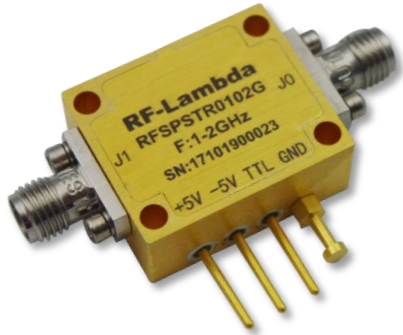




Reflective Coaxial SPST Switch 1 - 2GHz



Features

- Wide Band Operation 1-2GHz
- 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: RFPSTR0102G			
	SPST Reflective Switch Jo: Reflective port J1: Absorptive Port			
	Low Power Cold Switching			
Parameters	Min	Typ.	Max	Units
Frequency Range	1-2			GHz
Insertion Loss		0.5	0.8	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation (Jo→J1)	80	90		dB
Input VSWR		1.2	1.3	:1
Output VSWR		1.2	1.3	:1
RF Input Power			30	dBm
DC Power Dissipation		0.3		W
0.1dB Compression Point (Po.1dB)		30		dBm
IIP3		55		dBm
Switching Speed		100		ns
Weight		0.35		ounces
Impedance		50		Ω
Bias Current (+5V / -5V)		50/30		mA
Input / Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

Reflective Coaxial Single Pole Single Throw Switch 1 - 2GHz



Absolute Maximum Ratings

Biasing	+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
RFSPSTR0102G	EAR99	SPST 1-2GHz PIN Diode Switch

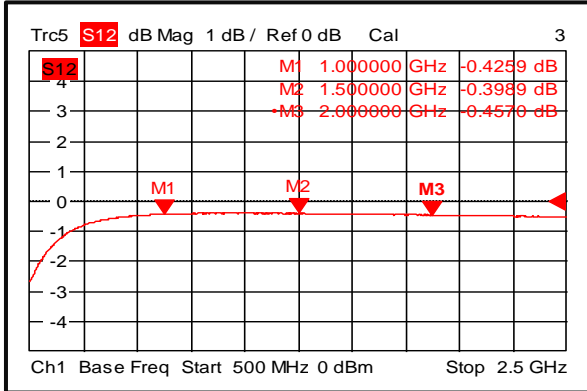
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude		Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)

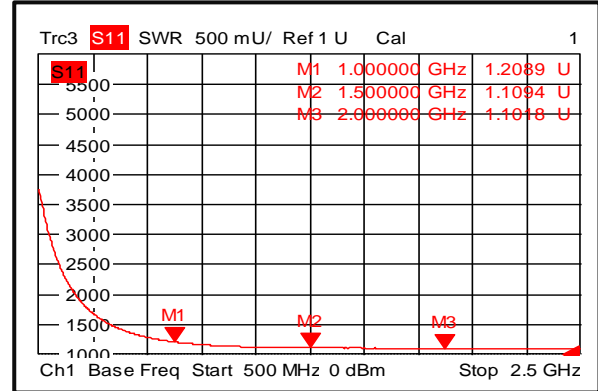


Typical Performance Plots

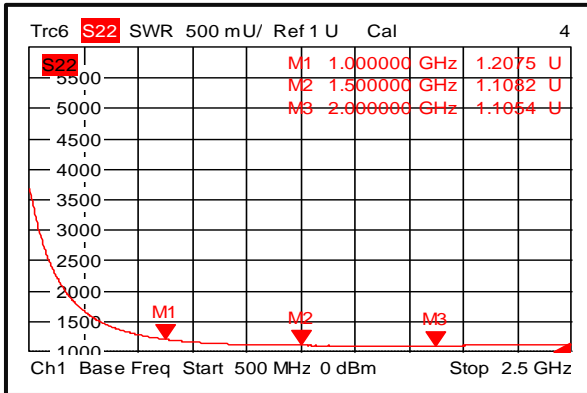
Insertion Loss



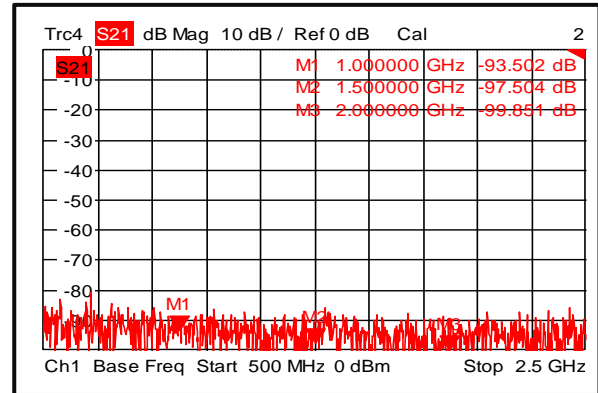
Input VSWR



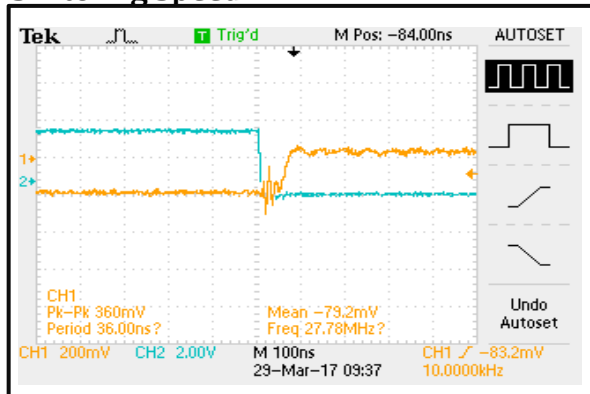
Output VSWR



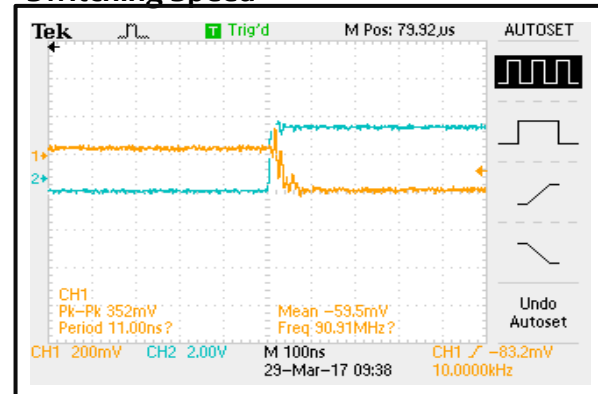
Isolation



Switching Speed



Switching Speed

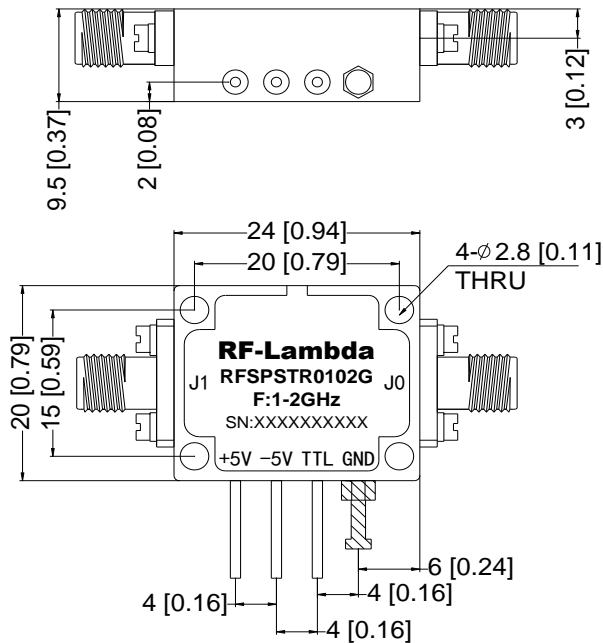




Outline Drawing:

All Dimensions in mm [inches]

[X101]



Truth Table

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



Reflective Coaxial Single Pole Single Throw Switch 1 - 2GHz

Important Notice

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