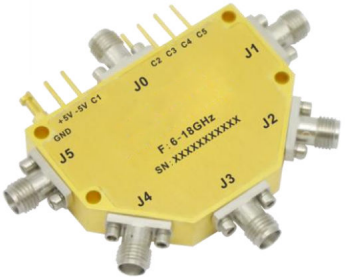
RFecho
A Gateway to RFWorld

Reflection 6-18GHz Coaxial SP5T Switch

Features

- Wide Band Operation 6-18GHz
- 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.	Units
Frequency Range		6-12			12-18		GHz
Insertion Loss		1.8	2.5		2.5	3.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/ °C
Isolation	60	75		60	75		dB
Input VSWR		1.3	1.5		1.5	1.7	: 1
Output VSWR		1.3	1.5		1.5	1.7	: 1
RF Input power			30			30	dBm
DC Power Dissipation(CW)		1			1		W
0.1dB Compression Point (P0.1dB)		30			30		dBm
IIP3		55			55		dBm
Switching Speed		50	100		50	100	ns
Weight	1.56						Ounces
Impedance	50						Ω
Bias Current (+5V / -5V)	200/50						mA
Input / Output Connectors	SMA-Female						
Finish	Gold Plated						
Material	Aluminum						
Sealing	Hermetically Sealed (optional)						

© RFecho

Absolute Maximum Ratings

Biasing	+5V±10%/-5V±10%

Environmental Specifications

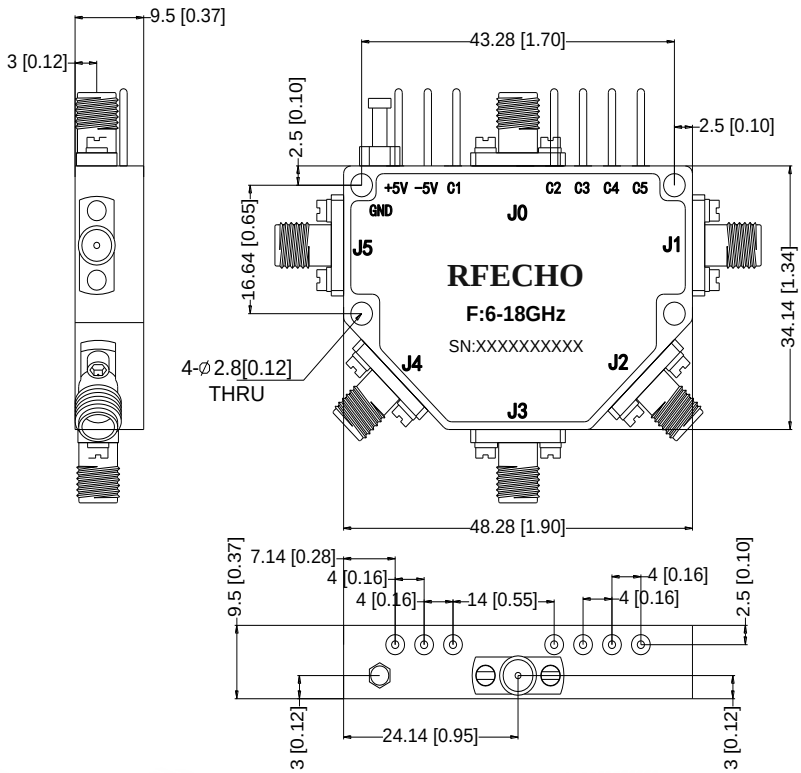
Operational Temperature	-40ºC~+85ºC
Storage Temperature	-50ºC~+105ºC
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35ºc, 95%RH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

Ordering Information

Part No.	Description
DBSR0506001800A	SP5T 6-18GHz PIN Diode Switch

Outline Drawing:

All Dimensions in mm (inches)

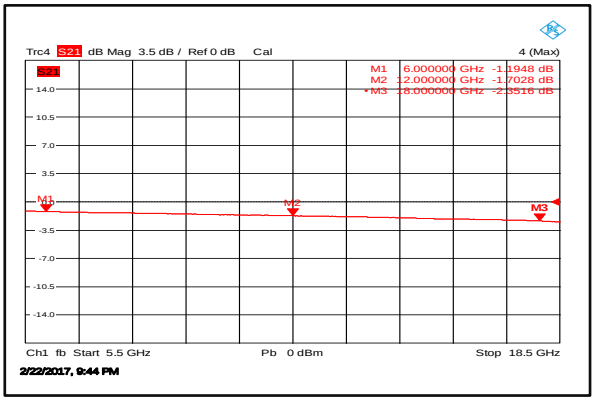


Truth Table

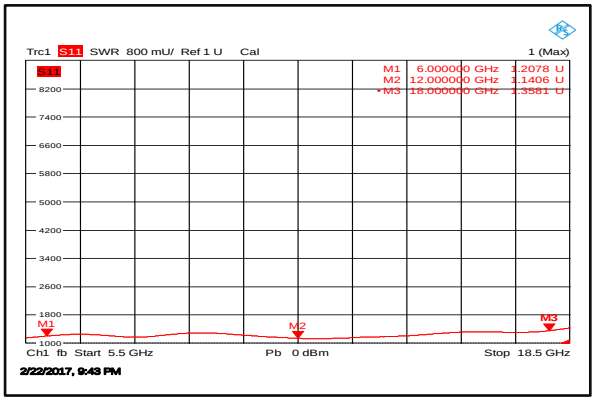
TTL Control Voltage THRESHOLD					Low(0)=0~0.8V
					High(1)=2.8~5V
Control Input TTL					Signal Path State
C5	C4	C3	C2	C1	
1	1	1	1	0	J0-J1
1	1	1	0	1	J0-J2
1	1	0	1	1	J0-J3
1	0	1	1	1	J0-J4
0	1	1	1	1	J0-J5
Control Pin Customization available upon request					

© RFecho

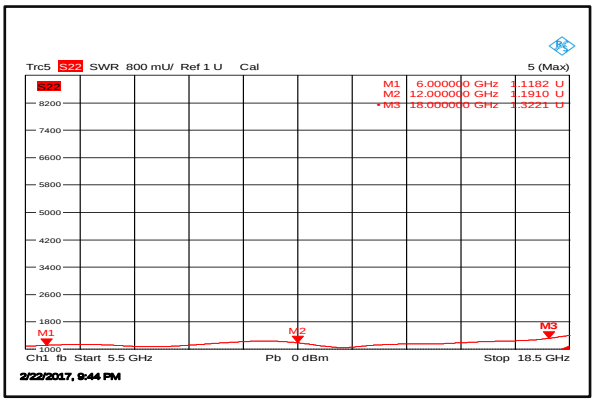
Insertion Loss



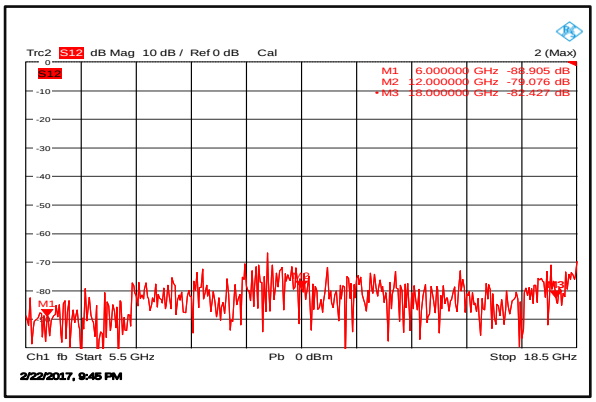
Input VSWR



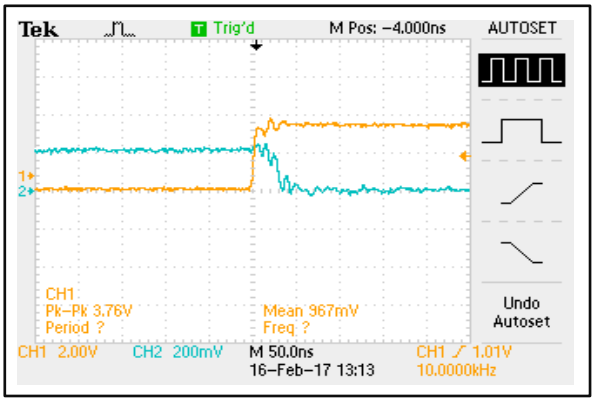
Output VSWR



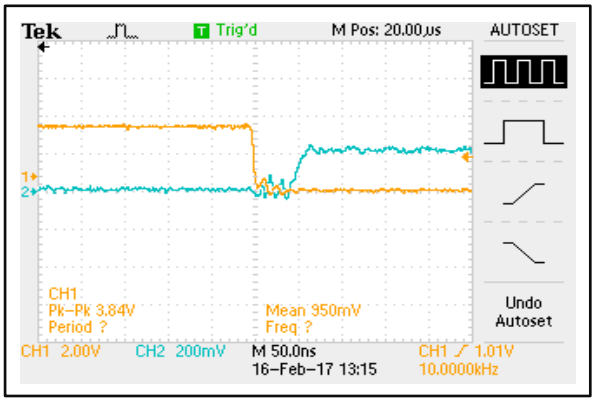
Isolation



Turn on Switching Speed



Turn off Switching Speed



© RFecho