

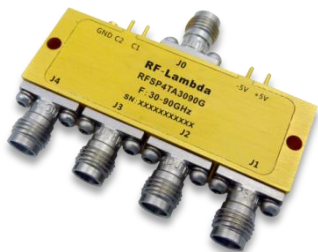


RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFSP4TA3090G

Absorptive Coaxial SP4T Switch 30 - 90GHz



Note: The photo is for illustration purposes only.
Please refer to the outline drawing.



Features

- Wide Band Operation 30-90GHz
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation

Typical Applications

- Wireless Infrastructure
- Military and Aerospace
- Test and Measurement

Electrical Specifications, $T_A = +25^\circ\text{C}$, $V_{dd} = +5\text{V} / -5\text{V}$, $TTL = 0 / +5\text{V}$

Description	PN: RFSP4TA3090G			
	SP4T Absorptive Switch			
	Low Power Cold Switching			
Parameter	Min.	Typ.	Max.	Units
Frequency Range	30-90			GHz
Insertion Loss		20		dB
Insertion Loss Temperature Coefficient		0.003		dB/°C
Isolation		25		dB
Input VSWR		3.0		: 1
Output VSWR		3.0		: 1
RF Input Power (CW)			15	dBm
DC Power Dissipation		0.8		W
0.1dB Compression Point (Po.1dB)		15		dBm
IIP3		45		dBm
Switching Speed		100		ns
Weight	/			ounces
Impedance	50			Ω
Bias Current (+5V / -5V)	160/50			mA
Input / Output Connectors	1.0mm-Female			
Finish	Gold Plated			
Material	Aluminum			
Sealing	Hermetically Sealed (Optional)			

Absorptive Coaxial Single Pole Four Throw Switch 30 - 90GHz



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFSP4TA3090G

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
RFSP4TA3090G	EAR99	SP4T 30-90GHz PIN Diode Switch

Environmental Specifications and Test Standards

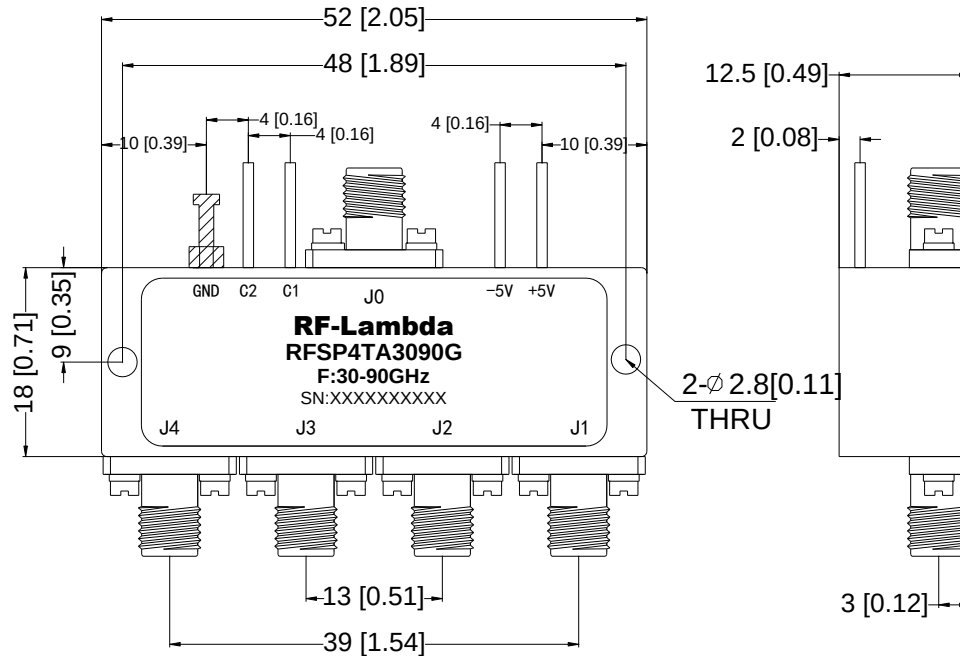
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C (Case Temperature)
Storage Temperature		-50°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +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	MIL-STD-883	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)

Absorptive Coaxial Single Pole Four Throw Switch 30 - 90GHz



Outline Drawing:

All Dimensions in mm [inches]



Truth Table

Control Input TTL		Signal Path State
C2	C1	
0	0	Jo-J1
0	1	Jo-J2
1	0	Jo-J3
1	1	Jo-J4
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.