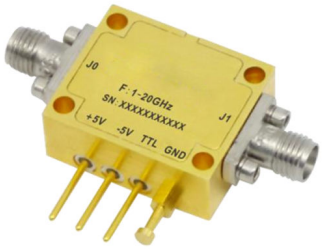
Absorptive 1-20GHz Coaxial SPST Switch

Features

- Ultra Wide Band Operation 1-20GHz
- 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		1-8			8-12			12-20		GHz
Insertion Loss		1.3	1.5		1.5	2		2.5	3	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ °C
Isolation (J0→J1)	80	85		80	85		75	82		dB
Input VSWR		1.6	1.8		1.6	1.8		1.6	1.8	: 1
Output VSWR		1.6	1.8		1.6	1.8		1.6	1.8	: 1
RF Input power			30			30			30	dBm
Power Dissipation (CW)		0.3			0.3			0.3		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed	100									ns
Weight	0.35									ounces
Impedance	50									Ω
Bias Current(+5V/-5V)	70/60									mA
Input /Output Connectors	SMA-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (optional)									

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Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%

Environmental Specifications

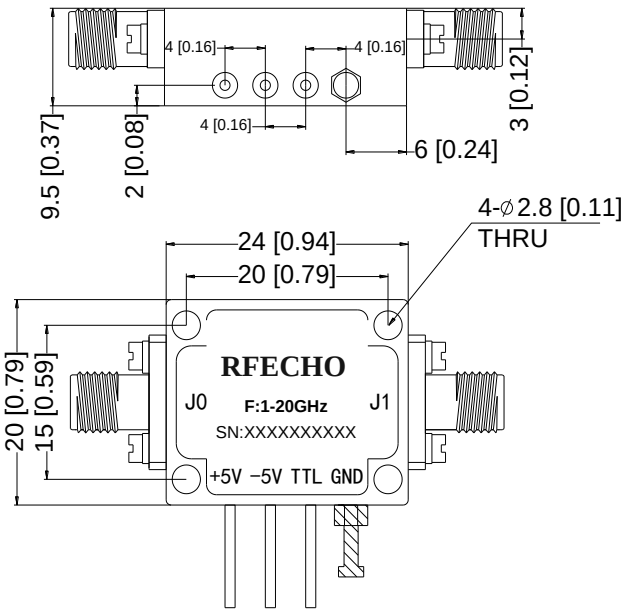
Operational Temperature	-40ºC~+85ºC(Case Temperature)
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100%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

Ordering Information

Part No.	Description
DBSA0101002000A	SPST 1-20GHz 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	Signal Path State
1	ON
0	OFF
Control Pin Customization available upon request	

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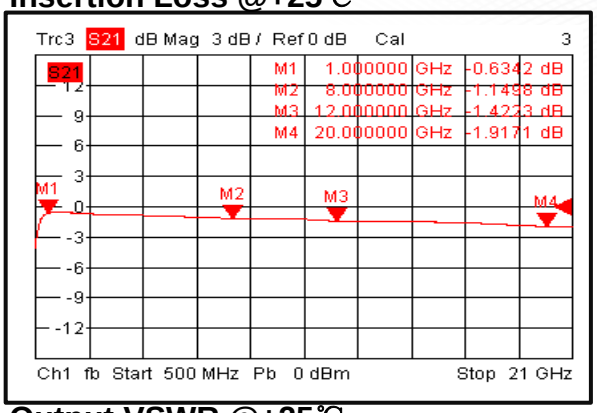
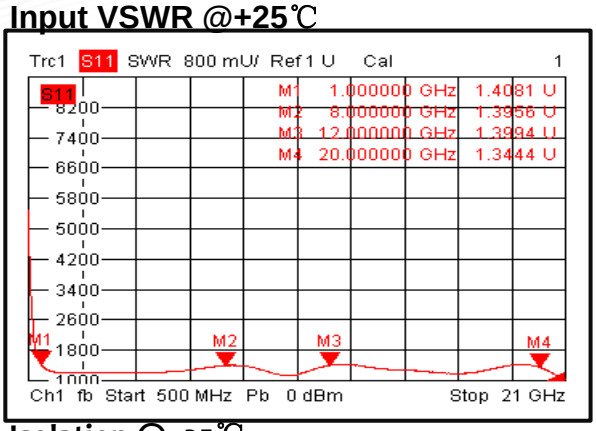
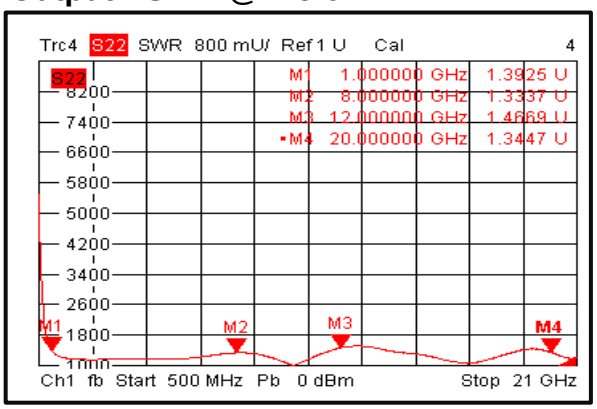
Insertion Loss @+25℃



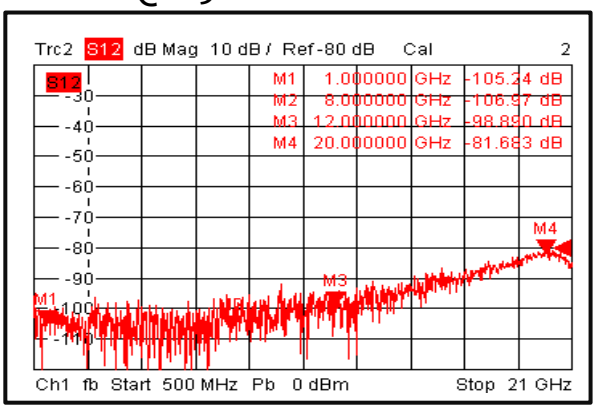
Input VSWR @+25℃



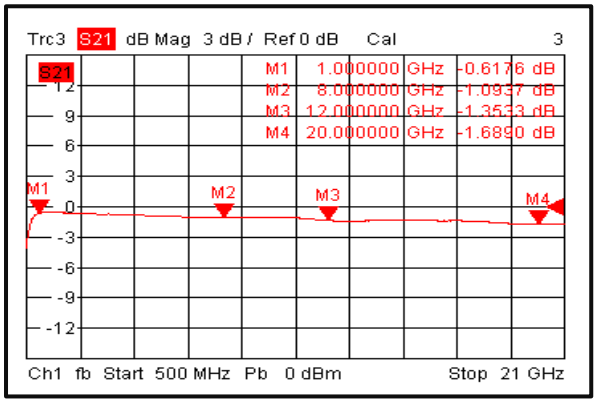
Output VSWR @+25℃



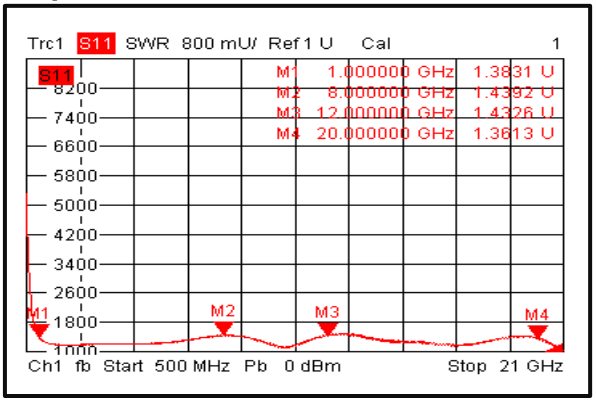
Isolation @+25℃



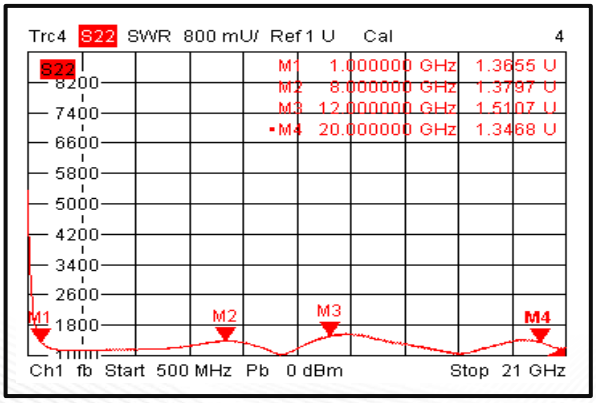
Insertion Loss @-40℃



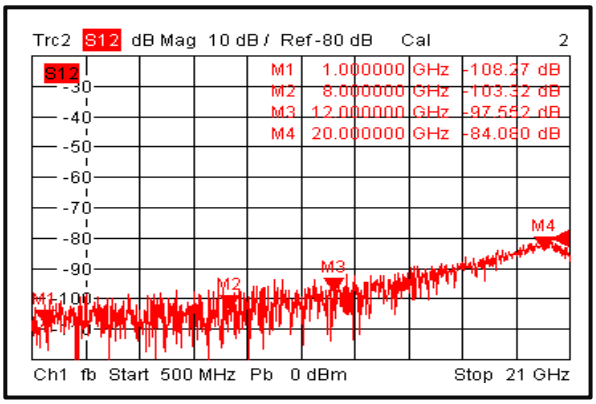
Input VSWR @-40℃



Output VSWR @-40℃



Isolation @-40℃



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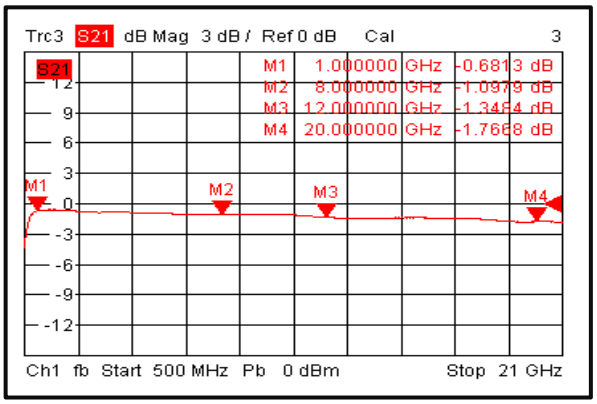
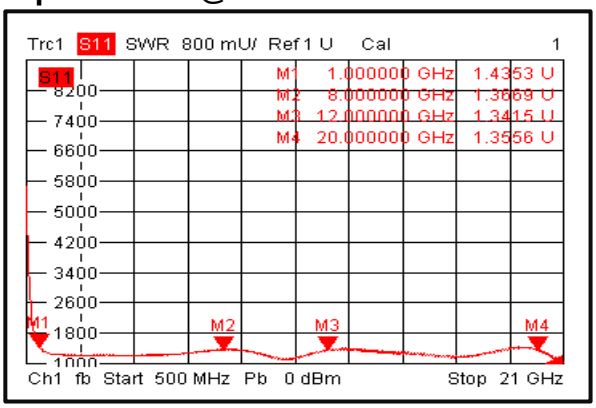
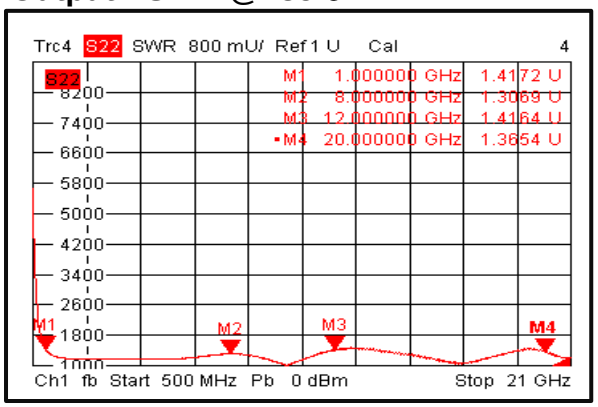
Insertion Loss @+85℃



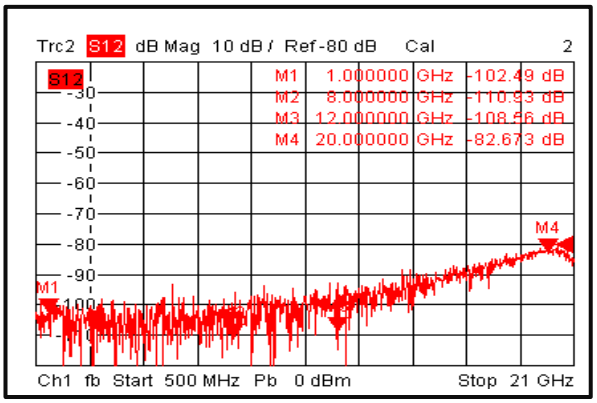
Input VSWR @+85℃



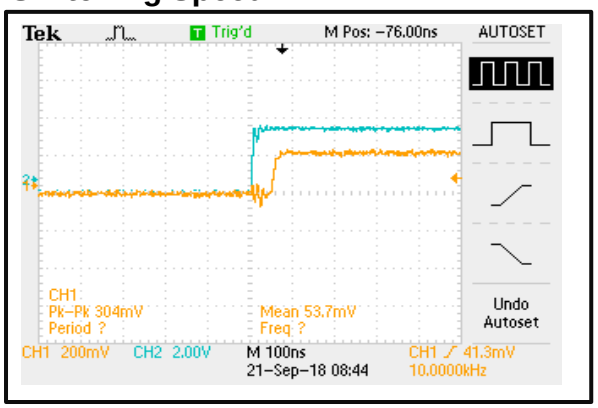
Output VSWR @+85℃



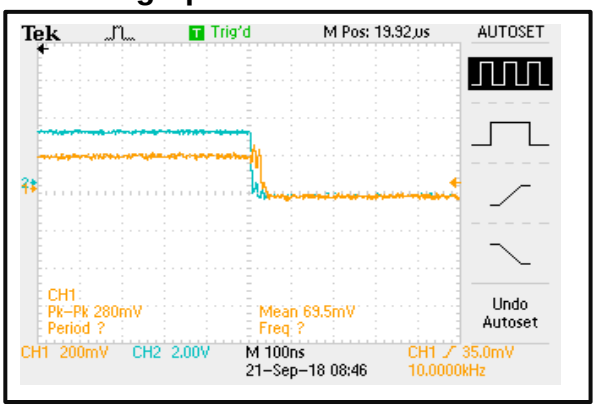
Isolation @+85℃



Switching Speed



Switching Speed



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