Reflective Coaxial SP2T Switch
1 - 2GHz

Features

- Wide Band Operation 1-2GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation

Typical Applications

- Wireless Infrastructure
- Test and Measurement
- Military and Aerospace

Electrical Specifications, TA = +25 ℃, Vdd = +5V, TTL = 0 / +5V

Description	PN: RFSP2TR0102GH SP2T Reflective Switch High Power Cold Switching			
Parameters	Min.	Typ.	Max.	Units
Frequency Range		1-2		GHz
Insertion Loss		0.8	1.5	dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation	40	42		dB
Input VSWR		1.4	1.5	: 1
Output VSWR		1.4	1.5	: 1
Input Power			70	W
Input Power Peak (12% duty cycle,30us pulses)			600	W
DC Power Dissipation (CW)		22		W
0.1dB Compression Point (P0.1dB)		48		dBm
IIP3		55		dBm
Switching Speed			1	us
Weight		7.76		ounces
Impedance		50		Ω
Bias Current (+5V)		200		mA
Input /Output Connectors		N-Female/N-Female (Standard)		
Finish		Gray Painted (IP65)		
Material		Aluminum		
Sealing		Hermetically Sealed (Optional)		

Reflective Coaxial Single Pole Double Throw Switch 1 - 2GHz

Absolute Maximum Ratings

Biasing	+5V±10%

Ordering Information

Part No.	Description
RFSP2TR0102GH	SP2T 1-2GHz PIN Diode Switch

Notes:

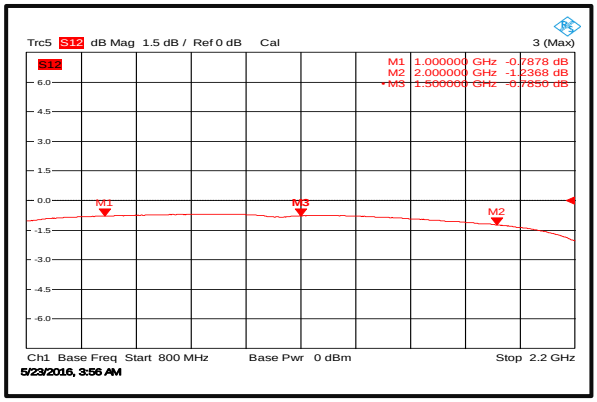
- If the device operates in high power state, case temperature must be lower than 60℃.
- Cold Switching: Before changing any TTL signal(s), the RF input power must be blanked or the switch could be damaged.

Environmental Specifications and Test Standards

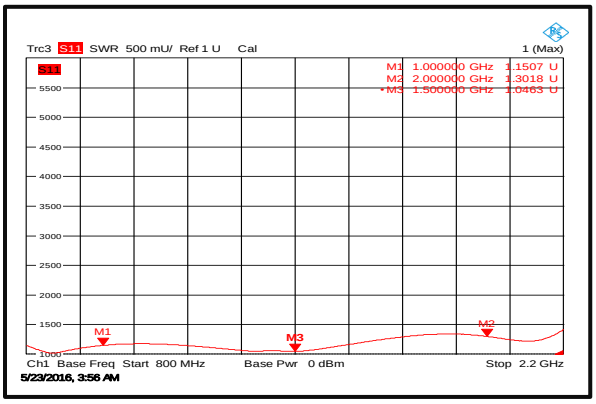
Parameter	Description
Operational Temperature	-40℃~+85℃ (Case Temperature)
Storage Temperature	-50℃~+105℃
Thermal Shock	-40℃ → +85℃ (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85℃ for 72 Hours
Shock	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 (For Hermetically Sealed Units)

Typical Performance Plots

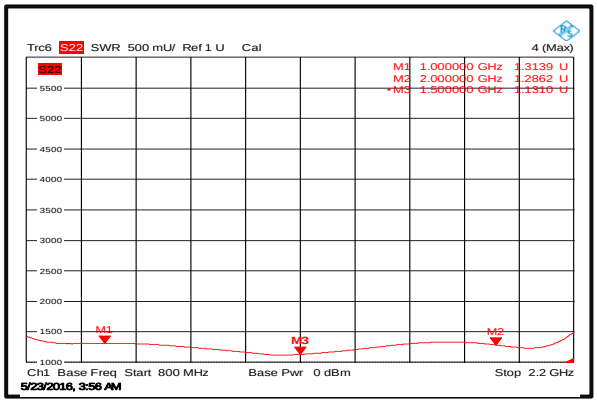
Insertion Loss



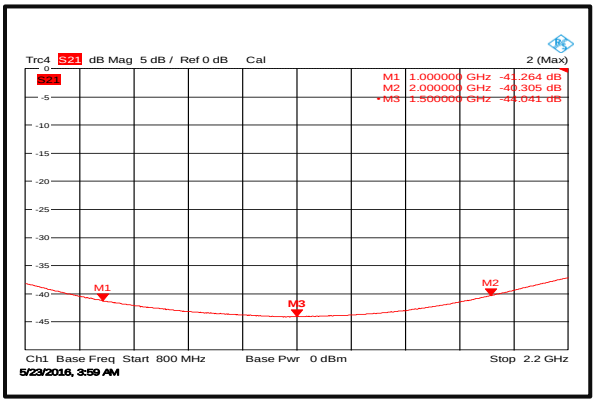
Input VSWR



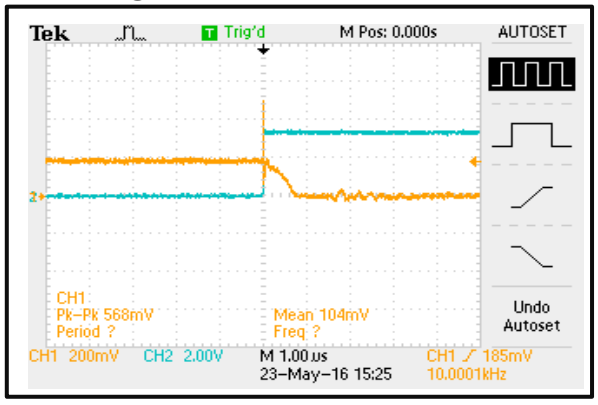
Output VSWR



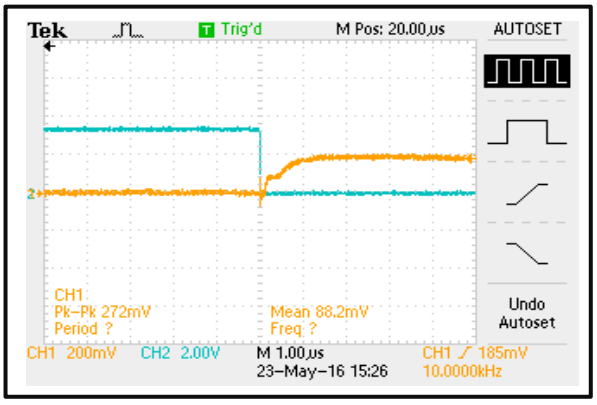
Isolation



Switching Speed



Switching Speed



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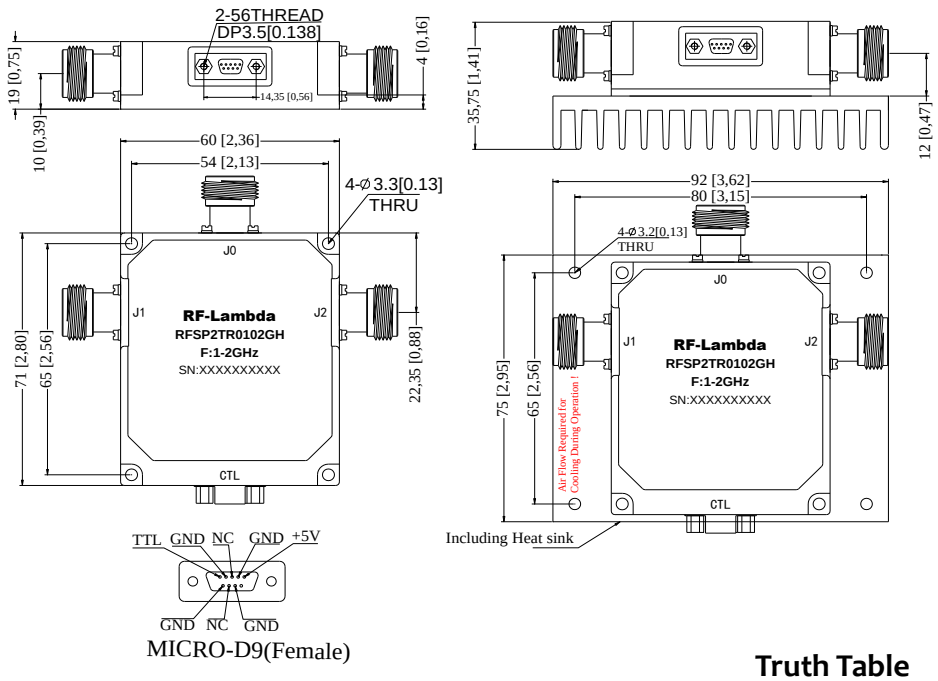
Outline Drawing:

All Dimensions in mm [inches]
Housing Tolerances ± 0.2 [0.008]



Truth Table

TTL Control Voltage THRESHOLD	Low(0)=0~0.8V
	High(1)=2.8~5V
Control Input TTL	Signal Path State
0	Jo-J1
1	Jo-J2
Control Pin Customization available upon request	

Notes:

. Heatsink Included - Mandatory for Operation .
. Heatsink NOT Included - Mandatory for Operation.

ATTENTION
STATIC SENSITIVE DEVICES
HANDLE ONLY AT
STATIC SAFE WORK STATIONS

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