Hermetically Sealed Ultra Low Noise Amplifier 2GHz~4GHz

Note: Photo is for illustration purposes only.
Please refer to outline drawing.

Features

- Gain: 52dB Typical
- Noise Figure: 1dB Typical
- P1dB Output Power: 13dBm Typical
- Supply Voltage: +8~15V
- Drop in Package

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Test and Measurement

Electrical Specifications, TA = +25°C, Vcc = +8~15V

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2		4	GHz
Gain		52		dB
Gain Flatness		±1.5		dB
Gain Variation Over Temperature (-40 ~ +85)		±1.0		dB
Noise Figure		1		dB
Input VSWR			1.5	: 1
Output VSWR			1.5	: 1
Output 1dB Compression Point (P1dB)	13			dBm
Saturated Output Power (Psat)		15		dBm
Output Third Order Intercept (IP3)		26		dBm
Supply Current (Vcc=+15V)			200	mA
Isolation S12		-60		dB
Impedance	50			Ohms
Input / Output Connectors	SMA -Female			
Finish	Gold Plated			
Material	Kovar			
Package Sealing	Hermetically Sealed			

Hermetically Sealed Ultra Low Noise Amplifier 2GHz~4GHz

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Absolute Maximum Ratings

Operating Voltage	+16V
RF Input Power	-35dBm

Biasing Up Procedure

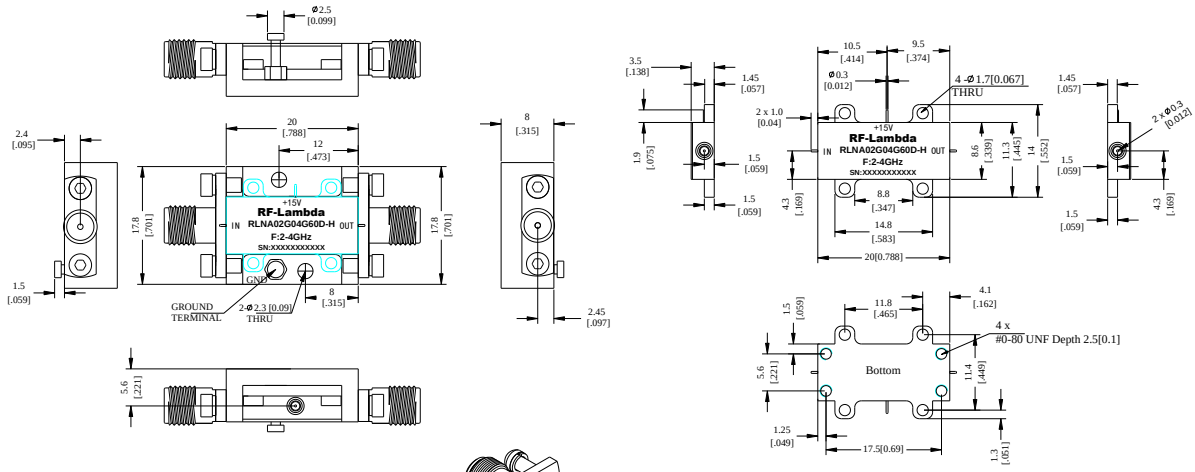
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +15V biasing
Power OFF Procedure	
Step 1	Turn off +15V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environmental Specifications and Test Standards

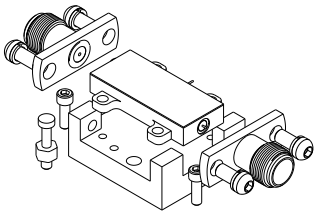
Parameter	Description
Operational Temperature	-40℃~+85℃ (Case Temperature)
Storage Temperature	-50℃~+105℃
Thermal Shock	-40℃ → +85℃ (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85℃ for 72 Hours
Shock	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 (For Hermetically Sealed Units)

Outline Drawing:

All Dimensions in mm [inches]



USE AS A DROP-IN



EXPLODED VIEW

Heat Sink required during operation (Sold Separately)

Ordering Information

Part No.	Description
RLNA02G04G60D-H	Hermetically Sealed 2-4GHz Ultra Low Noise Amplifier

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