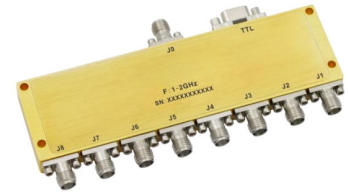




# Absorptive 1-2GHz Coaxial SP8T Switch

## Features

- Wide Band Operation 1-2GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request



## Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Fiber Optics

RF Microwave & VSAT  
Test Instrument

Parameters	Min	Typ.	Max	Units
Frequency Range		1-2		GHz
Insertion Loss		1.6	2.0	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Isolation	80	85		dB
Input VSWR		1.3	1.5	:1
Output VSWR		1.3	1.5	:1
RF Input power (CW)	1			W
Power Dissipation (CW)		0.35		W
0.1dB Compression P0.1dB		30		dBm
IM3		40		dBc
IIP3		50		dBm
Switching Speed			100	ns
Weight		2.47		ounces
Impedance		50		Ω
Biasing(+5V/-5V)		350/30		mA
Input /Output Connector		SMA-Female		
Finishing		Gold Plating		
Material		Aluminum		
Seal		Hermetically Sealed ( optional )		



### Absolute Maximum Ratings

Biasing	+5V ± 10%/-5V ± 10%
TTL Control Voltage	0~0.8V/2.8~5V

### Environmental Specifications

Operational Temperature	-45°C~+85°C
Storage Temperature	-55°C~+125°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 35c, 95%RH at 40°c
Shock	20G for 11msec half sine wave,3 axis both directions

### Ordering Information

Part No.	ECCN	Description
DBSA0801000200A	EAR99	SP8T 1-2GHz PIN Diode Switch

### Outline Drawing:

All Dimensions in mm (inches)

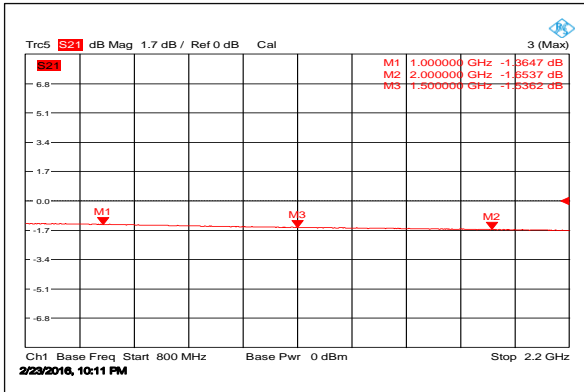
**Truth Table**

Control	Input TTL	Signal Path State	
C3	C2	C1	
0	0	0	J0-J1
0	0	1	J0-J2
0	1	0	J0-J3
0	1	1	J0-J4
1	0	0	J0-J5
1	0	1	J0-J6
1	1	0	J0-J7
1	1	1	J0-J8

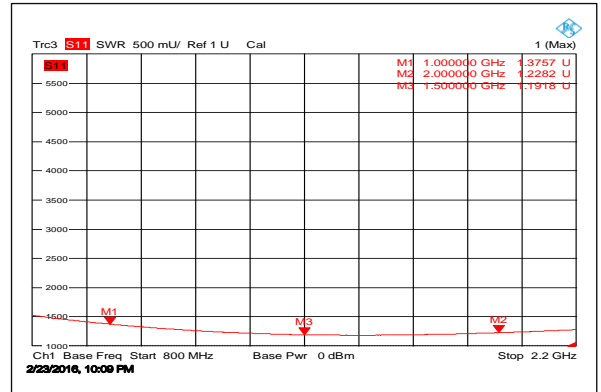
Control Pin Customization available upon request



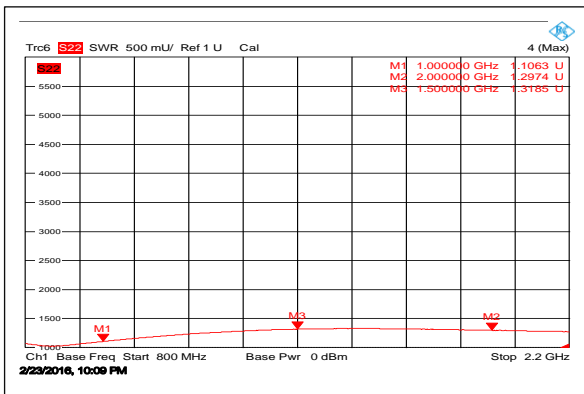
## Insertion Loss



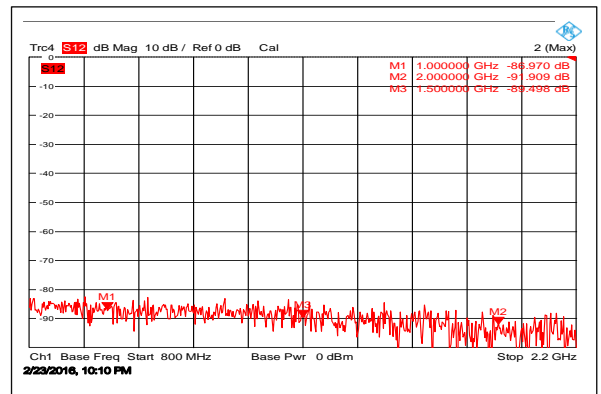
## Input VSWR



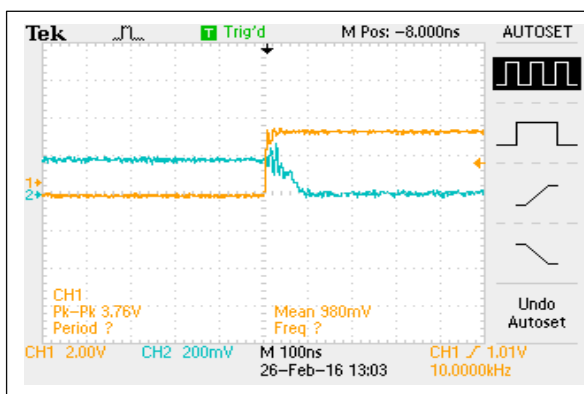
## Output VSWR



## Isolation



## Turn on Switching Speed



## Turn off Switching Speed

