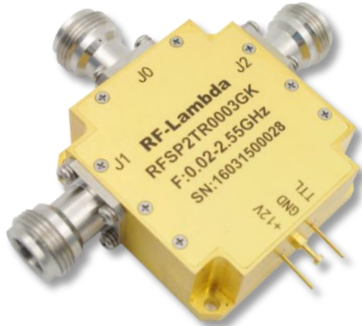




Reflective Coaxial SP2T Switch 0.02 - 2.55GHz



Features

- Wide Band Operation 0.02-2.55GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Typical Applications

- Wireless Infrastructure
- Test and Measurement
- Military and Aerospace

Electrical Specifications, TA = +25 °C, Vcc=+12V, TTL= 0 / +5V

Description	PN: RFSP2TR0003GK						
	SP2T Reflective Switch						
	High Power Cold Switching						
Parameters	Min.	Typ.	Max.	Min.	Typ.	Max	Units
Frequency Range	0.02		1	1		2.55	GHz
Insertion Loss		1.3	1.8		2.1	2.4	dB
Insertion Loss Temperature Coefficient		0.003			0.003		dB/°C
Isolation	50	54		45	50		dB
Input VSWR		1.4	1.5		1.5	1.6	:1
Output VSWR		1.4	1.5		1.5	1.6	:1
RF Input Power (CW)			200			200	W
DC Power Dissipation		30			60		W
0.1dB Compression Point (Po.1dB)		53			53		dBm
IIP3		55			55		dBm
Switching Speed		5			5		us
Weight	9.9						ounces
Impedance	50						Ω
Bias Current (+12V)	180						mA
Input / Output Connectors	N-Female						
Finish	Gold Plating						
Material	Aluminum						
Sealing	Hermetically Sealed (Optional)						

Reflective Coaxial Single Pole Double Throw Switch 0.02 - 2.55GHz



Absolute Maximum Ratings

Biasing	+12V±10%
TTL Control Voltage	0~0.8V/2.8~5V

Ordering Information

Part No.	ECCN	Description
RFSP2TR0003GK	EAR99	SP2T 0.02-2.55GHz PIN Diode Switch

Notes:

- TTL pins cannot be connected to the negative voltage otherwise the internal driver will be damaged.
- Cold Switching: Before changing any TTL signal(s), the RF input power must be blanked or the switch could be damaged.

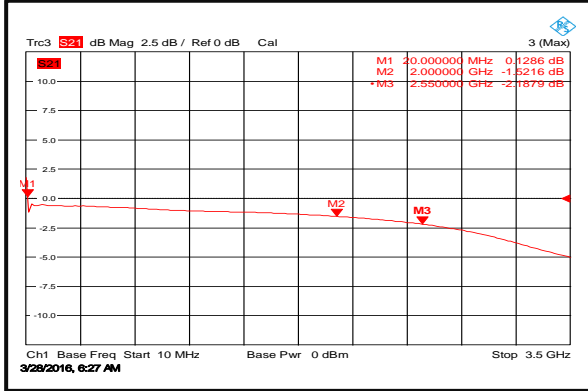
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C (Case Temperature)
Storage Temperature		-50°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)

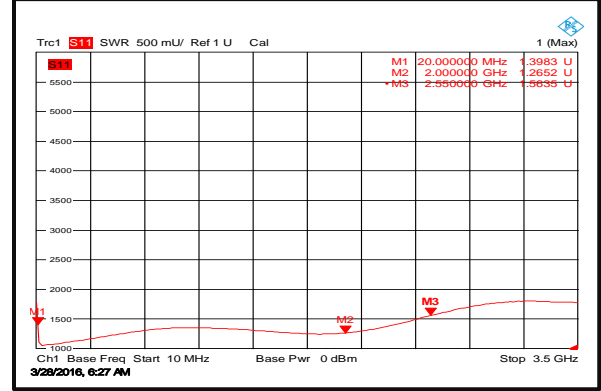


Typical Performance Plots

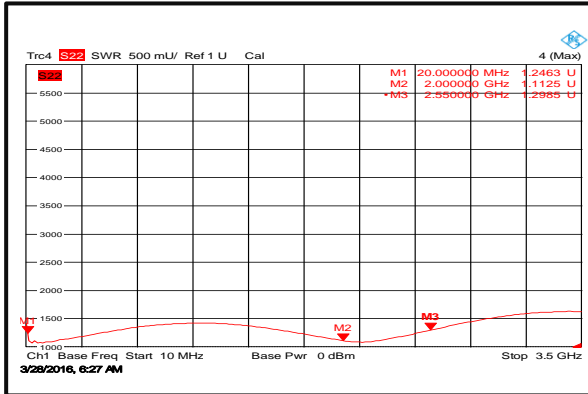
Insertion Loss



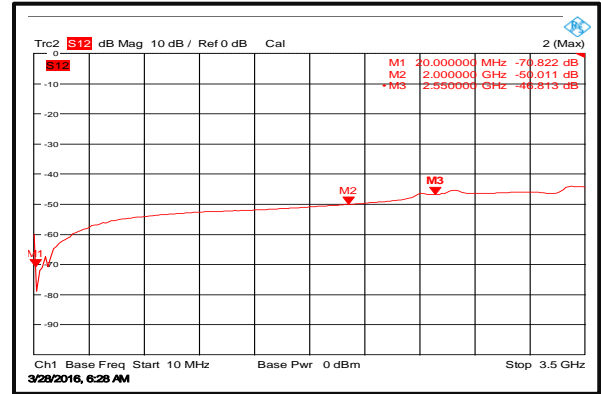
Input VSWR



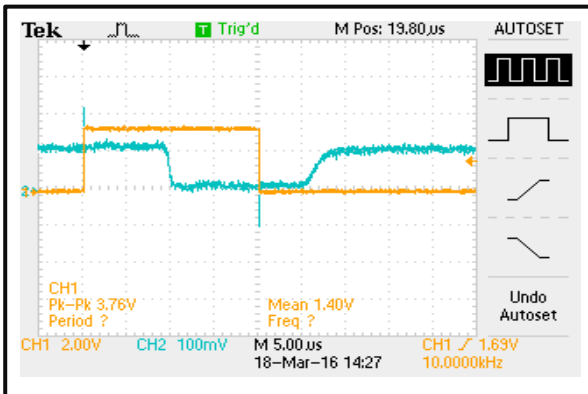
Output VSWR



Isolation



Switching Speed

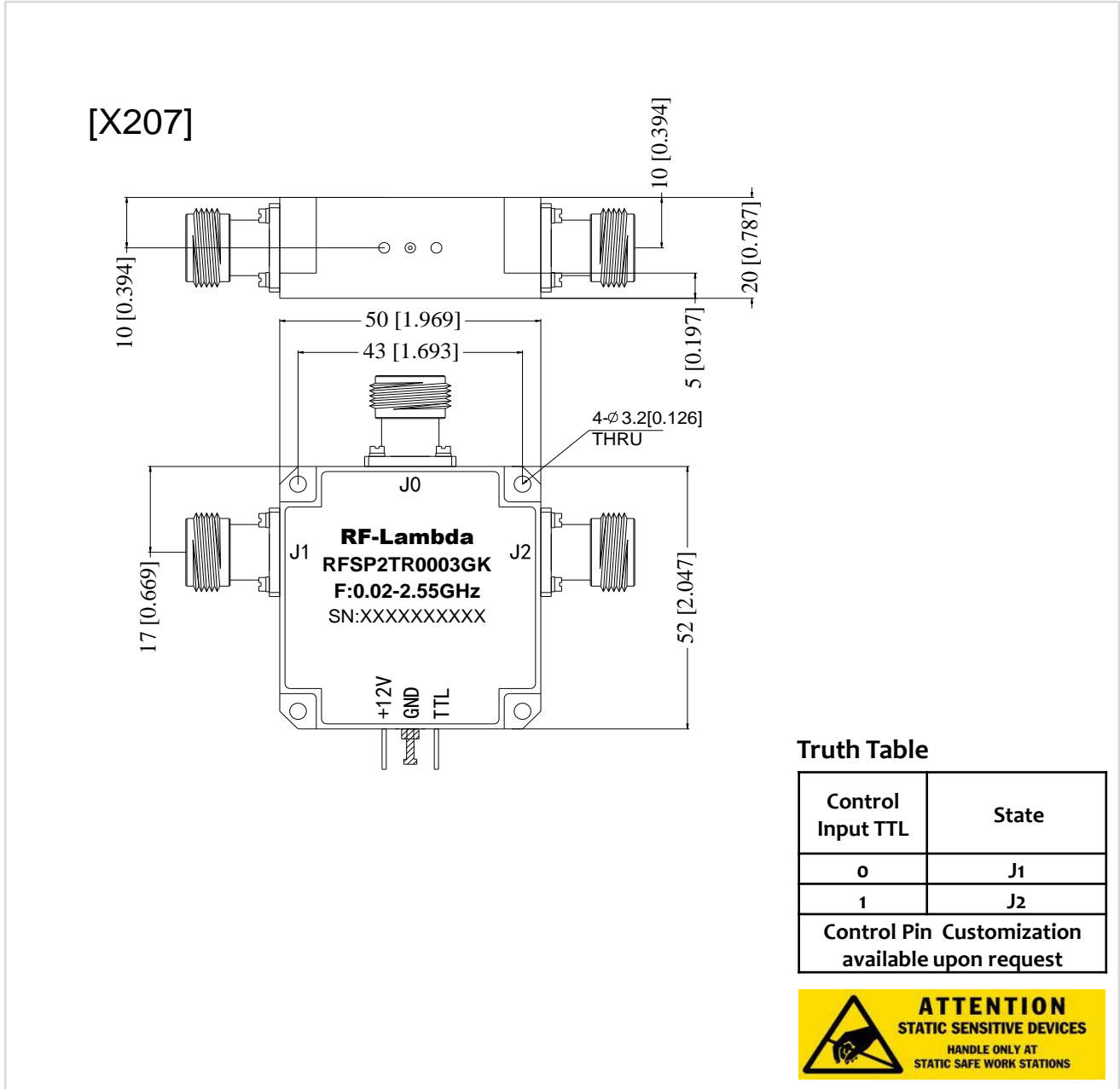


Reflective Coaxial Single Pole Double Throw Switch 0.02 - 2.55GHz



Outline Drawing:

All Dimensions in mm [inches]



Truth Table

Control Input TTL	State
0	J1
1	J2
Control Pin Customization available upon request	



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.

Reflective Coaxial Single Pole Double Throw Switch 0.02 - 2.55GHz