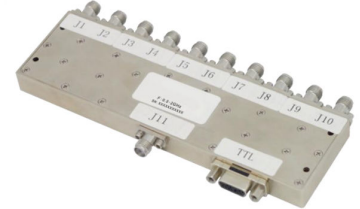




# Absorptive 0.5-2GHz Coaxial SP10T Switch

## Features

- Wide Band Operation 0.5-2GHz
- 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	0.5-2			GHz
Insertion Loss		1.5	2.0	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Isolation	60	80		dB
Input VSWR		1.3	1.5	:1
Output VSWR		1.3	1.5	:1
RF Input power (CW)	1			W
DC Power Dissipation (CW)		0.3		W
0.1dB Compression P0.1dB		30		dBm
Switching Speed			100	ns
Weight				ounces
Impedance	50			$\Omega$
Biasing(+5V/-5V)	400/50			mA
Input /Output Connectors	SMA-Female			
Finish	Nickel plated			
Material	Aluminum			
Seal	Hermetically Sealed ( optional )			



### Absolute Maximum Ratings

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

Part No.	Description
DBSA1000500200A	SP10T 0.5-2GHz PIN Diode Switch

### 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

### Outline Drawing:

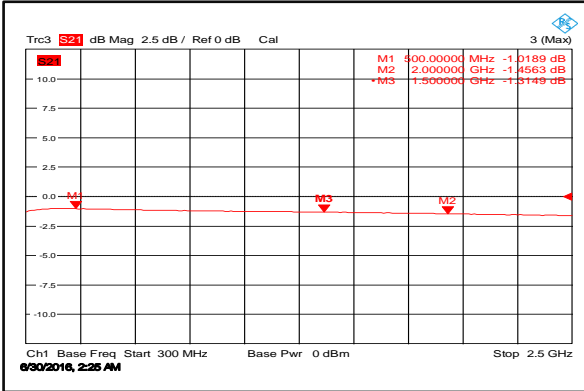
All Dimensions in mm (inches)

TTL Control Voltage THRESHOLD				Low(0)=0~0.8V
Control Input TTL				High(1)=2.8~5V
C4	C3	C2	C1	Signal Path State
0	0	0	0	J11-J1
0	0	0	1	J11-J2
0	0	1	0	J11-J3
0	0	1	1	J11-J4
0	1	0	0	J11-J5
0	1	0	1	J11-J6
0	1	1	0	J11-J7
0	1	1	1	J11-J8
1	0	0	0	J11-J9
1	0	0	1	J11-J10

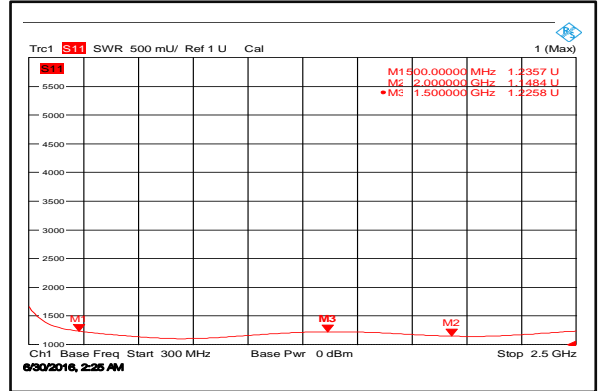
Control Pin Customization available upon request



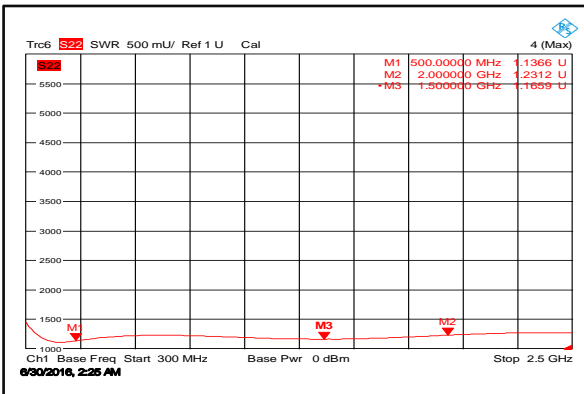
### Insertion Loss



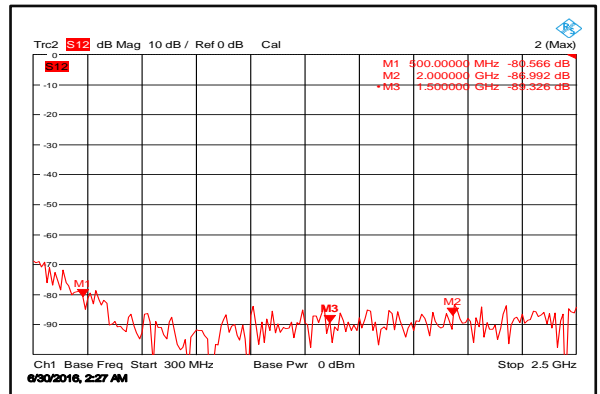
### Input VSWR



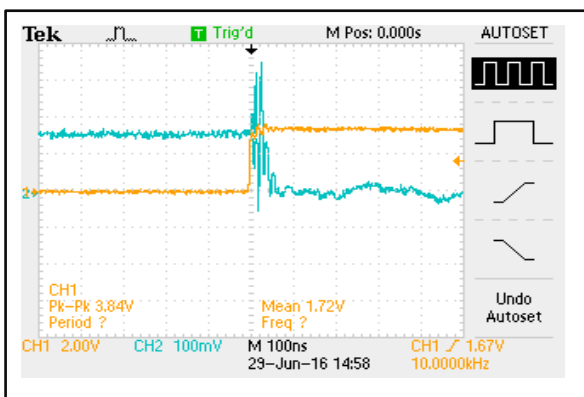
### Output VSWR



### Isolation



### Turn on Switching Speed



### Turn off Switching Speed

