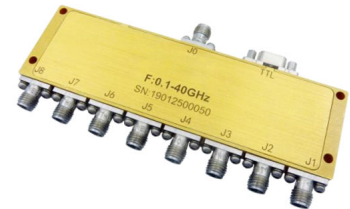




# Absorptive 0.1-40GHz Coaxial SP8T Switch

## Features

- Ultra Wide Band Operation 0.1-40GHz
- TTL compatible driver included
- 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	Min	Typ.	Max	Units
Frequency Range	0.1		18	18		40	GHz
Insertion Loss		7.0	9.0		8.5	11.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation	70	75		65	70		dB
Input VSWR		2.5	3		2.5	3	: 1
Output VSWR		2.5	3		2.5	3	: 1
RF Input power ( CW )			23			23	dBm
DC Power Dissipation		0.8			0.8		W
0.1dB Compression Point( P0.1dB )		23			23		dBm
IIP3		55			55		dBm
Switching Speed		50	100		50	100	ns
Weight	2.82						ounces
Impedance	50						Ω
Bias Current (+5V/-5V)	350/40						mA
Input / Output Connectors	2.92 mm - Female						
Finishing	Gold Plating						
Material	Aluminum						
Sealing	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
DBSA0800104000C	EAR99	SP8T 0.1-40GHz PIN Diode Switch

### Outline Drawing:

All Dimensions in mm (inches)

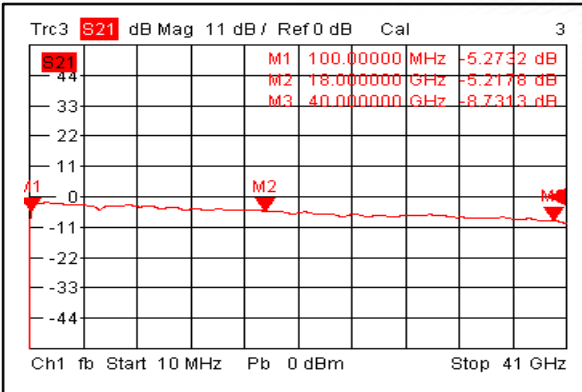
**Truth Table**

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

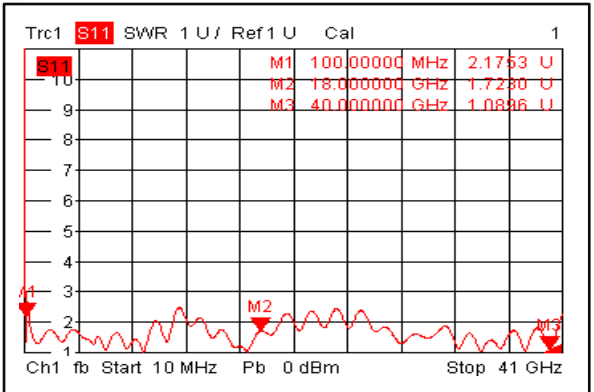
Control Pin Customization available upon request



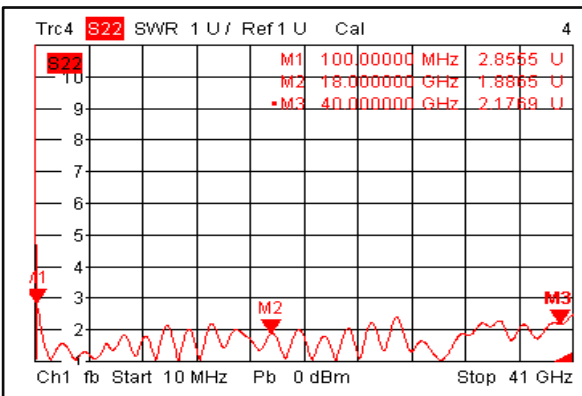
### Insertion Loss @+25°C



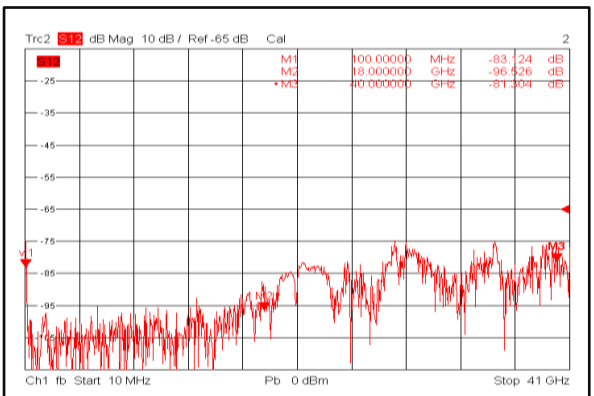
### Input VSWR @+25°C



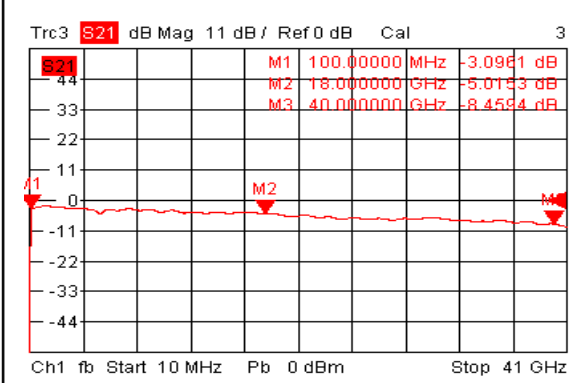
### Output VSWR @+25°C



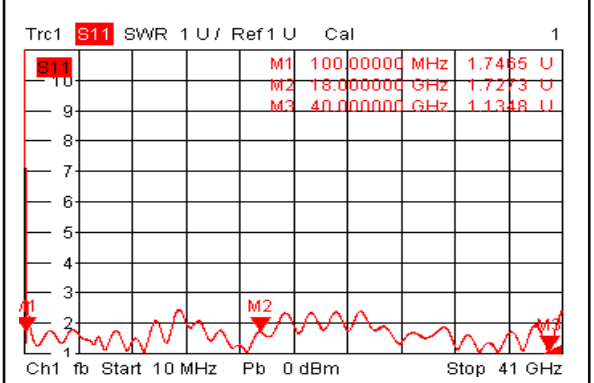
### Isolation @+25°C



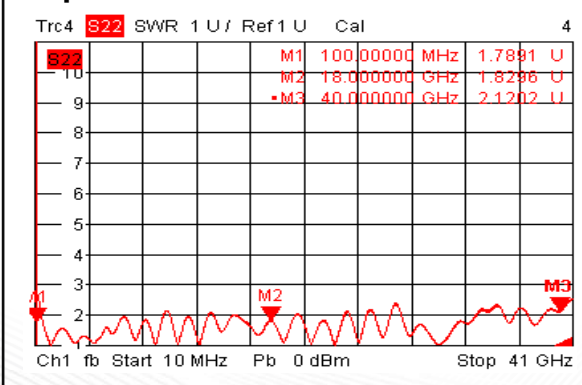
### Insertion Loss @-45°C



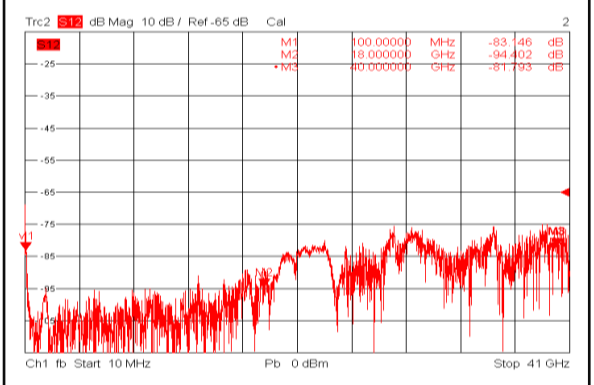
### Input VSWR @-45°C



### Output VSWR @-45°C

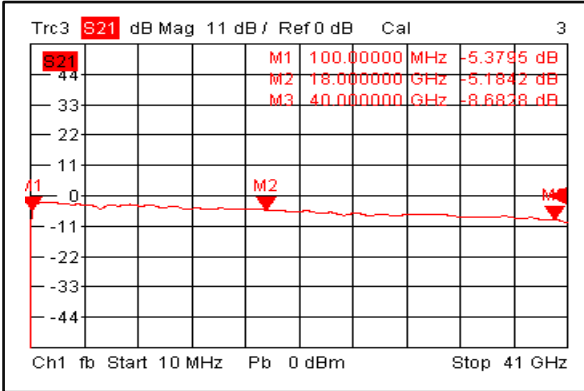


### Isolation @-45°C

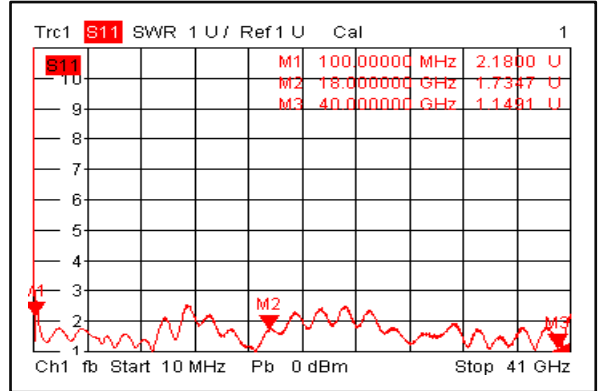




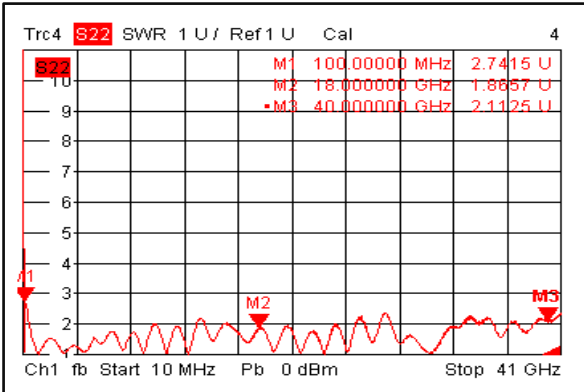
### Insertion Loss @+85°C



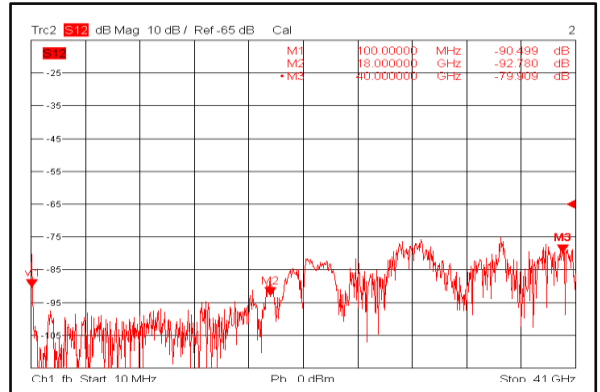
### Input VSWR @+85°C



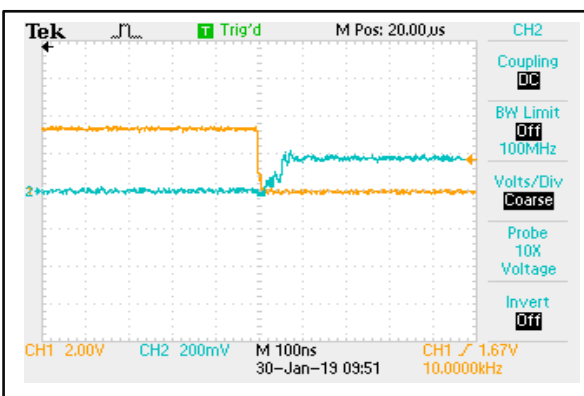
### Output VSWR @+85°C



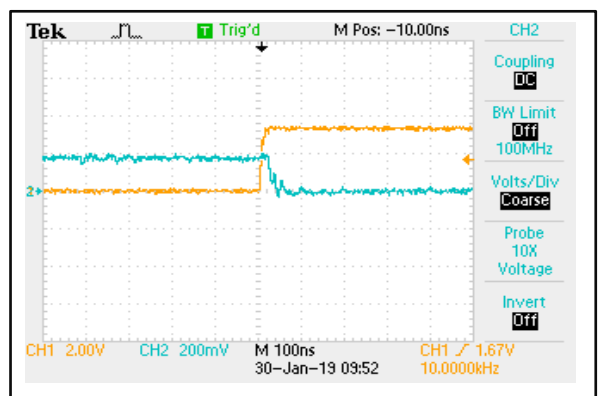
### Isolation @+85°C



### Switching Speed



### Switching Speed





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