

Absorptive Coaxial SP4T Switch 0.1-40GHz

Features

- Ultra Wide Band Operation 0.1-40GHz
- TTL compatible driver included
- Fast Switching Speed
- 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	0.1-18			18-40			GHz		
Insertion Loss		3.3	4.0		5.0	6.0	dB		
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C		
Isolation	60	70		45	55		dB		
Input VSWR		2.0	3		2.5	3	: 1		
Output VSWR		2.0	3		2.5	3	: 1		
RF Input power			23			23	dBm		
DC Power Dissipation (CW)		0.15			0.15		W		
0.1dB Compression P0.1dB		23			23		dBm		
IIP3		55			50		dBm		
Switching Speed		50	100		50	100	ns		
Weight	1.06					Ounces			
Impedance	50					Ω			
Bias Current(+5V/-5V)	120/50					mA			
Input /Output Connectors	2.92mm-Female								
Finish	Gold Plated								
Material	Aluminum								
Sealing	Hermetically Sealed (optional)								

Absolute Maximum Ratings

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

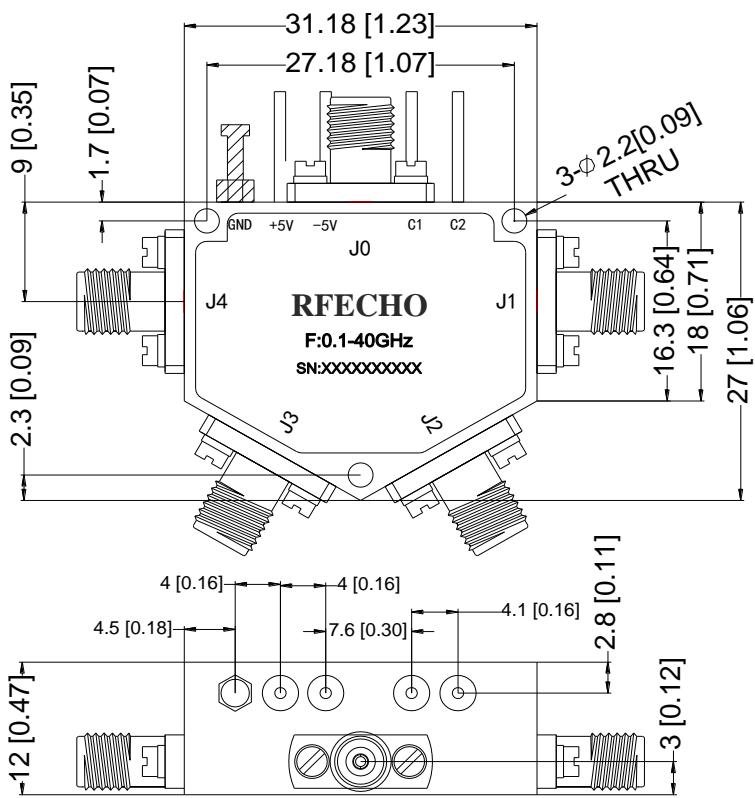
Operational Temperature	-40°C ~ +85°C (Case Temperature)
Storage Temperature	-50°C ~ +105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Uncontrolled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	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
DBSA0400104000D	SP4T 0.1-40GHz PIN Diode Switch

Outline Drawing:

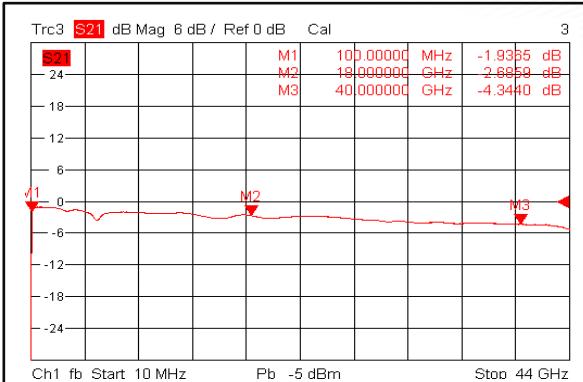
All Dimensions in mm (inches)



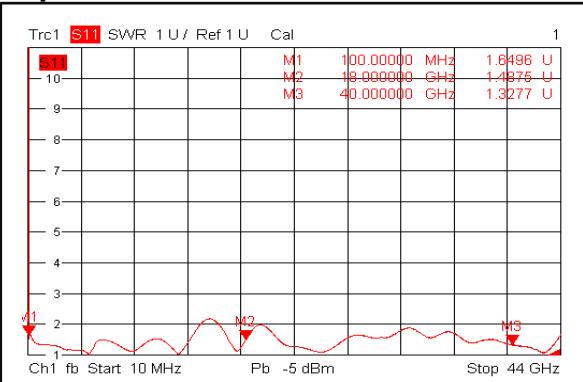
Truth Table

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	

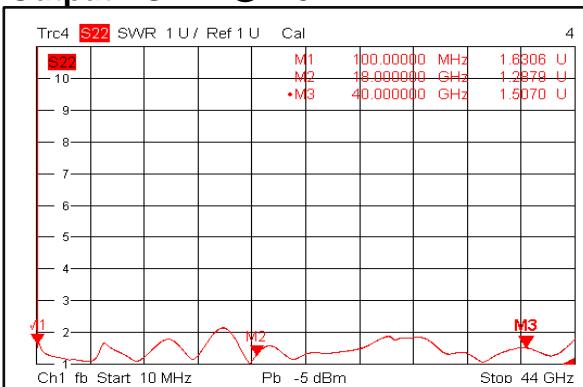
Insertion Loss @+25°C



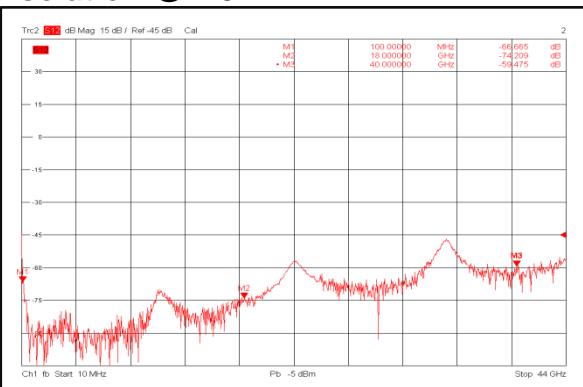
Input VSWR @+25°C



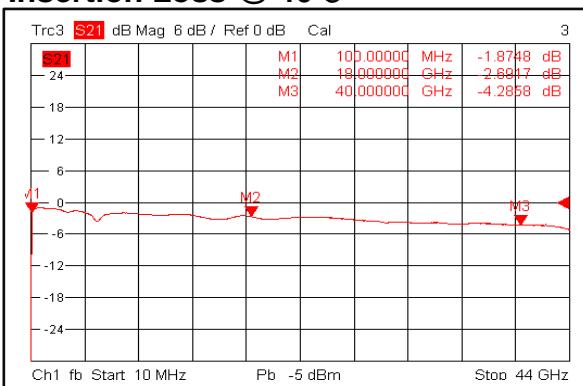
Output VSWR @+25°C



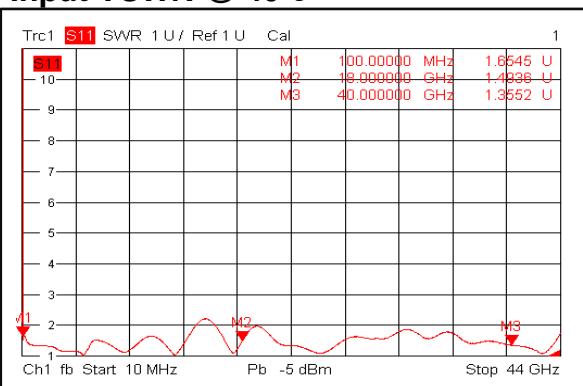
Isolation @+25°C



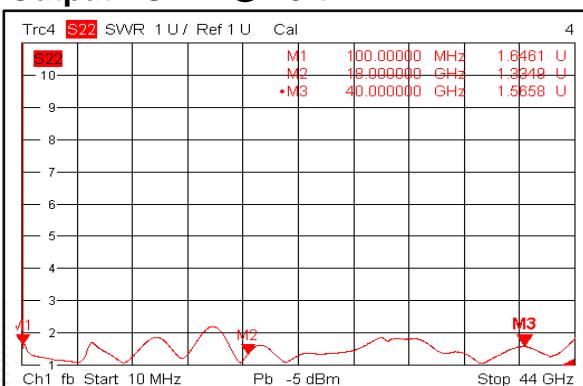
Insertion Loss @-40°C



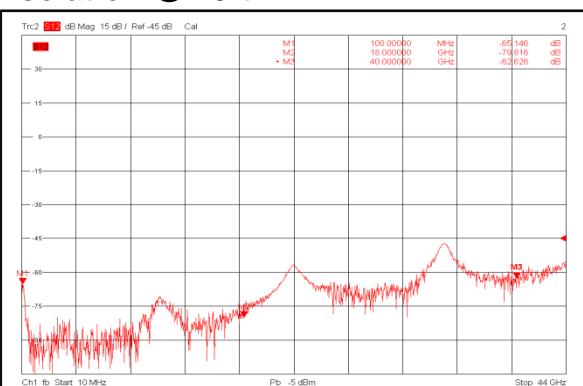
Input VSWR @-40°C



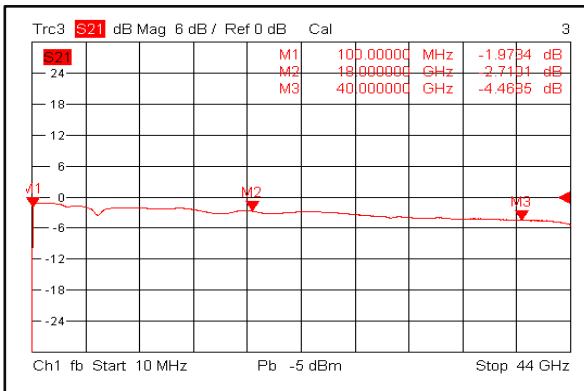
Output VSWR @-40°C



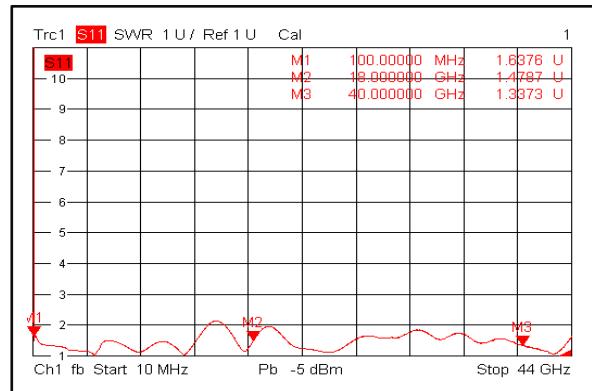
Isolation @-40°C



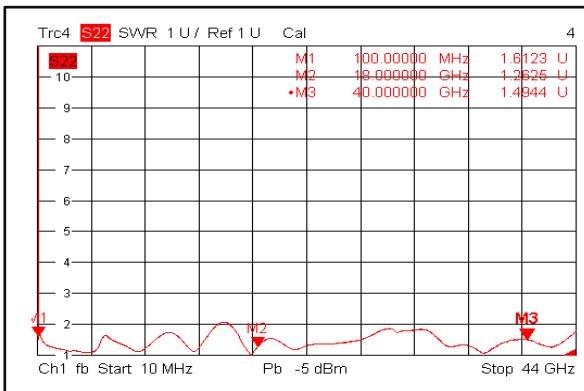
Insertion Loss @+85°C



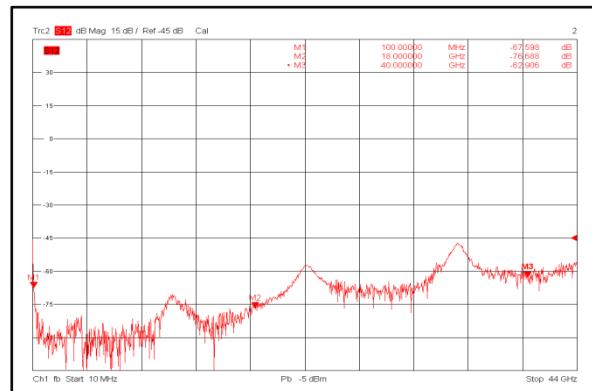
Input VSWR @+85°C



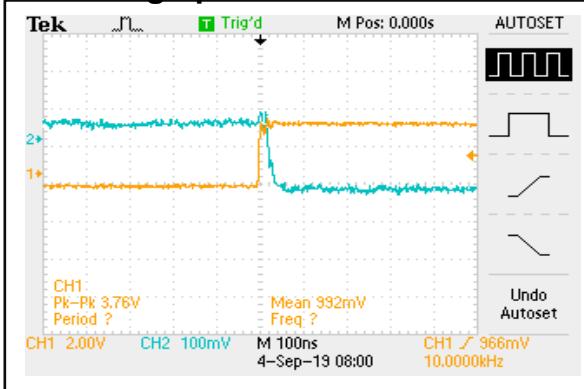
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

