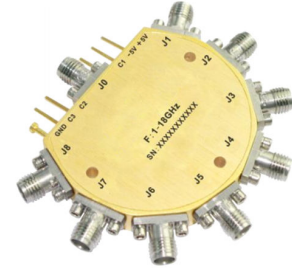




# Absorptive 1-18GHz Coaxial SP8T Switch

## Features

- Ultra Wide Band Operation 1-18GHz
- 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.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1-6			6-12			12-18			GHz
Insertion Loss		1.8	2.2		2.0	2.8		3.2	3.8	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	60	78		60	80		60	75		dB
Input VSWR		1.5	1.8		1.4	1.8		1.5	2.0	: 1
Output VSWR		1.5	1.8		1.4	1.8		1.5	2.0	: 1
RF Input power (CW)			30			30			30	dBm
DC Power Dissipation		1.8			1.8			1.8		W
0.1dB Compression Point (P0.1dB )		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed			100			100			100	ns
Weight	1.76									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	350/50									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

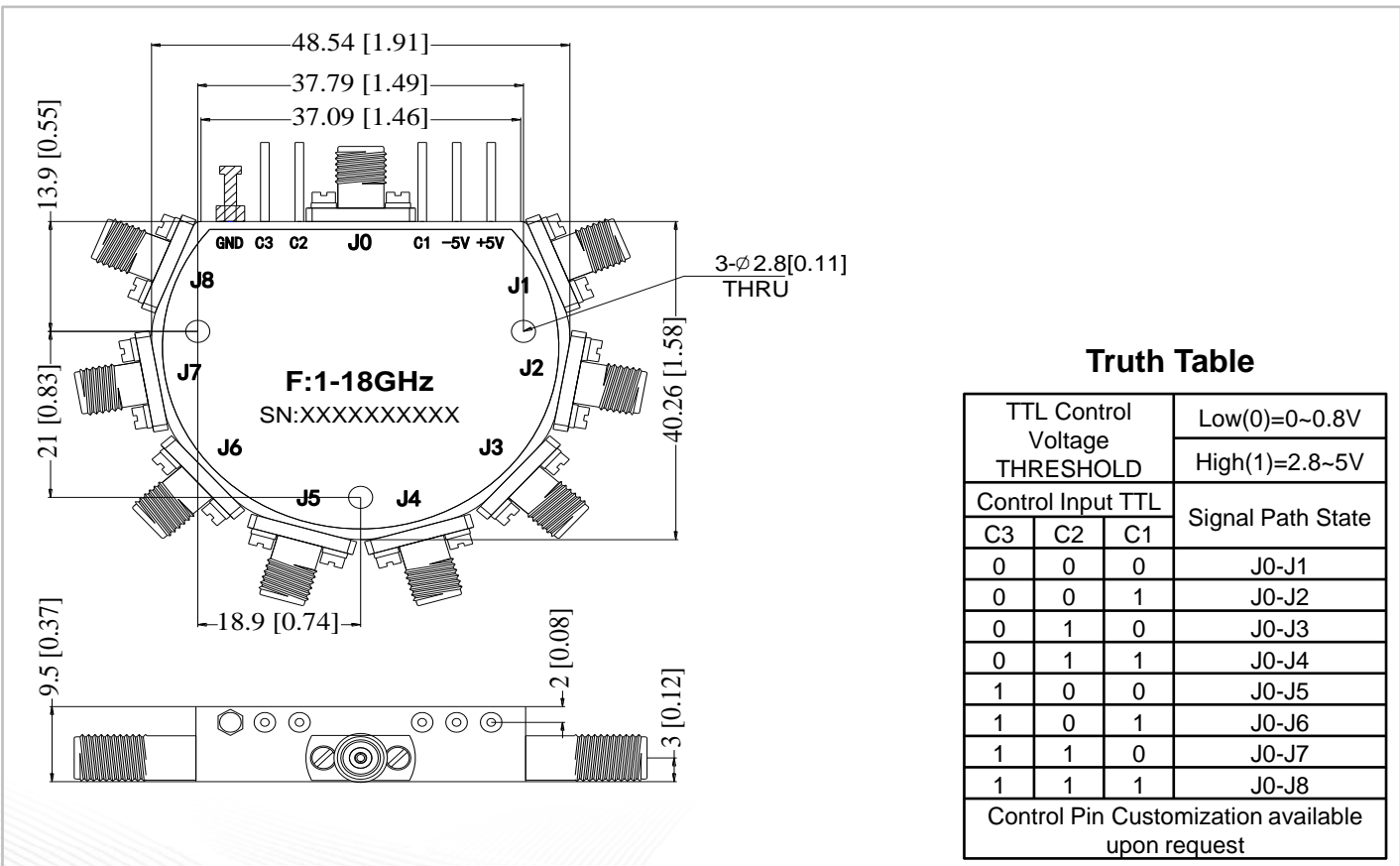
Part No.	Description
DBSA0801001800A	SP8T 1-18GHz PIN Diode Switch

### 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)



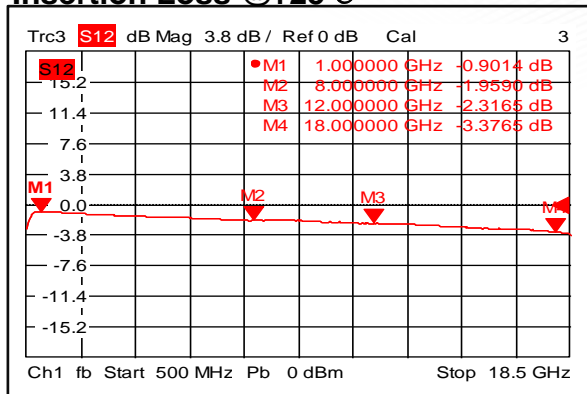
### Truth Table

TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
Control Input TTL			High(1)=2.8~5V
C3	C2	C1	Signal Path State
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

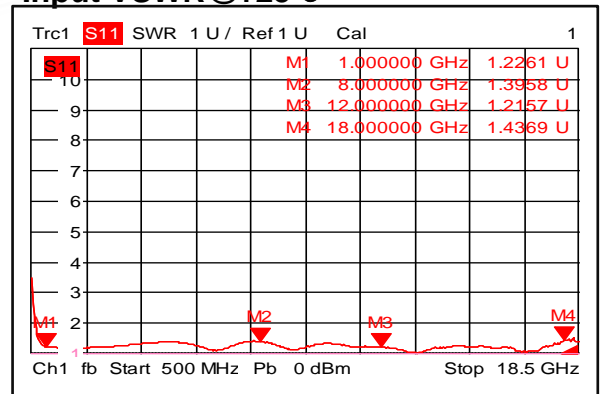
Control Pin Customization available upon request



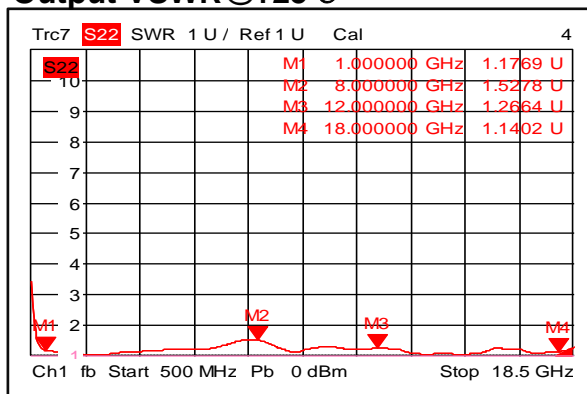
### Insertion Loss @+25°C



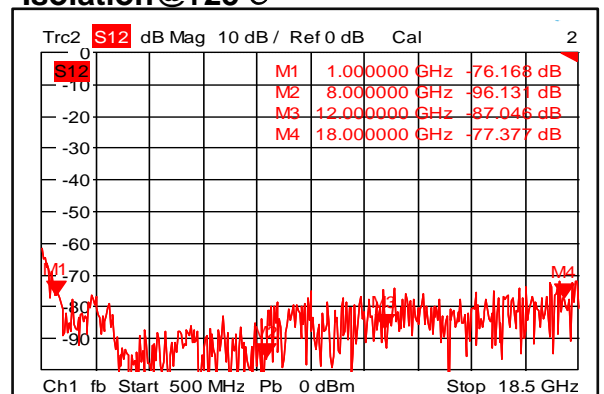
### Input VSWR @+25°C



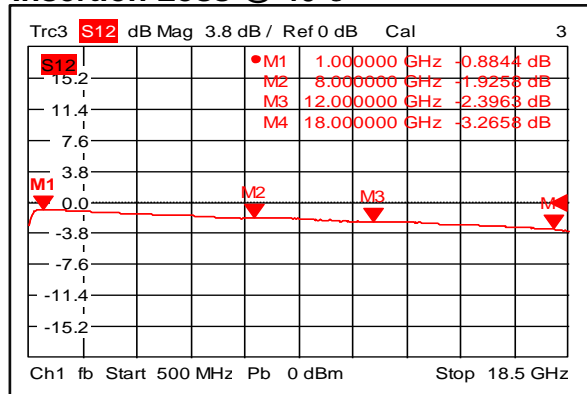
### Output VSWR @+25°C



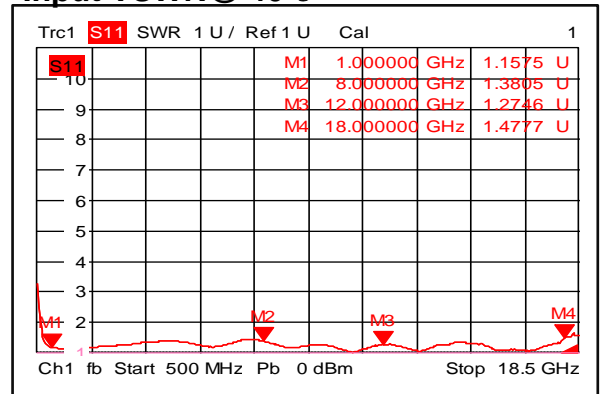
### Isolation @+25°C



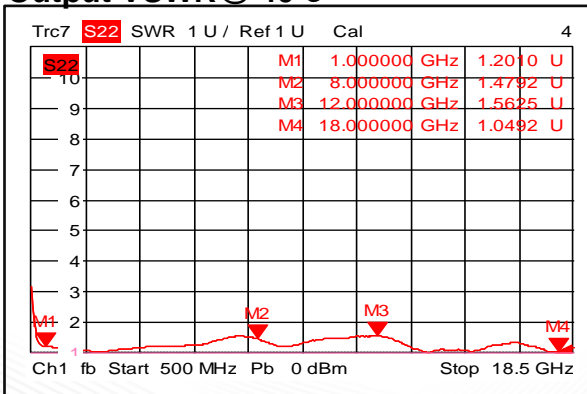
### Insertion Loss @-40°C



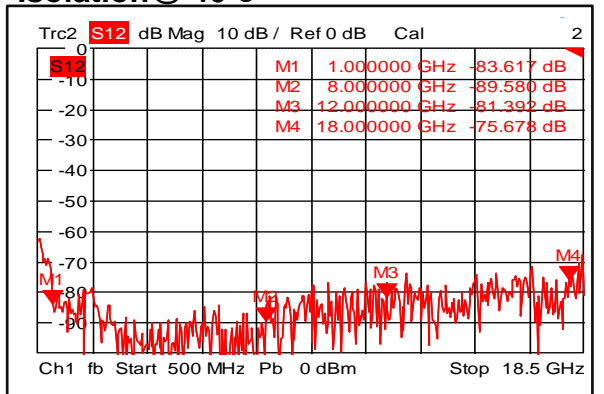
### Input VSWR @-40°C



### Output VSWR @-40°C

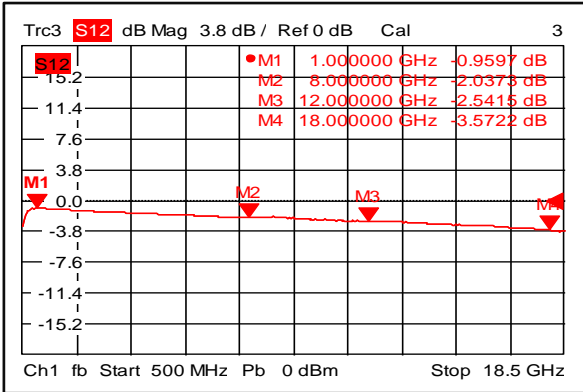


### Isolation @-40°C

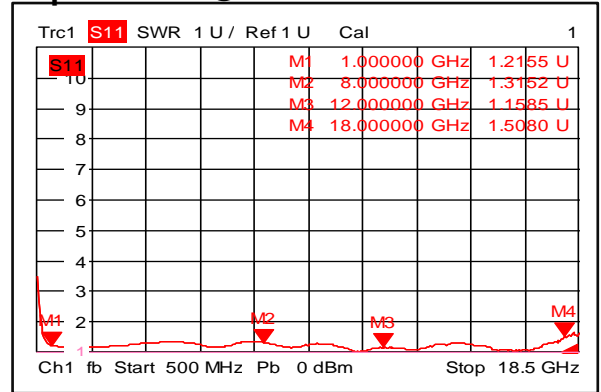




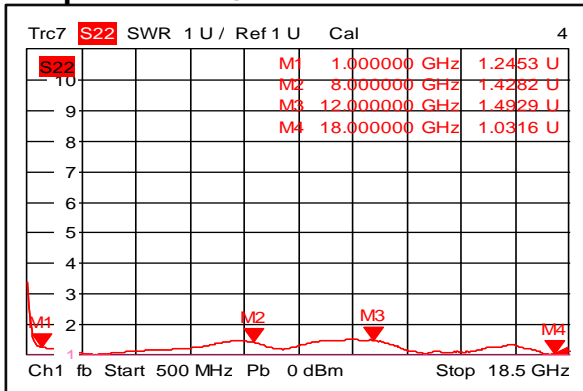
### Insertion Loss @+85°C



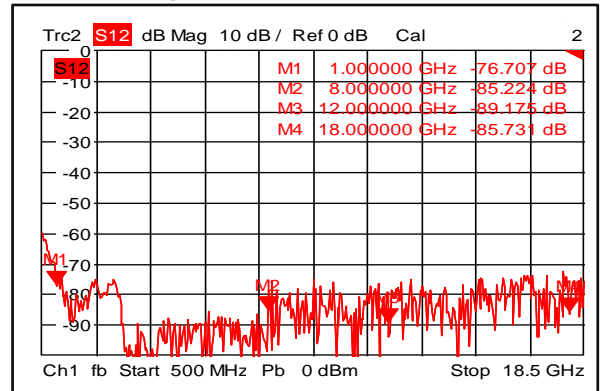
### Input VSWR @+85°C



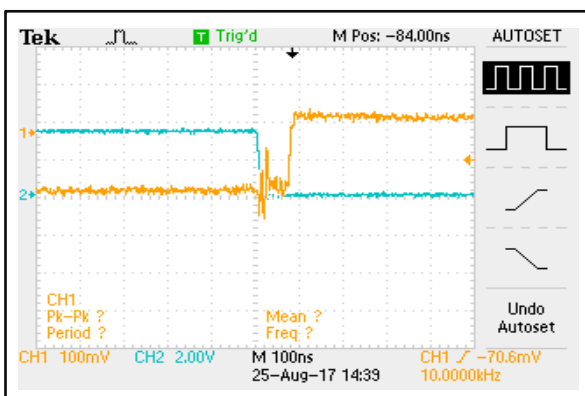
### Output VSWR @+85°C



### Isolation @+85°C



### Switching Speed



### Switching Speed

