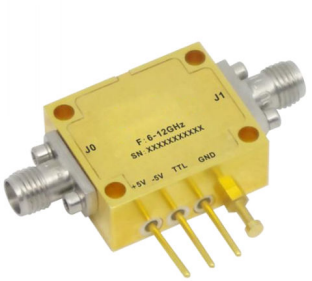
Absorptive Coaxial SPST Switch 6-12GHz

Features

- Wide Band Operation 6-12GHz
- 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	Units
Frequency Range		6-12		GHz
Insertion Loss		1.5	1.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/ ° C
Isolation （J0→J1）	75	80		dB
Input VSWR		1.2	1.5	: 1
Output VSWR		1.3	1.5	: 1
RF Input Power (CW)			30	dBm
DC Power Dissipation		0.3		W
0.1dB Compression Point（P0.1dB ）		30		dBm
IIP3		55		dBm
Switching Speed			100	ns
Weight		1.2		ounces
Impedance		50		Ω
Bias Current (+5V/-5V)		80/50		mA
Input / Output Connectors		SMA - Female		
Finish		Gold Plated		
Material		Aluminum		
Sealing		Hermetically Sealed（optional）		

Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%

Environmental Specifications

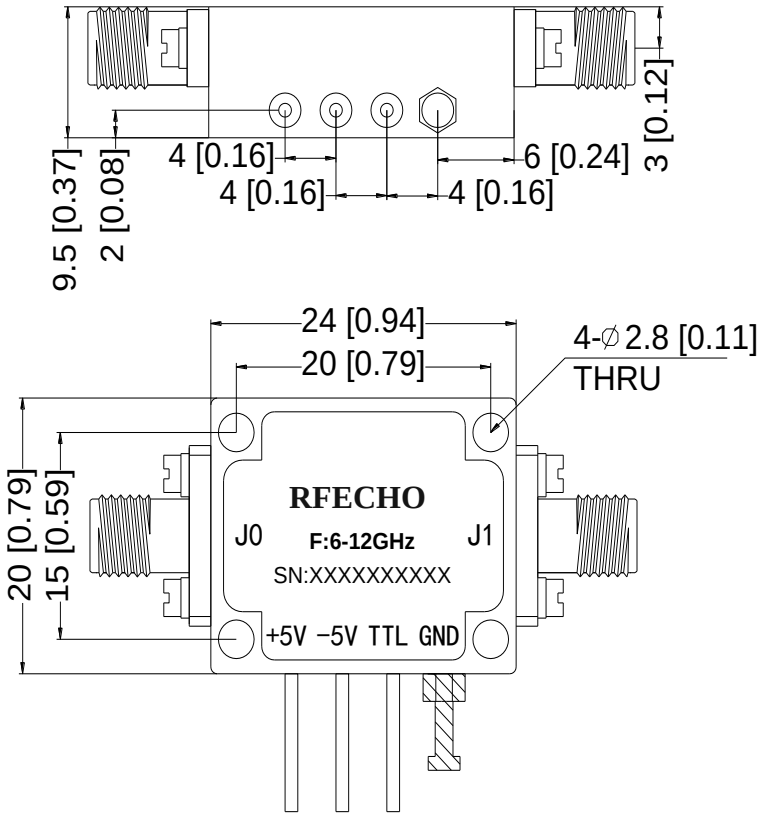
Operational Temperature	-40ºC~+85ºC(Case Temperature)
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100%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

Ordering Information

Part No.	Description
DBSA0106001200A	SPST 6-12GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)

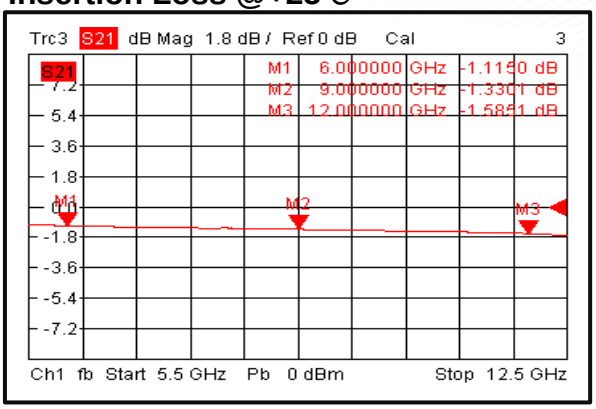


Notes:
J0: Absorptive Port
J1: Reflective port

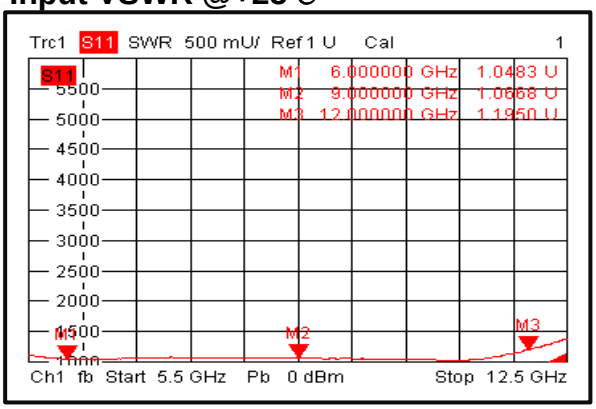
Truth Table

TTL Control Voltage THRESHOLD	**Low(0)=0~0.8V**
	High(1)=2.8~5V
Control Input TTL	**State**
1	**ON**
0	**OFF**
Control Pin Customization available upon request	

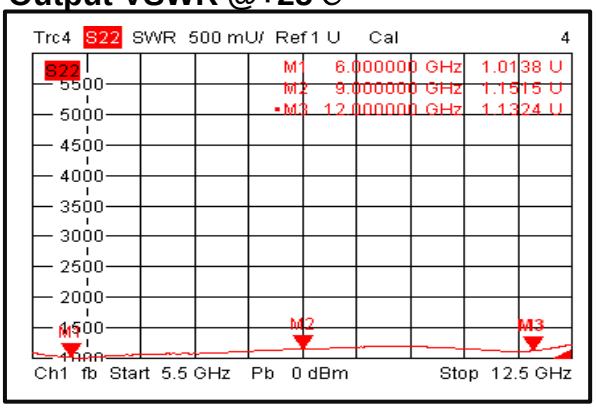
Insertion Loss @+25℃



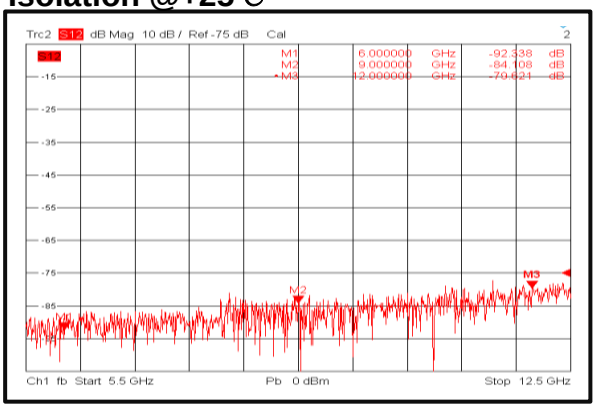
Input VSWR @+25℃



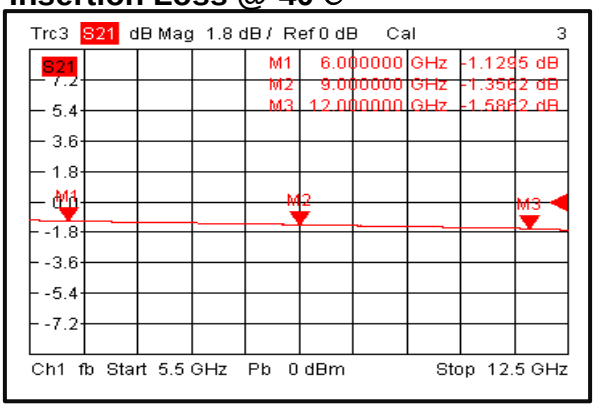
Output VSWR @+25℃



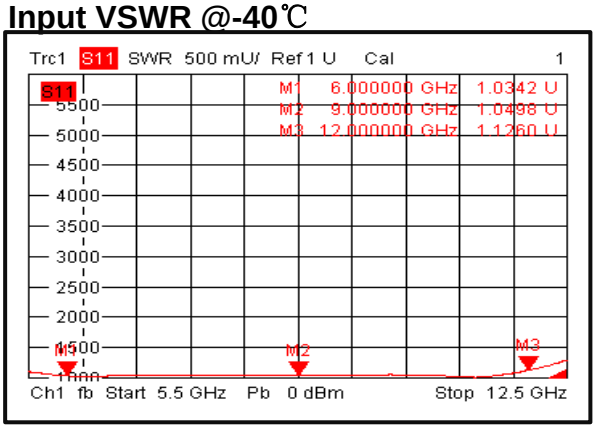
Isolation @+25℃



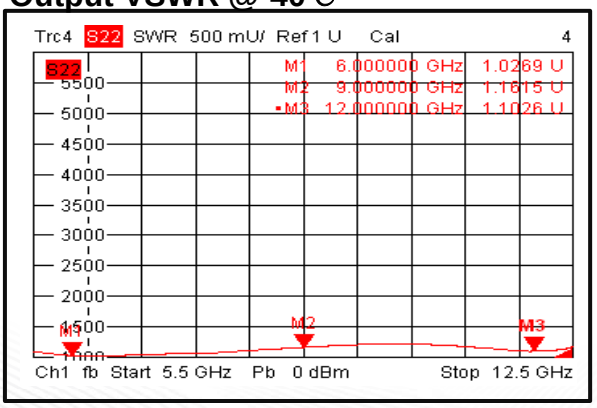
Insertion Loss @-40℃



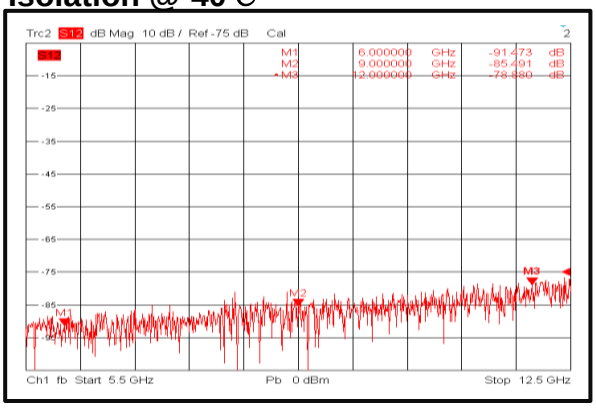
Input VSWR @-40℃



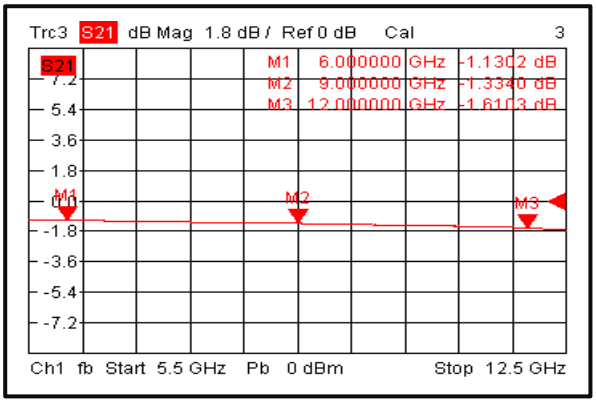
Output VSWR @-40℃



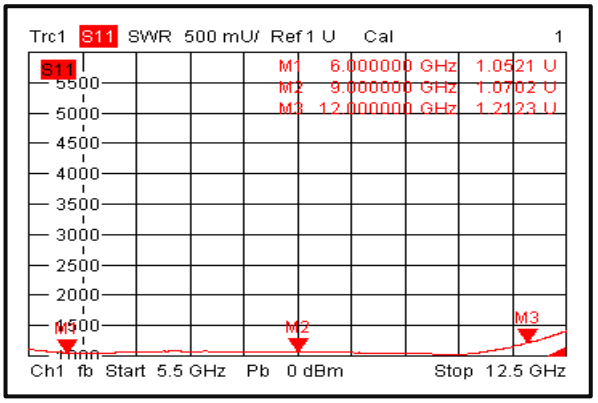
Isolation @-40℃



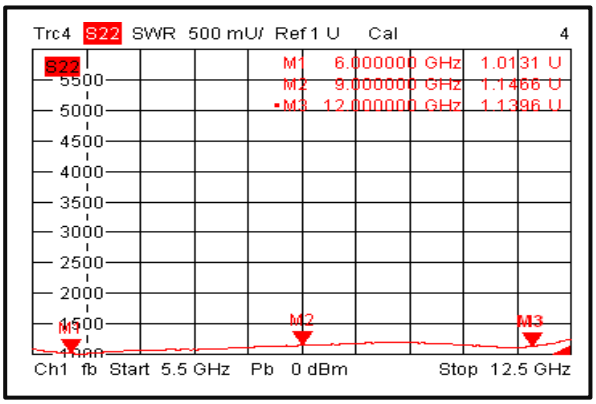
Insertion Loss @+85℃



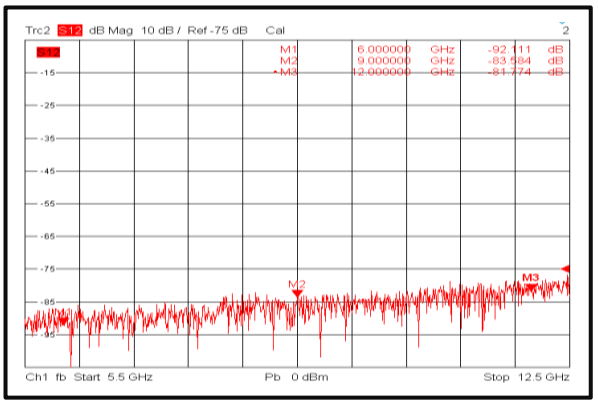
Input VSWR @+85℃



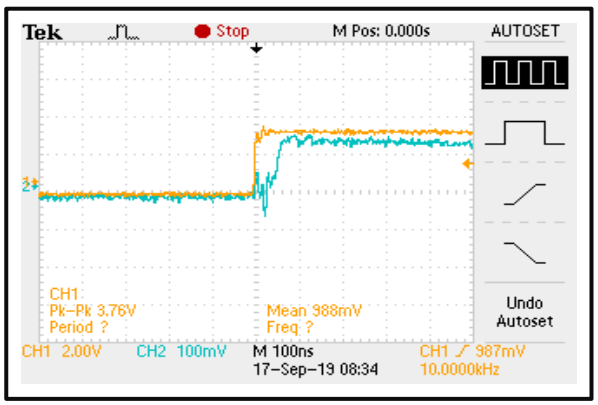
Output VSWR @+85℃



Isolation @+85℃



Switching Speed



Switching Speed