



RF-LAMBDA

LEADER OF BROADBAND SOLUTIONS

RFSPSTA0001G

Absorptive 0.02-1GHz Coaxial SPST Switch



Features

- Wide Band Operation 0.02-1GHz
- TTL compatible driver include
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Temperature Range -45°C~+85°C
- Customization available upon request
- Hermetically sealed package up to 60,000ft available upon request.

Electrical Specifications, TA = +25° C, With Vdd = +5V, Vss = -5V & VCTL = 0/ +5V

Description	PN: RFSPSTA0001G			
	SPST Absorptive Switch			
	Low Power Cold Switching			
Parameters	Min	Typ.	Max	Units
Frequency Range	0.02~1			GHz
Insertion Loss		0.9	1.2	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation	80	85		dB
Input VSWR		1.2	1.5	ratio
Output VSWR		1.2	1.5	ratio
RF Input power (CW)			1	W
Power Dissipation (CW)		0.3		W
IM3		40		dBc
1dB Compression P1dB		29		dBm
Switching Speed			500	ns
Weight	1.2			ounces
Impedance	50			Ω
Biasing(+5V/-5V)	50/50			mA
Input /Output Connector	SMA-Female/SMA-Female (Standard)			
Finishing	Gold Plating			
Material	Aluminum			
Seal	Hermetically Sealed (optional)			

Absorptive Coaxial Single Pole Single Throw Switch 0.02-1GHz



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Absolute Maximum Ratings

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

Ordering Information

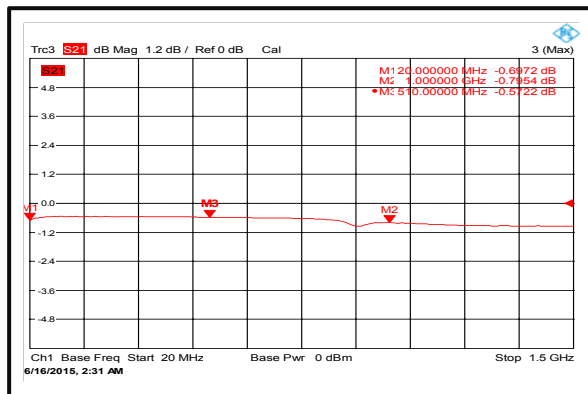
Part No	ECCN	Description
RFSPSTA0001G	EAR99	SPST 0.02-1GHz PIN Diode Switch

Environment specifications

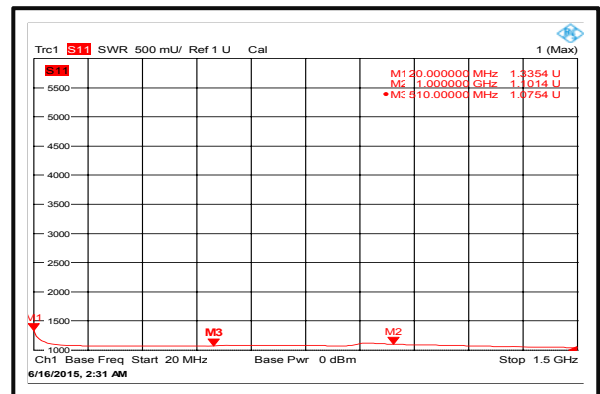
Operational Temperature (°C)	-45 ~ +85
Storage Temperature (°C)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

Typical performance plots

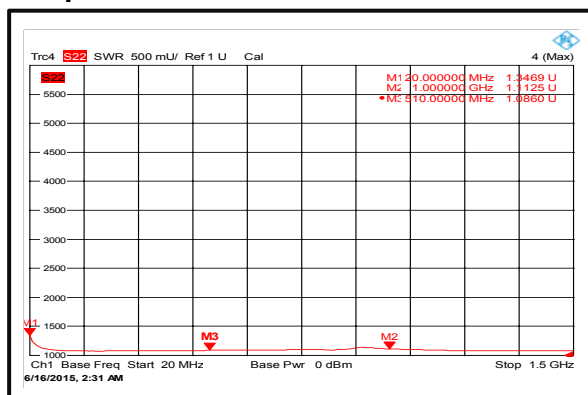
Insertion Loss



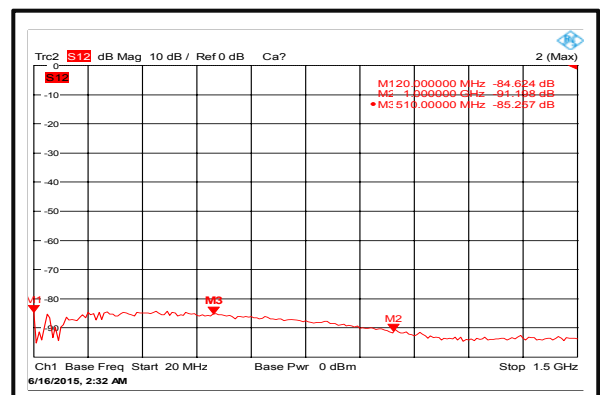
Input VSWR



Output VSWR



Isolation



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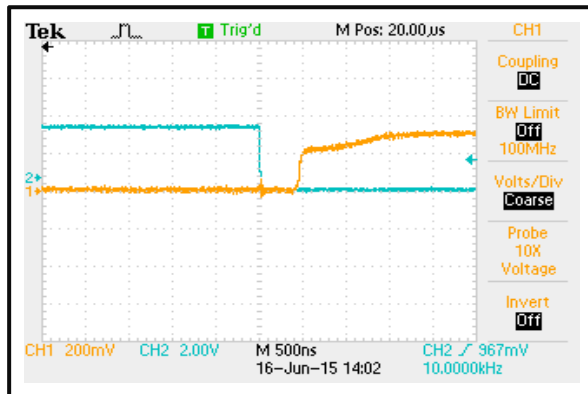


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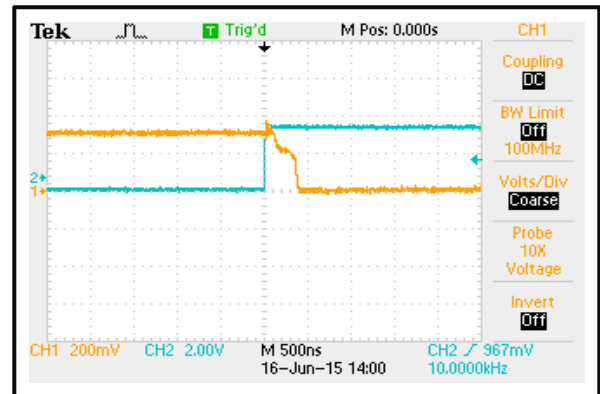
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Switching Speed



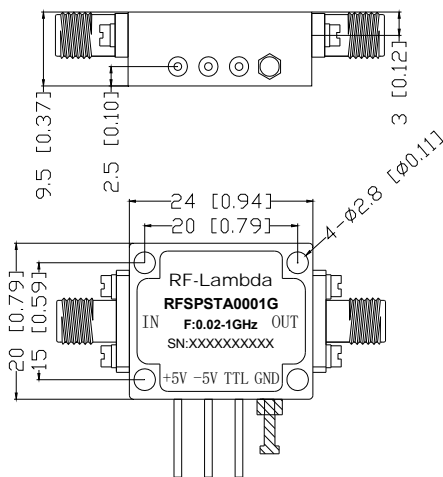
Switching Speed



Output Third Order Intercept (IP₃)

Outline Drawing:

All Dimensions in mm (inches)



Truth Table

Control Input TTL	State
0	ON
1	OFF
Control Pin Customization available upon request	



Important Notice

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