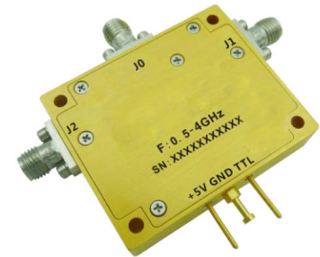




# Absorptive 0.5-4GHz Coaxial SP2T Switch

## Features

- Wide Band Operation 0.5-4GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- High Power Cold Switching
- Customization available upon request



## Typical Applications

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

RF Microwave & VSAT  
Fiber Optics

Parameters	Min.	Typ.	Max.	Units
Frequency Range		0.5 - 4		GHz
Insertion Loss		1.2	1.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	70	85		dB
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input Power (CW)			37	dBm
DC Power Dissipation		0.6		W
0.1dB Compression Point (P0.1dB)		37		dBm
IIP3		50		dBm
Switching Speed		100Typ. 500 Max.		ns
Weight		1.6 Max.		ounces
Impedance		50		Ω
Bias Current (+5V)		200 Max.		mA
Input / Output Connectors		SMA - Female		
Finish		Gold Plated		
Material		Aluminum		
Sealing		Hermetically Sealed (Optional)		



### Absolute Maximum Ratings

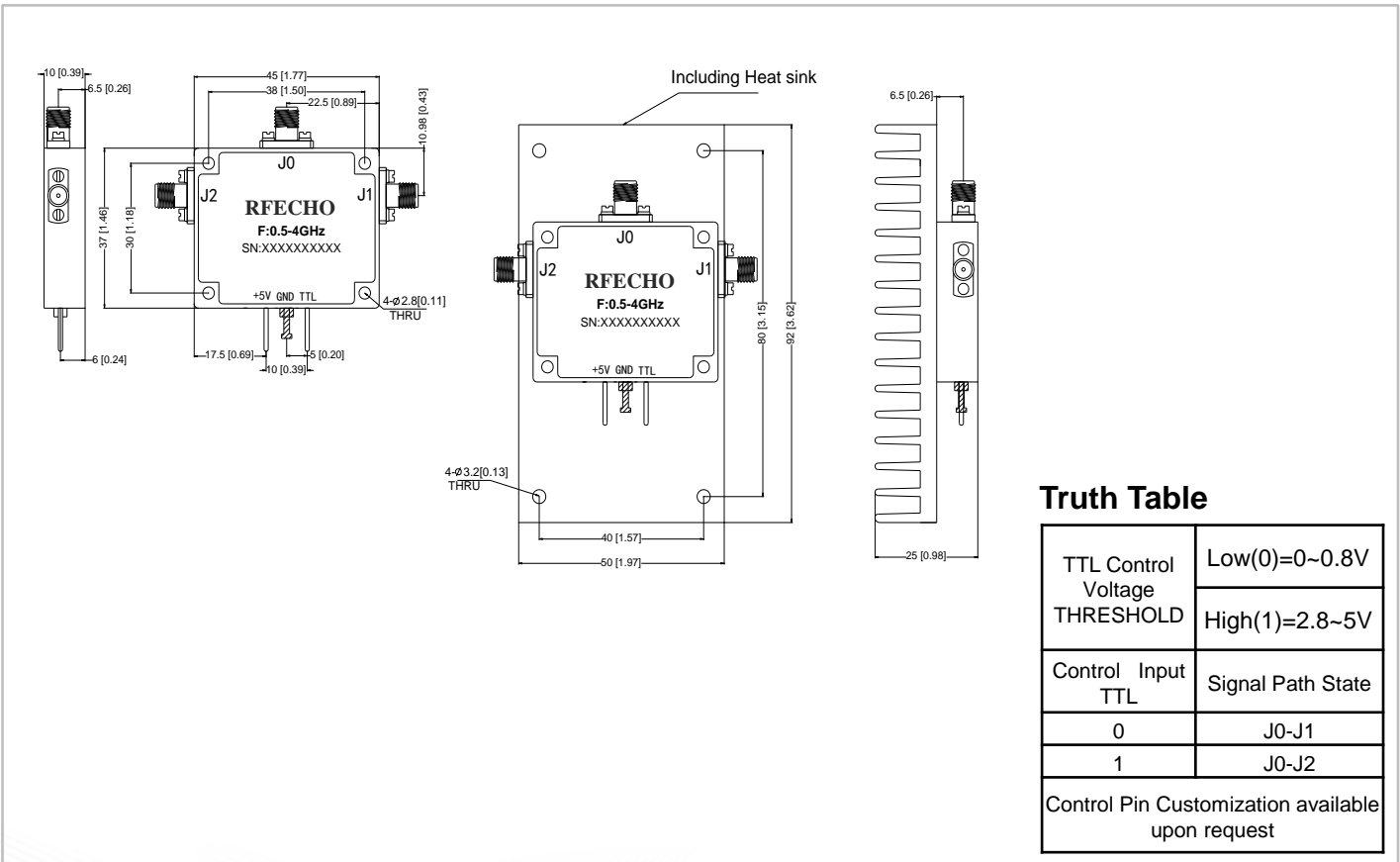
Biassing	+5V ± 10%
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### Ordering Information

Part No.	Description
DBSA0200500400D	SP2T 0.5-4GHz PIN Diode Switch

### Outline Drawing:

All Dimensions in mm (inches)  
Housing Tolerances ±0.1 (0.004)



### Environmental Specifications

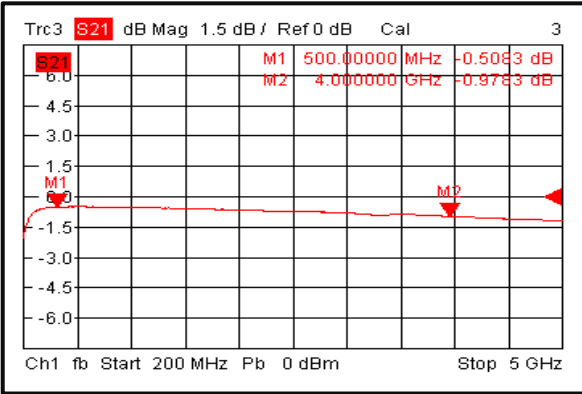
Operational Temperature	-40°C~+85°C (Case Temperature)
Storage Temperature	-50°C~+105°C
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100%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

### Truth Table

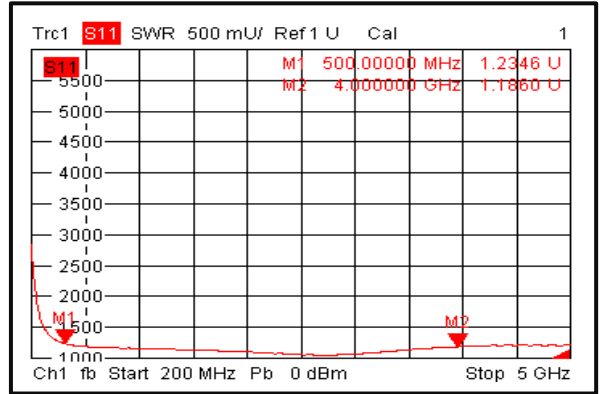
TTL Control Voltage THRESHOLD	Low(0)=0~0.8V
	High(1)=2.8~5V
Control Input TTL	Signal Path State
0	J0-J1
1	J0-J2
Control Pin Customization available upon request	



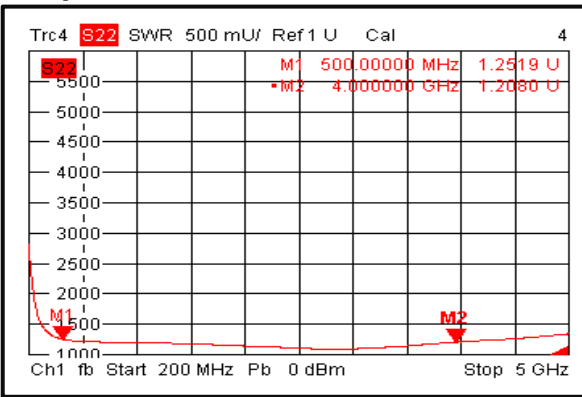
### Insertion Loss @+25°C



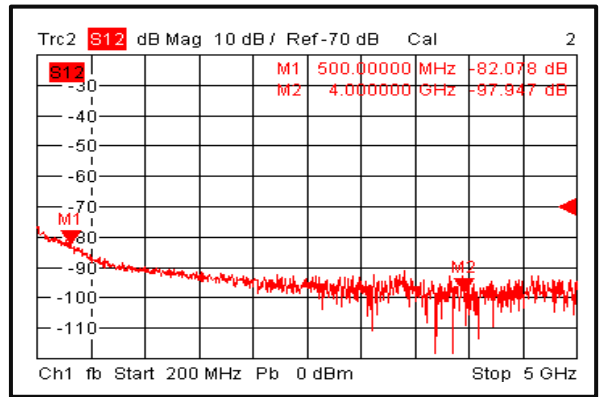
### Input VSWR @+25°C



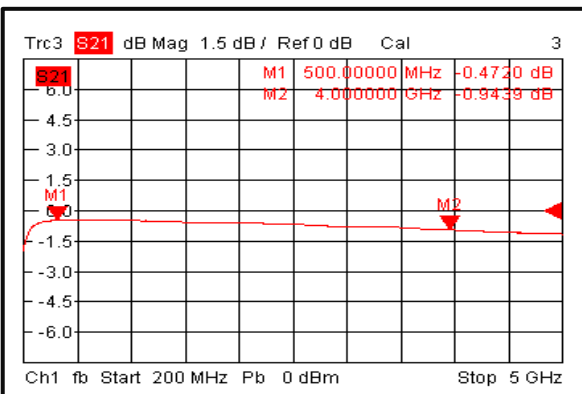
### Output VSWR @+25°C



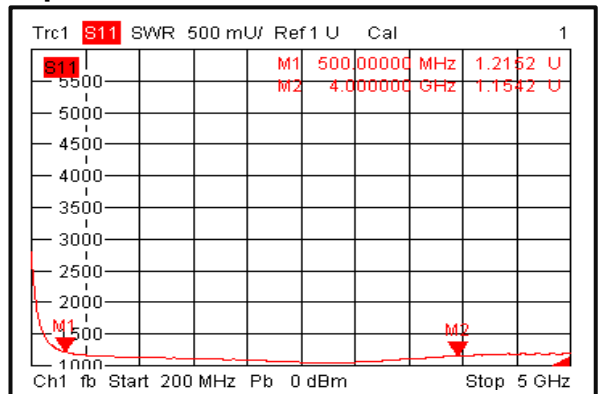
### Isolation @+25°C



### Insertion Loss @-40°C

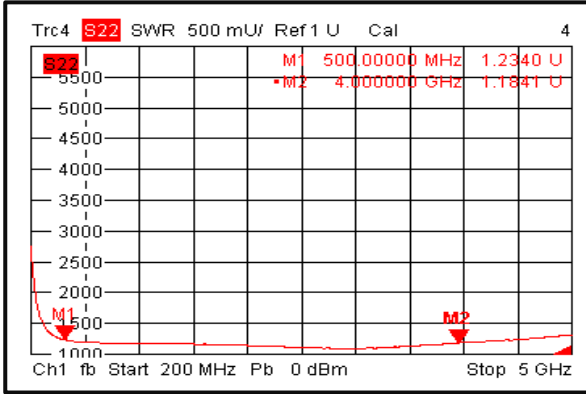


### Input VSWR @-40°C

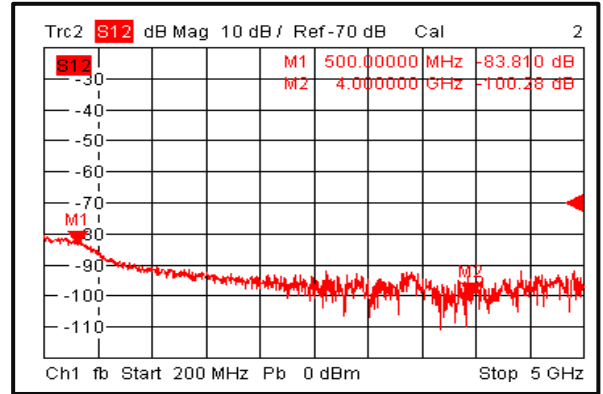




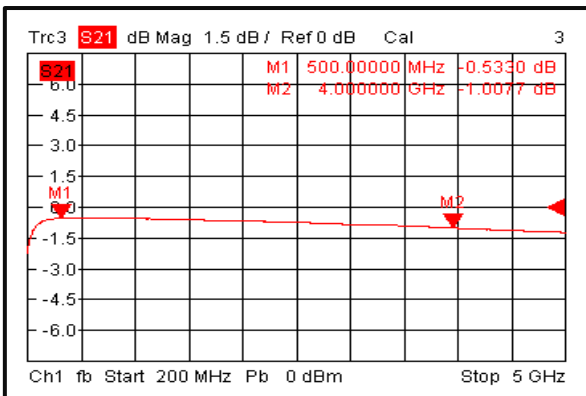
### Output VSWR @-40°C



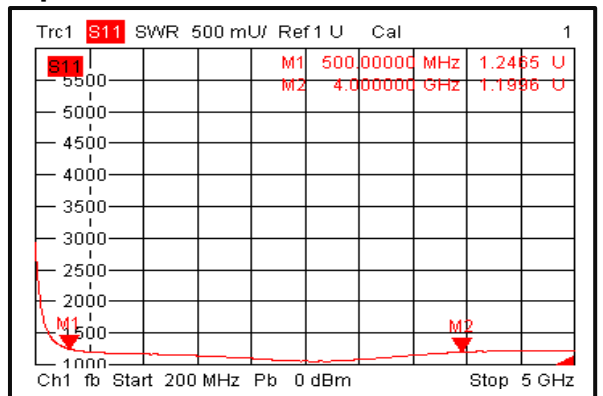
### Isolation @-40°C



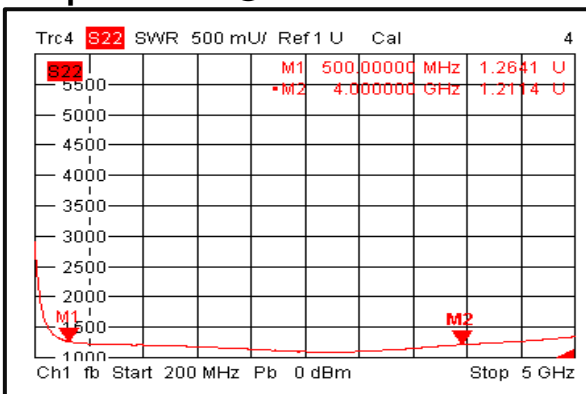
### Insertion Loss @+85°C



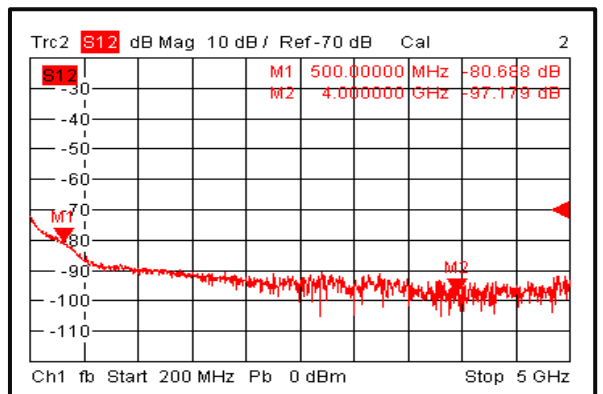
### Input VSWR @+85°C



### Output VSWR @+85°C

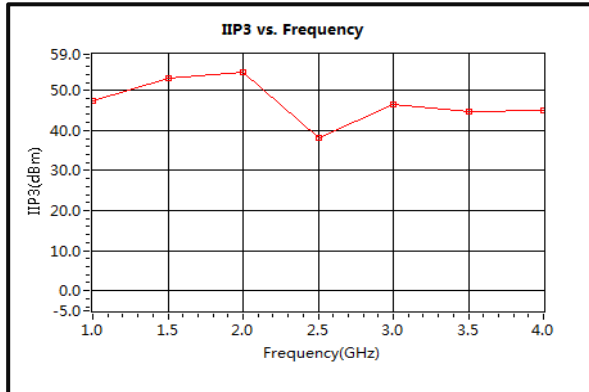


### Isolation @+85°C

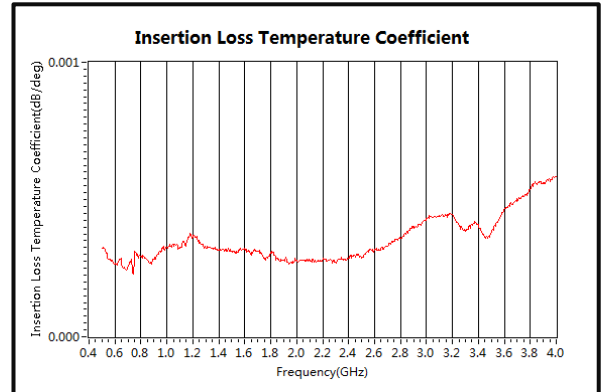




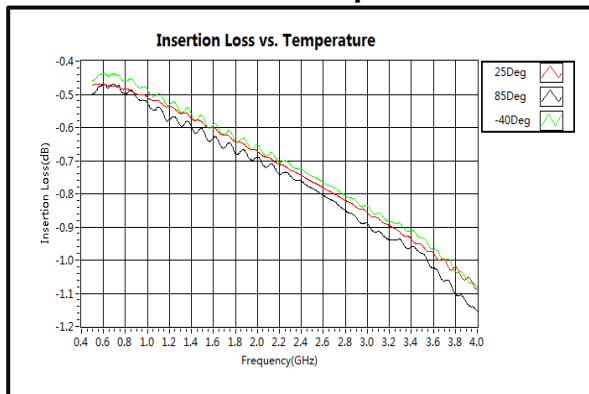
### IIP3



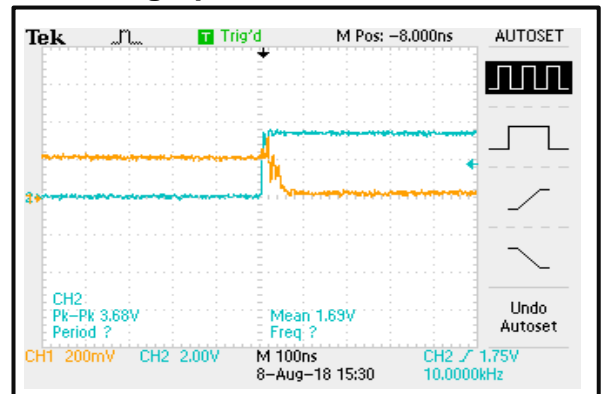
### Insertion Loss Temperature Coefficient



### Insertion Loss vs. Temperature



### Switching Speed



### Switching Speed

