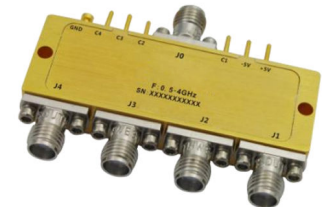




# Absorptive 0.5-43.5GHz Coaxial SP2T Switch

## Features

- Ultra Wide Band Operation 0.5-43.5GHz
- 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	Type	Max	Min	Type	Max	Min	Type	Max	Units
Frequency Range	0.5-8			8-26.5			26.5-43.5			GHz
Insertion Loss		2.2	2.8		3.0	4.0		4.5	5.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation	60	70		50	60		45	50		dB
Input VSWR		1.5	2.0		1.8	2.8		2	2.5	: 1
Output VSWR		1.5	2.0		1.8	2.8		2	2.5	: 1
RF Input power			23			23			23	dBm
DC Power Dissipation		0.5			0.5			0.5		W
0.1dB Compression Point ( P0.1dB )		23			23			23		dBm
IIP3		50			45			40		dBm
Switching Speed		50	60		50	60		50	60	ns
Weight	0.71									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	110/50									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

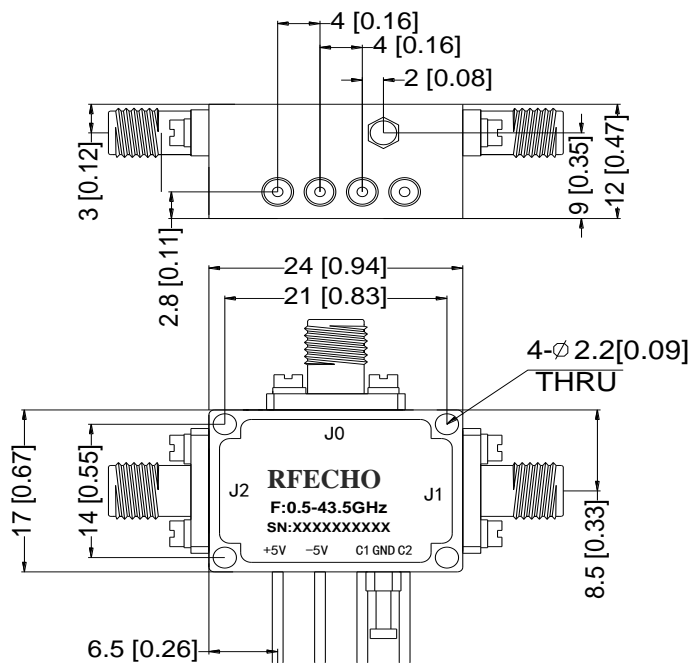
Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35°C, 95%RH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

### Ordering Information

Part No.	Description
DBSA0200504350B	SP2T 0.5-43.5GHz PIN Diode Switch

### Outline Drawing:

All Dimensions in mm (inches)

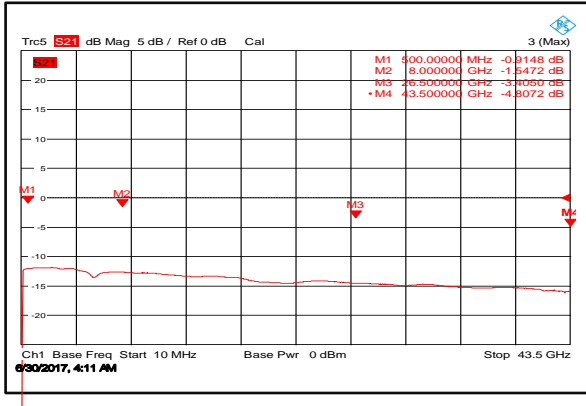


### Truth Table

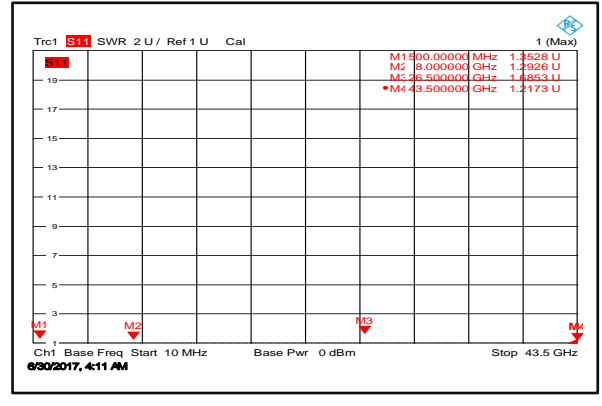
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V High(1)=2.8~5V
Control Input TTL		Signal Path State
C1	C2	
0	0	NC
0	1	J0-J1
1	0	J0-J2
1	1	OFF
Control Pin Customization available upon request		



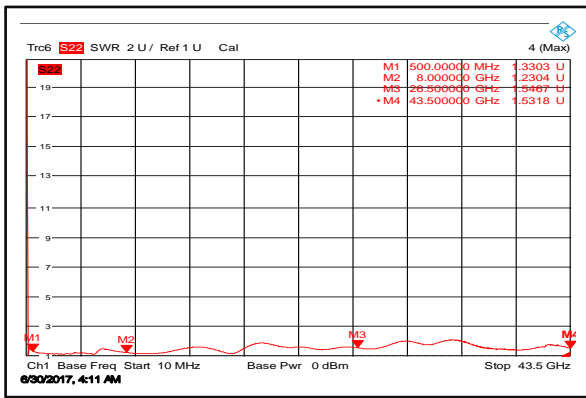
### Insertion Loss @+25°C



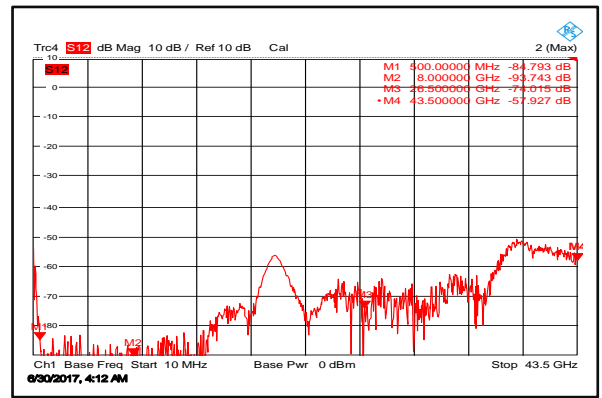
### Input VSWR @+25°C



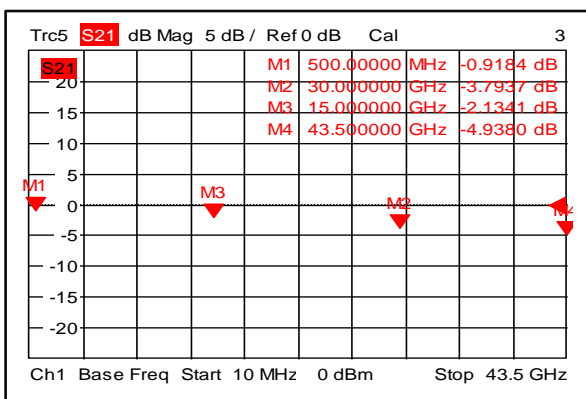
### Output VSWR @+25°C



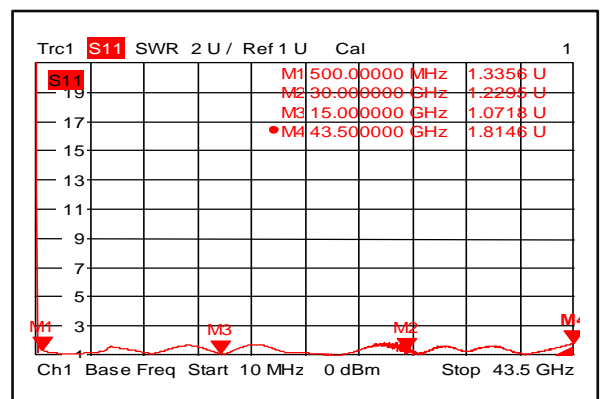
### Isolation @+25°C



### Insertion Loss @-40°C

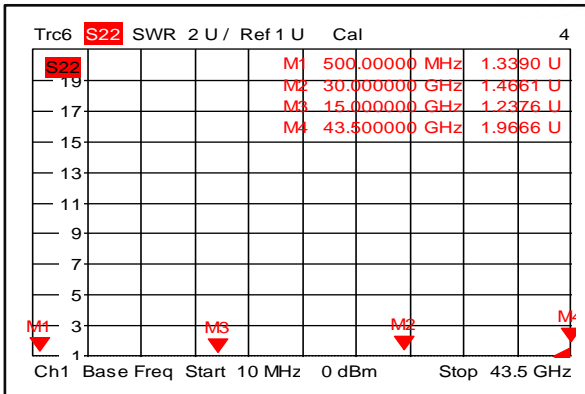


### Input VSWR @-40°C

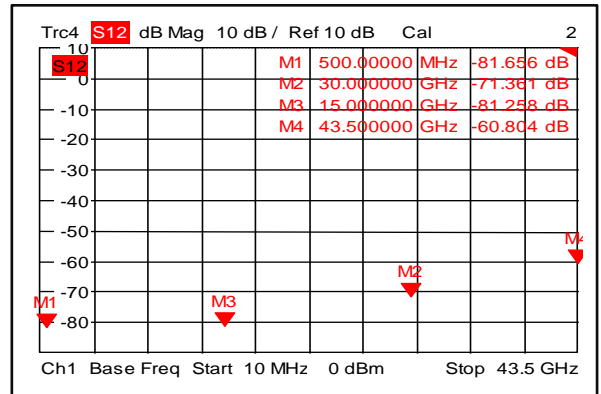




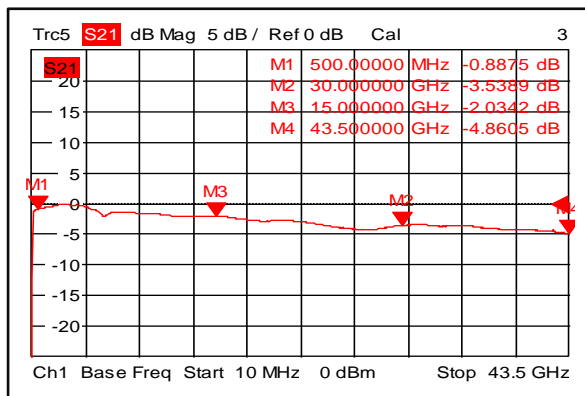
### Output VSWR @-40°C



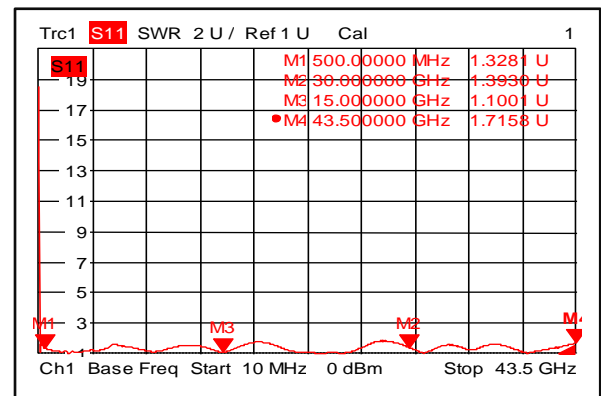
### Isolation @-40°C



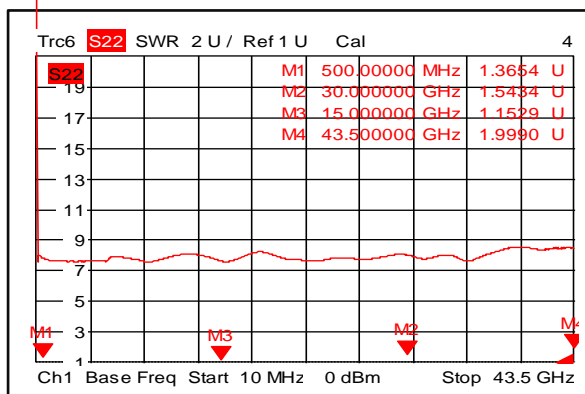
### Insertion Loss @+85°C



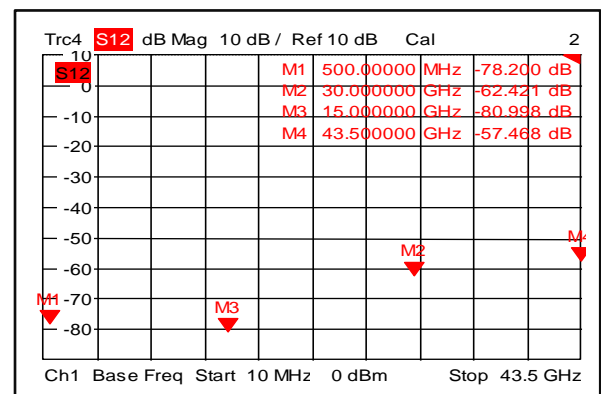
### Input VSWR @+85°C



### Output VSWR @+85°C

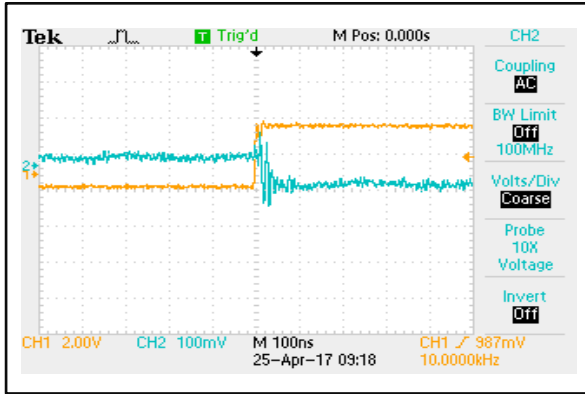


### Isolation @+85°C





## Switching Speed



## Switching Speed

