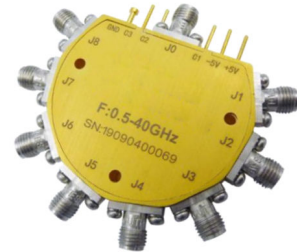




Absorptive Coaxial SP8T Switch 0.5 - 40GHz

Features

- Ultra Wide Band Operation 0.5-40GHz
- 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.	Min.	Typ.	Max.	Units
Frequency Range	0.5-18			18-30			30-40			GHz
Insertion Loss		4.2	4.5		6.5	7.0		7.5	8.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	65	70		50	55		50	55		dB
Input VSWR		2	2.5		2.5	3		2.5	3	: 1
Output VSWR		2	2.5		2.5	3		2.5	3	: 1
RF Input power			+23			+23			+23	dBm
Power Dissipation (CW)		0.6			0.6			0.6		W
0.1dB Compression Point (P0.1dB)		23			23			23		dBm
IIP3		55			52			50		dBm
Switching Speed		50			50			50		ns
Weight	1.76									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	100/30									mA
Input / Output Connectors	2.92mm-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

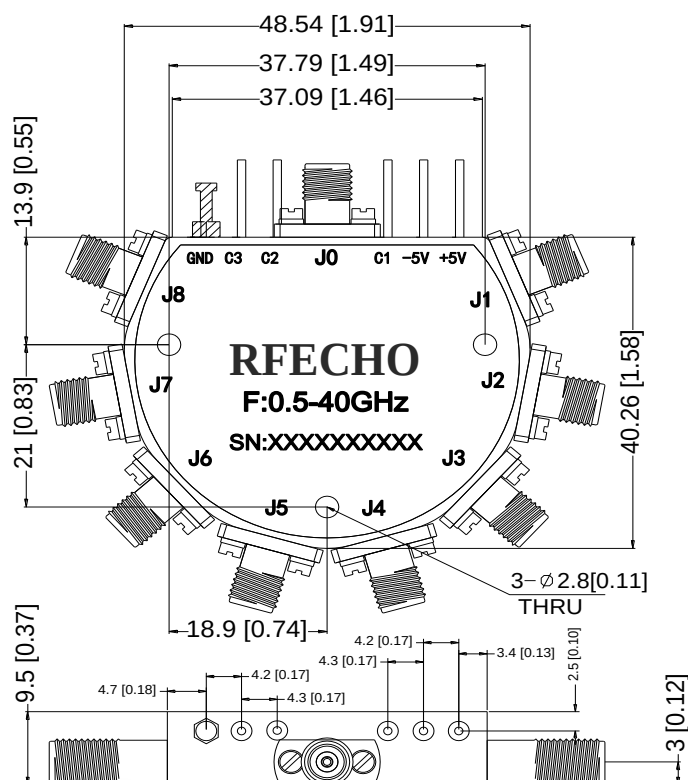
Part No.	ECCN	Description
DBSA0800504000C	EAR99	SP8T 0.5-40GHz PIN Diode Switch

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 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)

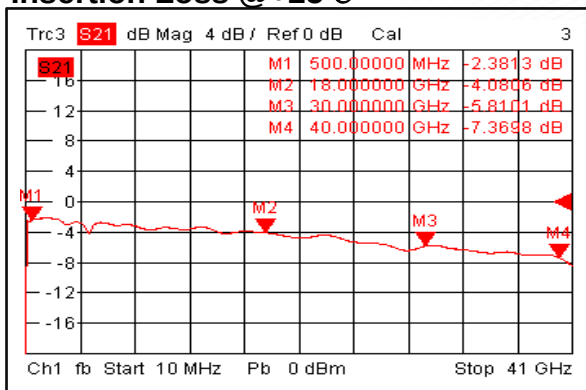


Truth Table

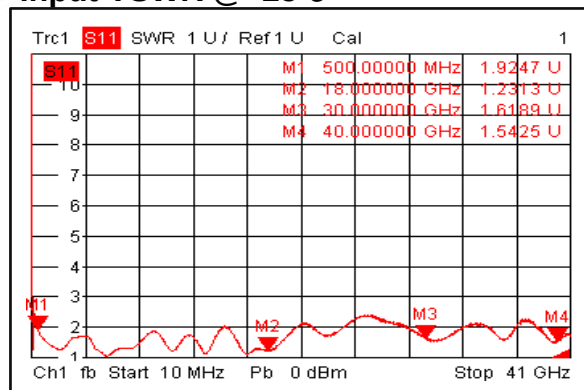
Control Input TTL			Signal Path State
C3	C2	C1	
0	0	0	J0-J1
0	0	1	J0-J2
0	1	0	J0-J3
0	1	1	J0-J4
1	0	0	J0-J5
1	0	1	J0-J6
1	1	0	J0-J7
1	1	1	J0-J8
Control Pin Customization available upon request			



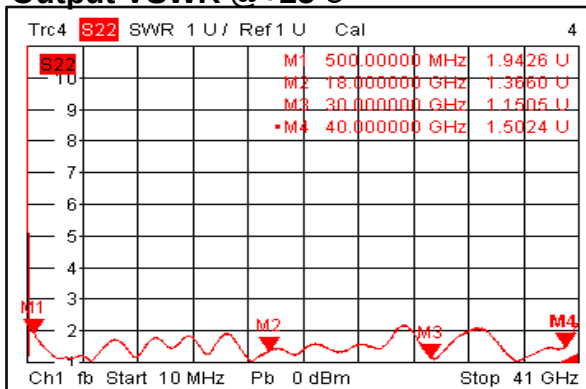
Insertion Loss @+25°C



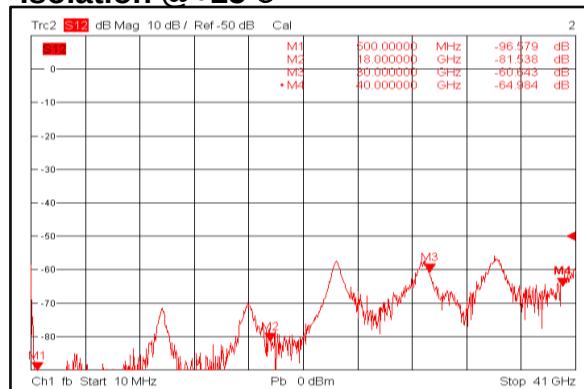
Input VSWR @+25°C



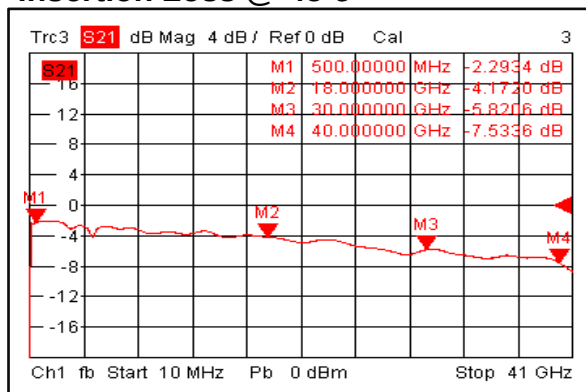
Output VSWR @+25°C



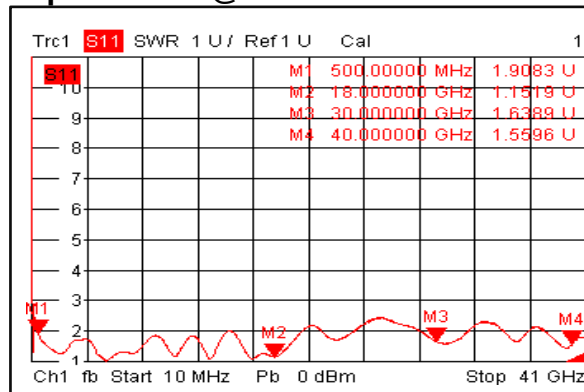
Isolation @+25°C



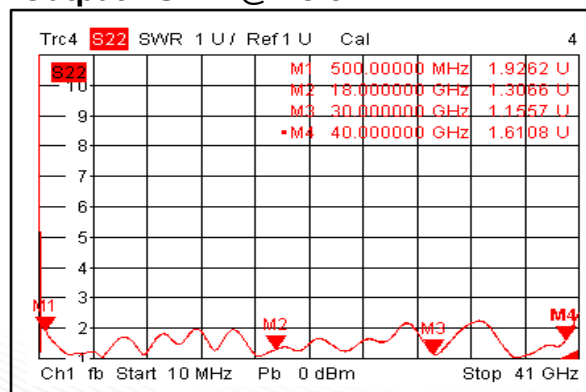
Insertion Loss @-45°C



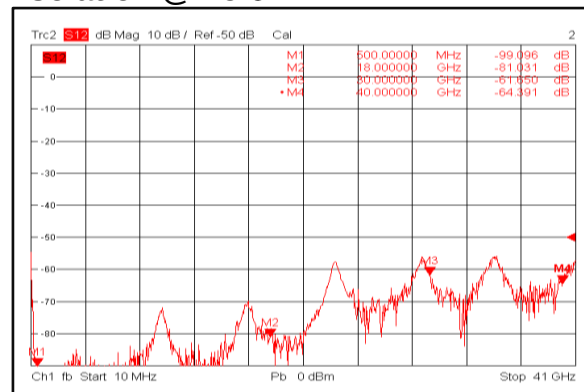
Input VSWR @-45°C



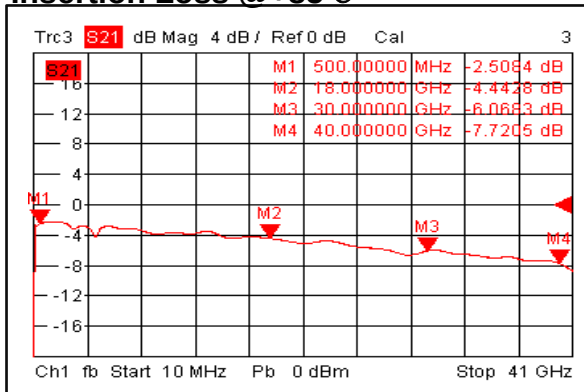
Output VSWR @-45°C



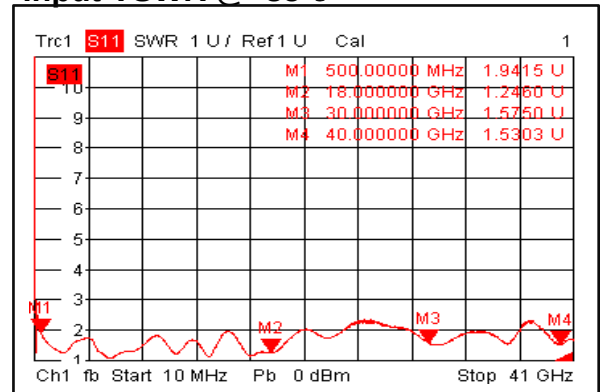
Isolation @-45°C



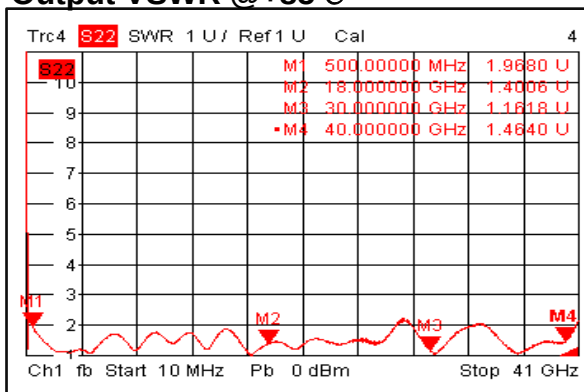
Insertion Loss @+85°C



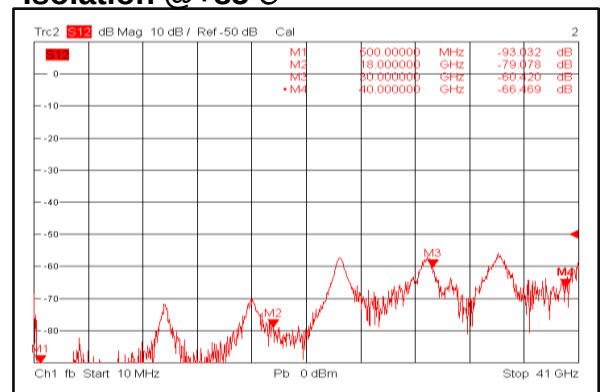
Input VSWR @+85°C



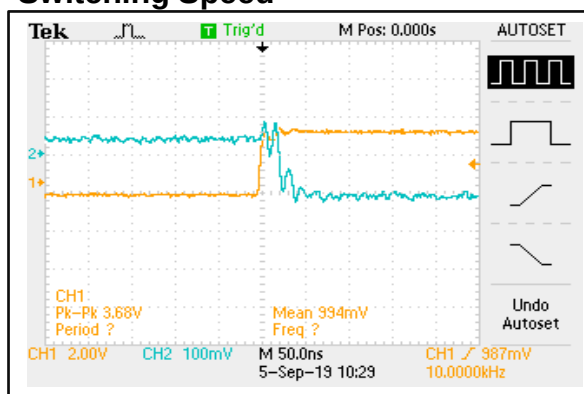
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

