

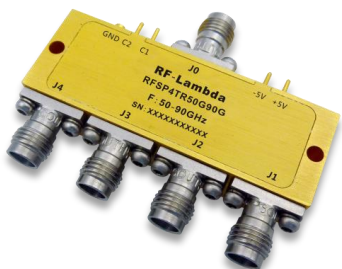


RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFSP4TR50G90G

Reflective Coaxial SP4T Switch 50 - 90GHz



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



Features

- Wide Band Operation 50-90GHz
- 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, $T_A = +25^{\circ}\text{C}$, $V_{dd} = +5\text{V} / -5\text{V}$, $\text{TTL} = 0 / +5\text{V}$

Description	PN: RFSP4TR50G90G			
	SP4T Reflective Switch			
	Low Power Cold Switching			
Parameter	Min.	Typ.	Max.	Units
Frequency Range	50-90			GHz
Insertion Loss		11		dB
Insertion Loss Temperature Coefficient		0.003		dB/ $^{\circ}\text{C}$
Isolation		30		dB
Input VSWR		3.0		: 1
Output VSWR		3.0		: 1
RF Input Power (CW)			23	dBm
DC Power Dissipation		0.8		w
0.1dB Compression Point($P_{0.1\text{dB}}$)		23		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)			

Reflective Coaxial Single Pole Four Throw Switch 50 - 90GHz



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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
RFSP4TR50G90G	EAR99	SP4T 50-90GHz PIN Diode Switch

Environmental Specifications and Test Standards

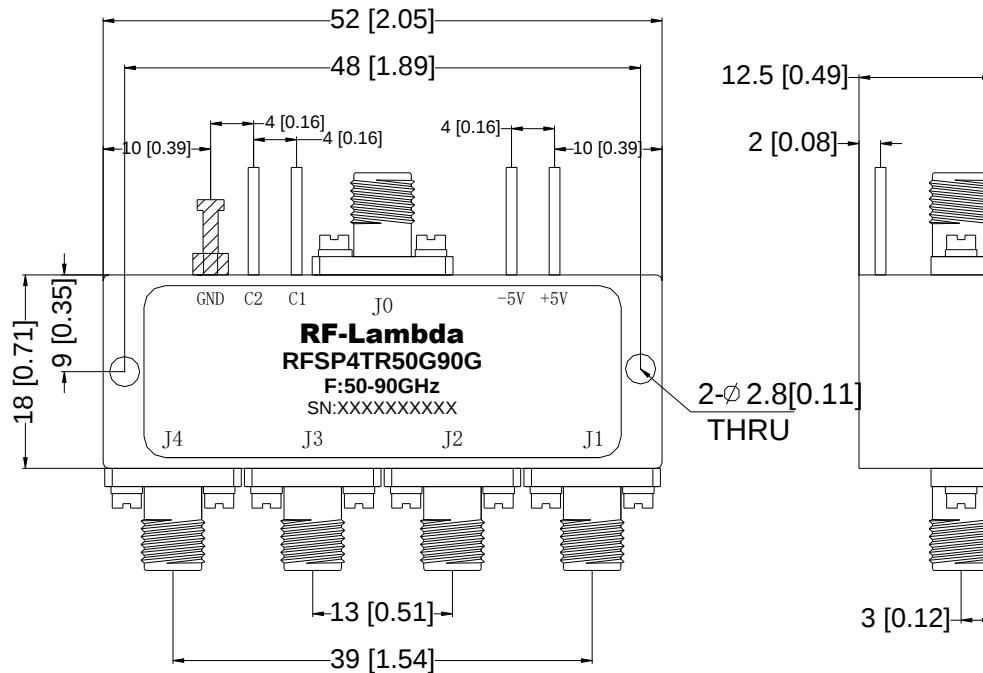
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C (Case Temperature)
Storage Temperature		-50°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature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

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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		



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