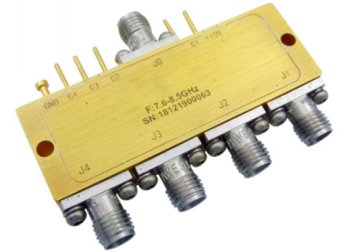




# Absorptive Coaxial SP4T Switch 7.6–8.5GHz

## Features

- Wide Band Operation 7.6-8.5GHz
- 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	7.6~8.5			GHz
Insertion Loss		1.5	2.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Isolation	60	70		dB
Input VSWR		1.4	1.5	: 1
Output VSWR		1.4	1.5	: 1
RF Input Power			30	dBm
DC Power Dissipation			1	W
0.1dB Compression Point (P0.1dB)		30		dBm
IIP3		55		dBm
Switching Speed			100	ns
Weight	1.06			ounces
Impedance	50			$\Omega$
Bias Current ( +15V)	200			mA
Input / Output Connectors	SMA - Female			
Finish	Gold Plated			
Material	Aluminum			
Seal	Hermetically Sealed ( Optional )			



### Absolute Maximum Ratings

Biasing	+15V±10%
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### Ordering Information

Part No.	Description
DBSA0407600850A	SP4T 7.6-8.5GHz 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)

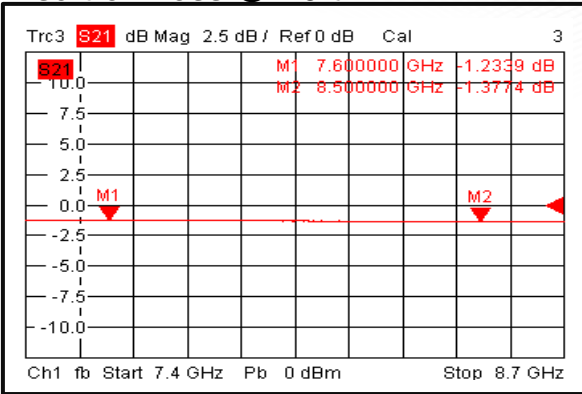
The drawing shows a rectangular component with a top view and a side view. The top view labels include GND, C4, C3, C2, J0, C1, +15V, J4, J3, J2, and J1. Dimensions are provided in mm and inches. A note indicates 2-Ø2.8 [Ø0.11] THRU holes. The side view shows a height of 9.5 [0.37] mm and a width of 2 [0.08] mm. The bottom view shows a distance of 13 [0.51] mm between J3 and J2, and 39 [1.54] mm between J4 and J1.

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

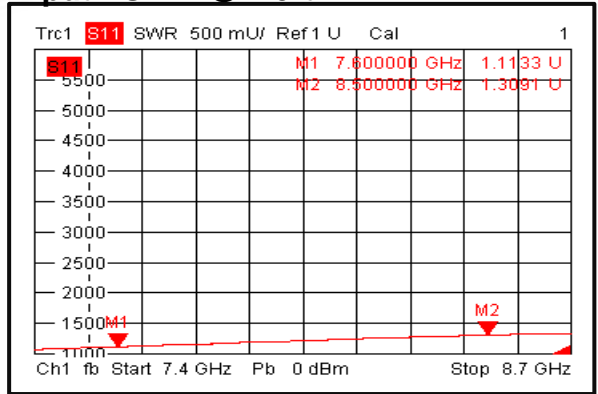
Control Pin Customization available upon request



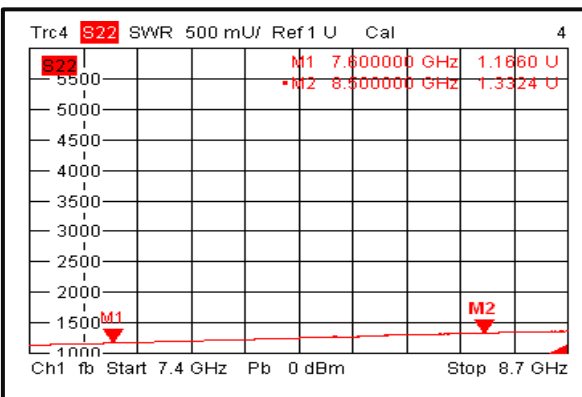
### Insertion Loss @+25°C



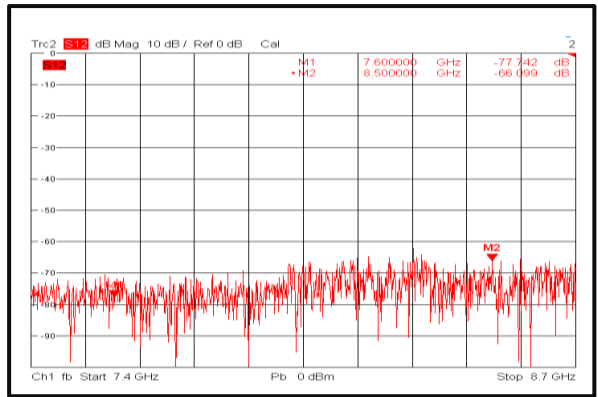
### Input VSWR @+25°C



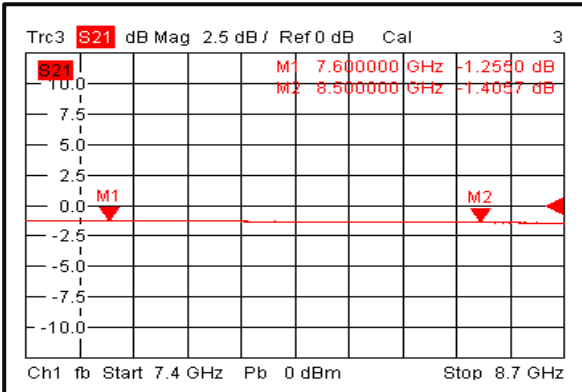
### Output VSWR @+25°C



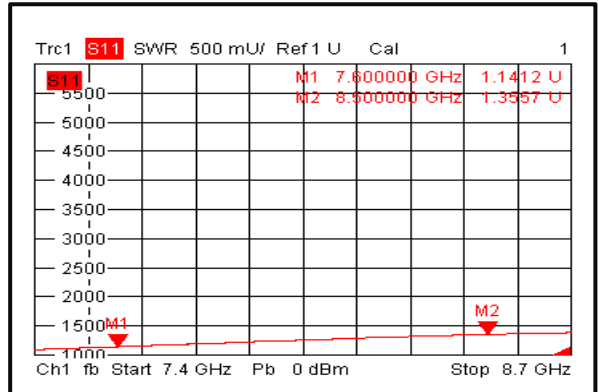
### Isolation @+25°C



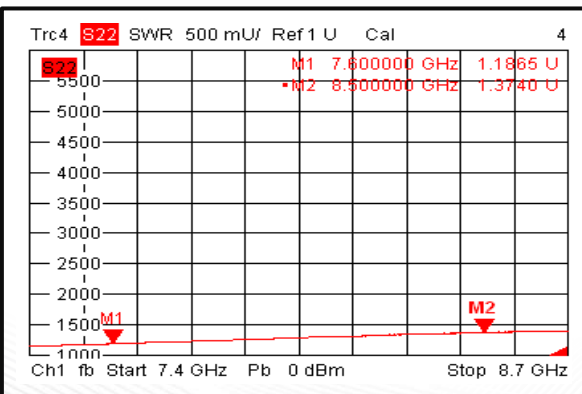
### Insertion Loss @-40°C



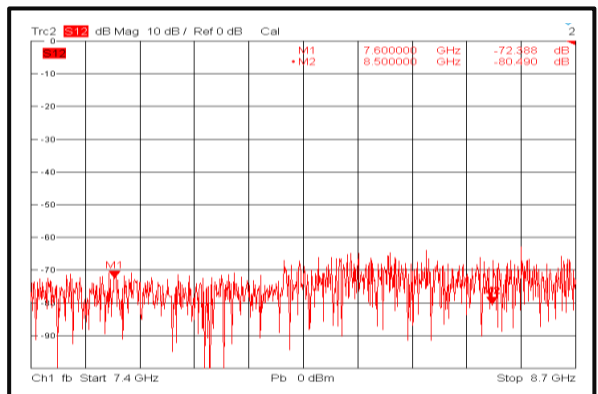
### Input VSWR @-40°C



### Output VSWR @-40°C

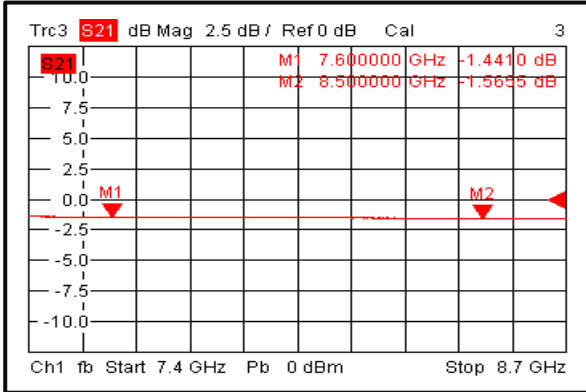


### Isolation @-40°C

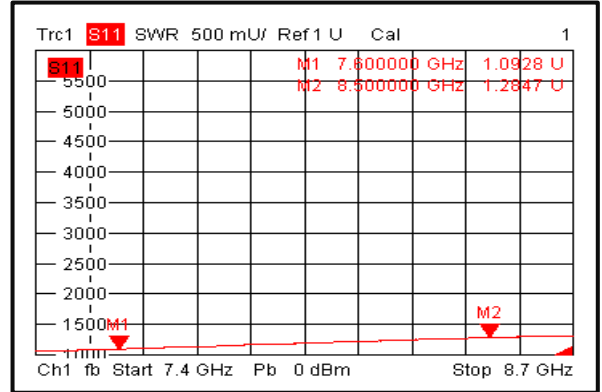




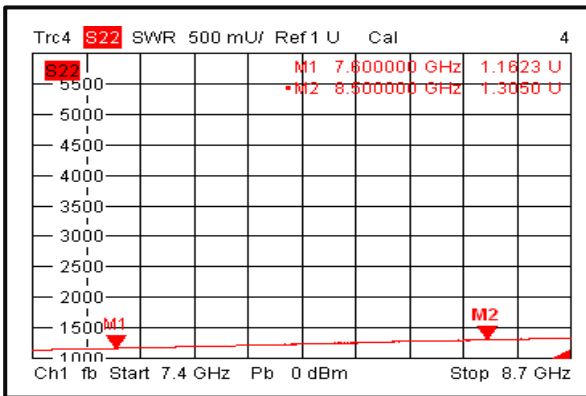
### Insertion Loss @+85°C



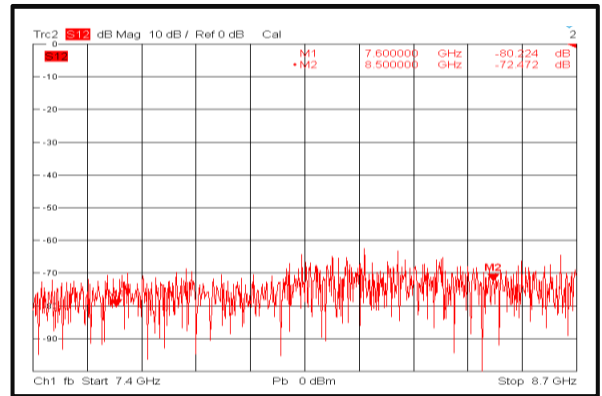
### Input VSWR @+85°C



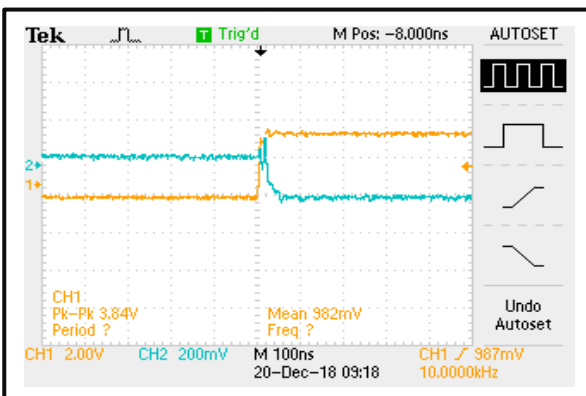
### Output VSWR @+85°C



### Isolation @+85°C



### Switching Speed



### Switching Speed

