



Absorptive 2-10GHz Coaxial SP8T Switch

Features

- Wide Band Operation 2-10GHz
- 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	Units
Frequency Range	2-10			GHz
Insertion Loss		2.2	2.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/ °C
Isolation	60	75		dB
Input VSWR		1.4	1.5	:1
Output VSWR		1.4	1.5	:1
RF Input Power			30	dBm
DC Power Dissipation		1.5		W
0.1dB Compression Point(P0.1dB)			30	dBm
IIP3		55		dBm
Switching Speed	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			
Seal	Hermetically Sealed (Optional)			



Absolute Maximum Ratings

Biasing	+5V $\pm$ 10%/-5V $\pm$ 10%
TTL Control Voltage	0~0.8V/2.8~5V

Ordering Information

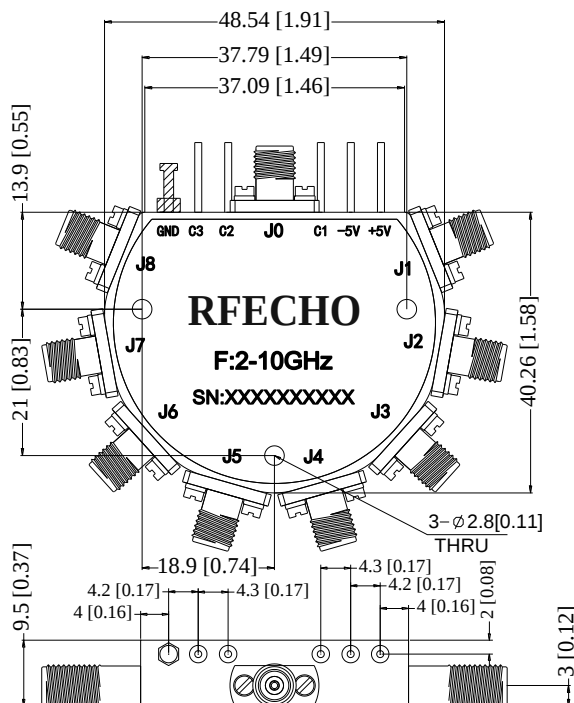
Part No.	ECCN	Description
DBSA0802001000A	EAR99	SP8T 2-10Hz PIN Diode Switch

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

Outline Drawing:

All Dimensions in mm (inches)

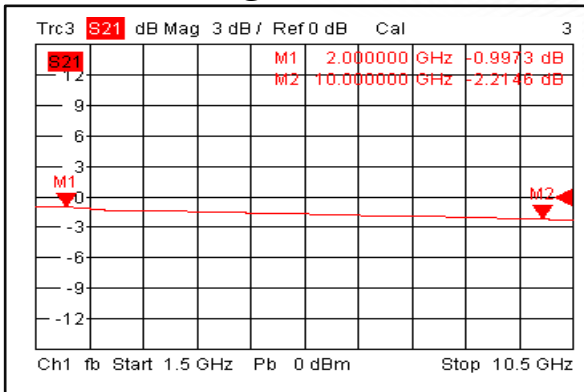


Truth Table

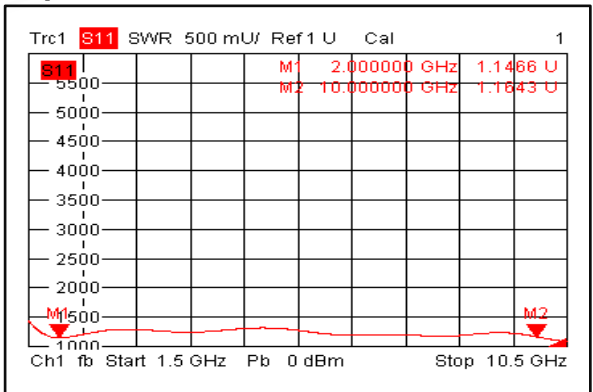
Control Input TTL			Signal Path State
C3	C2	C1	
0	0	0	J0-J1
0	0	1	J0-J2
0	1	0	J0-J3
0	1	1	J0-J4
1	0	0	J0-J5
1	0	1	J0-J6
1	1	0	J0-J7
1	1	1	J0-J8
Control Pin Customization Available Upon Request			



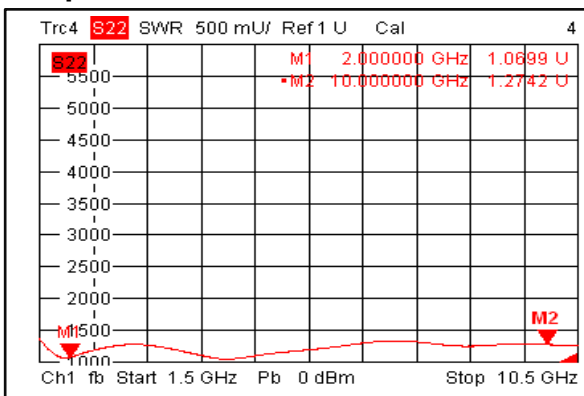
Insertion Loss @+25°C



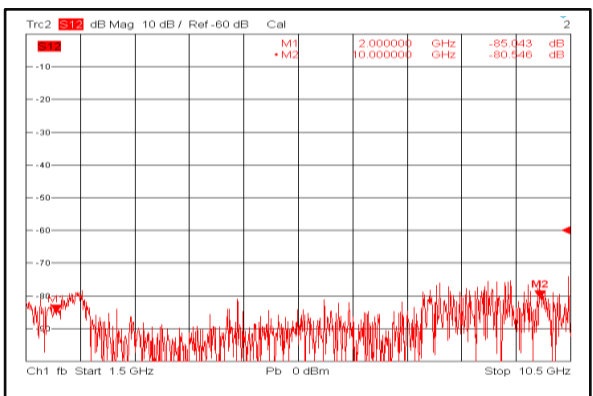
Input VSWR @+25°C



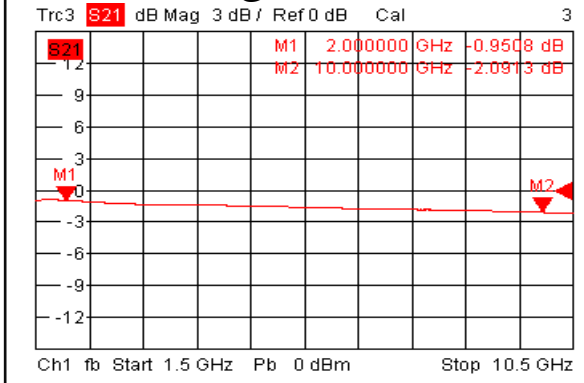
Output VSWR @+25°C



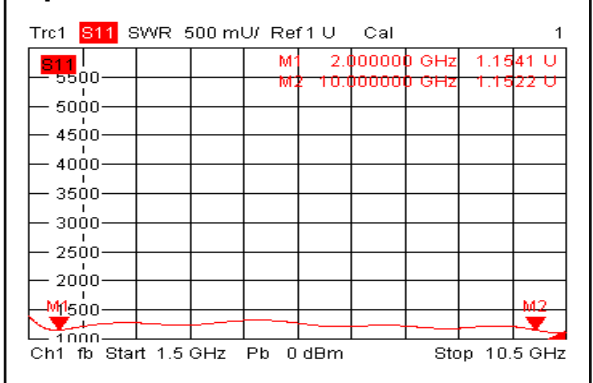
Isolation @+25°C



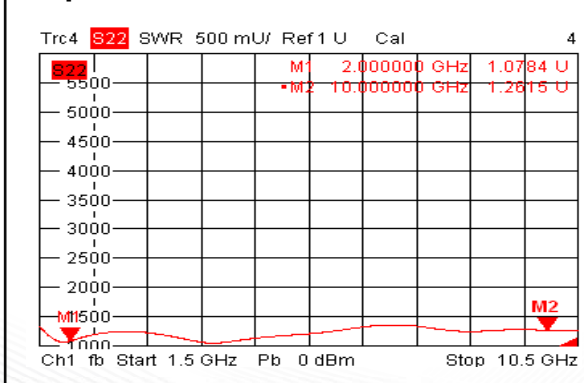
Insertion Loss @-45°C



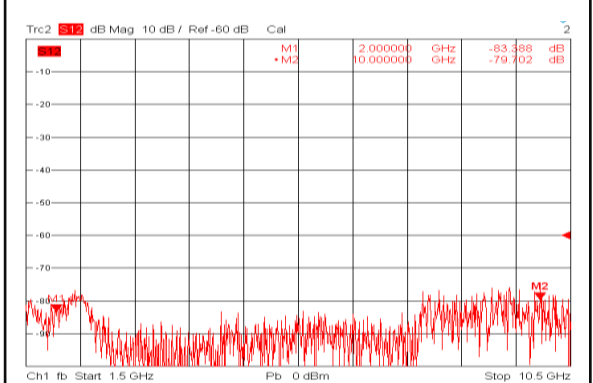
Input VSWR @-45°C



Output VSWR @-45°C

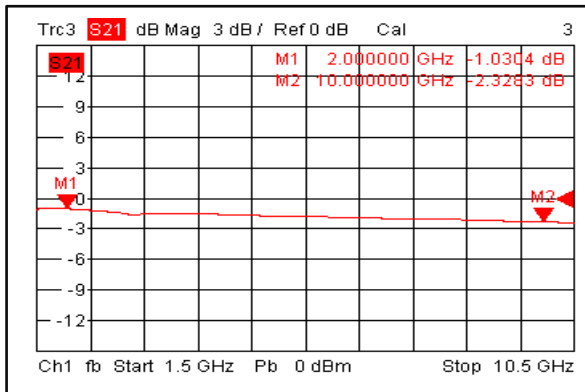


Isolation @-45°C

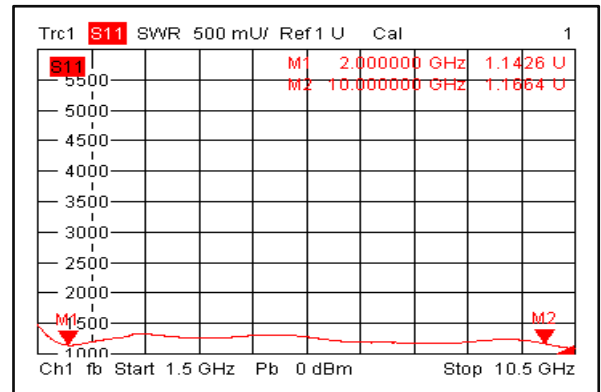




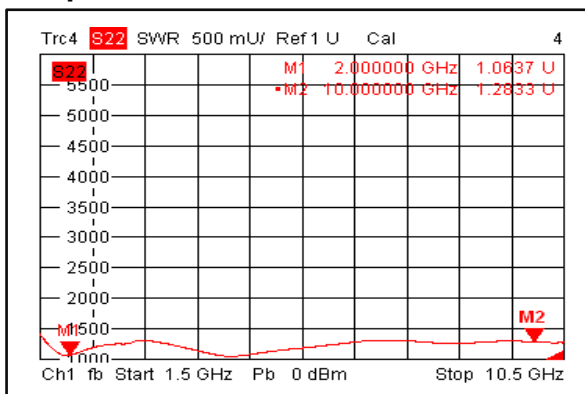
Insertion Loss @+85°C



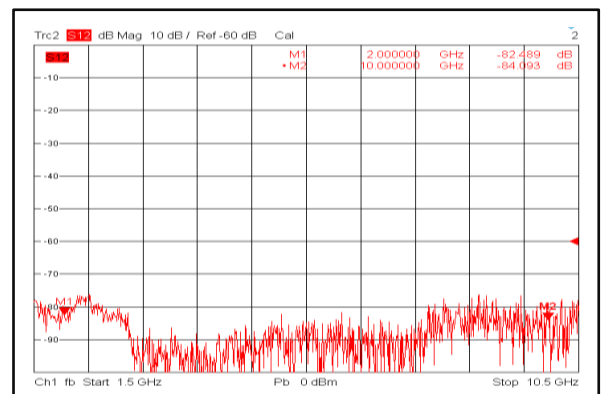
Input VSWR @+85°C



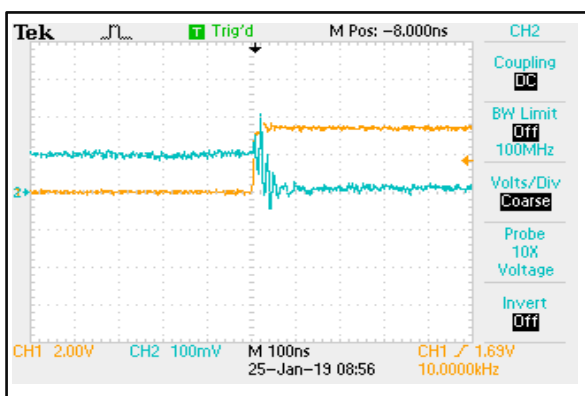
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

