Absorptive Coaxial SP8T Switch 0.5-4GHz

Features

- Wide Band Operation 0.5-4GHz
- 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		0.5-2			2-4		GHz
Insertion Loss		1.0	1.6		1.6	2.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation	60	75		60	70		dB
Input VSWR		1.3	1.5		1.3	1.5	: 1
Output VSWR		1.4	1.5		1.4	1.5	: 1
RF Input power (CW)			30			30	dBm
Power Dissipation (CW)		1.5			1.5		W
0.1dB Compression Point(P0.1dB)		30			30		dBm
IIP3		55			55		dBm
Switching Speed		100	150		100	150	ns
Weight	2.82						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

Biasing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V/2.8~5V

Ordering Information

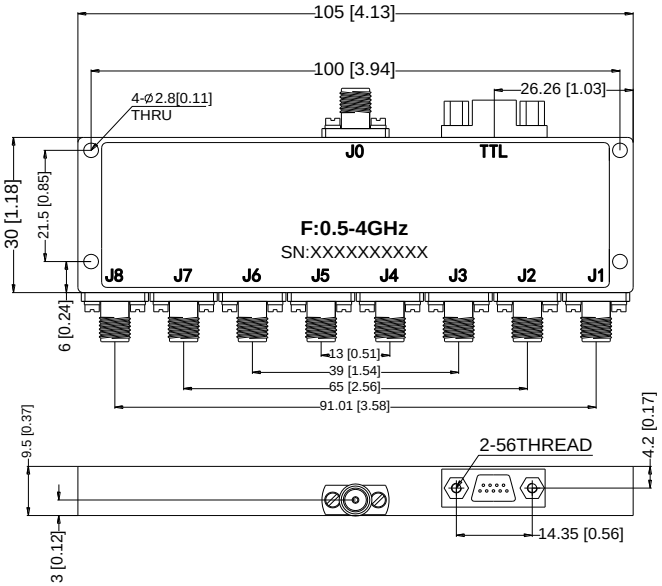
Part No.	ECCN	Description
DBSA0800500400A	EAR99	SP8T 0.5-4GHz PIN Diode Switch

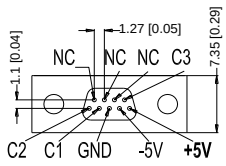
Environmental Specifications

Operational Temperature	-45ºC~+85ºC
Storage Temperature	-55ºC~+125ºC
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 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

Outline Drawing:

All Dimensions in mm (inches)



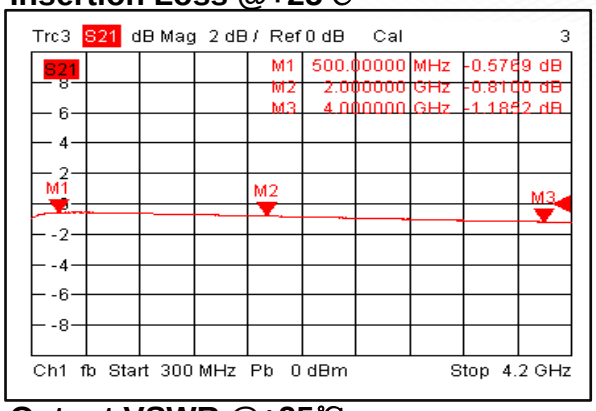


MICRO-D9(Female)

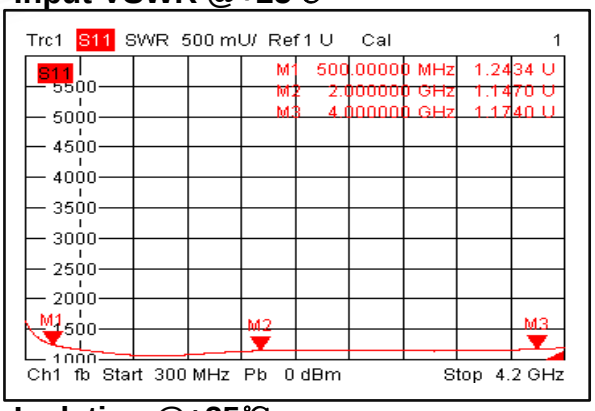
Truth Table

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			

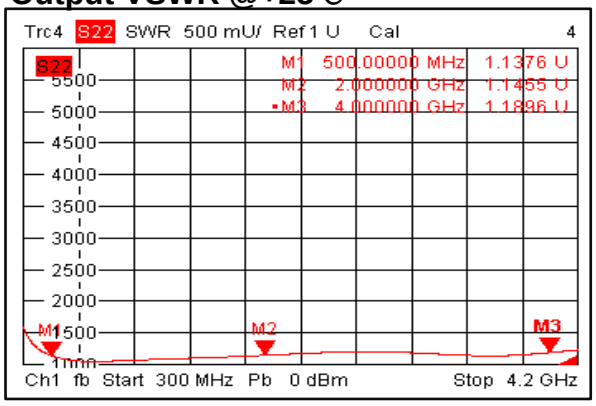
Insertion Loss @+25℃



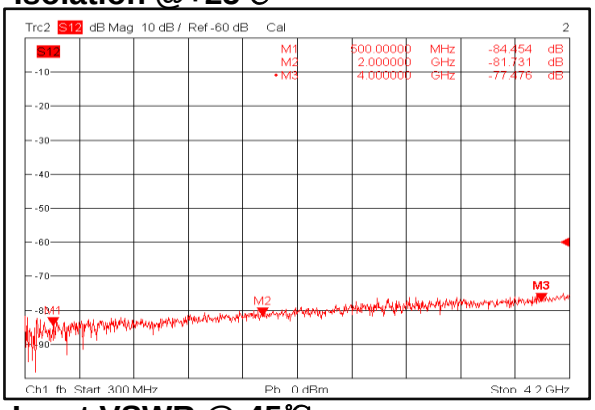
Input VSWR @+25℃



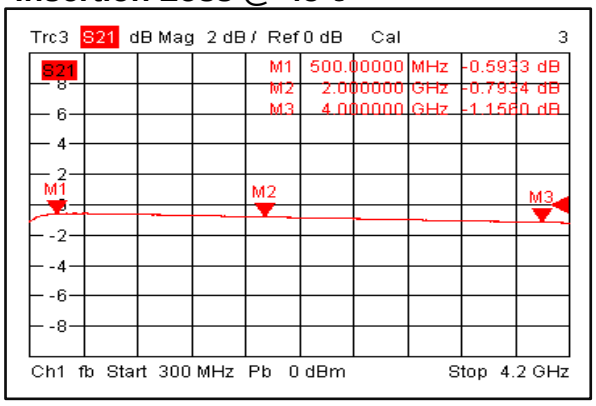
Output VSWR @+25℃



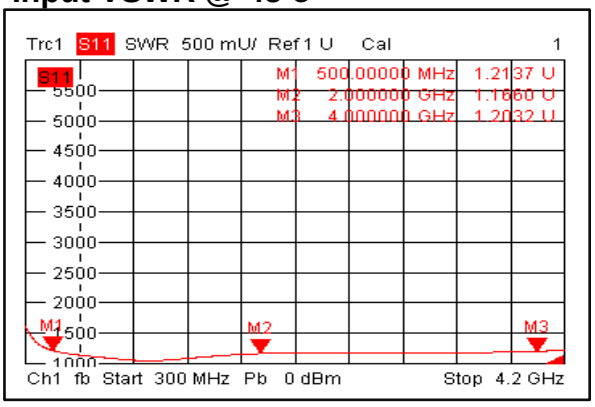
Isolation @+25℃



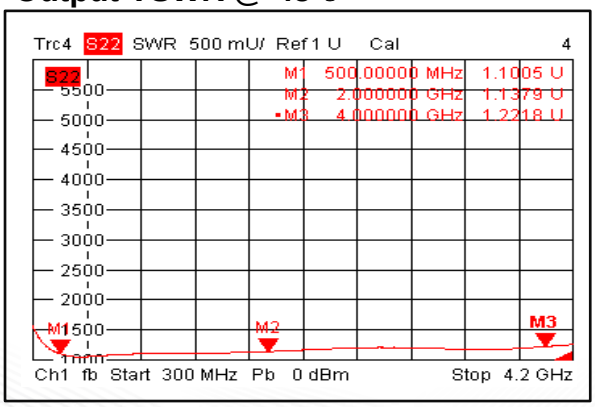
Insertion Loss @-45℃



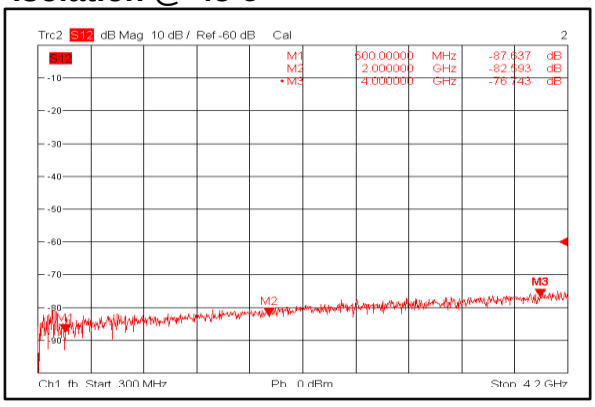
Input VSWR @-45℃



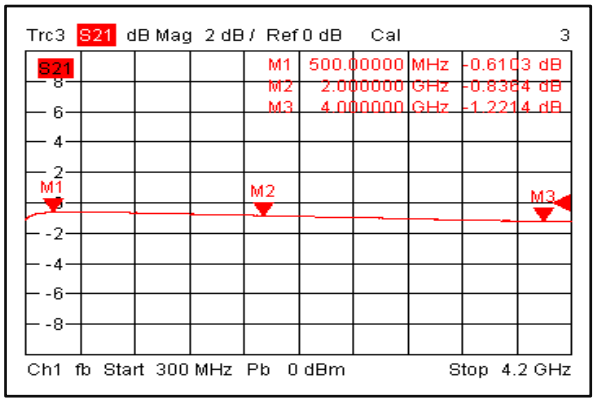
Output VSWR @-45℃



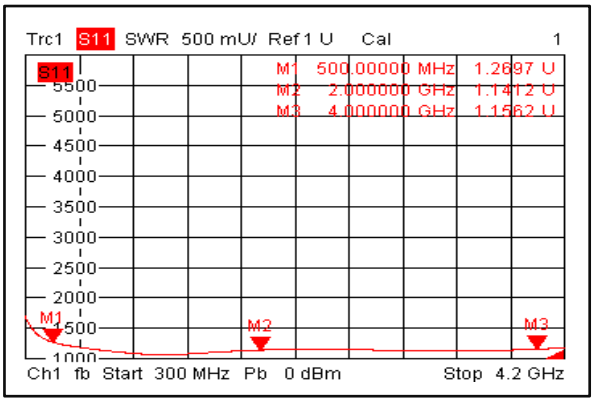
Isolation @-45℃



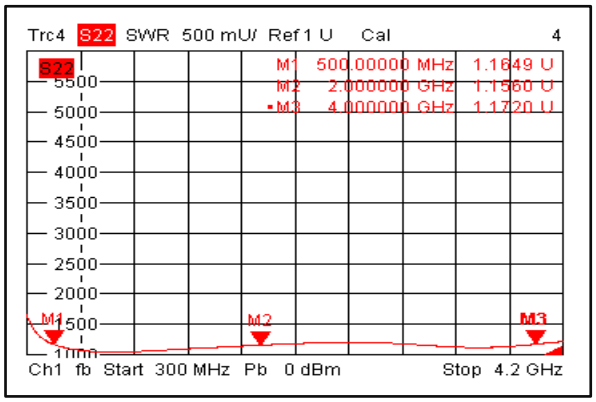
Insertion Loss @+85℃



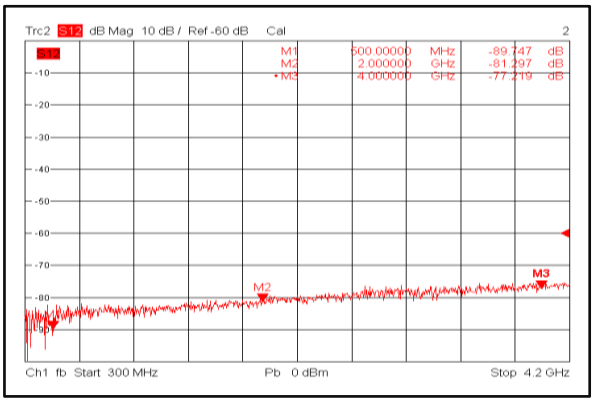
Input VSWR @+85℃



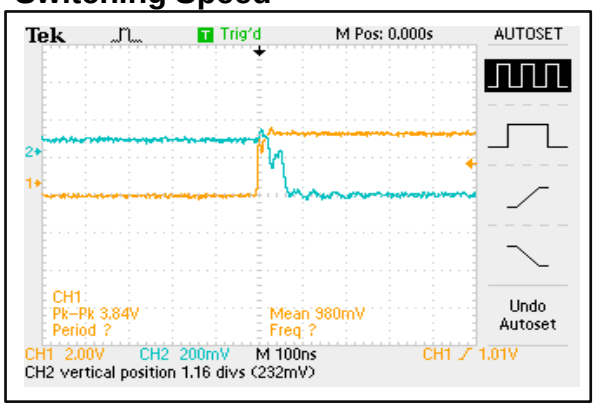
Output VSWR @+85℃



Isolation @+85℃



Switching Speed



Switching Speed