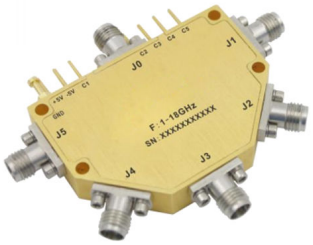
Absorptive 1-18GHz Coaxial SP5T Switch

Features

- Ultra Wide Band Operation 1-18GHz
- 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.	Min.	Typ.	Max.	Units
Frequency Range		1-8			8-12			12-18		GHz
Insertion Loss		1.5	2		1.9	2.5		2.8	3.5	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	70	80		60	80		60	75		dB
Input VSWR		1.6	1.8		1.4	1.8		1.6	1.8	: 1
Output VSWR		1.6	1.8		1.4	1.8		1.6	1.8	: 1
RF Input power			30			30			30	dBm
DC Power Dissipation(CW)		0.3			0.35			0.45		W
0.1dB Compression Point (P0.1dB)		30			30			30		dBm
IIP3		45			40			38		dBm
Switching Speed	100 Max.									ns
Weight	1.5 Max.									Ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	200/50 Max.									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%

Ordering Information

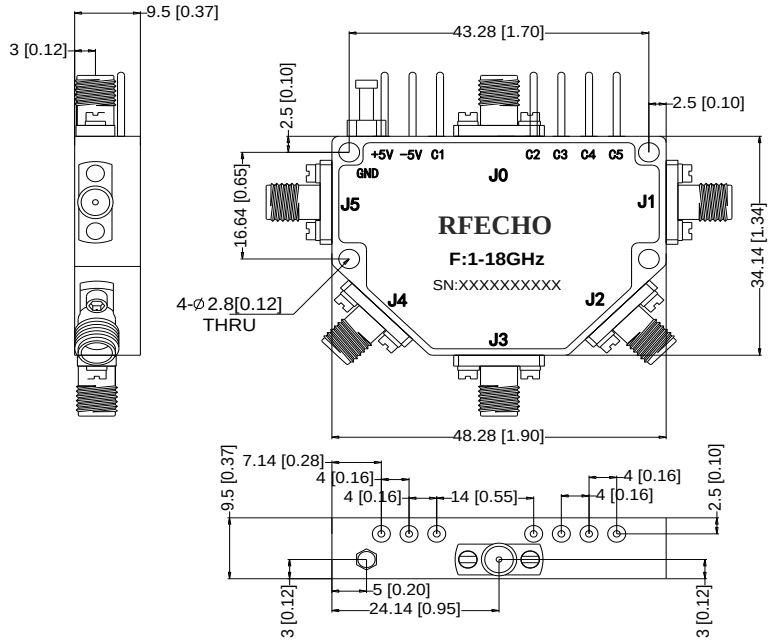
Part No.	Description
DBSA0501001800A	SP5T 1-18GHz PIN Diode Switch

Environmental Specifications

Operational Temperature	-40ºC~+85ºC
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

Outline Drawing:

All Dimensions in mm (inches) Housing Tolerances ±0.1(0.004)

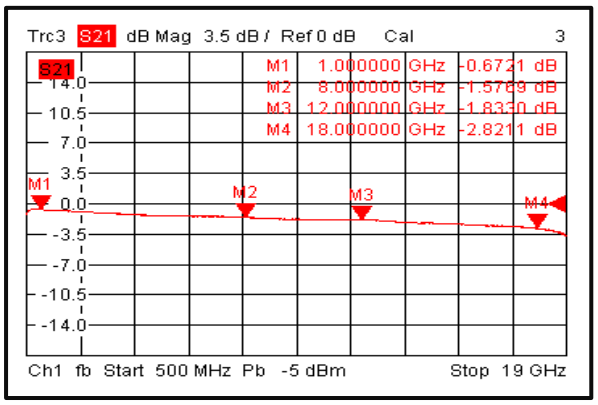


Truth Table

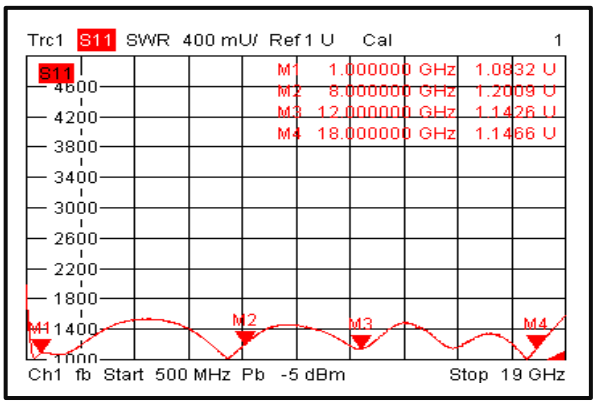
TTL Control Voltage THRESHOLD					Low(0)=0~0.8V
					High(1)=2.8~5V
Control Input TTL					Signal Path State
C5	C4	C3	C2	C1	
1	1	1	1	0	J0-J1
1	1	1	0	1	J0-J2
1	1	0	1	1	J0-J3
1	0	1	1	1	J0-J4
0	1	1	1	1	J0-J5
Control Pin Customization available upon request					

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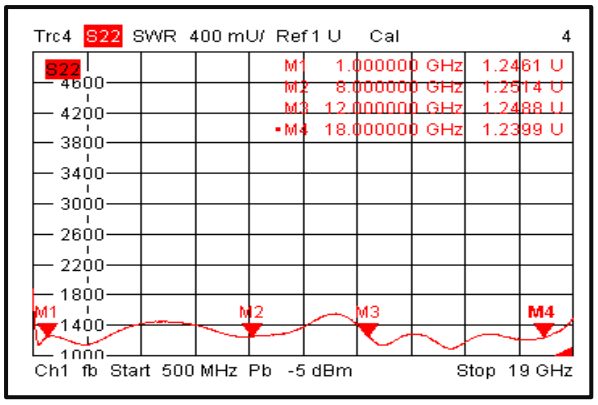
Insertion Loss @+25℃



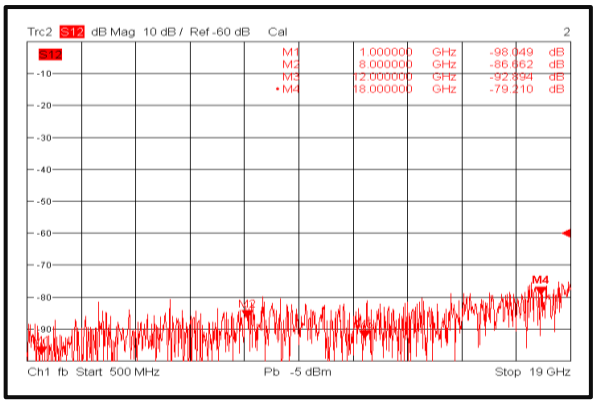
Input VSWR @+25℃



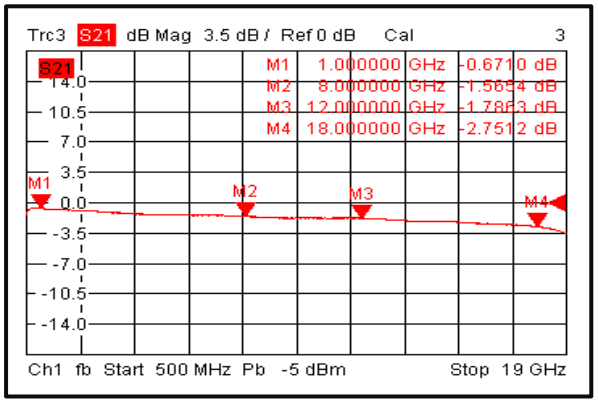
Output VSWR @+25℃



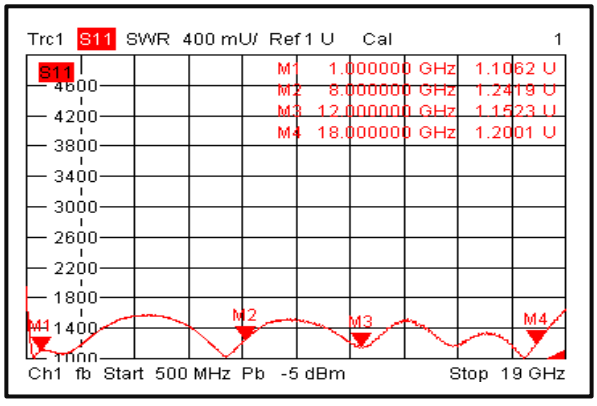
Isolation @+25℃



Insertion Loss @-40℃

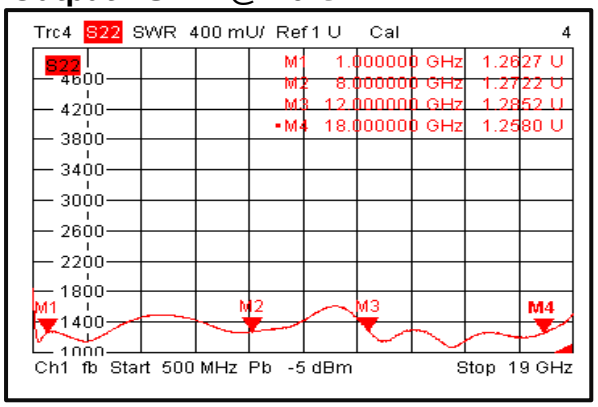


Input VSWR @-40℃

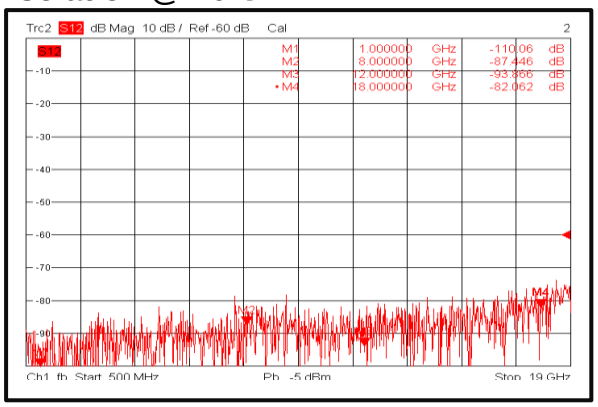


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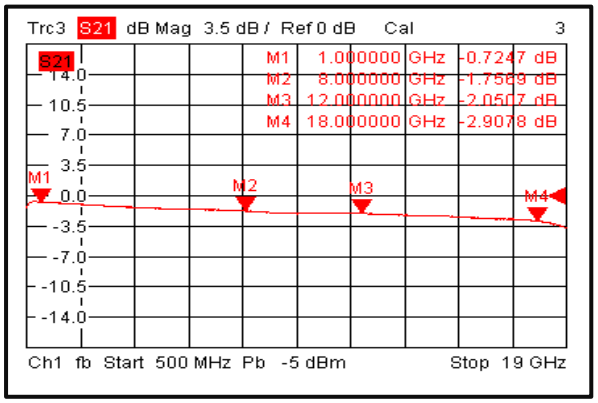
Output VSWR @-40℃



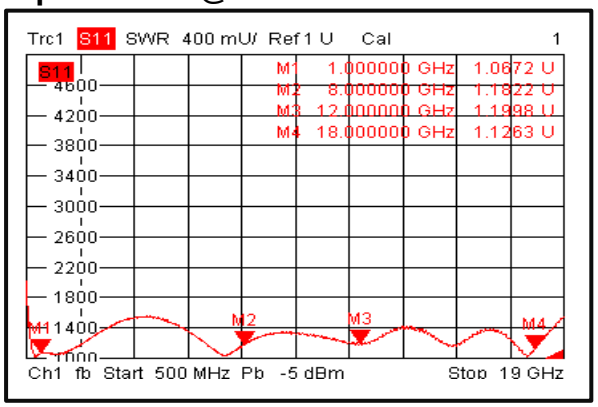
Isolation @-40℃



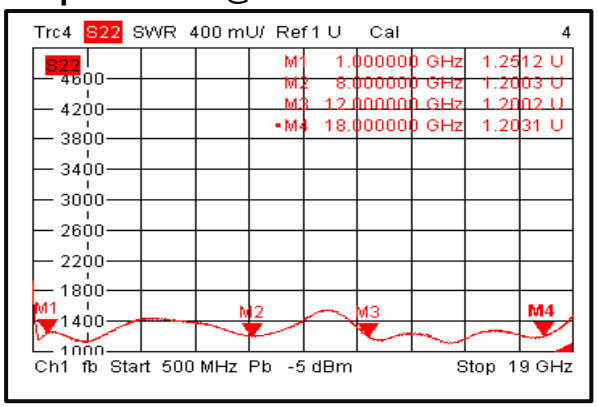
Insertion Loss @+85℃



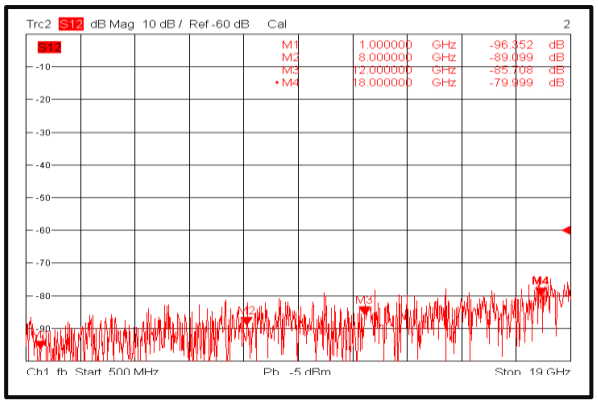
Input VSWR @+85℃



Output VSWR @+85℃

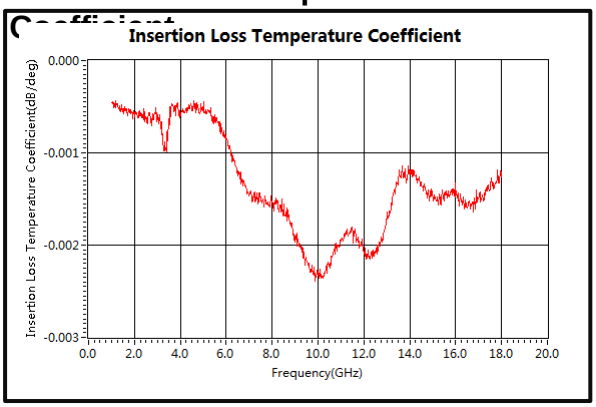


Isolation @+85℃

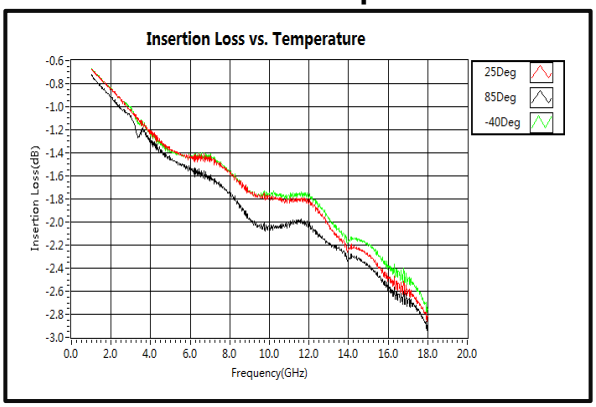


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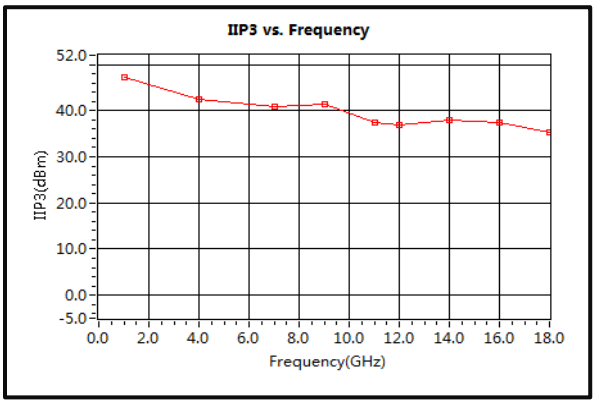
Insertion Loss Temperature Coefficient



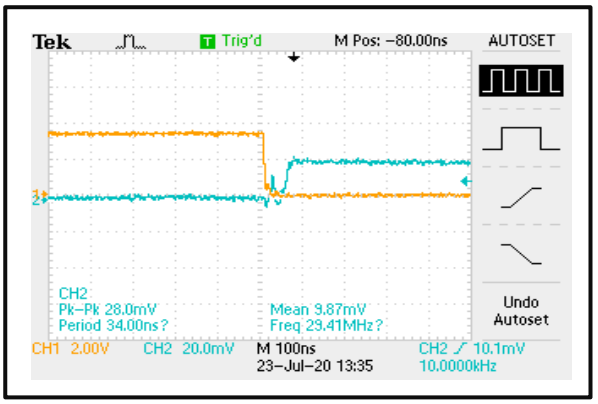
Insertion Loss vs. Temperature



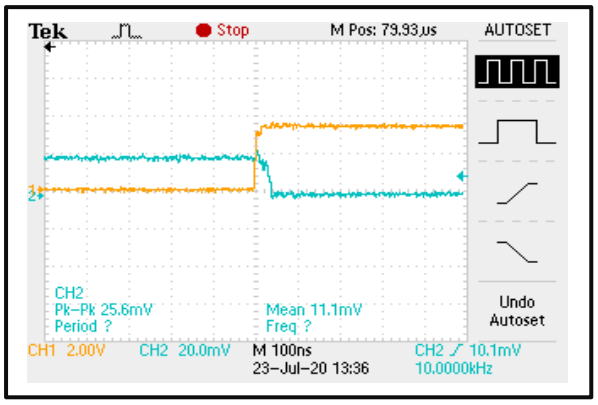
IIP3



Switching Speed



Switching Speed



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