



# RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

## RFSP2TA0118G

### Absorptive Coaxial SP2T Switch 1 - 18GHz



#### Features

- Ultra Wide Band Operation 1-18GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications, TA = +25 °C, Vdd=+5V/-5V , TTL= 0/ +5V

Description	PN: RFSP2TA0118G									
	SP2T 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	1.8		1.8	2.5		2.5	3.0	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C
Isolation	70	75		70	75		60	65		dB
Input VSWR		1.3	1.5		1.4	1.6		1.6	1.8	:1
Output VSWR		1.3	1.5		1.4	1.6		1.6	1.8	:1
DC Power Dissipation		0.5			0.5			0.5		W
0.1dB Compression Point (Po.1dB)		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed	100									ns
Weight	0.71									ounces
Impedance	50									Ω
Bias Current (+5V / -5V)	80/50									mA
Input / Output Connectors	SMA-Female									
Finish	Gold Plated									
Material	Aluminum									
Sealing	Hermetically Sealed (Optional)									

Absorptive Coaxial Single Pole Double Throw Switch 1 - 18GHz



**Absolute Maximum Ratings**

Biassing	+5V±10%/-5V±10%
TTL Control Voltage	0~0.8V/2.8~5V

Note: TTL pins cannot be connected to the negative voltage otherwise the internal driver will be damaged.

**Ordering Information**

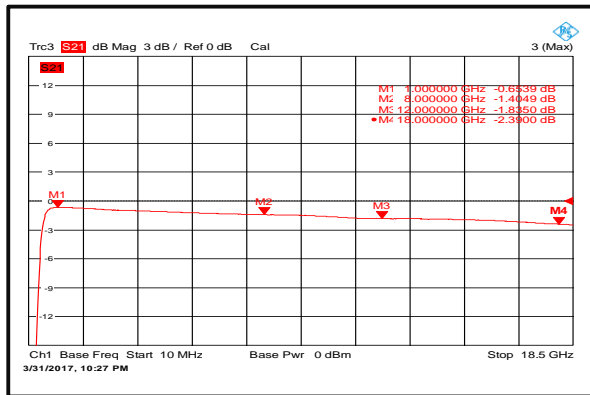
Part No.	ECCN	Description
RFSP2TA0118G	EAR99	SP2T 1-18GHz PIN Diode Switch

**Environmental Specifications**

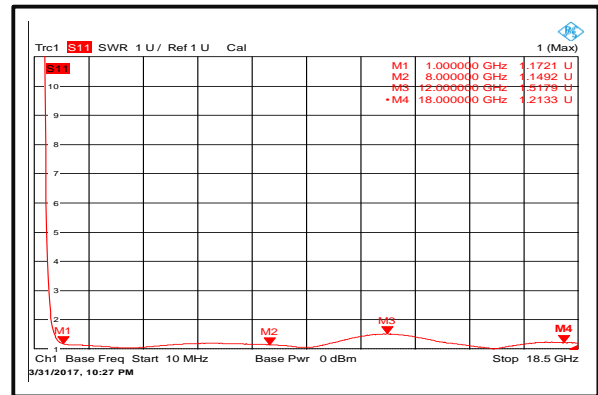
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c,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

**Typical Performance Plots**

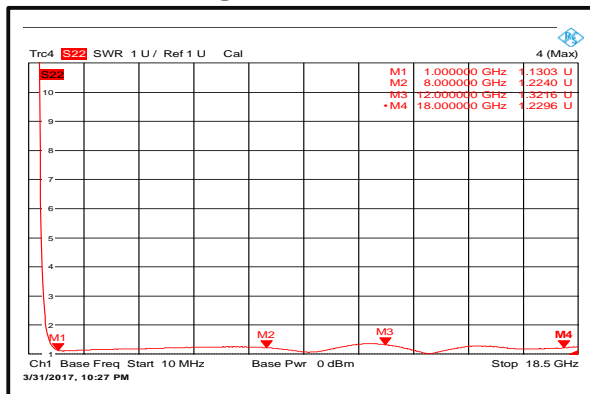
**Insertion Loss @+25°C**



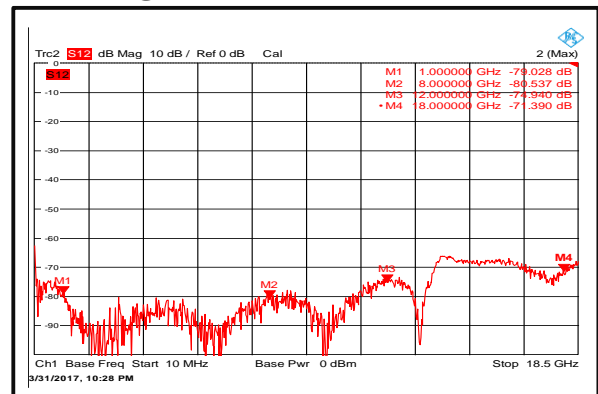
**Input VSWR @+25°C**



**Output VSWR @+25°C**

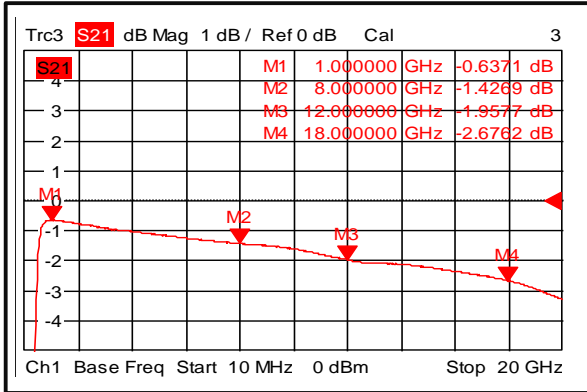


**Isolation @+25°C**

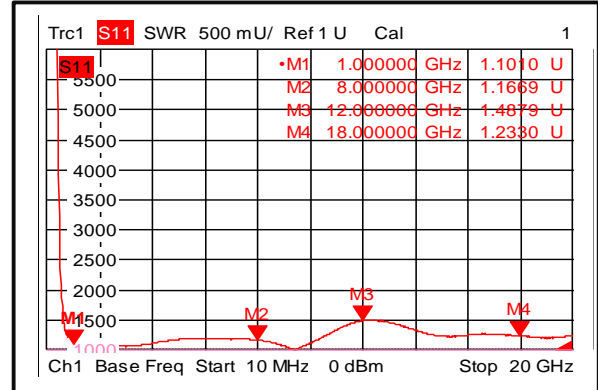




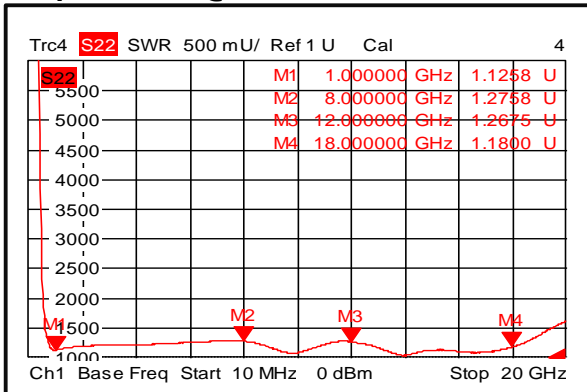
**Insertion Loss @-45°C**



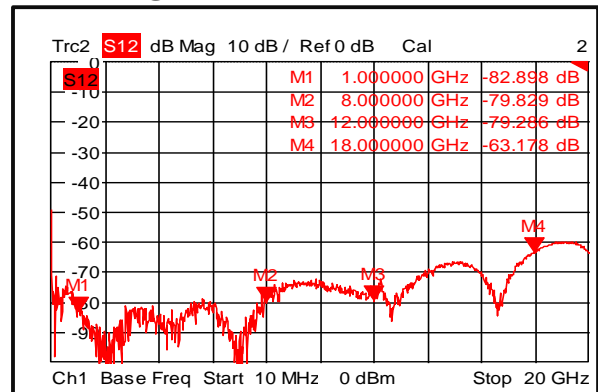
**Input VSWR @-45°C**



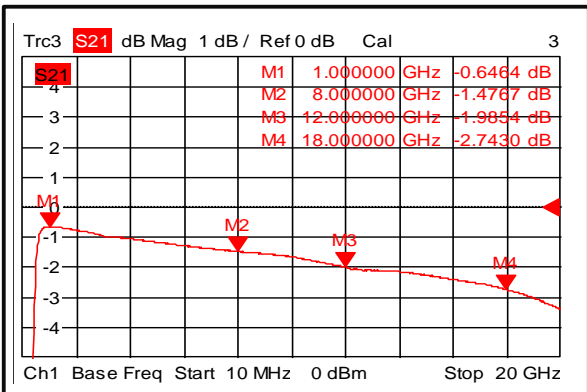
**Output VSWR @-45°C**



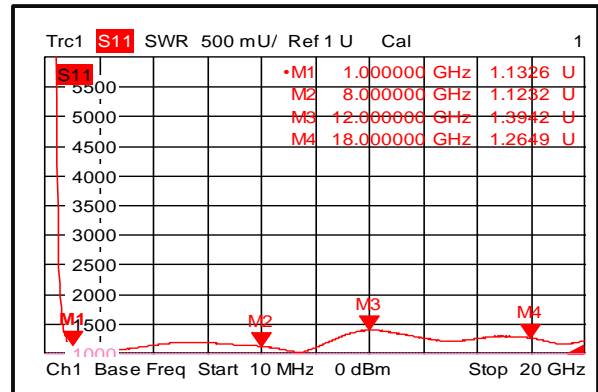
**Isolation @-45°C**



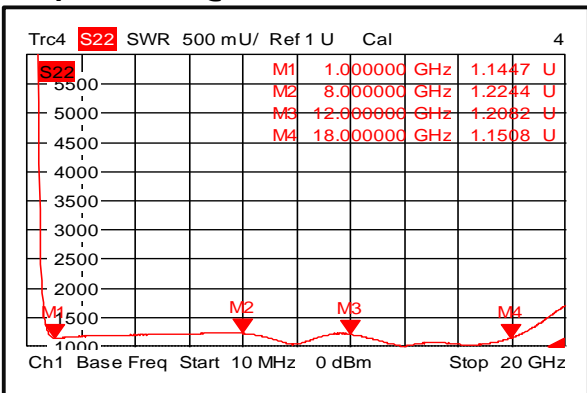
**Insertion Loss @+85°C**



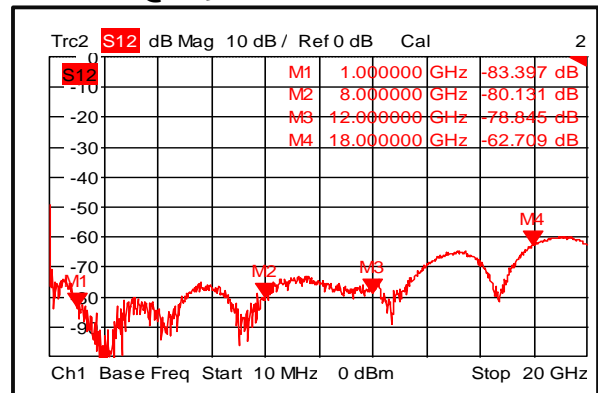
**Input VSWR @+85°C**



**Output VSWR @+85°C**

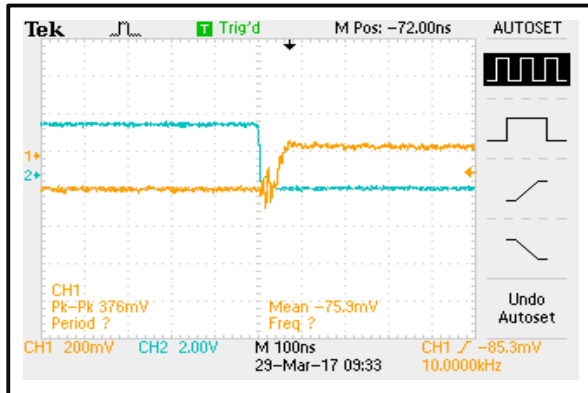


**Isolation @+85°C**

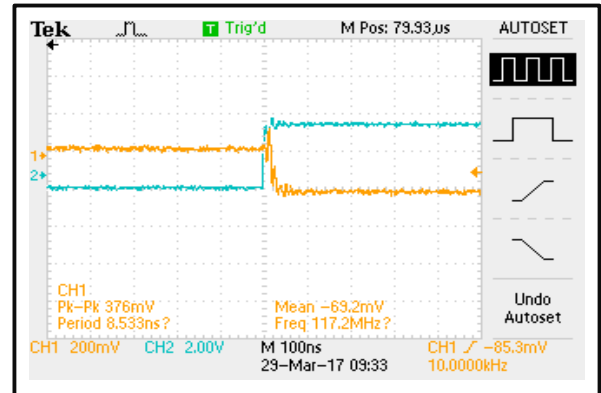




**Switching Speed**

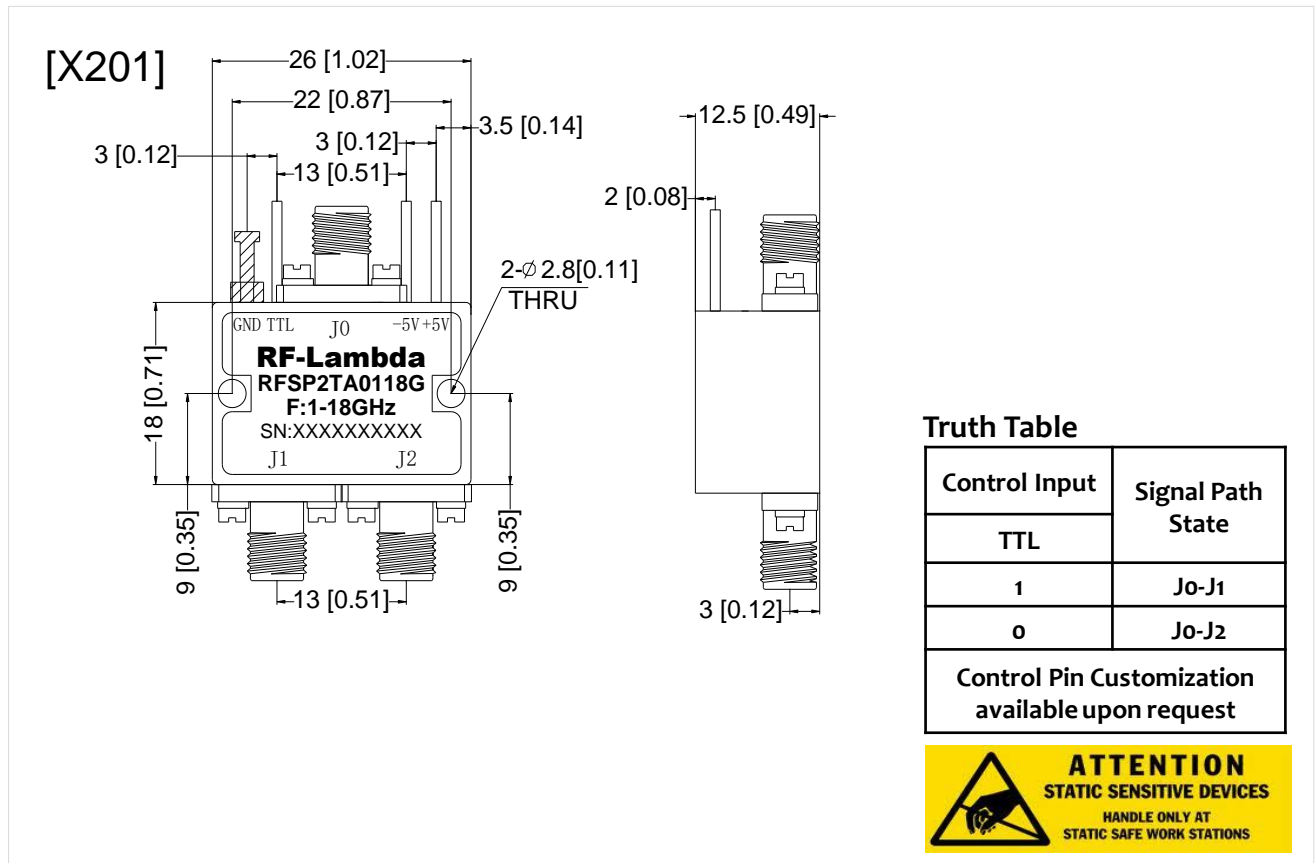


**Switching Speed**



**Outline Drawing:**

All Dimensions in mm [inches]



**Important Notice**

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