Narrow Band Low Noise Amplifier
2.5GHz~3.5GHz

RoHS Compliant

Features

- Gain: 42dB Typical
- Noise Figure: 1.0dB Typical
- P1dB Output Power: +23dBm Typical
- Supply Voltage: +12V @ 240mA

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Test and Measurement

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

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2.5		3.5	GHz
Gain		42		dB
Gain Flatness		±1.0		dB
Gain Variation Over Temperature (-45 ~ +85)		-		dB
Noise Figure		1.0	1.5	dB
Input VSWR			1.5	: 1
Output VSWR			1.5	: 1
Output 1dB Compression Point (P1dB)		23		dBm
Saturated Output Power (Psat)		-		dBm
Output Third Order Intercept (IP3)		33		dBm
Isolation S12		-		dB
Supply Current (Vcc=+12V)			240	mA
Weight	-			ounces
Impedance	50			Ohms
Input / Output Connectors	SMA - Female			
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness			
	Option: Gold 80 micron; Nickel 180 micron thickness			
Material	Aluminum/copper			
Package Sealing	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Operating Voltage	+15V
RF Input Power	-19dBm

Biasing Up Procedure

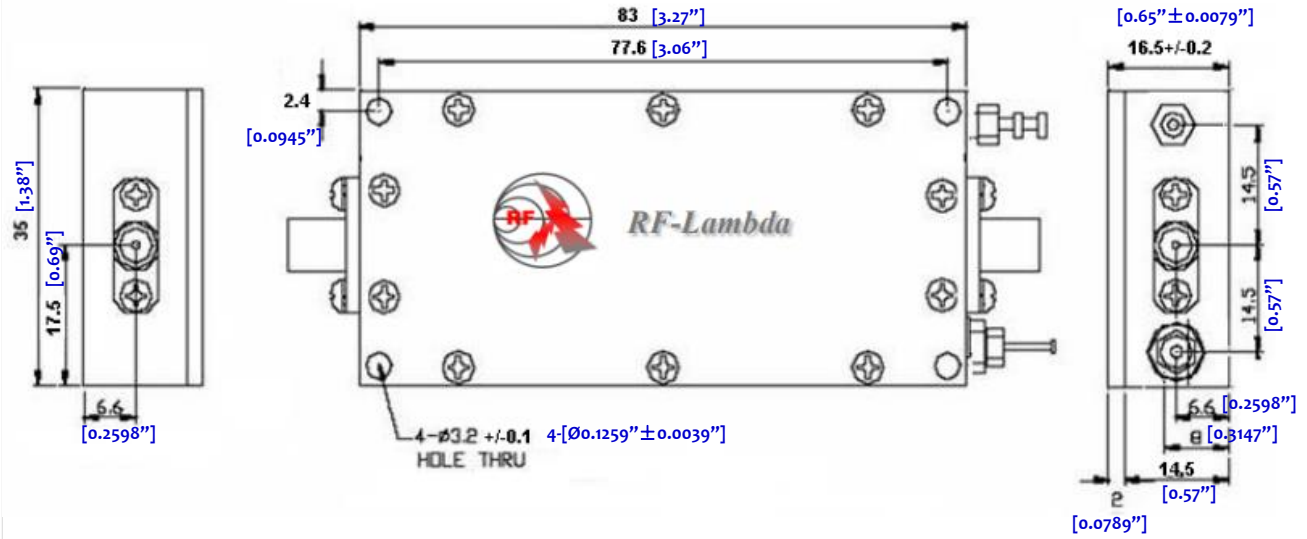
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing
Power OFF Procedure	
Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environmental Specifications and Test Standards

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

Outline Drawing:

All Dimensions in mm [inches]



Heat Sink required during operation (Sold Separately)

Ordering Information

Part No.	ECCN	Description
RLNA02G03G	EAR99	2.5-3.5GHz Low Noise Amplifier

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