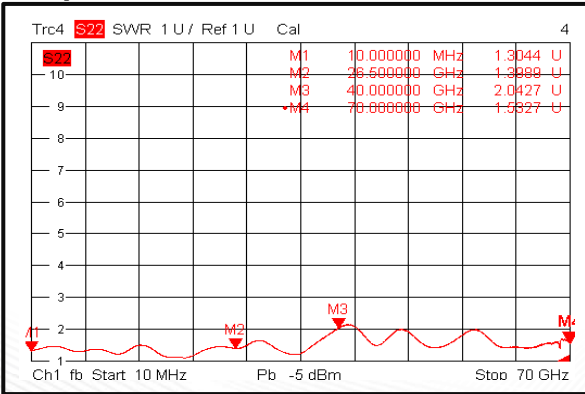
Insertion Loss @-40°C



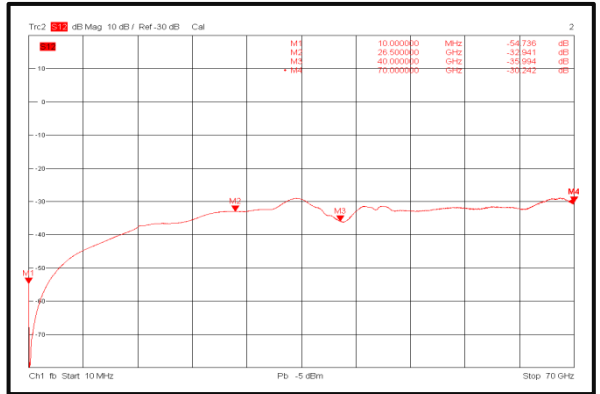
Input VSWR @-40°C



Output VSWR @-40°C

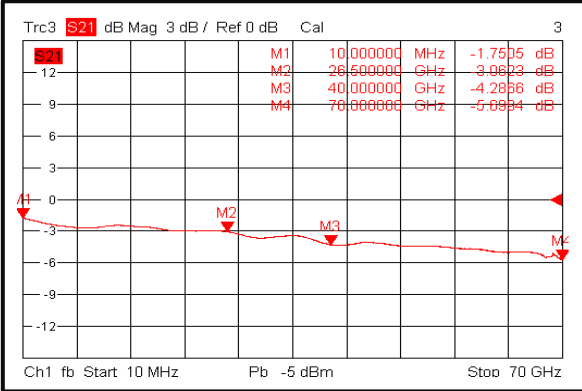


Isolation @-40°C

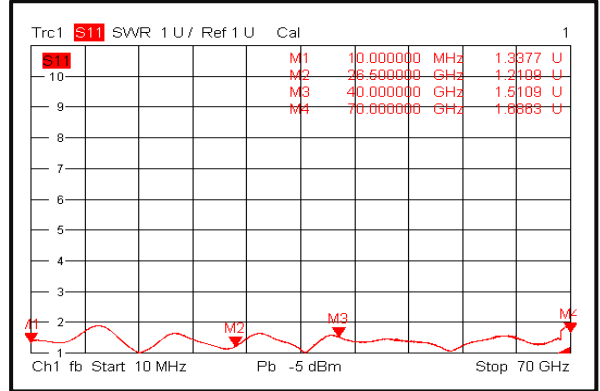




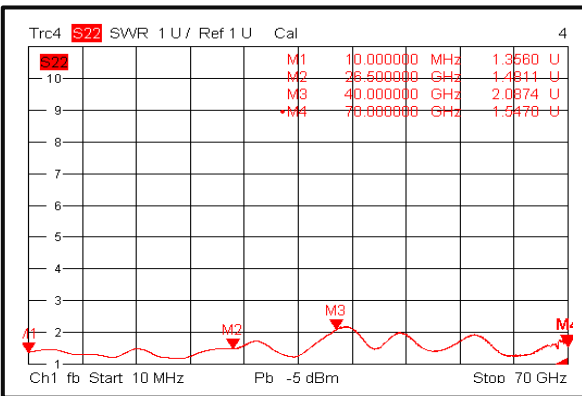
Insertion Loss @+85°C



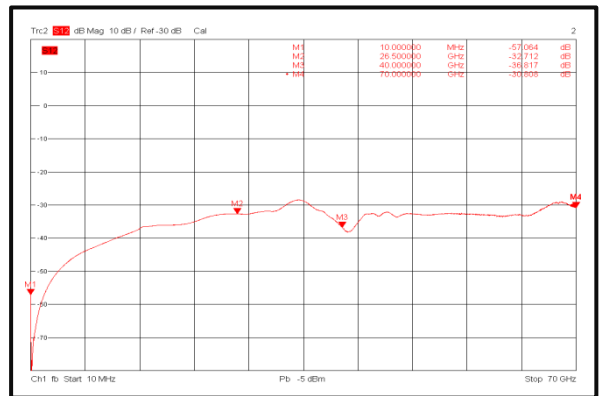
Input VSWR @+85°C



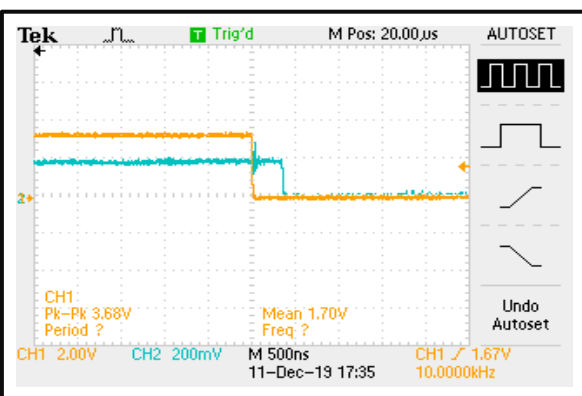
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

