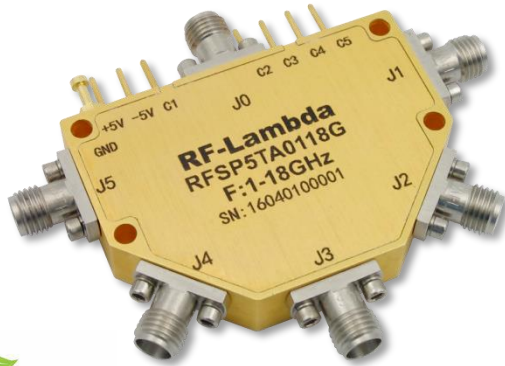




## Absorptive 1-18GHz Coaxial SP5T Switch



### Features

- Ultra Wide Band Operation 1-18GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.

Electrical Specifications, TA = +25° C, With Biasing +5V & -5V, Control TTL= 0/ +5V

Description	RFSP5TA0118G									
	SP5T Absorptive Switch									
	Low Power Cold Switching									
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	75		60	70		60	63		dB
Input VSWR		1.6	1.8		1.4	1.8		1.6	1.8	
Output VSWR		1.6	1.8		1.4	1.8		1.6	1.8	
RF Input power	30			30			30			dBm
DC Power Dissipation		0.3			0.35			0.45		W
0.1dB Compression Po.1dB		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed			100			100			100	ns
Weight	1.06									Ounces
Impedance	50									Ω
Biasing(+5V/-5V)	200/50									mA
Input /Output Connector	SMA-Female									
Finishing	Gold Plating									
Material	Aluminum									
Seal	Hermetically Sealed (optional)									



**Absolute Maximum Ratings**

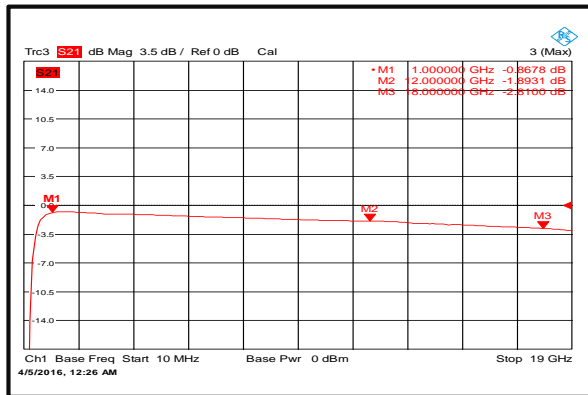
Biassing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V/2~5V
Operating Temperature(°C)	-45 ~ +85
Storage Temperature(°C)	-50 ~ +125

**Ordering Information**

Part No	ECCN	Description
RFSP5TA0118G	EAR99	SP5T 1-18GHz PIN Diode Switch

**Typical Performance Plots**

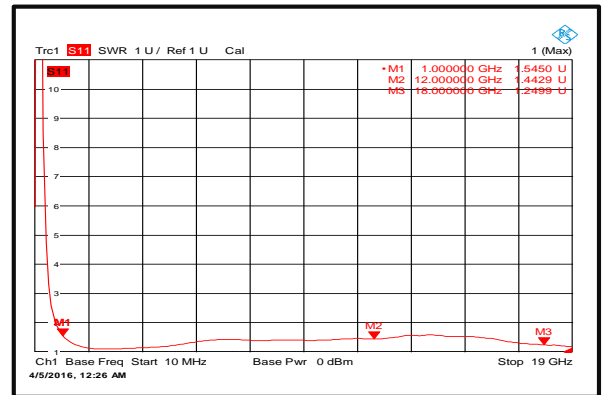
**Insertion Loss**



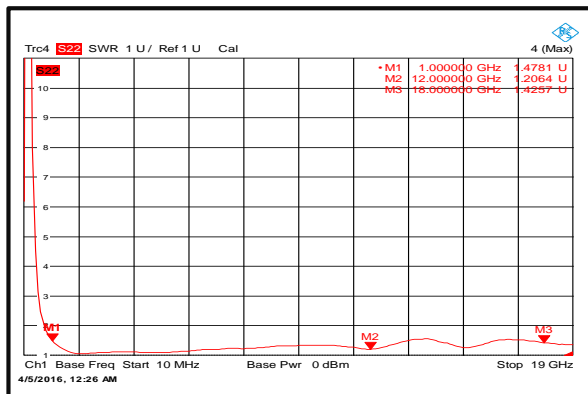
**Environmental Specifications**

Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°C
Shock	20G for 11msc half sin wave, 3 axis both directions

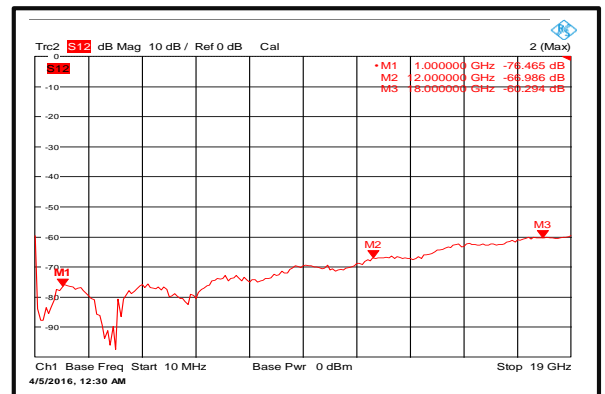
**Input VSWR**



**Output VSWR**

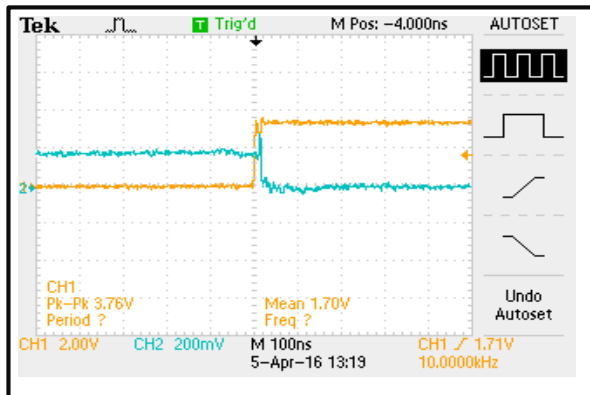


**Isolation**

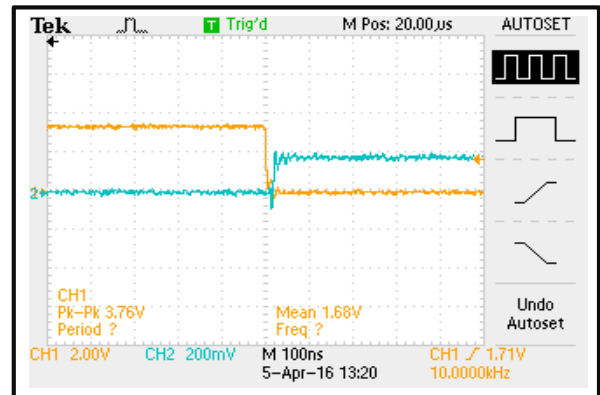




**Switching Speed**

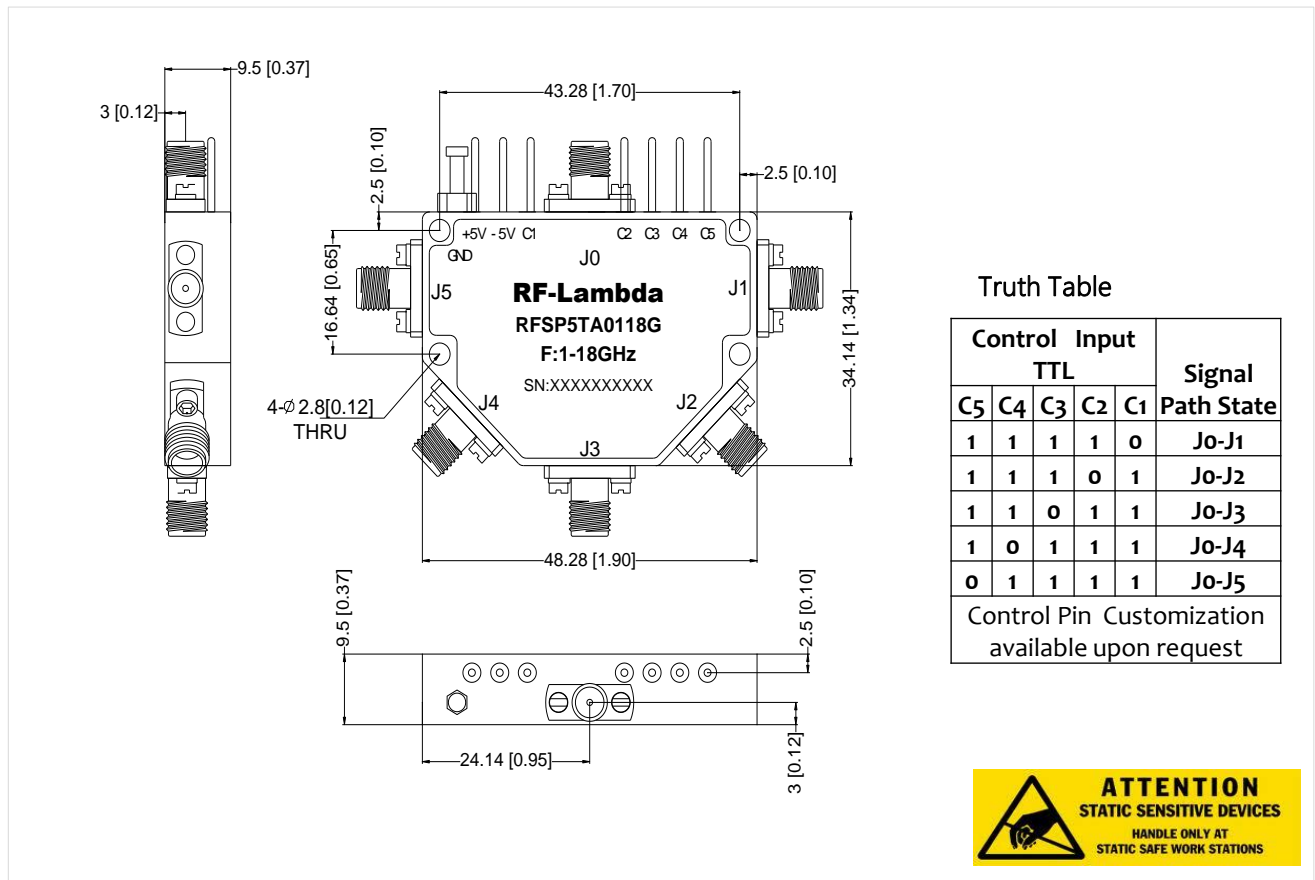


**Switching Speed**



**Outline Drawing:**

All Dimensions in mm ( inches )



Truth Table

Control Input					Signal Path State
C5	C4	C3	C2	C1	
1	1	1	1	0	Jo-J1
1	1	1	0	1	Jo-J2
1	1	0	1	1	Jo-J3
1	0	1	1	1	Jo-J4
0	1	1	1	1	Jo-J5

Control Pin Customization available upon request



**Important Notice**

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**Absorptive Coaxial Single Pole Five Throw Switch 1-18GHz**