



Absorptive 0.1-40GHz Coaxial SP4T Switch

Features

- Ultra Wide Band Operation 0.1-40GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request



Typical Applications

- Wireless Infrastructure
- 5G communication
- Test and measurement Instrument

RF Microwave & VSAT
Fiber Optics

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.1-18			18-40			GHz
Insertion Loss		4.5	6.0		5.5	7.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation	70	75		65	70		dB
Input VSWR		2	3		2.5	3	: 1
Output VSWR		2	3		2.5	3	: 1
RF Input power			23			23	dBm
DC Power Dissipation		0.85			0.85		W
0.1dB Compression (P0.1dB)		23			23		dBm
IIP3		40			35		dBm
Switching Speed	100 Max.						ns
Weight	1.3 Max.						Ounces
Impedance	50						Ω
Bias Current(+5V/-15V)	150/70 Max.						mA
Input /Output Connectors	2.92mm-Female						
Interface and control connertor	MICRO-D9(Female)						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (optional)						



Absolute Maximum Ratings

Biasing	+5V $\pm$ 10%/-15V $\pm$ 10%
---------	------------------------------

Ordering Information

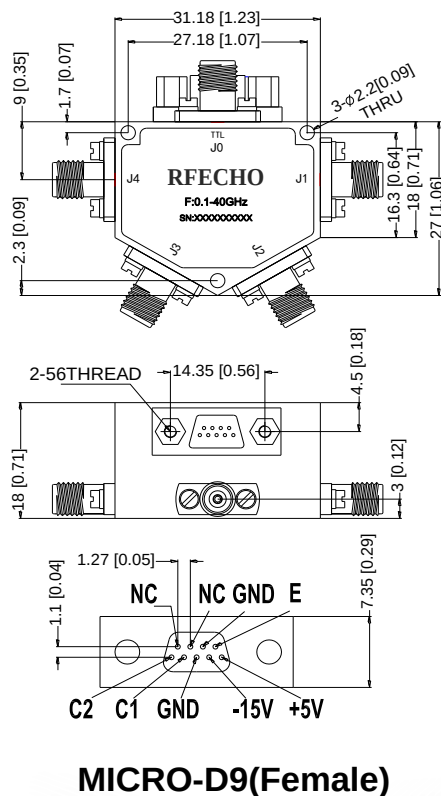
Part No.	Description
DBSA0400104000B	SP4T 0.1-40GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-40°C~+85°C (Case Temperature)
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 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

Outline Drawing:

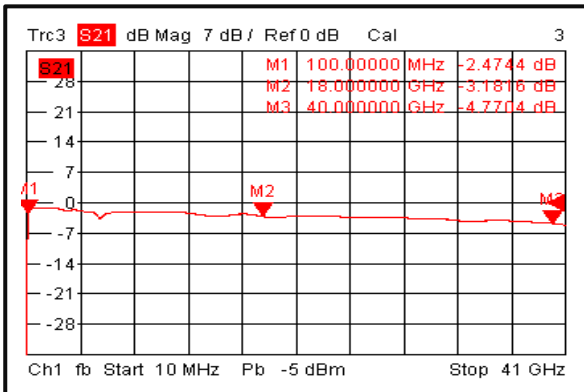
All Dimensions in mm (inches) Housing Tolerances $\pm 0.1(0.004)$



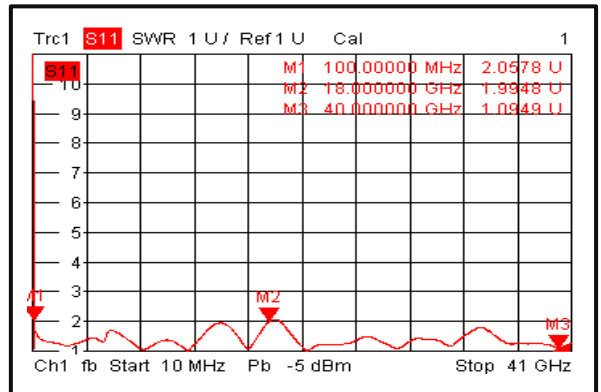
Truth Table

TTL Control Voltage THRESHOLD			Low(0)=0~0.8V
			High(1)=2.8~5V
Control	Input	TTL	Signal Path State
E	C2	C1	
0	0	0	J0-J1
0	0	1	J0-J2
0	1	0	J0-J3
0	1	1	J0-J4
1	X	X	ALL OFF
Control Pin Customization available upon request			

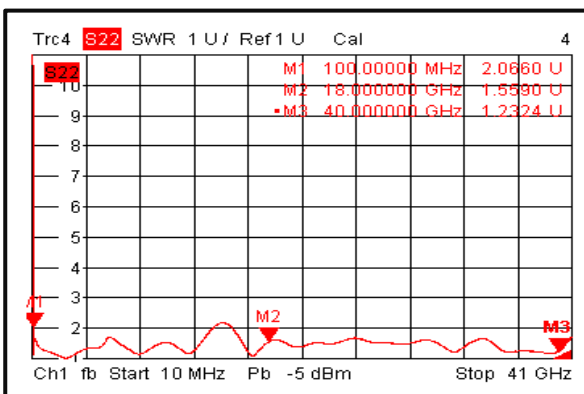
Insertion Loss @+25°C



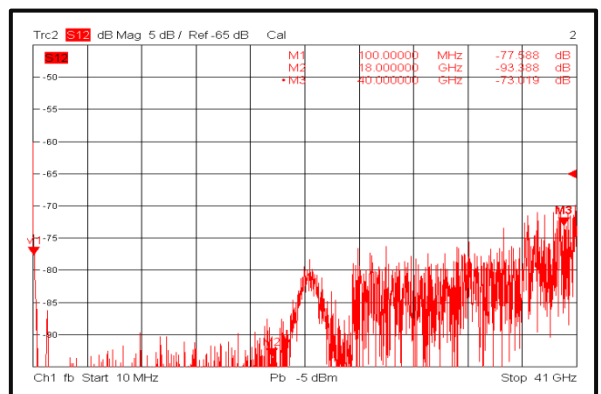
Input VSWR @+25°C



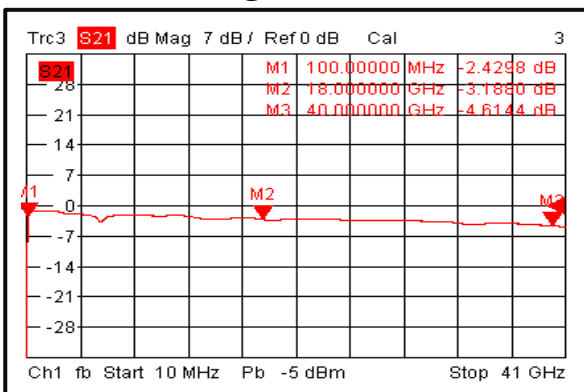
Output VSWR @+25°C



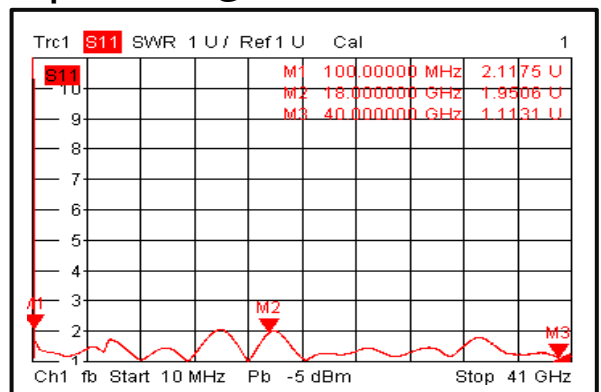
Isolation @+25°C



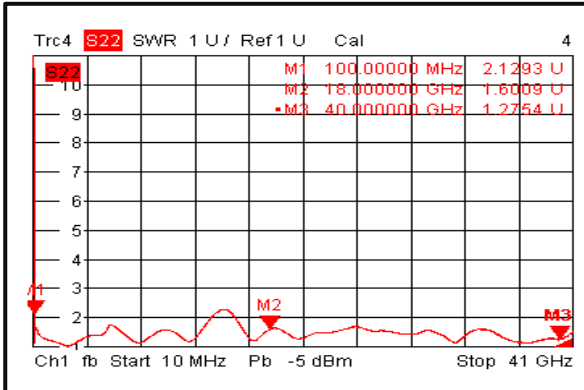
Insertion Loss @-40°C



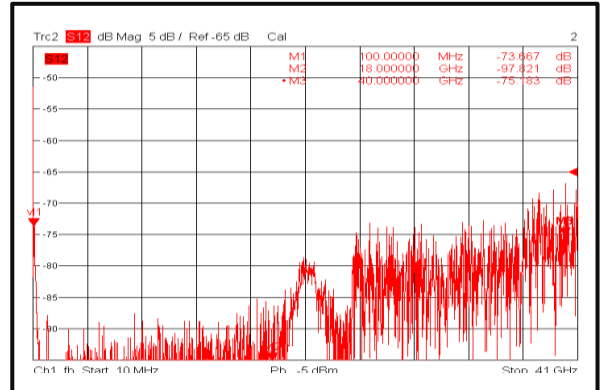
Input VSWR @-40°C



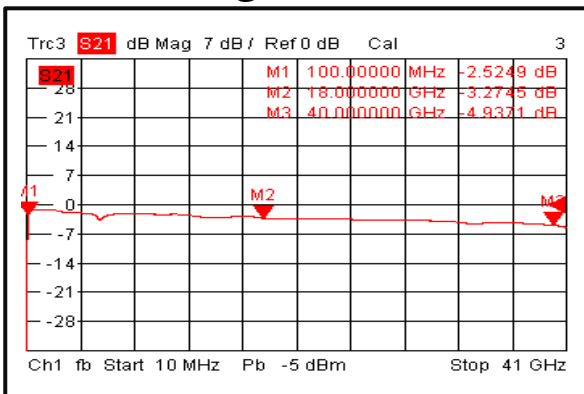
Output VSWR @-40°C



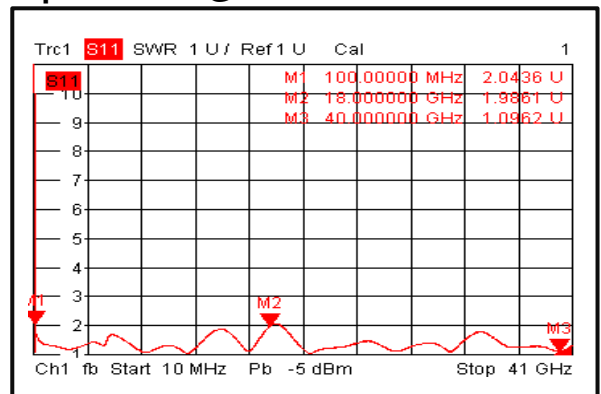
Isolation @-40°C



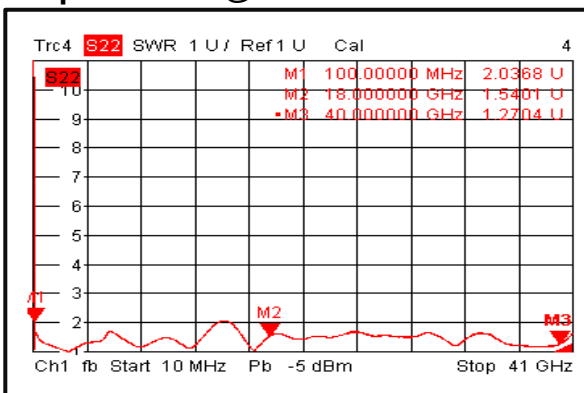
Insertion Loss @+85°C



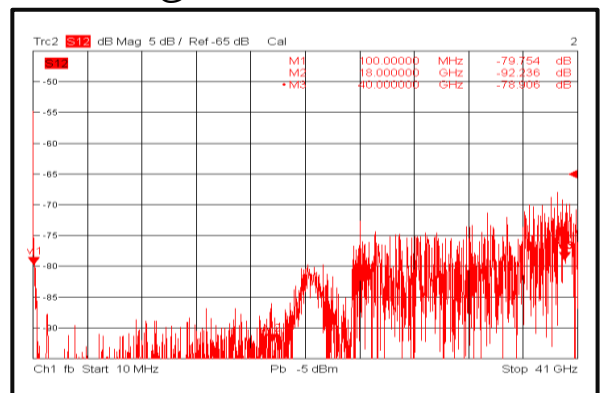
Input VSWR @+85°C



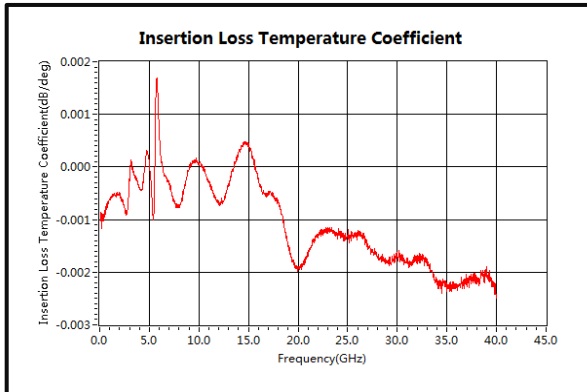
Output VSWR @+85°C



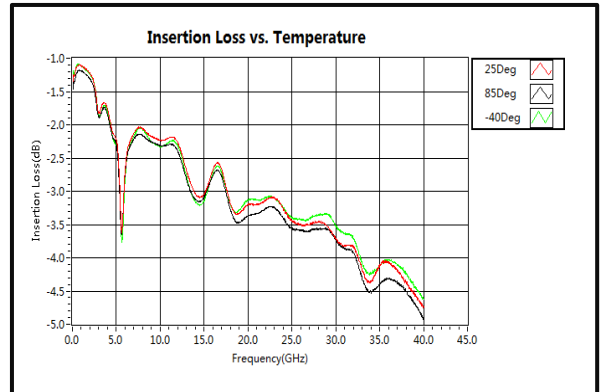
Isolation @+85°C



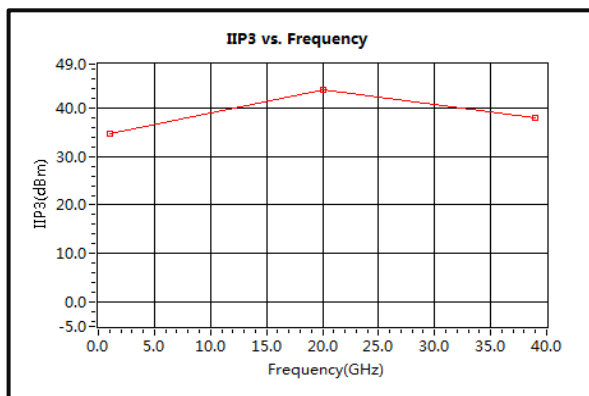
Insertion Loss Temperature Coefficient



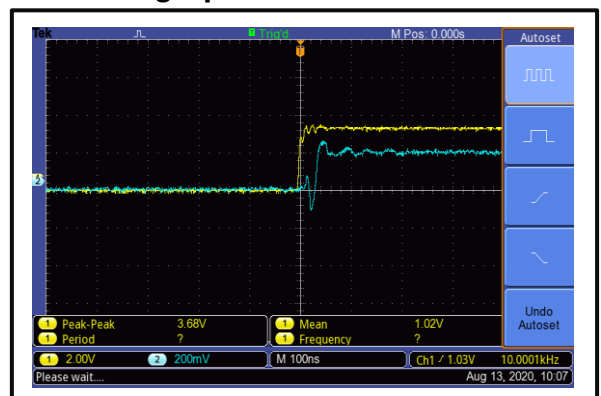
Insertion Loss vs. Temperature



IIP3



Switching Speed



Switching Speed

