



# Absorptive 0.02-3GHz Coaxial SP2T Switch

## Features

- Wide Band Operation 0.02-3GHz
- 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.	Units
Frequency Range	0.02		3	GHz
Insertion Loss		1.4	1.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation	70	80		dB
Input VSWR		1.3	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input power (CW)			30	dBm
DC Power Dissipation		0.4		W
0.1dB Compression Point (P0.1dB)		30		dBm
IIP3		55		dBm
Switching Speed		2.5		us
Weight		0.71		ounces
Impedance		50		Ω
Bias Current ( +5V / -5V )		80/50		mA
Input / Output Connectors	SMA - Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed ( optional )			



### Absolute Maximum Ratings

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

Part No.	Description
DBSA0200020300B	SP2T 0.02-3GHz PIN Diode Switch

### 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

### Outline Drawing:

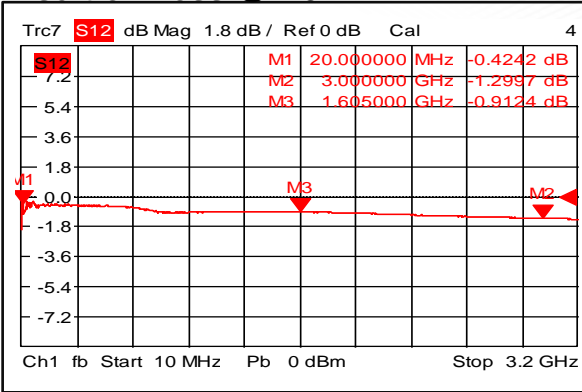
All Dimensions in mm (inches)

The drawing shows a top and side view of the component. Key dimensions include: overall width 18 [0.71], mounting hole diameter 2-∅2.2 [0.09] THRU, and various pin spacings and lengths. Labels on the component include C1, C2, J0, +5V, GND, -5V, J1, J2, and SN:XXXXXXXX.

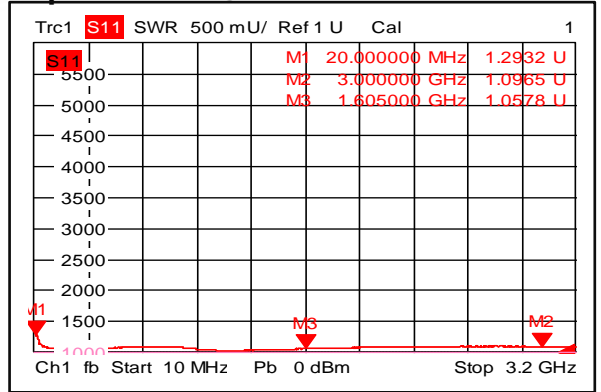
TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
Control Input TTL			High(1)=2.8~5V
Control Input TTL		State	
C1	C2		
0	0	OFF	
0	1	J0-J1	
1	0	J0-J2	
1	1	OFF	
Control Pin Customization available upon request			



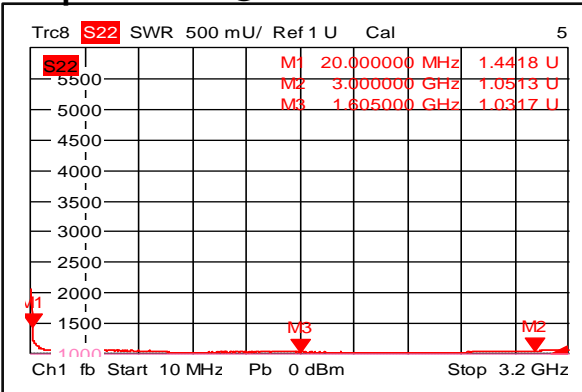
### Insertion Loss @+25°C



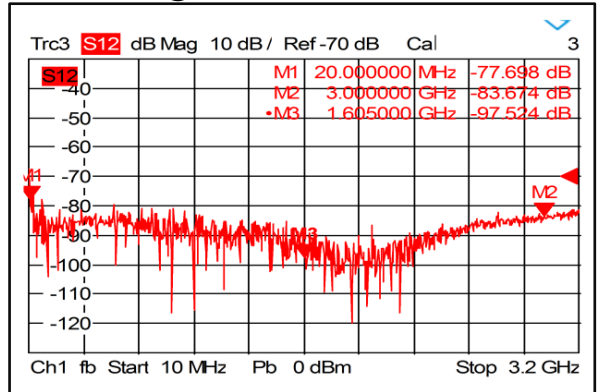
### Input VSWR @+25°C



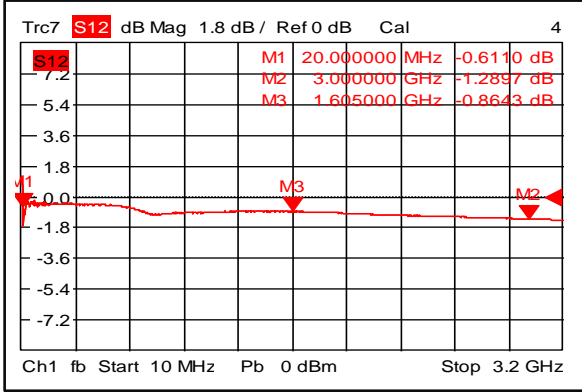
### Output VSWR @+25°C



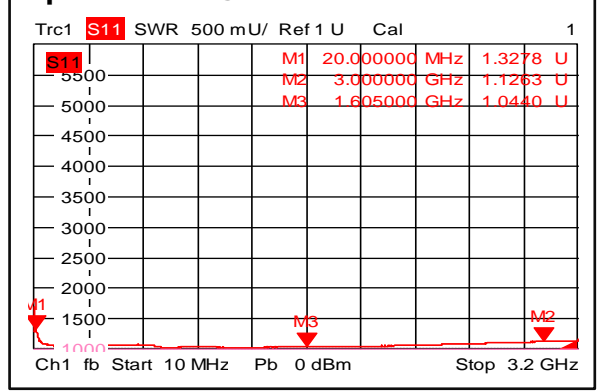
### Isolation @+25°C



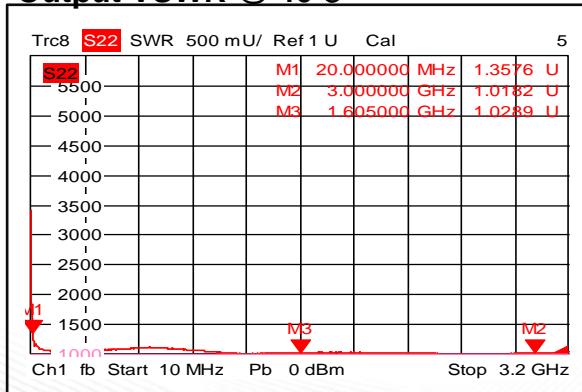
### Insertion Loss @-40°C



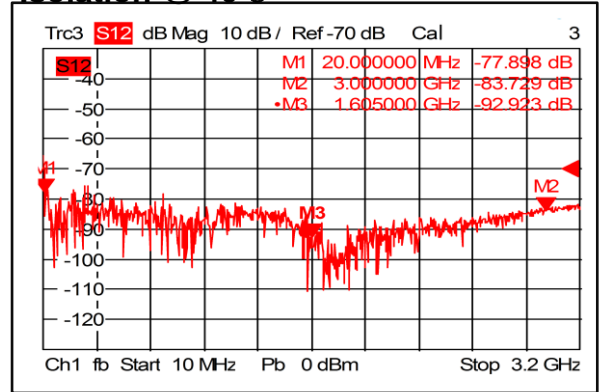
### Input VSWR @-40°C



### Output VSWR @-40°C

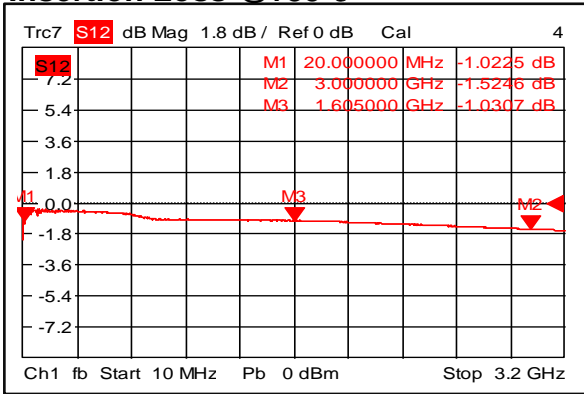


### Isolation @-40°C

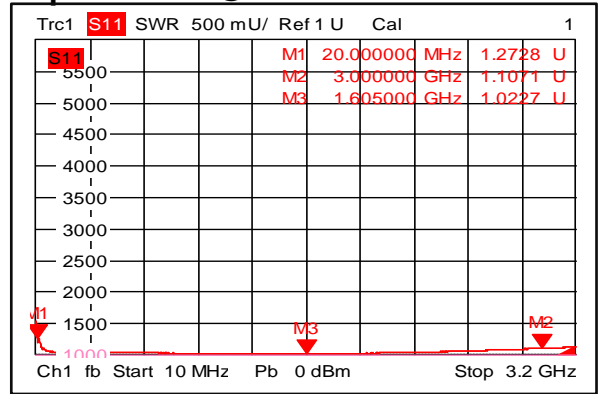




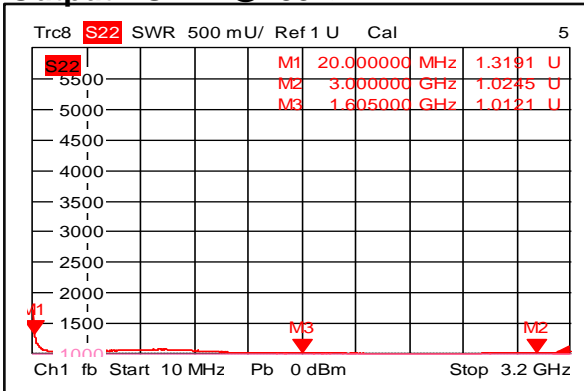
### Insertion Loss @+85°C



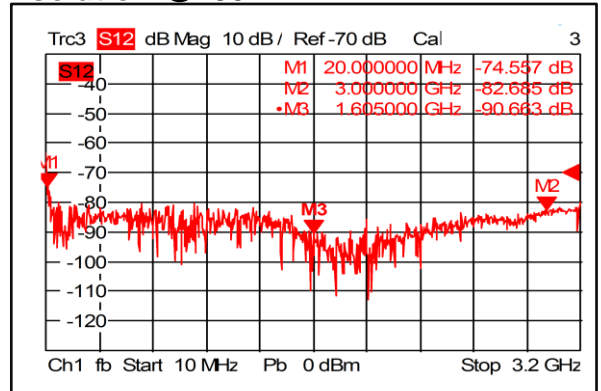
### Input VSWR @+85°C



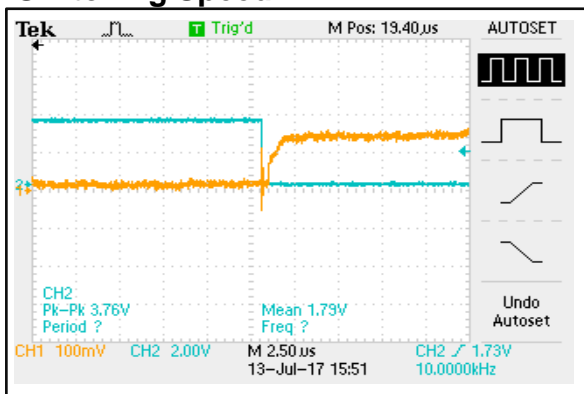
### Output VSWR @+85°C



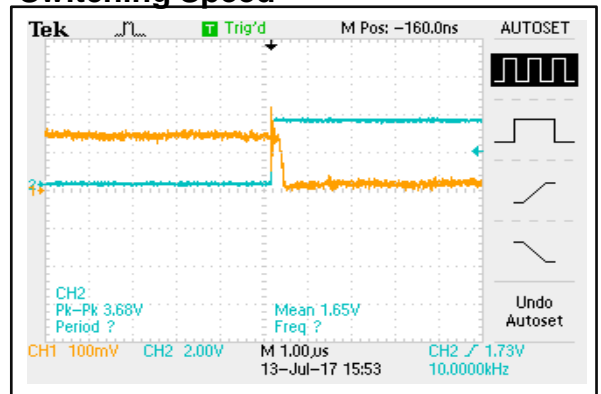
### Isolation @+85°C



### Switching Speed



### Switching Speed





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