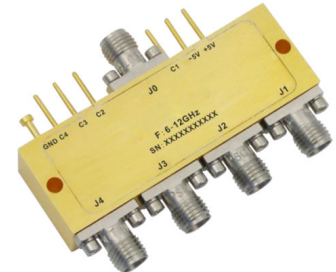




# Absorptive 6-12GHz Coaxial SP4T Switch

## Features

- Wide Band Operation 6-12GHz
- 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	6-12			GHz
Insertion Loss		2.0	2.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Isolation	60	70		dB
Input VSWR		1.4	1.8	: 1
Output VSWR		1.4	1.8	: 1
RF Input power	1			W
Power Dissipation (CW)		0.4		W
0.1dB Compression P0.1dB		30		dBm
IM3		40		dBc
IIP3		50		dBm
Switching Speed		50	100	ns
Weight	1.21			ounces
Impedance	50			$\Omega$
Biasing(+5V/-5V)	160/50			mA
Input /Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Seal	Hermetically Sealed ( optional )			



### Absolute Maximum Ratings

Biassing	+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 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
DBSA0406001200A	SP4T 6-12GHz PIN Diode Switch

### Outline Drawing:

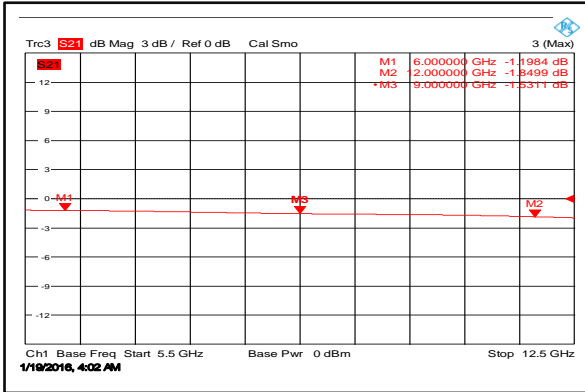
All Dimensions in mm (inches)

#### Truth Table

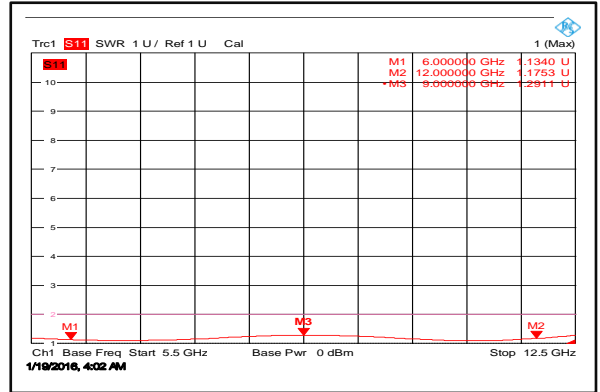
TTL Control Voltage THRESHOLD				Low(0)=0~0.8V
				High(1)=2.8~5V
Control Input TTL				Signal Path State
C4	C3	C2	C1	
0	0	0	0	NC
1	1	1	0	J0-J1
1	1	0	1	J0-J2
1	0	1	1	J0-J3
0	1	1	1	J0-J4
1	1	1	1	OFF
Control Pin Customization available upon request				



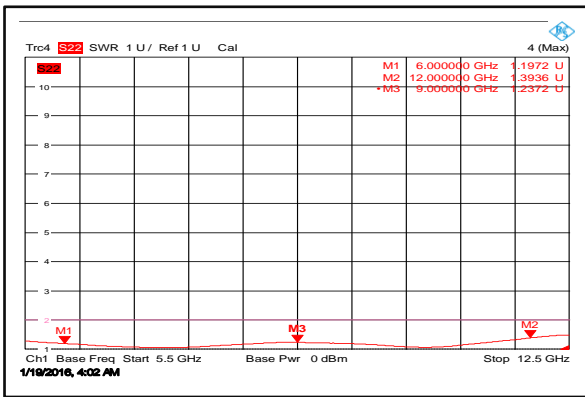
### Insertion Loss



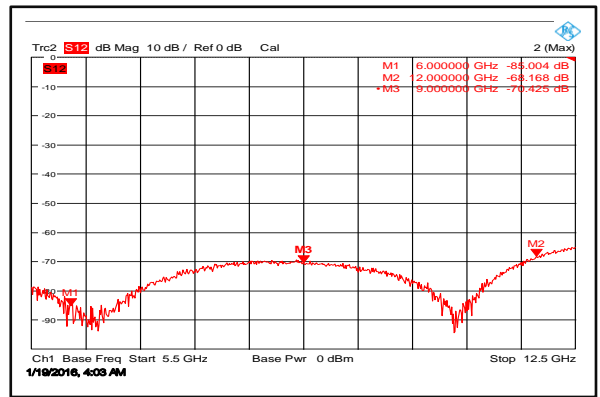
### Input VSWR



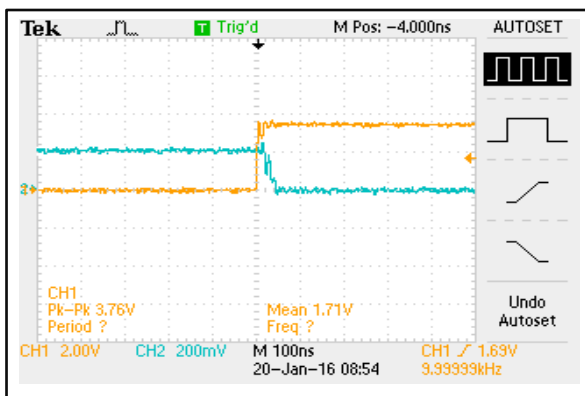
### Output VSWR



### Isolation



### Turn on Switching Speed



### Turn off Switching Speed

