



# RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

## RFSP4TA0218GUSB

### USB Absorptive Coaxial SP4T Switch 2 - 18GHz



#### Features

- Wide Band Operation 2-18GHz
- USB Controlled and Powered.
- Low Insertion Loss and High Isolation
- Customization available upon request
- Control SW included.

#### Typical Applications

- Automated Test
- Aerospace and military applications

#### Electrical Specifications, TA = +25 °C, USB Powered

Description	PN: RFSP4TA0218GUSB									
	SP4T Absorptive Switch									
	Low Power Cold Switching									
Parameters	Min	Typ.	Max	Min	Typ.	Max	Min	Typ.	Max	Units
Frequency Range	2-8			8-12			12-18			GHz
Insertion Loss		1.6	1.8		2.2	2.4		2.7	3.2	dB
Insertion Loss Temperature Coefficient		0.003			0.003			0.003		dB/°C
Isolation	65	70		60	65		58	60		dB
Input VSWR		1.5	1.8		1.6	1.8		1.6	1.8	: 1
Output VSWR		1.5	1.8		1.6	1.8		1.6	1.8	: 1
RF Input Power (CW)			30			30			30	dBm
DC Power Dissipation		0.8			0.8			0.8		W
0.1dB Compression Point (Po.1dB)		30			30			30		dBm
IIP3		55			55			55		dBm
Switching Speed	100									ns
Weight	1.76									ounces
Impedance	50									Ω
Bias Current	150									mA
Control Interface	USB 2.0 (Control Cable Included)									
Input / Output Connectors	SMA-Female									
Finish	Gold or Nickel Plated									
Material	Aluminum									

USB Absorptive Coaxial Single Pole Four Throw Switch 2 - 18GHz



**Absolute Maximum Ratings**

RF Input Power	+30 dBm
----------------	---------

**Ordering Information**

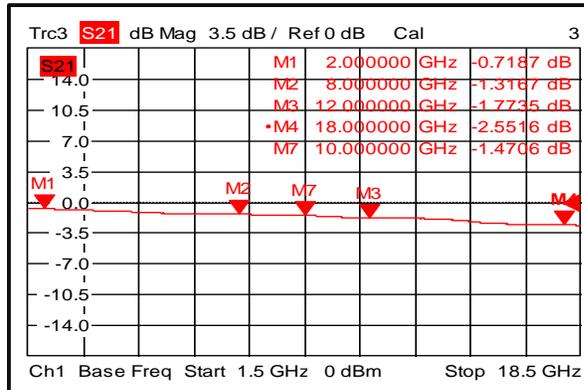
Part No.	ECCN	Description
RFSP4TA0218GUSB	EAR99	SP4T 2-18GHz PIN Diode Switch

**Environmental Specifications**

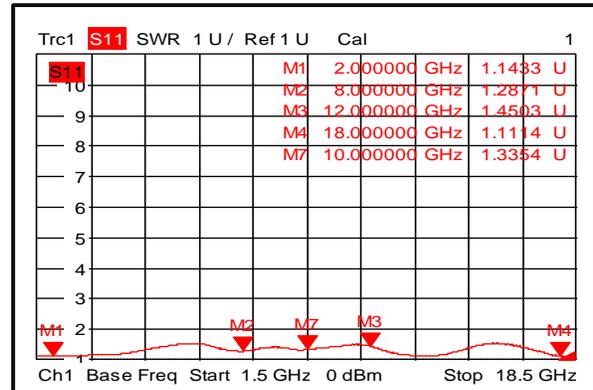
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Shock	20G for 11msec half sine wave, 3 axis both directions

**Typical Performance Plots**

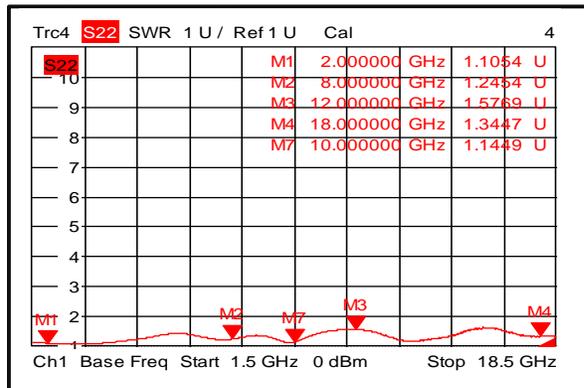
**Insertion Loss @+25°C**



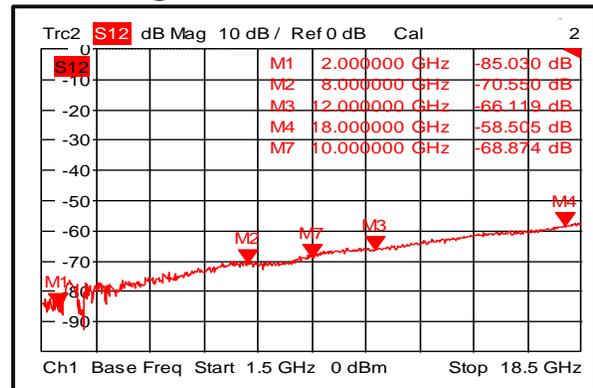
**Input VSWR @+25°C**



**Output VSWR @+25°C**

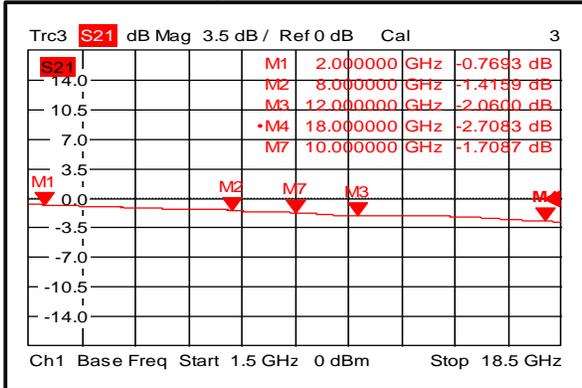


**Isolation @+25°C**

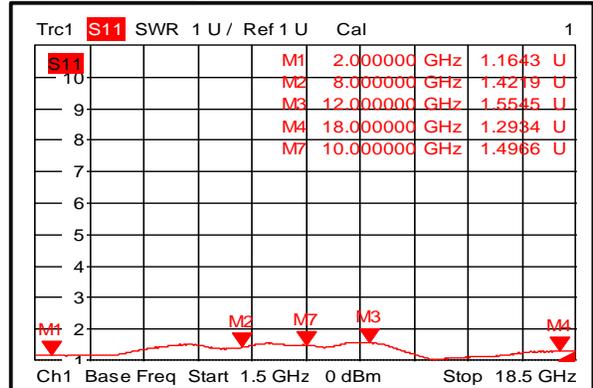




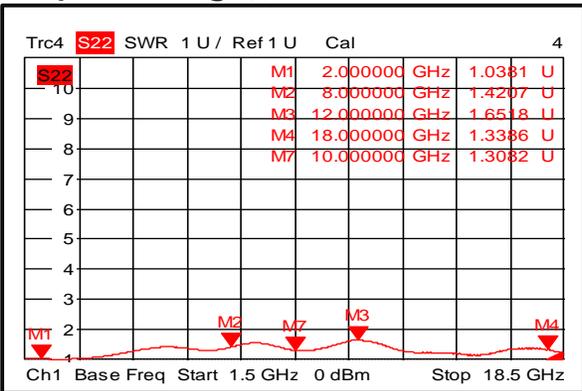
### Insertion Loss @-45°C



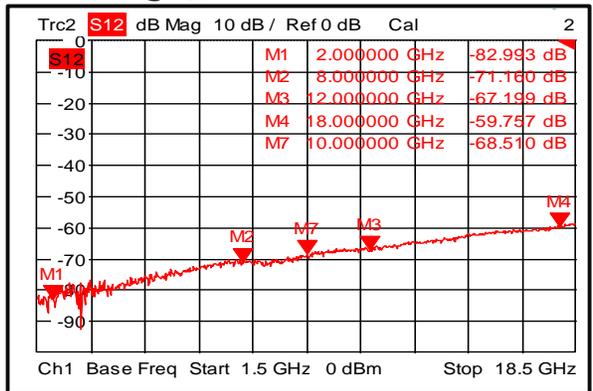
### Input VSWR @-45°C



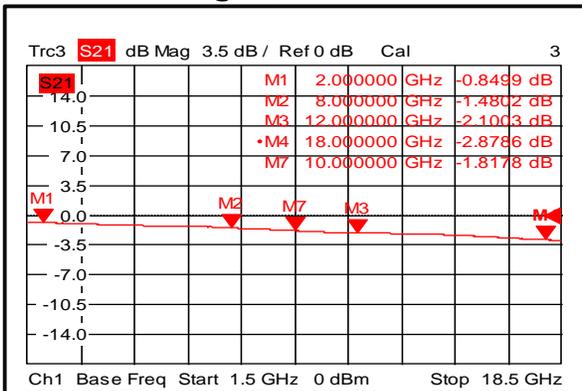
### Output VSWR @-45°C



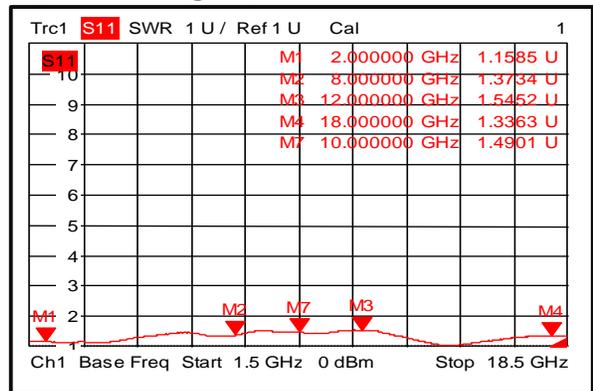
### Isolation @-45°C



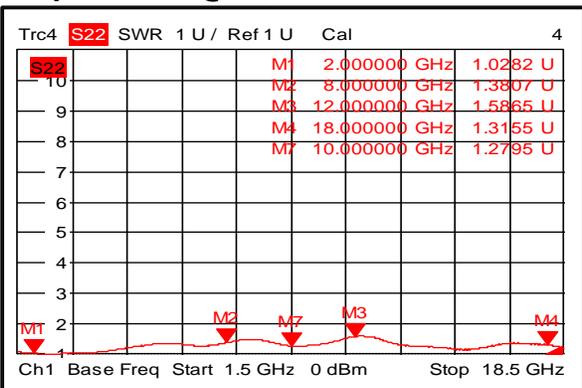
### Insertion Loss @+85°C



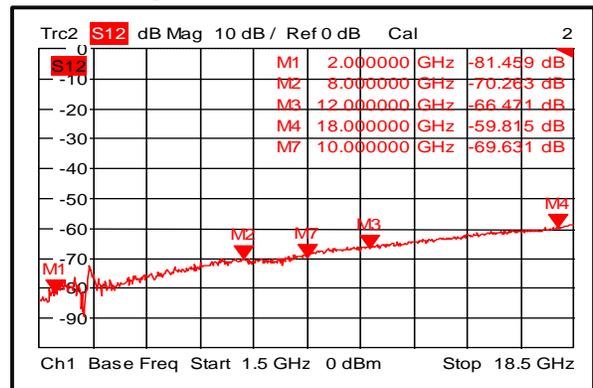
### Input VSWR @+85°C



### Output VSWR @+85°C



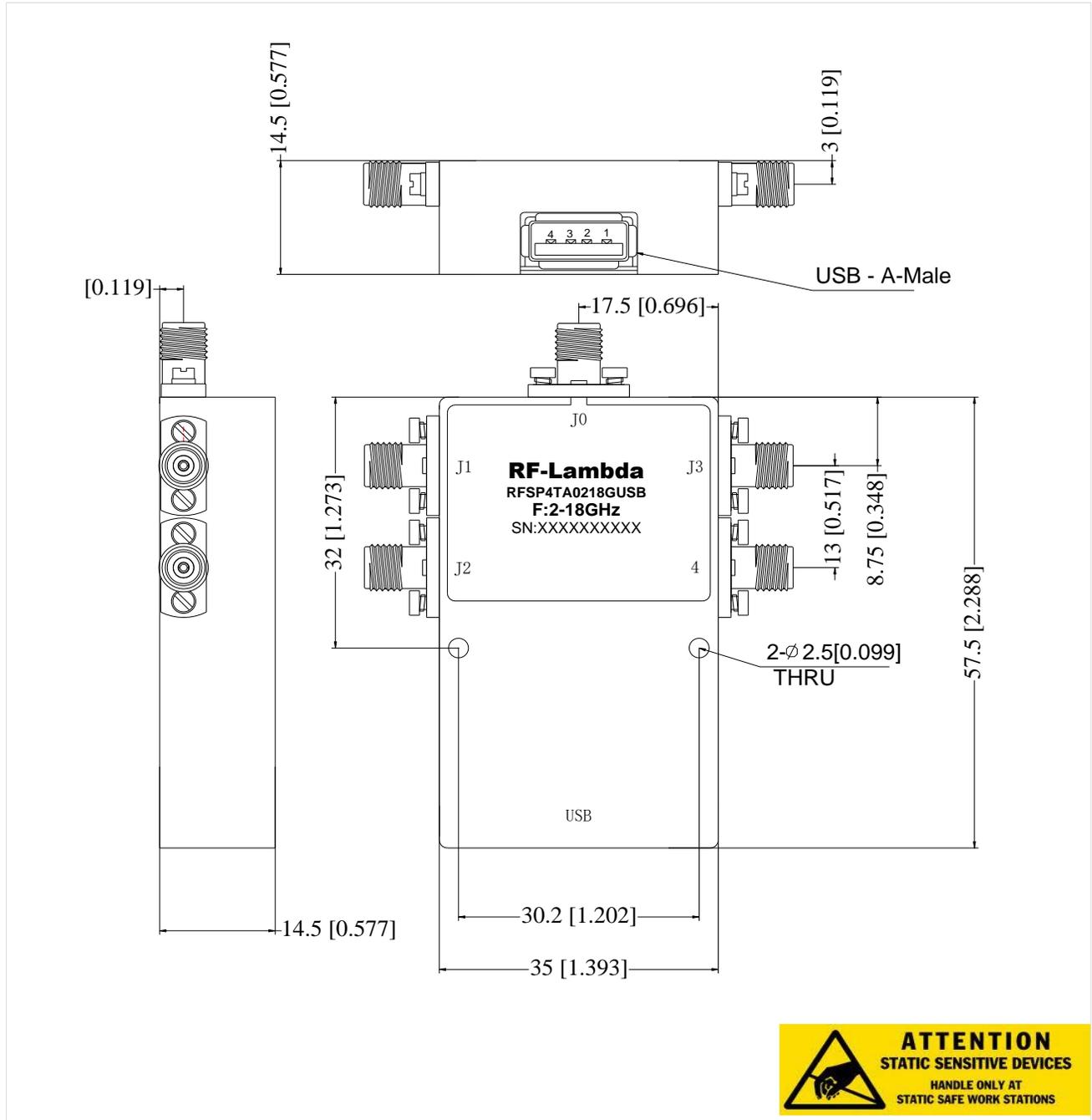
### Isolation @+85°C





**Outline Drawing:**

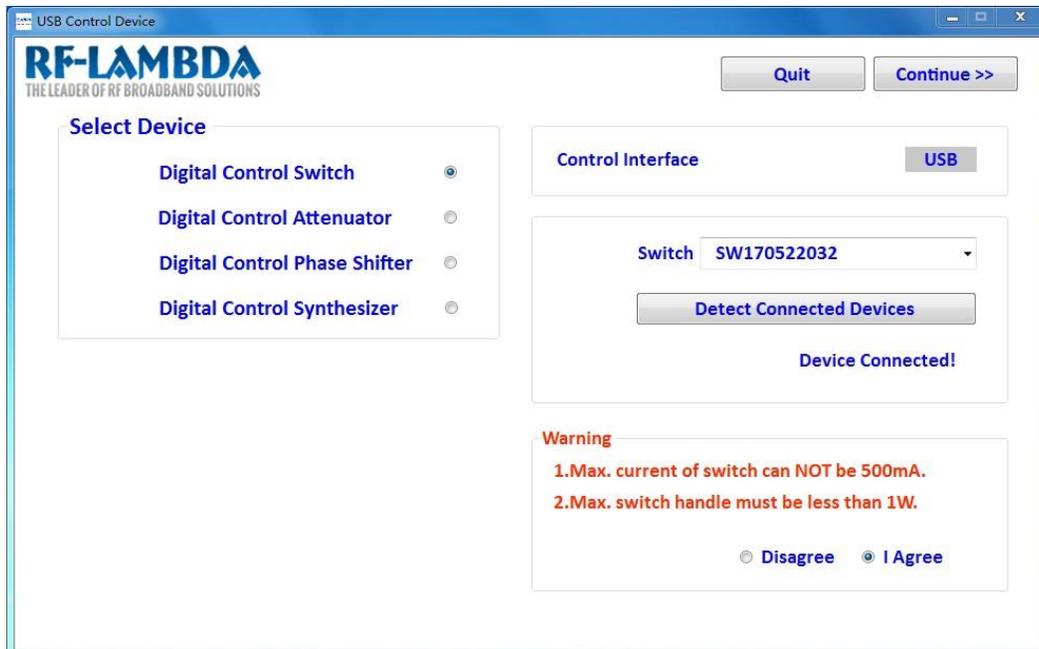
All Dimensions in mm [inches]

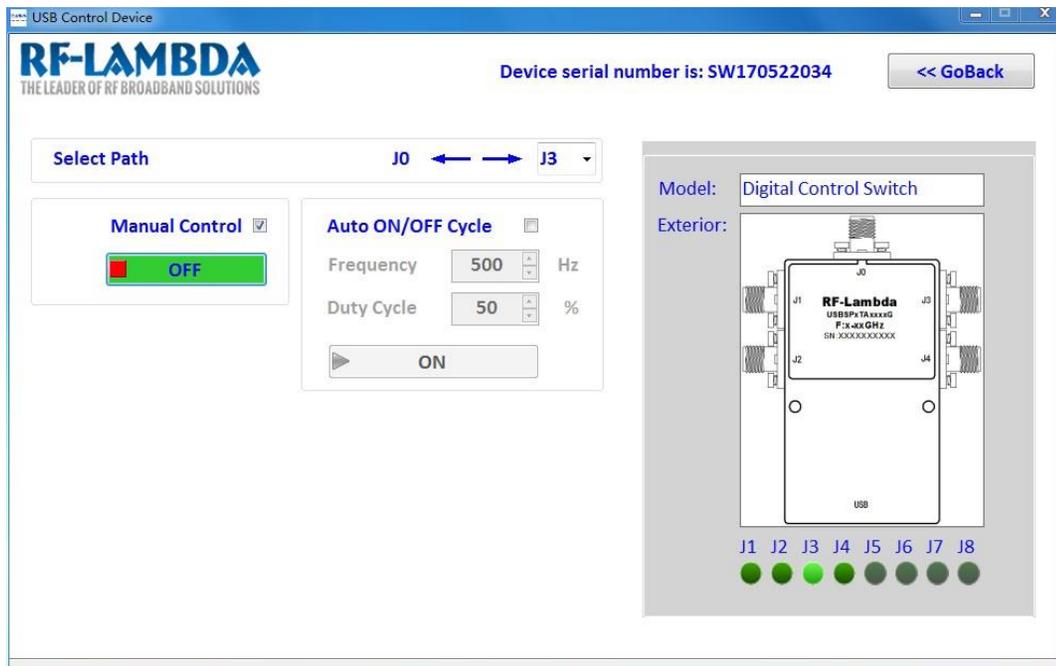
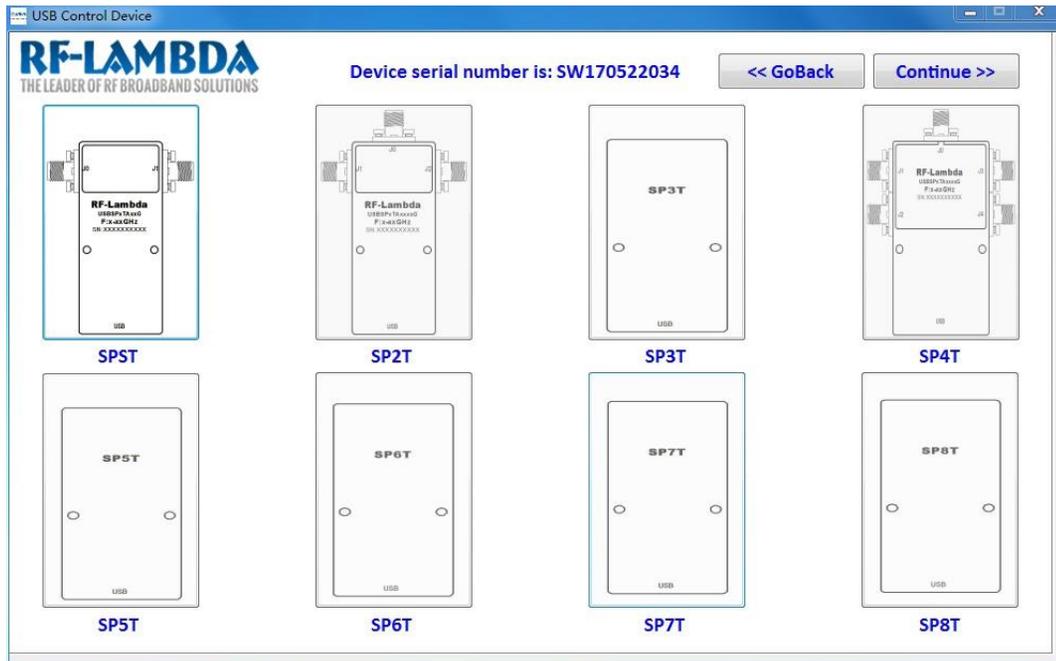


**USB Absorptive Coaxial Single Pole Four Throw Switch 2 - 18GHz**



Figure 1 (USB Control Panel)





**Important Notice**

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.