



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

R30M50MSA

Ultra Wide Band Low Noise Amplifier 0.03GHz~0.5GHz



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



Features

- Gain: 62dB Typical
- Noise Figure: 1.5dB Typical
- Output P1dB : +21dBm
- Supply Voltage: +12V

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Test and Measurement

Electrical Specifications, TA = +25°C, Vcc=+12V

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.03		0.5	GHz
Gain	58	62		dB
Gain Flatness		±1.0	±2.0	dB
Gain Variation Over Temperature (-45 ~ +85)		±1.0		dB
Noise Figure		1.5	2.0	dB
Input VSWR		1.8	2.5	:1
Output VSWR		1.8	2.5	:1
Output 1dB Compression Point (P1dB)	19	21		dBm
Saturated Output Power (Psat)		23		dBm
Output Third Order Intercept (IP3)		35		dBm
Supply Current (Vcc=+12V)		300	500	mA
Isolation S12		-75		dB
Weight	/			Ounces
Impedance	50			Ohms
Input / Output Connectors	SMA-Female			
Finish	Gold Plated			
Material	Aluminum			
Package Seal	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Operating Voltage	+9V~+15V
RF Input Power	-30dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing
Power OFF Procedure	
Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environmental Specifications and Test Standards

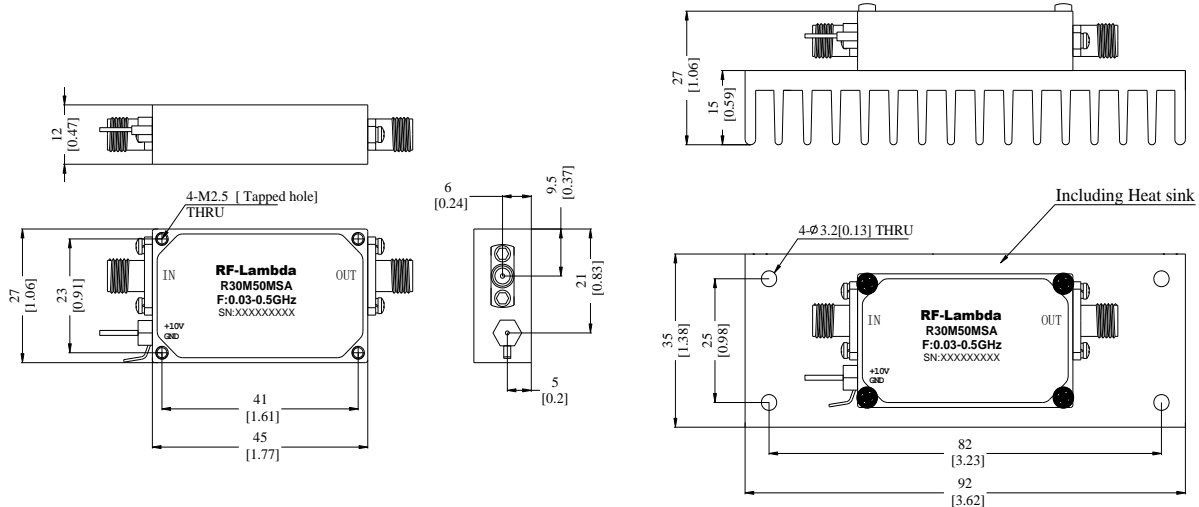
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 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	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]



Heat Sink required during operation (Sold Separately)



Ordering Information

Part No.	ECCN	Description
R30M50MSA	EAR99	0.03-0.5GHz Low Noise Amplifier

Important Notice

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