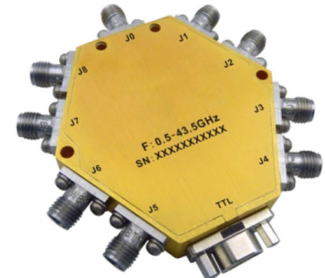




Absorptive 0.5-43.5GHz Coaxial SP8T Switch

Features

- Ultra Wide Band Operation 0.5-43.5GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation



Typical Applications

- Wireless Infrastructure
- Test and measurement Instrument
- Fiber Optics

RF Microwave & VSAT

5G communication

Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	0.5		8	8		26.5	26.5		43.5	GHz
Insertion Loss		4.5	5.0		6.8	7.5		8.0	9.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation (Adjacent channels)	60	70		50	58		48	55		dB
Isolation (Between any channels)	60	70		50	58		42	50		dB
Input VSWR		2	3		1.9	3		1.8	2.5	: 1
Output VSWR		2	3		1.9	3		1.8	2.5	: 1
RF Input Power			23			23			23	dBm
DC Power Dissipation		0.8			0.8			0.8		W
0.1dB Compression Point(P0.1dB)		23			23			23		dBm
IIP3		42			43			36		dBm
Switching Speed	50 Typ. 100 Max.									ns
Weight	2.5 Max.									ounces
Impedance	50									Ω
Bias Current (+5V/-5V)	200/50 Max.									mA
Input / Output Connectors	2.92mm - Female									
Interface and Control Connector	MICRO-D9 (Female)									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									



Absolute Maximum Ratings

Biasing	$+5V \pm 10\% / -5V \pm 10\%$
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Ordering Information

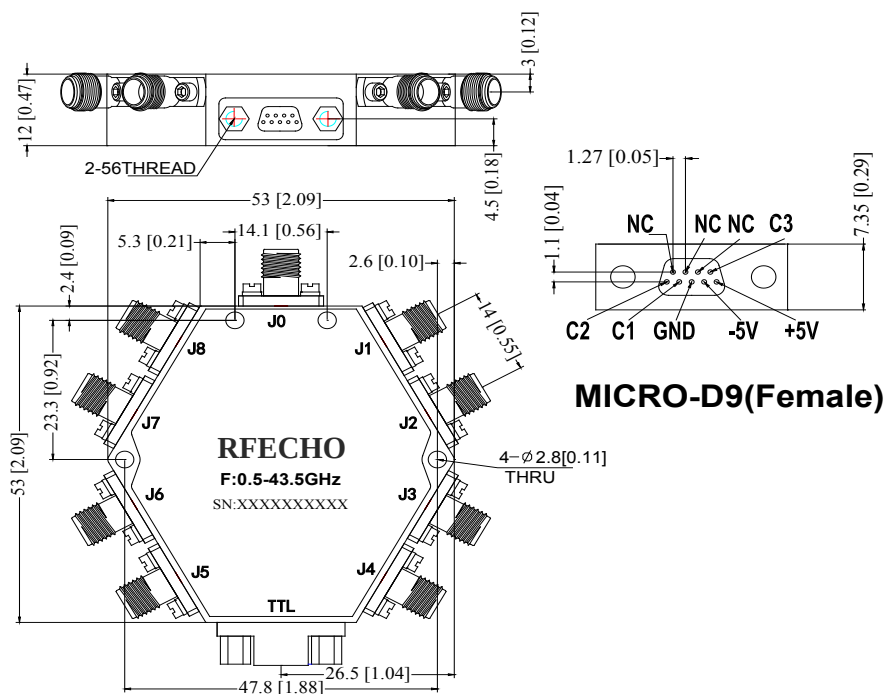
Part No.	Description
DBSA0800504350B	SP8T 0.5-43.5GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-40°C~+85°C
Storage Temperature	-50°C~+105°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 40c
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

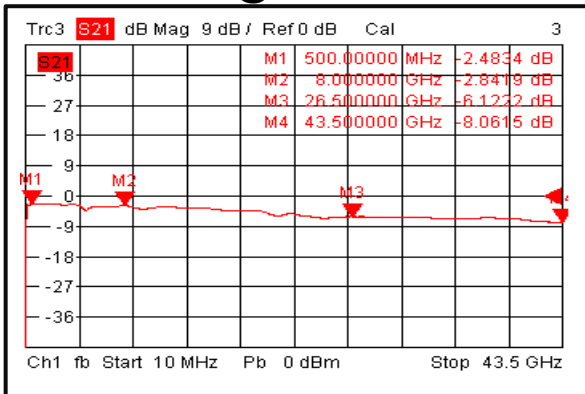
All Dimensions in mm (inches)



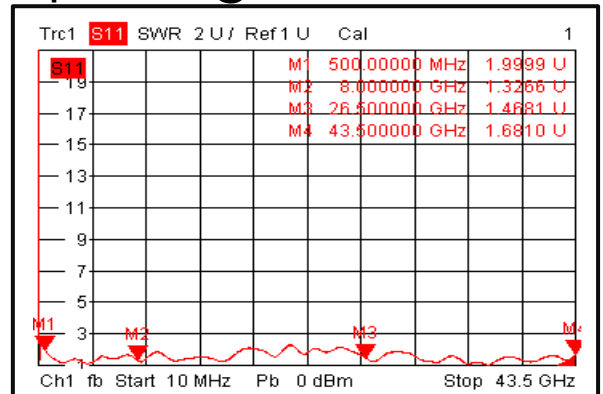
Truth Table

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			

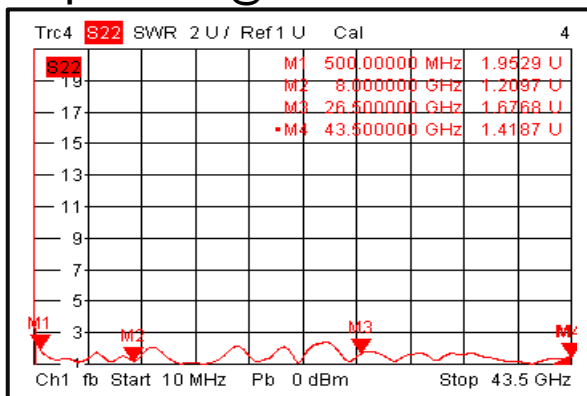
Insertion Loss @+25°C



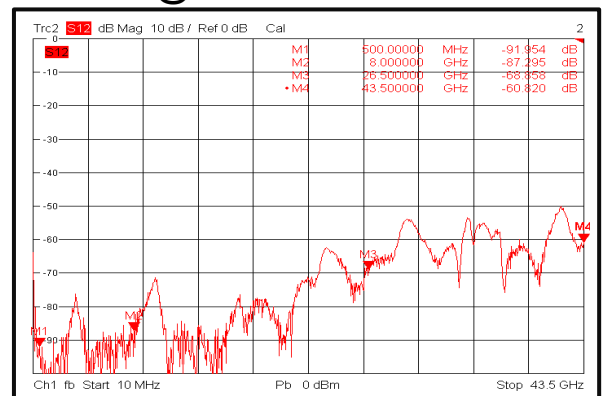
Input VSWR @+25°C



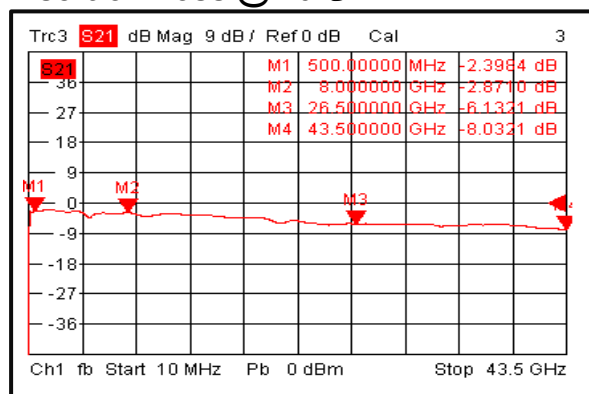
Output VSWR @+25°C



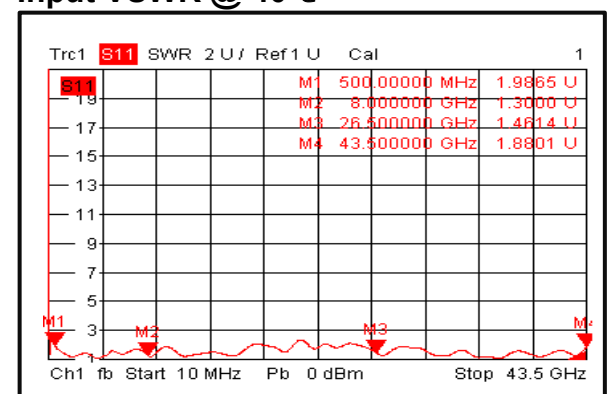
Isolation @+25°C



Insertion Loss @-40°C

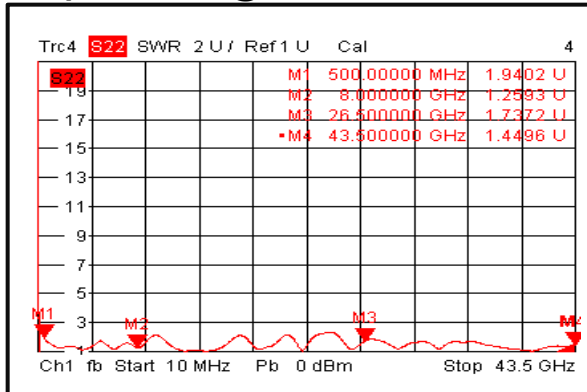


Input VSWR @-40°C

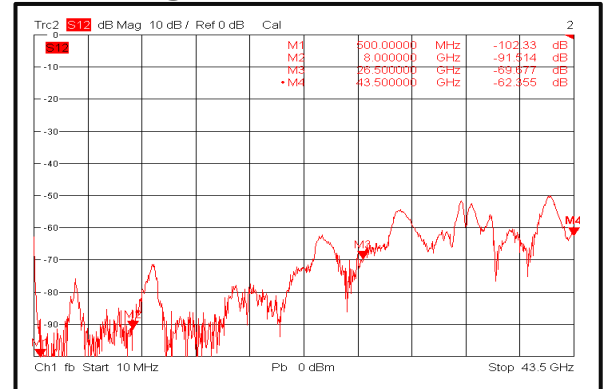




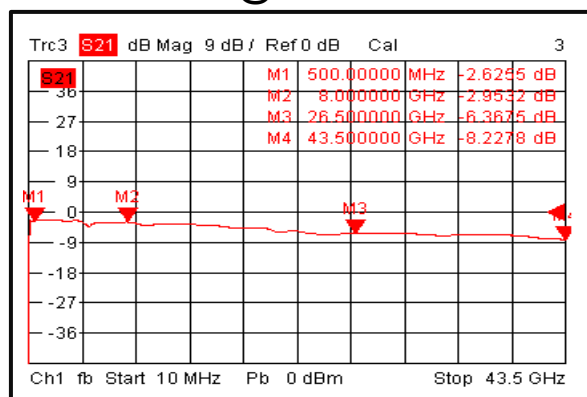
Output VSWR @-40°C



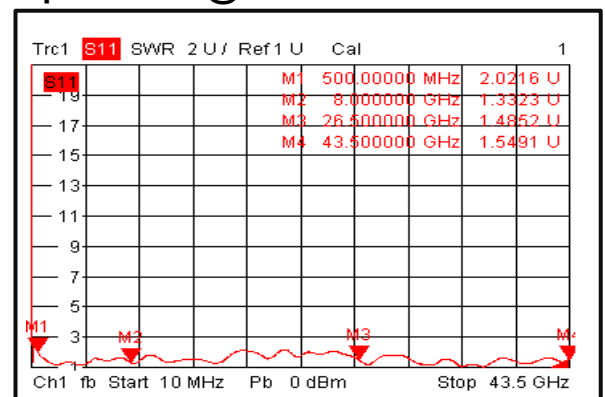
Isolation @-40°C



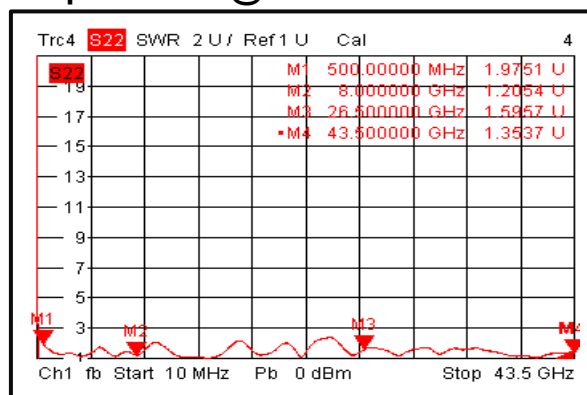
Insertion Loss @+85°C



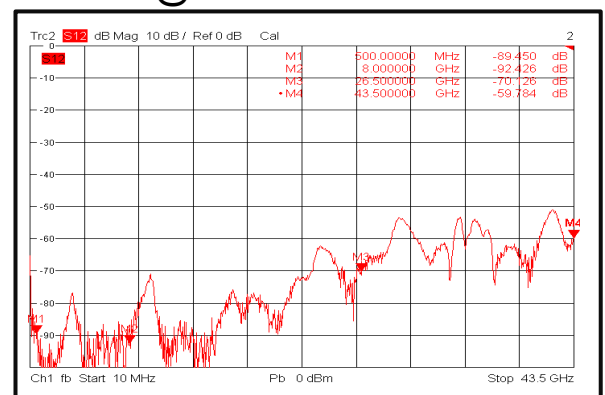
Input VSWR @+85°C



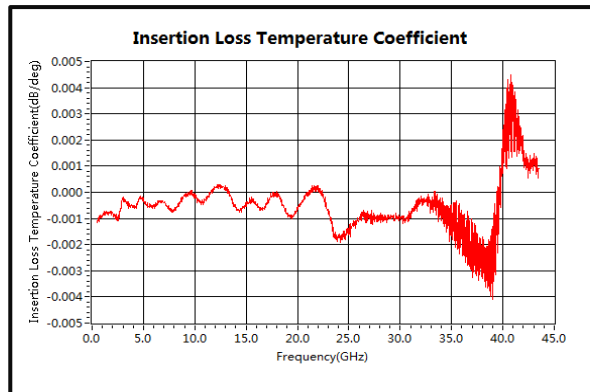
Output VSWR @+85°C



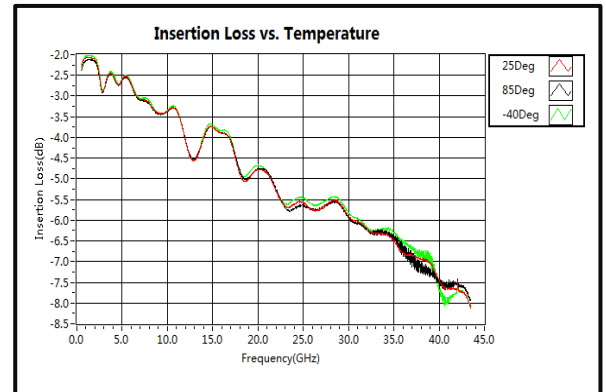
Isolation @+85°C



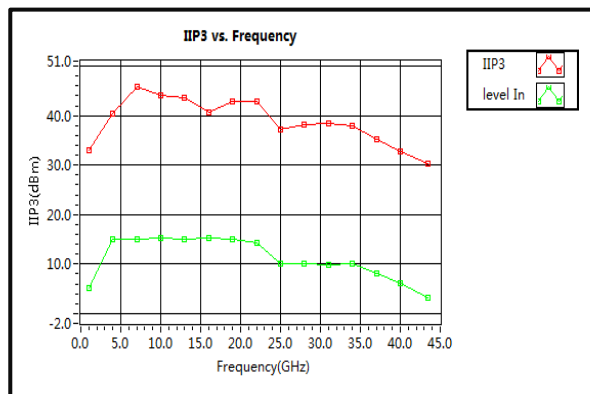
Insertion Loss Temperature Coefficient



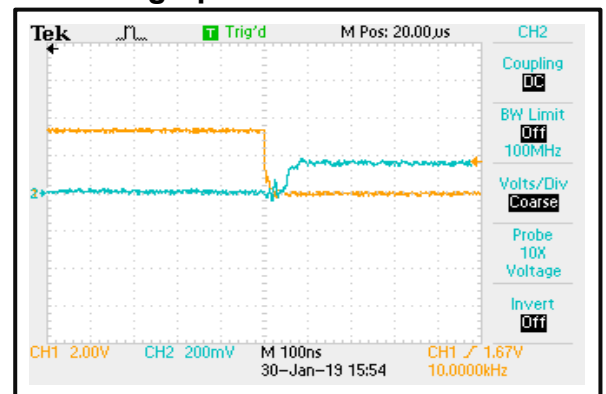
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

