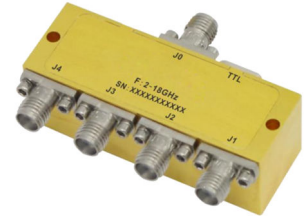




# Absorptive 2-18GHz Coaxial SP4T Switch

## Features

- Ultra Wide Band Operation 2-18GHz
- 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	2~6		6~12		12~18		12~18			GHz
Insertion Loss		1.5	2.0		2.2	2.8		3.0	3.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	70	75		70	75		60	65		dB
Input VSWR		1.5	1.8		1.5	1.8		1.6	1.8	: 1
Output VSWR		1.5	1.8		1.5	1.8		1.6	1.8	: 1
RF Input power			30			30			30	dBm
DC Power Dissipation		1			1			1		W
0.1dB Compression Point( P0.1dB )		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed	100									ns
Weight	1.41									ounces
Impedance	50									Ω
Bias Current ( +5V / -5V )	160/50									mA
Input / Output Connectors	SMA-Female									
Interface and Control Connector	MICRO-D9(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
DBSA0402001800A	SP4T 2-18GHz PIN Diode Switch

### Outline Drawing:

All Dimensions in mm (inches)

**MICRO-D9(Female)**

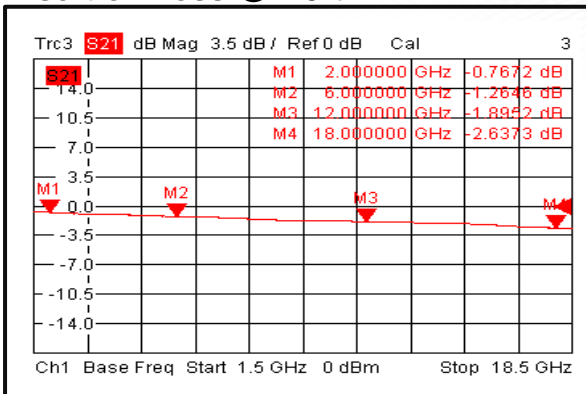
**Truth Table**

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	Not used
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

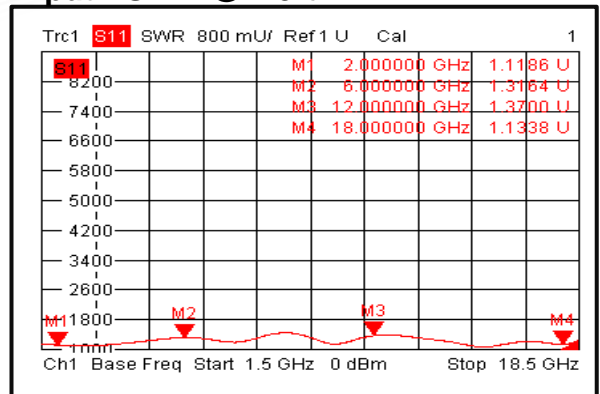
Control Pin Customization available upon request



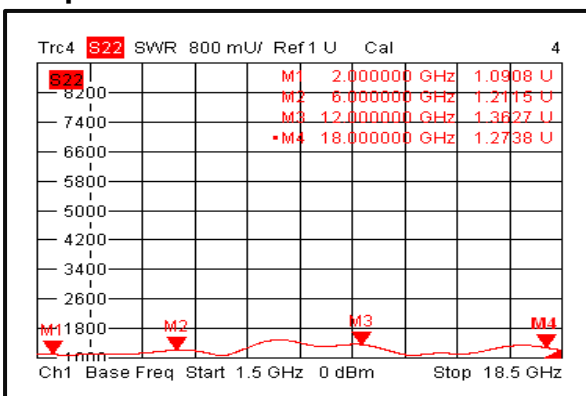
### Insertion Loss @+25°C



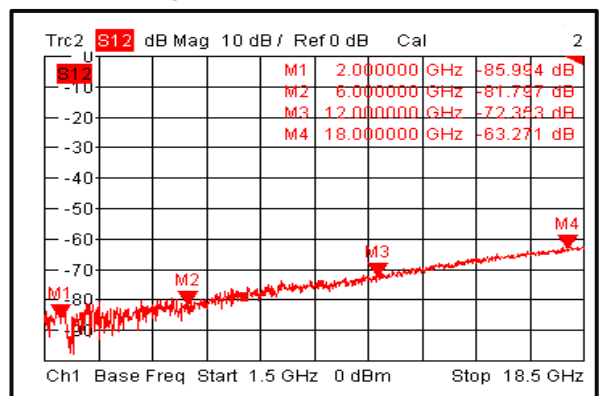
### Input VSWR @+25°C



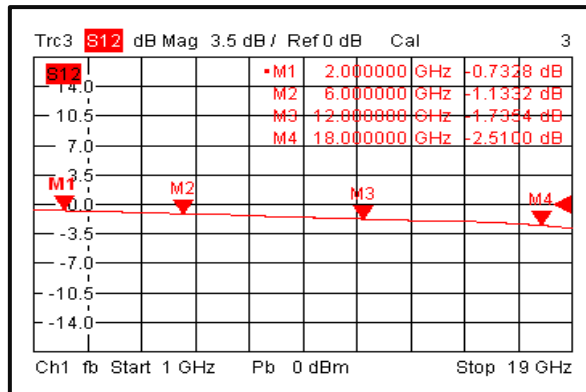
### Output VSWR @+25°C



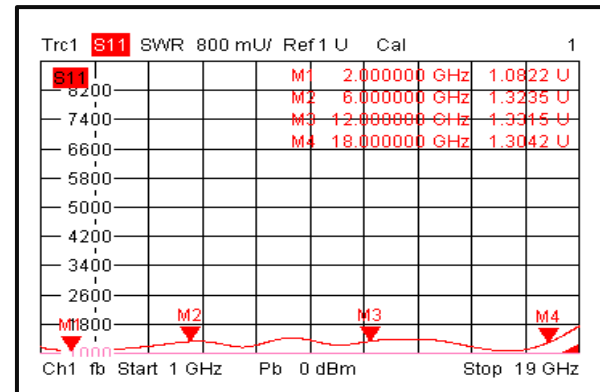
### Isolation @+25°C



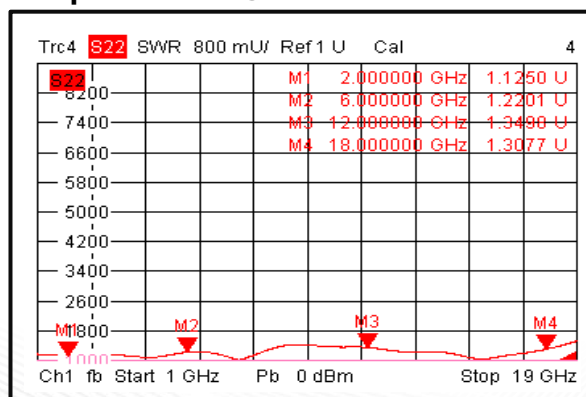
### Insertion Loss @-40°C



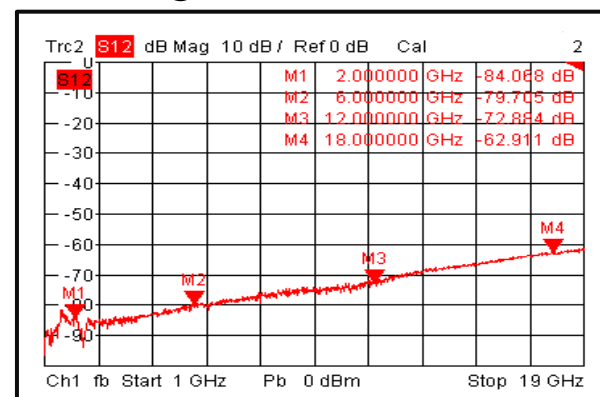
### Input VSWR @-40°C



### Output VSWR @-40°C

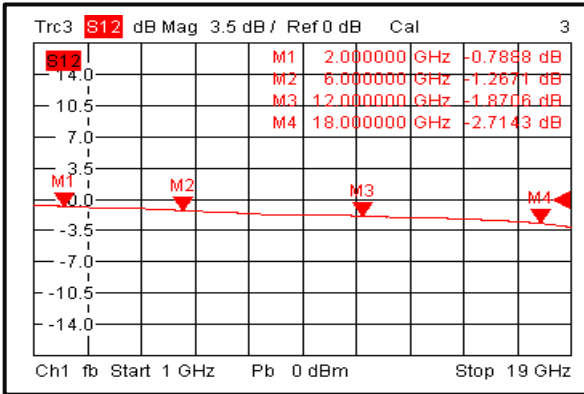


### Isolation @-40°C

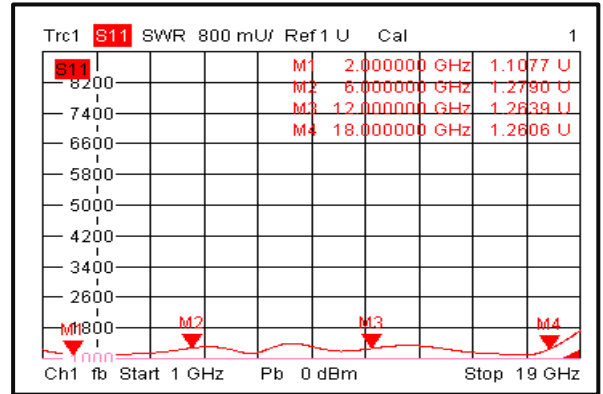




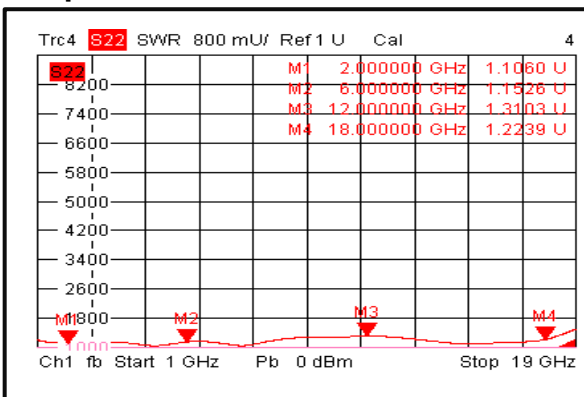
### Insertion Loss @+85°C



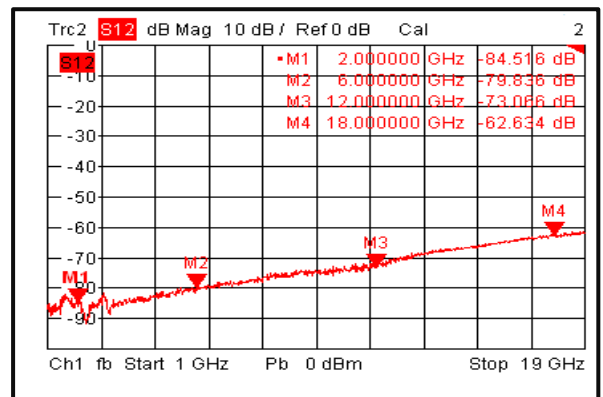
### Input VSWR @+85°C



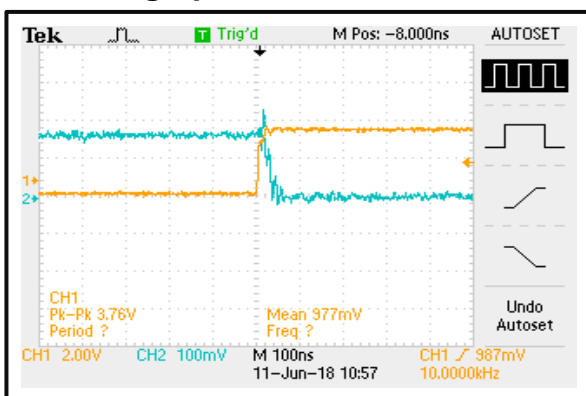
### Output VSWR @+85°C



### Isolation @+85°C



### Switching Speed



### Switching Speed

