



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RPNA08G11GA

Hermetically Sealed Front End Protected Low Noise Amplifier 8-11GHz

Features

- Gain: 24dB Typical
- Noise Figure: 1.5dB Typical
- P1dB Output Power: +12.5dB min
- Supply Voltage: +15V
- 50 Ohm Matched

Typical Applications

- Wireless Infrastructure
- RF Microwave & VSAT
- Military & Aerospace
- Test Instrument
- Fiber Optics



Electrical Specifications, Vcc = +15V

Parameter		Min.	Typ.	Max.	Units
Frequency Range		8		11	GHz
Gain		23	24	25	dB
Gain Flatness			±0.45		dB
Gain Variation (Relative Average)				±0.55	dB
Gain Variation vs Temperature (-32°C ~ +57°C)				±0.70	dB
Noise Figure			1.5	1.8	dB
Input VSWR			1.5	1.5	: 1
Output VSWR			1.5	1.5	: 1
Output 1dB Compression Point (P1dB)		12.5			dBm
Input Power (dBm)				20	dBm
Saturated Output Power (Psat)			15		dBm
Output Third Order Intercept (IP3)			22		dBm
3rd Order IM Level				-40	dBm
Maximum Linear Signal		-39			dBm
Phase linearity	@ (10 MHz portion)			±0.75	degrees
	@ (150 MHz portion)			±3.45	degrees
Phase stability (Pulse-to-Pulse)				0.02	degrees
Gain stability (Pulse-to-Pulse)				0.035 %	dB
Spurious level				-80	dBc
Supply Current (Vcc=+15V)			180	300	mA
Isolation S12			-55		dB
Weight		/			Ounces
Impedance		50			Ohms
Input / Output Connectors		SMA-Female			
Finish		Gold Plating			
Material		Aluminum			
Package Sealing		Hermetically Sealed (Laser Sealed)			

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Absolute Maximum Ratings

Operating Voltage	+15.5V
RF Input Power (CW)	+20dBm
RF Input Peak Power (Pulse Duration up to 100usec, Repetition Rate 200KHz)	+30dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +15V biasing
Power OFF Procedure	
Step 1	Turn off +15V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-32°C~+57°C
Storage Temperature		-46°C~+65°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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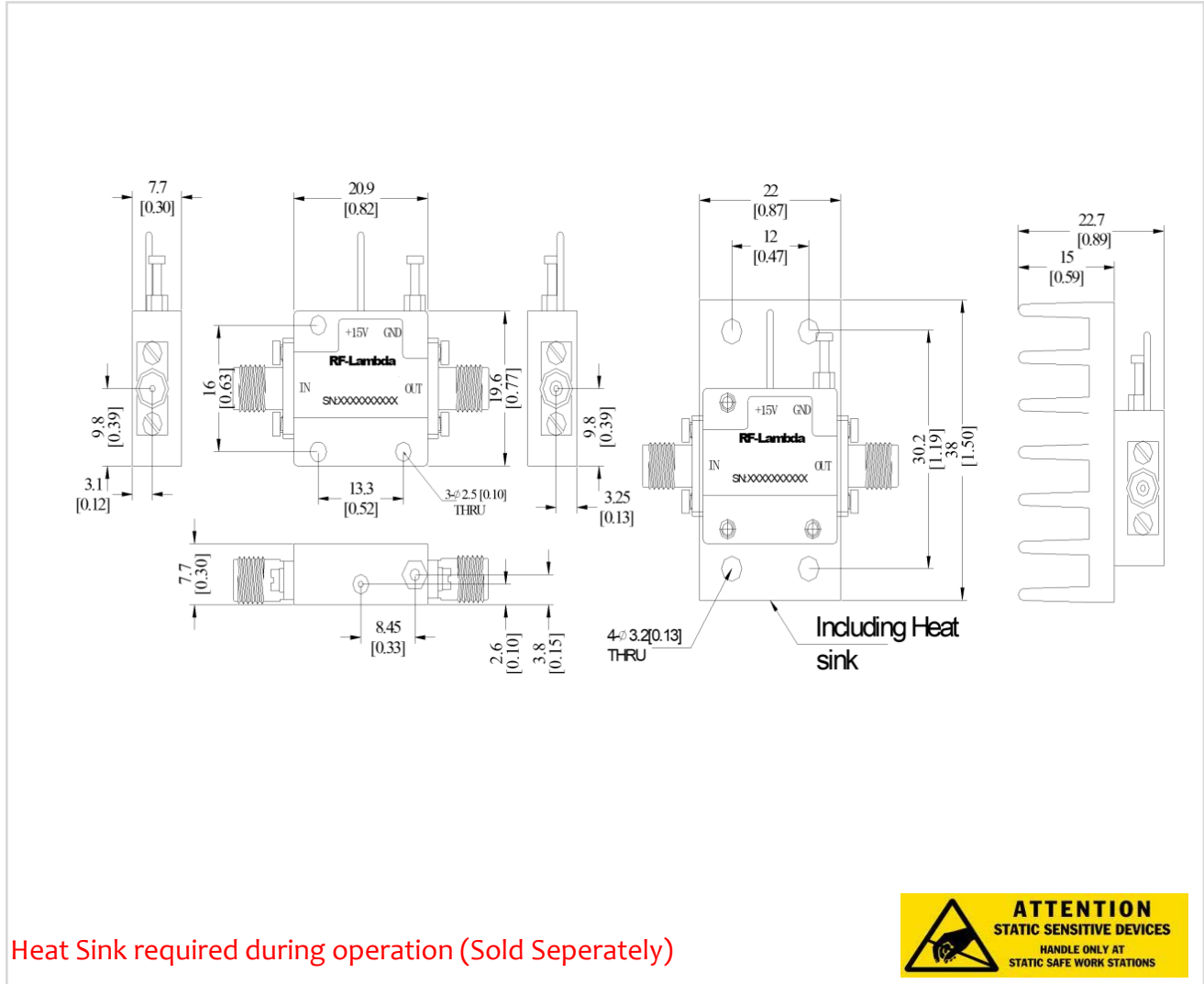
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Outline Drawing:

All Dimensions in mm [inches]



Ordering Information

Part No.	ECCN	Description
RPNA08G11GA	EAR99	Hermetically Sealed Front End Protected Low Noise Amplifier

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