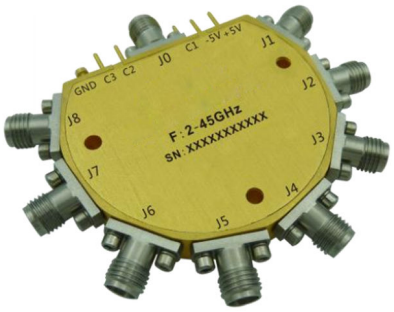
Absorptive Coaxial SP8T Switch 2 - 45GHz

Features

- Ultra Wide Band Operation 2-45GHz
- 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

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		2-18			18-45		GHz
Insertion Loss		5.5	6.0		8.0	9.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ ° C
Isolation	50	65		45	55		dB
Input VSWR		2.2	3.0		2.5	3.0	: 1
Output VSWR		2.2	3.0		2.5	3.0	: 1
RF Input Power (CW)			23			23	dBm
DC Power Dissipation		1.5			1.5		W
0.1dB Compression Point (P0.1dB)		23			23		dBm
IIP3		43			38		dBm
Switching Speed	100 Max.						ns
Weight	1.75 Max.						ounces
Impedance	50						Ω
Bias Current (+5V / -5V)	200/50 Max.						mA
Input / Output Connectors	2.92mm - Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						

Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10% @ 25℃

Environmental Specifications

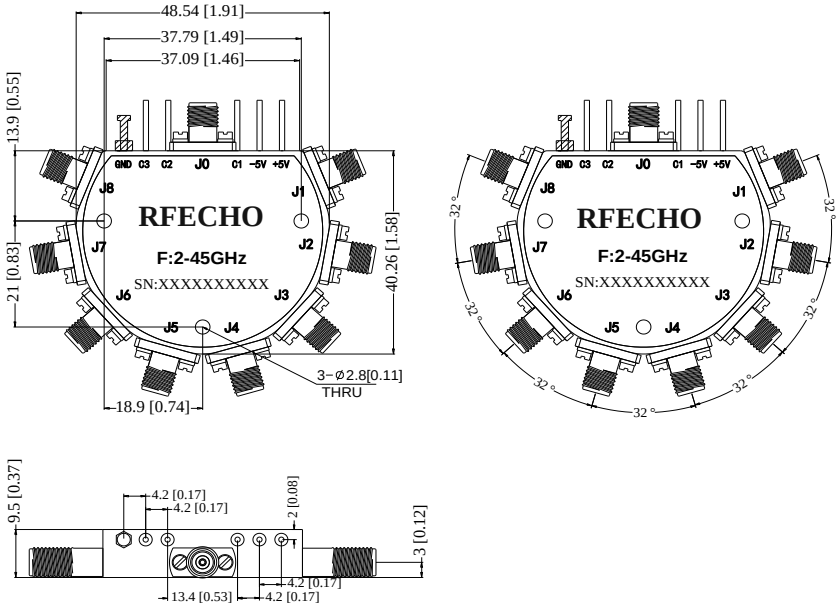
Operational Temperature	-40℃~+85℃ (Case Temperature)
Storage Temperature	-50℃~+105℃
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH at 40ºc
Shock	20G for 11msec half sine wave,3 axis both directions

Ordering Information

Part No.	ECCN	Description
DBSA0802004500A	EAR99	SP8T 2-45GHz PIN Diode Switch

Outline Drawing:

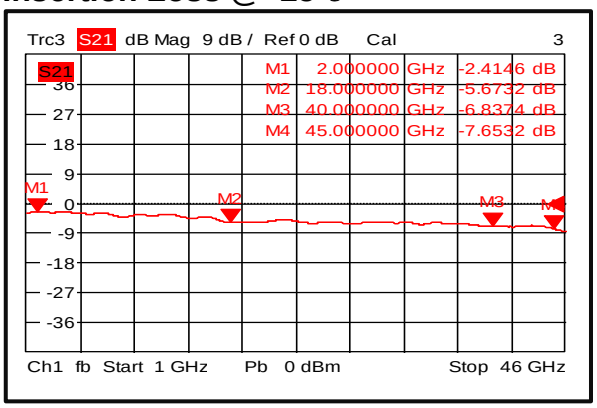
All Dimensions in mm (inches)



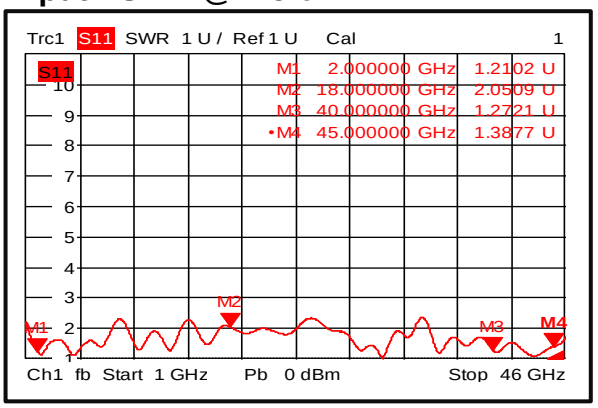
Truth Table

TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
			High(1)=2.8~5V
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			

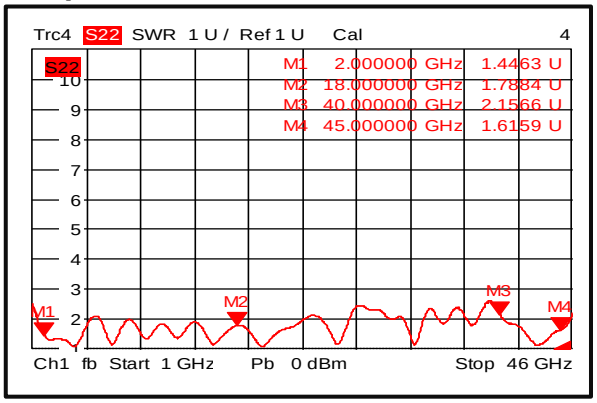
Insertion Loss @+25℃



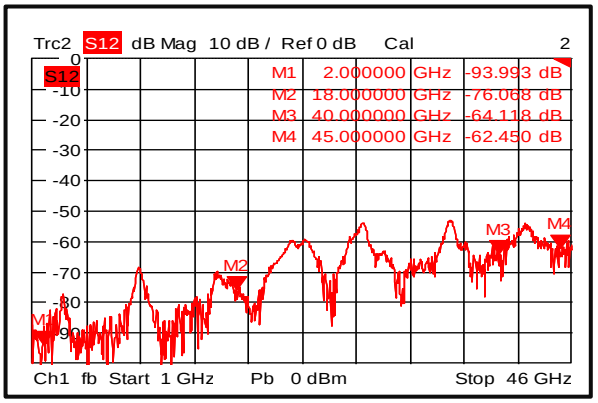
Input VSWR @+25℃



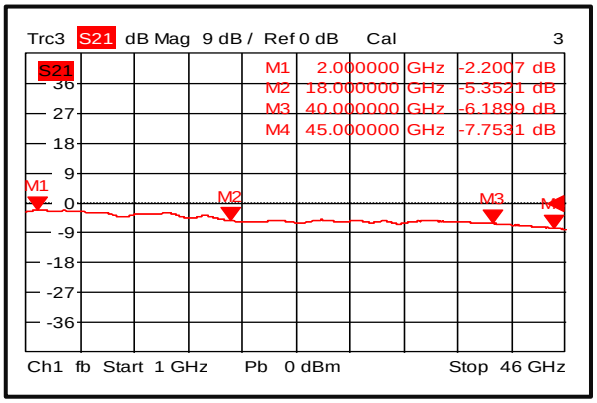
Output VSWR @+25℃



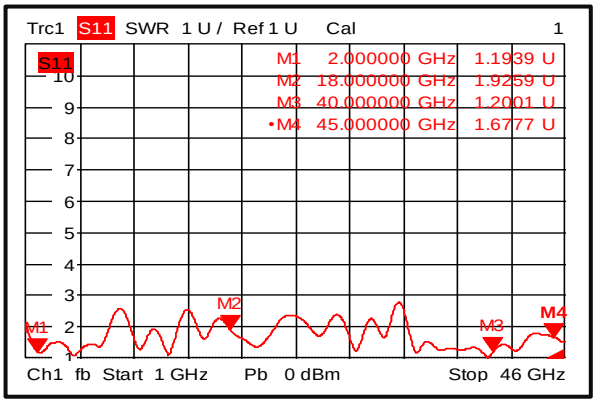
Isolation @+25℃



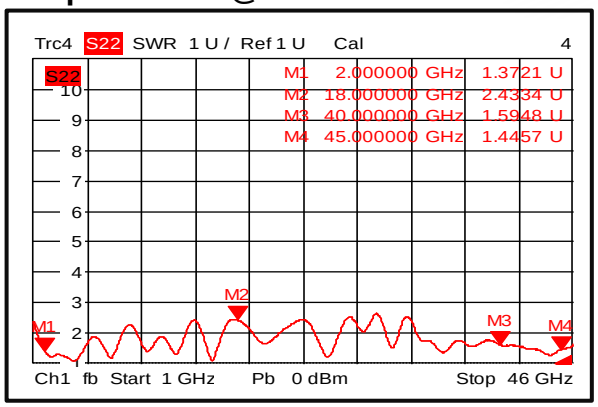
Insertion Loss @-40℃



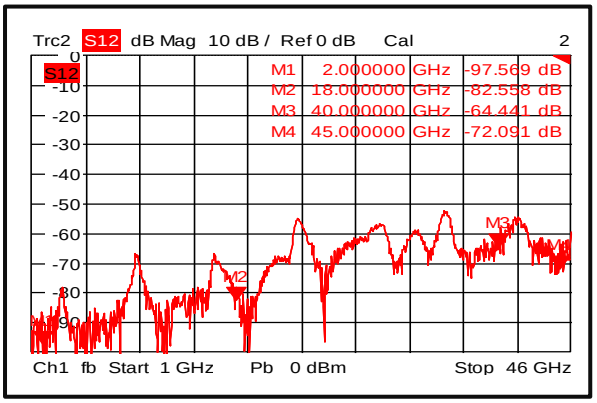
Input VSWR @-40℃



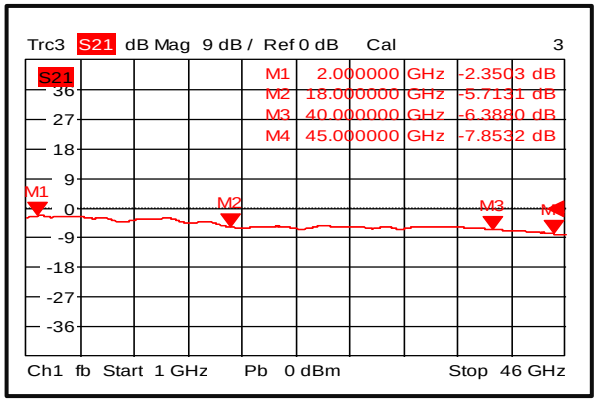
Output VSWR @-40℃



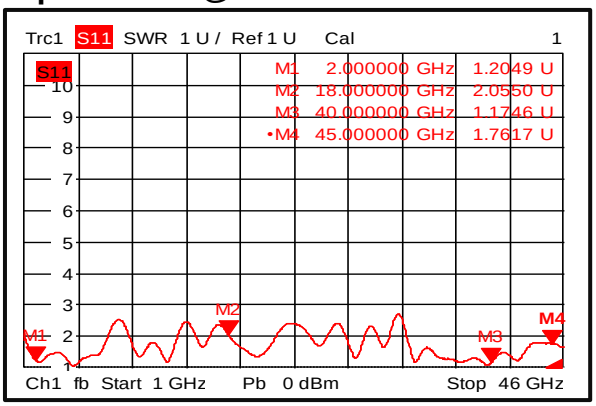
Isolation @-40℃



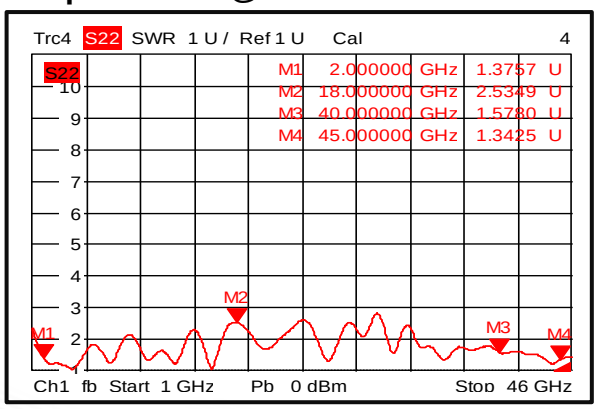
Insertion Loss @+85℃



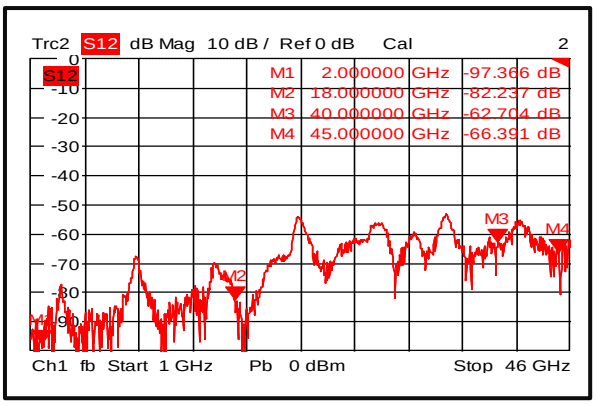
Input VSWR @+85℃



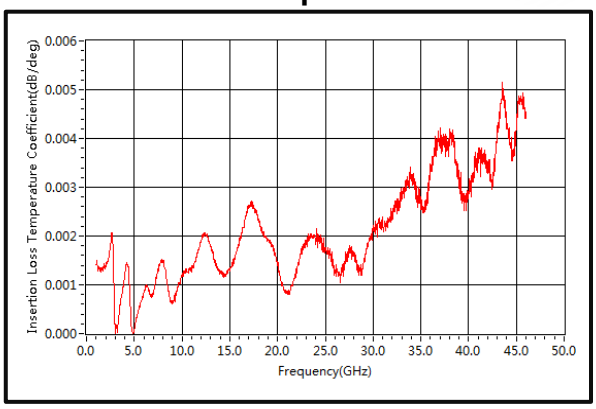
Output VSWR @+85℃



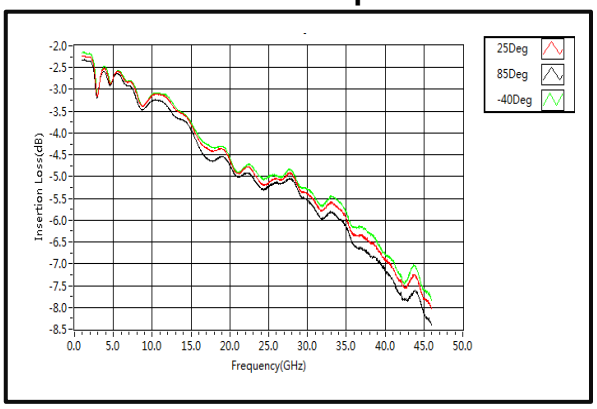
Isolation @+85℃



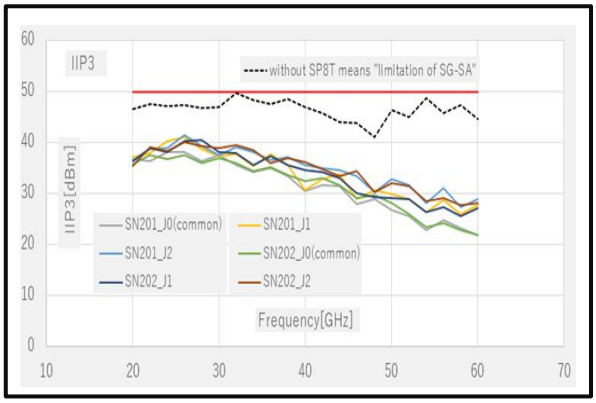
Insertion Loss Temperature Coefficient



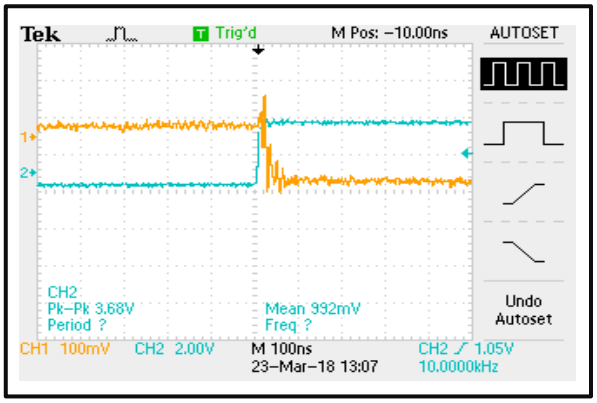
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed