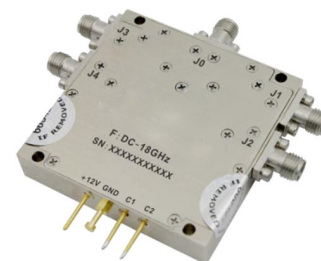




Reflective DC-18GHz Coaxial SP4T Switch

Features

- Ultra Wide Band Operation DC-18GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- High Power Cold Switching
- 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	DC-6			6-12			12-18			GHz
Insertion Loss		1.9	2.5		2.5	3		3.6	4	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/ ° C
Isolation	30	40		25	30		24	25		dB
Input VSWR		1.2	1.5		1.6	1.7		1.7	2	: 1
Output VSWR		1.2	1.5		1.7	1.8		1.6	2	: 1
RF Input power (CW)			10			10			10	W
DC Power Dissipation (CW)		3			4			5		W
0.1dB Compression P0.1dB		40			40			40		dBm
IIP3		55			55			55		dBm
Switching Speed			100			100			100	ns
Weight	4									ounces
Impedance	50									Ω
Bias Current (+12V)	150									mA
Input / Output Connectors	SMA-Female									
Finish	Nickel Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									



Absolute Maximum Ratings

Biasing	+12V±10%
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Ordering Information

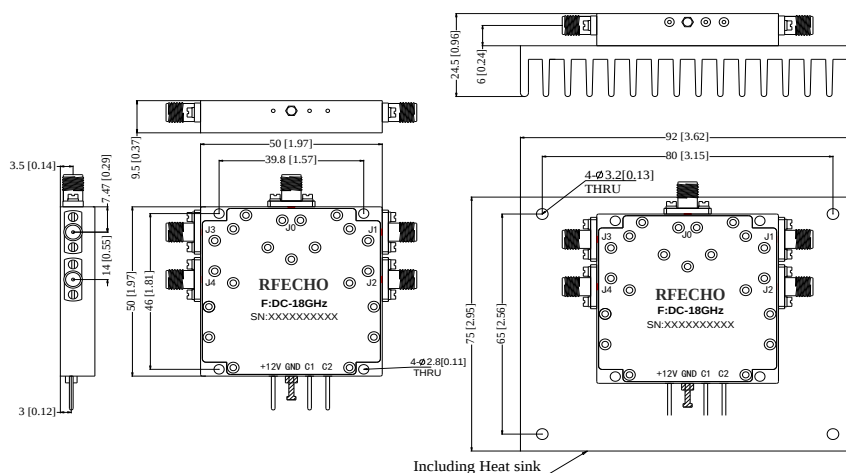
Part No.	Description
DBSR0400001800A	SP4T DC-18GHz PIN Diode Switch

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 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 ± 0.1 [0.004]

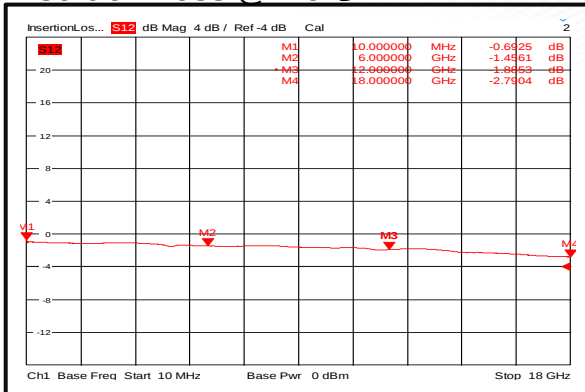


Truth Table

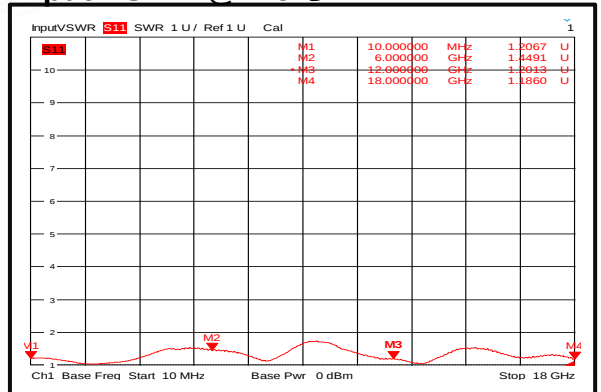
TTL Control Voltage THRESHOLD		Low(0)=0~0.8V
		High(1)=2.8~5V
Control Input TTL		Signal Path State
c1	c2	
0	0	J0-J1
0	1	J0-J2
1	0	J0-J3
1	1	J0-J4
Control Pin Customization available upon request		



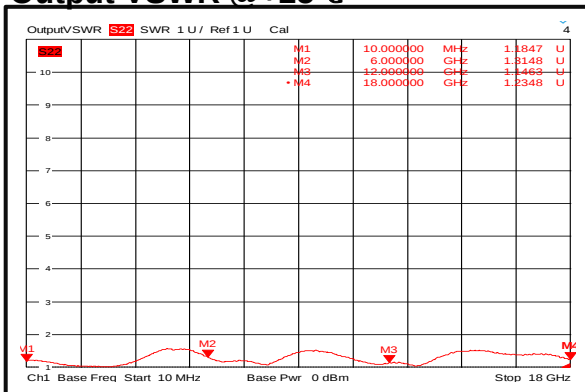
Insertion Loss @+25°C



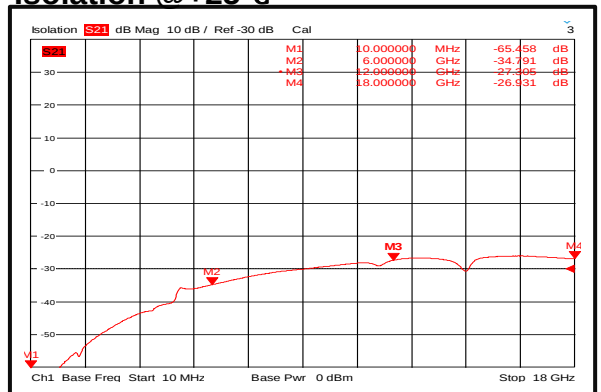
Input VSWR @+25°C



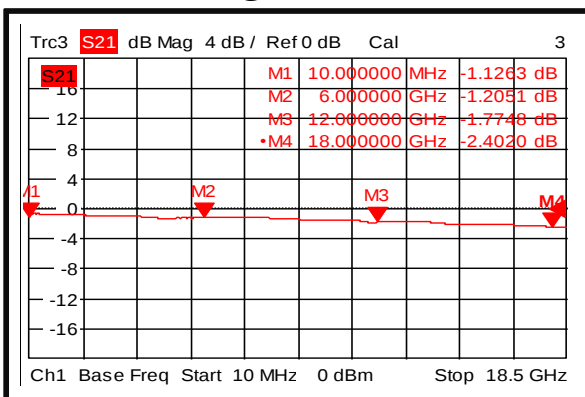
Output VSWR @+25°C



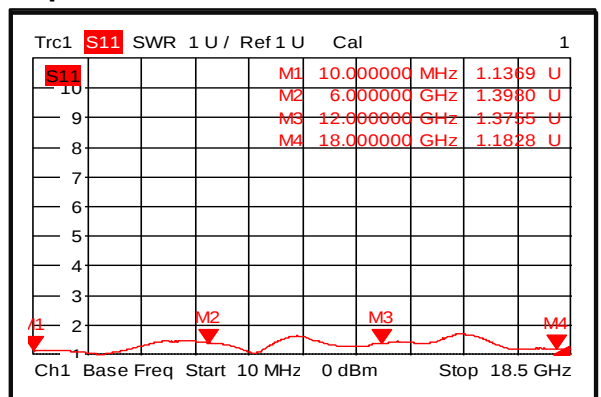
Isolation @+25°C



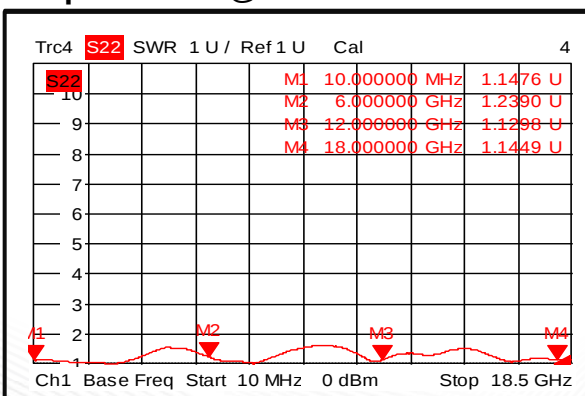
Insertion Loss @-40°C



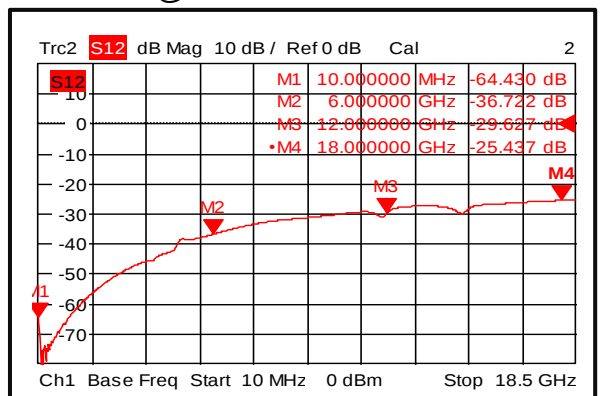
Input VSWR @-40°C



Output VSWR @-40°C

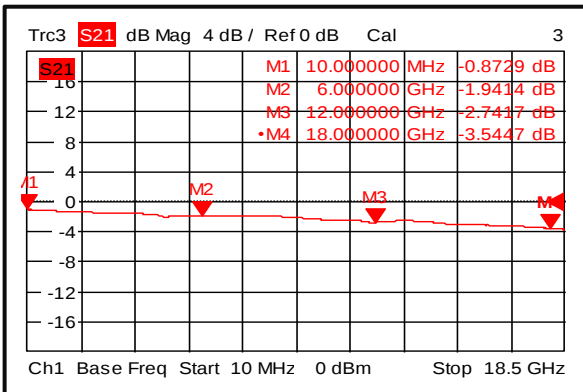


Isolation @-40°C

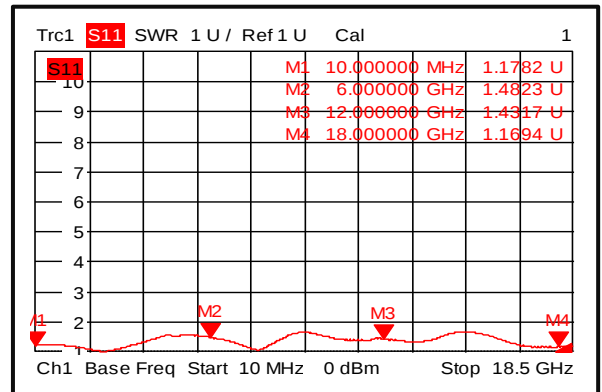




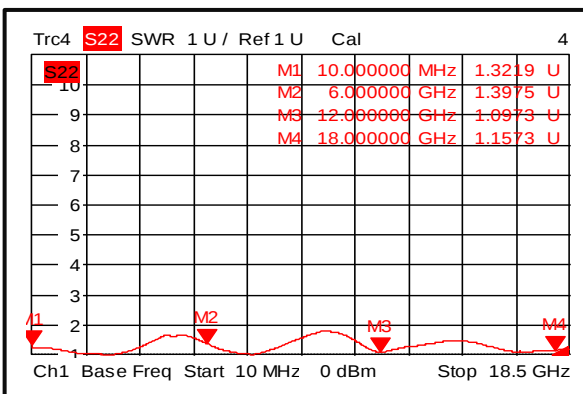
Insertion Loss @+85°C



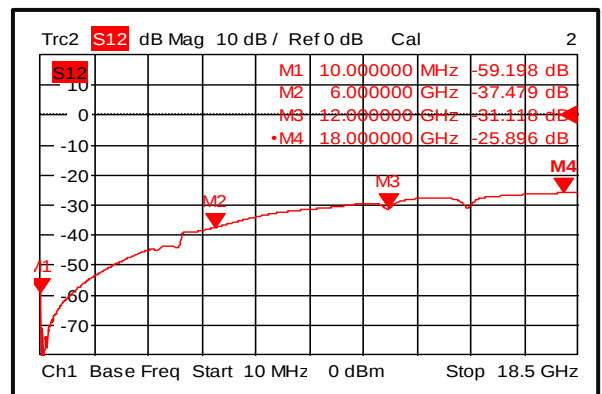
Input VSWR @+85°C



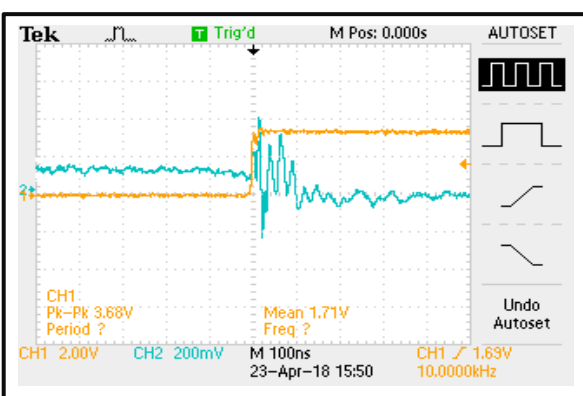
Output VSWR @+85°C



Isolation @+85°C



Switching Speed



Switching Speed

