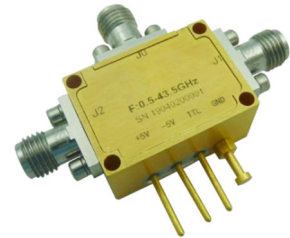




# Absorptive 0.5-43.5GHz Coaxial SP2T Switch

## 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.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.5		8	8		26.5	26.5		43.5	GHz
Insertion Loss		2.0	2.5		4.0	4.5		4.5	5.2	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	60	85		50	60		45	55		dB
Input VSWR		1.6	2.0		2.5	2.8		1.8	2.5	: 1
Output VSWR		1.6	2.0		2.5	2.8		1.8	2.5	: 1
RF Input Power			23			23			23	dBm
DC Power Dissipation		0.6			0.6			0.6		W
0.1dB Compression Point (P0.1dB )		23			23			23		dBm
IIP3		43			42			38		dBm
Switching Speed	100 Max.									ns
Weight	0.55 Max.									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	110/50 Max.									mA
Input / Output Connectors	2.92mm-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									



### Absolute Maximum Ratings

Biasing	+5V ± 10%/-5V ± 10% @ 25°C
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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 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
DBSA0200504350A	SP2T 0.5-43.5GHz PIN Diode Switch

### Outline Drawing:

All Dimensions in mm (inches)

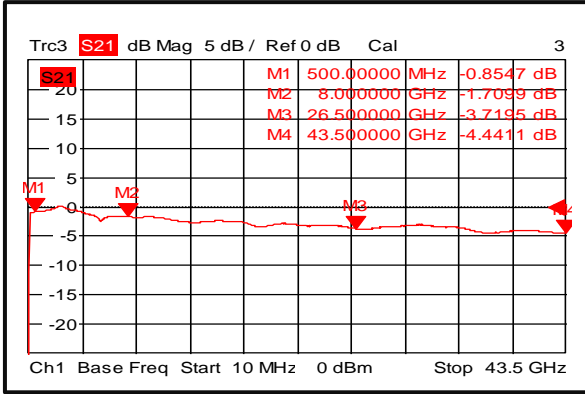
The drawing shows a top-down view of the component with the following dimensions and labels:

- Top edge dimensions: 3 [0.12], 4 [0.16], 4 [0.16], 4 [0.16], 12 [0.47]
- Left edge dimensions: 17 [0.67], 14 [0.55]
- Bottom edge dimensions: 6.5 [0.26], 8.5 [0.33]
- Internal dimensions: 24 [0.94], 21 [0.83], 2.8 [0.11]
- Labels: J0, J1, J2, RFECHO, F:0.5-43.5GHz, SN:XXXXXXXXXX, +5V, -5V, TTL, GND, 4-φ 2.2 [0.09] THRU

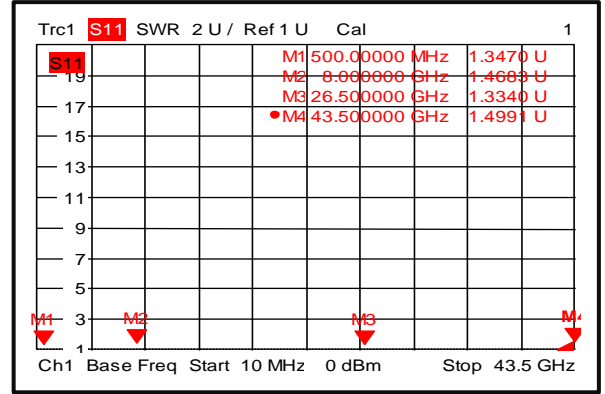
TTL Control Voltage THRESHOLD	Low(0)=0~0.8V
	High(1)=2.8~5V
Control Input TTL	Signal Path State
0	J0-J2
1	J0-J1
<b>Control Pin Customization available upon request</b>	



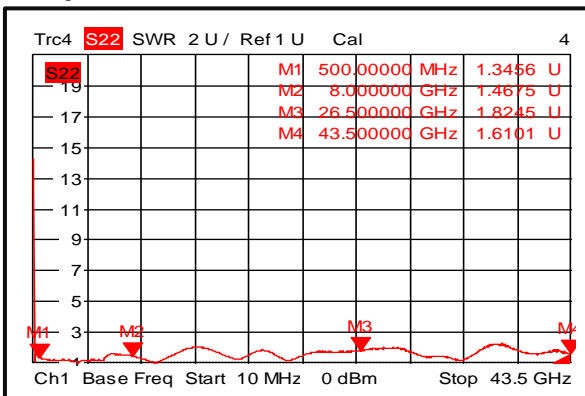
### Insertion Loss @+25°C



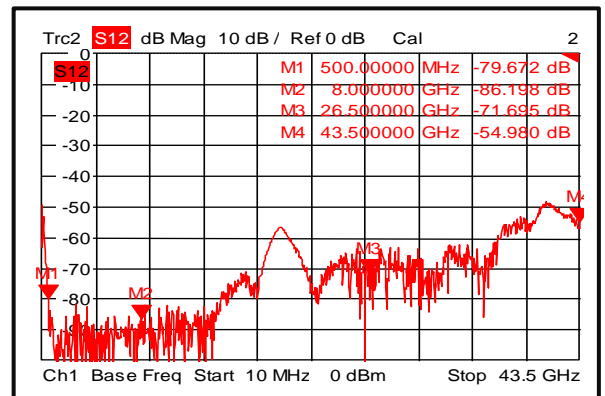
### Input VSWR @+25°C



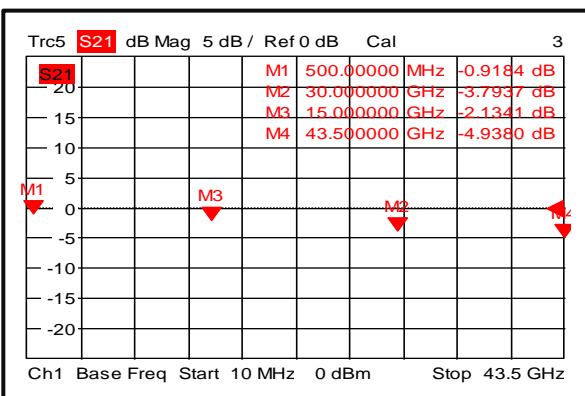
### Output VSWR @+25°C



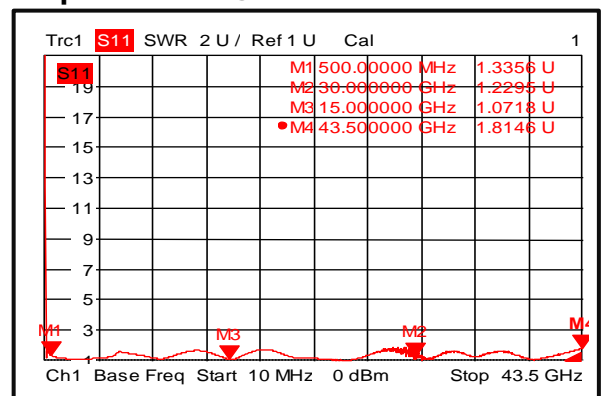
### Isolation @+25°C



### Insertion Loss @-40°C

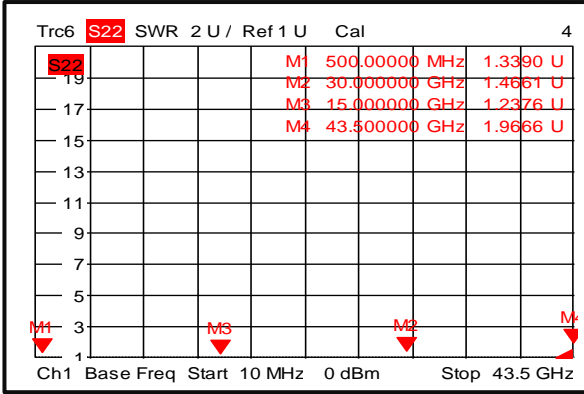


### Input VSWR @-40°C

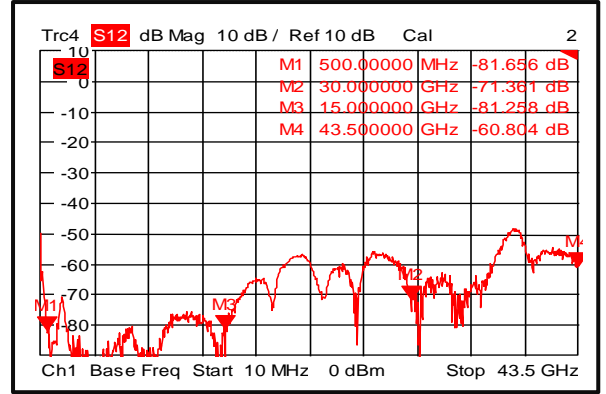




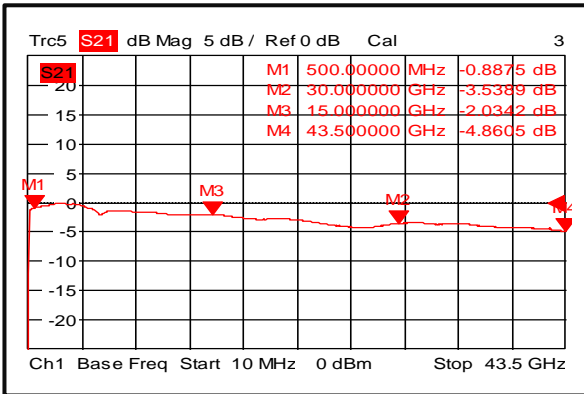
### Output VSWR @-40°C



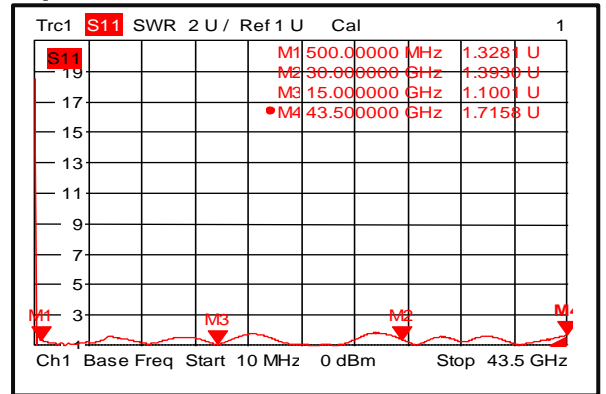
### Isolation @-40°C



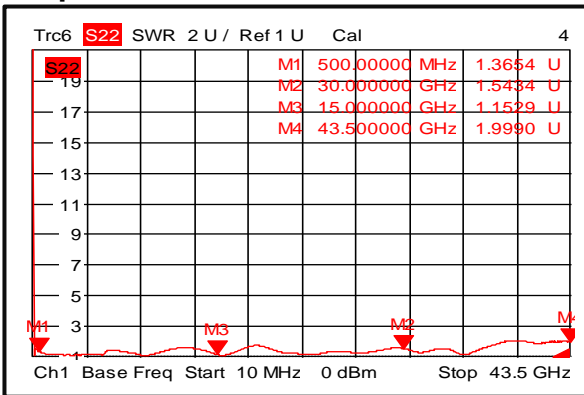
### Insertion Loss @+85°C



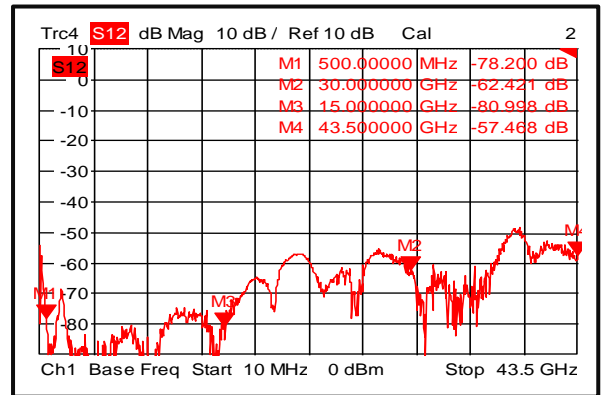
### Input VSWR @+85°C



### Output VSWR @+85°C

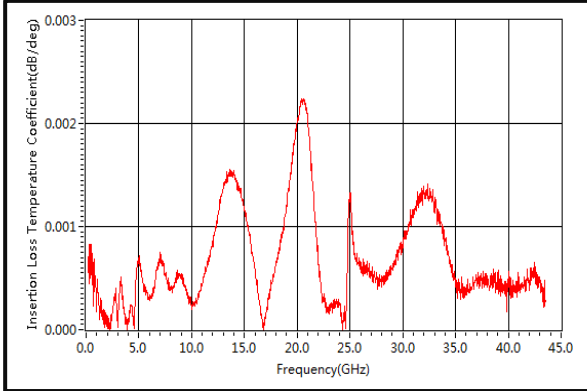


### Isolation @+85°C

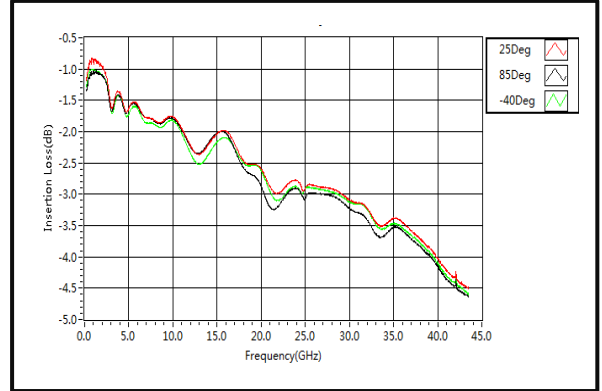




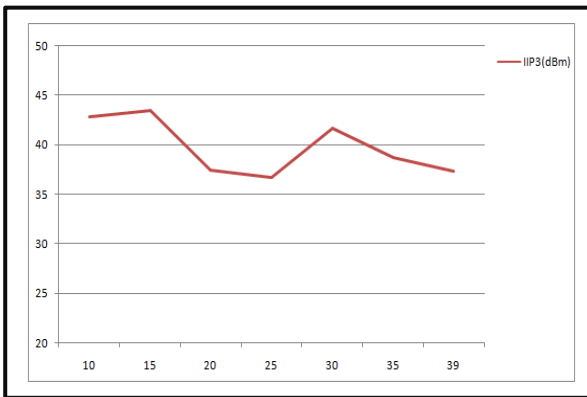
### Insertion Loss Temperature Coefficient



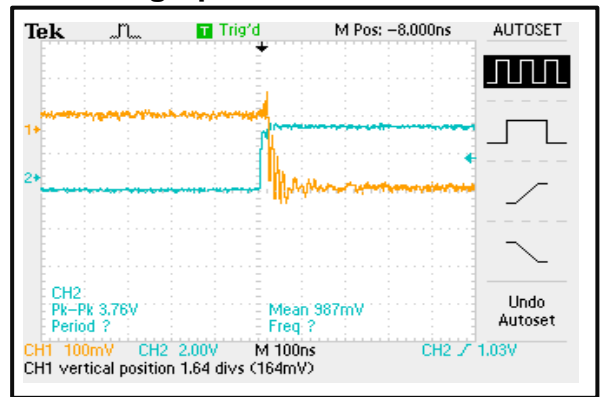
### Insertion Loss vs. Temperature



### IIP3



### Switching Speed



### Switching Speed

