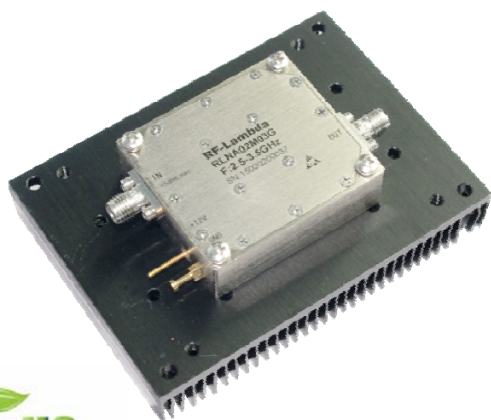




Medium Power Driver Amplifier 2.5GHz~3.5GHz



Feature

- Gain: 42dB Typical
- Noise Figure: 1.8dB Typical
- P1dB Output Power: +30dBm full band
- Supply Voltage: +12V @ 280mA
- 50 Ohm Matched Input / Output
- Size: 3.55" x 1.58" x 1.1"

Typical Applications

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

Electrical Specifications, TA = +25 ° C, With VCC=+12V, 50 Ohm System

Parameter	Min.	Typ.	Max.	Units
Frequency Range	2.5		3.5	GHz
Gain	40.5	43		dB
Gain Flatness		±1		dB
Gain Variation Over Temperature(-45 ~ +85)		±1.5		dB
Noise Figure		1.8	2.5	dB
Input Return Loss		10		dB
Output Return Loss		9		dB
Output Power for 1 dB Compression (P1dB)	30	31		dBm
Saturated Output Power (Psat)		32		dBm
Output Third Order Intercept (IP3)		40		dBm
Supply Current (Idd) (Vd=+12V)		280	450	mA
Isolation S12	60	65		dB
Input Max Power(no damage)			5	dBm
Weight	100			g
Impedance	50			Ohms
Input /Output Connector	SMA-Female			
Finishing	Standard: Gold 40 micron; Nickel 220 micron thickness			
	Option: Gold 80 micron; Nickel 180 micron thickness			
Material	Aluminum/copper			
Package Sealing	Epoxy Sealing (Standard)			
	Hermetically Seal (Option with extra charge)			



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The power beyond expectations

RLNA02M03G

Absolute Maximum Ratings

Operating Voltage	+12V
RF Input Power	+5dB m
Operating Temperature(C°)	-45 to +85
Storage Temperature(C°)	-50 to +125

Biasing Up Procedure

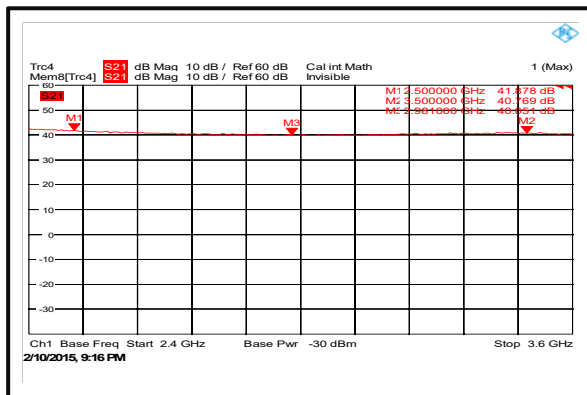
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +12V biasing
Power OFF Procedure	
Step 1	Turn off +12V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environment specifications

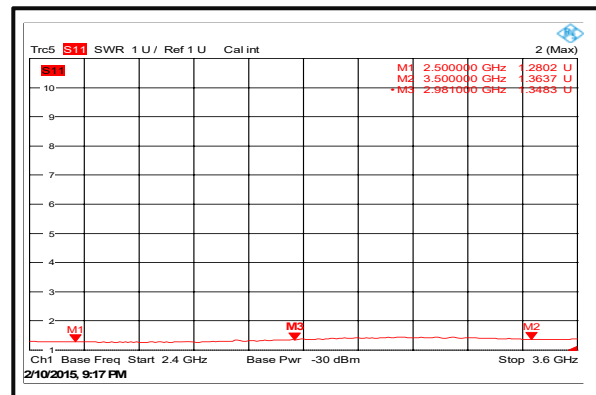
Operational Temperature (C°)	-45 to+85
Storage Temperature (C°)	-50 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°c
Shock	20G for 11msc half sin wave,3 axis both directions

Typical performance plots

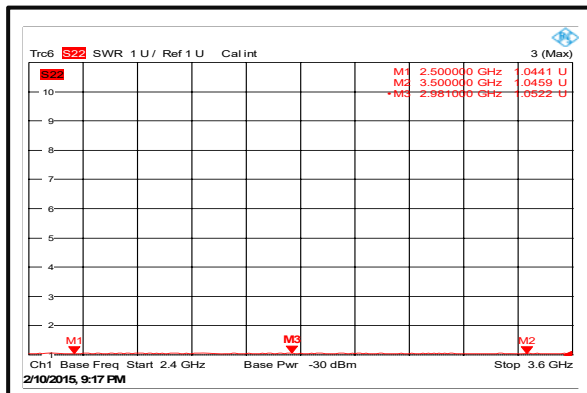
Gain



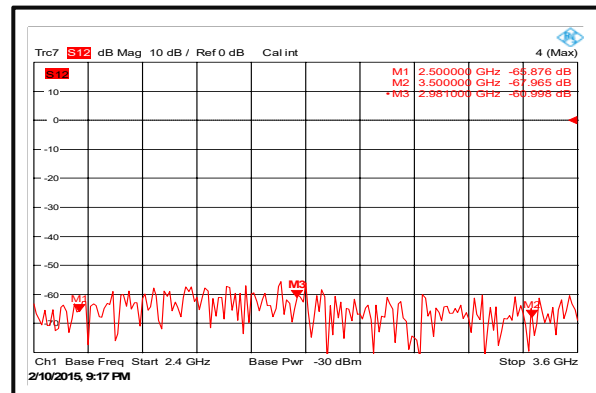
Input VSWR



Output VSWR



Isolation



Medium Power Driver Amplifier 2.5GHz~3.5GHz

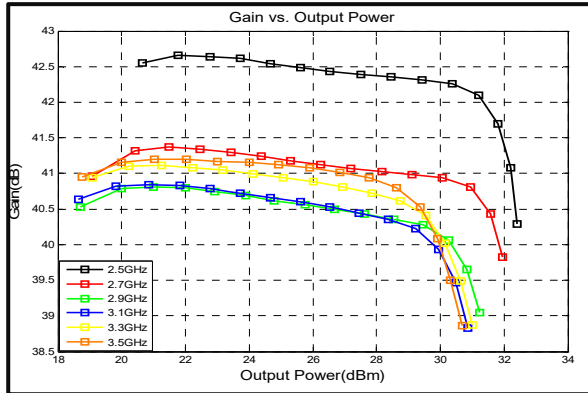


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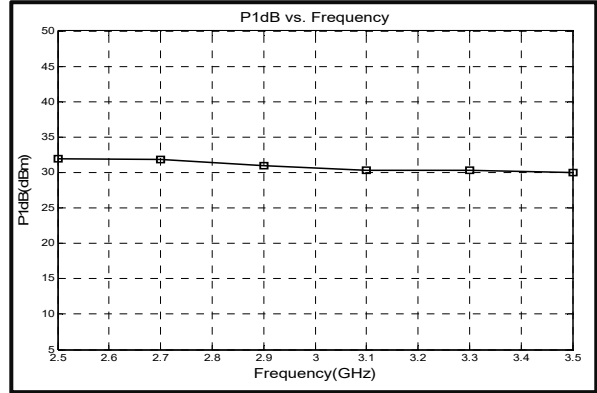
The power beyond expectations

RLNA02M03G

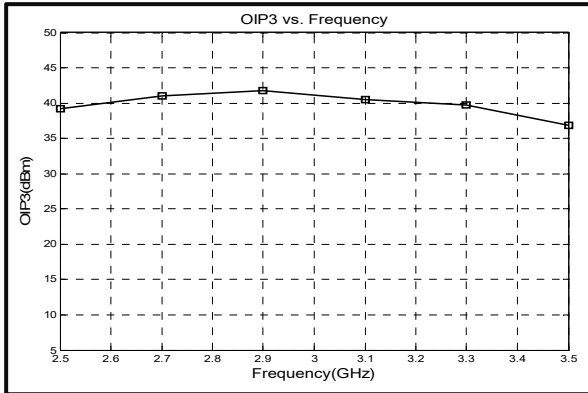
Gain vs. output power



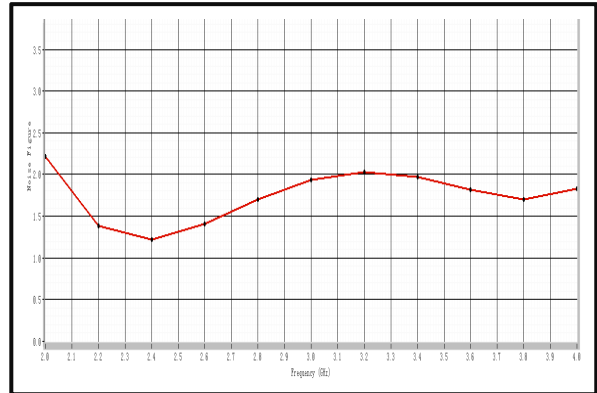
P1dB vs. Frequency



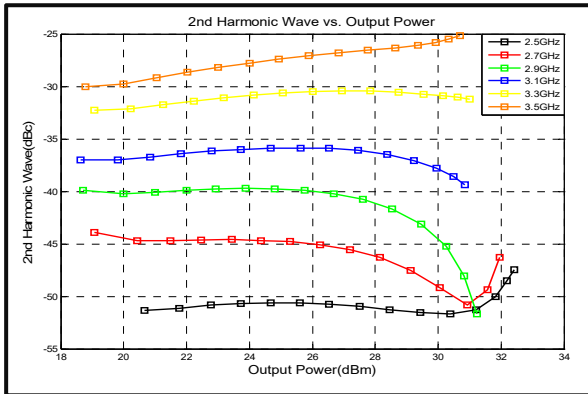
Output Third Order Intercept (IP3)



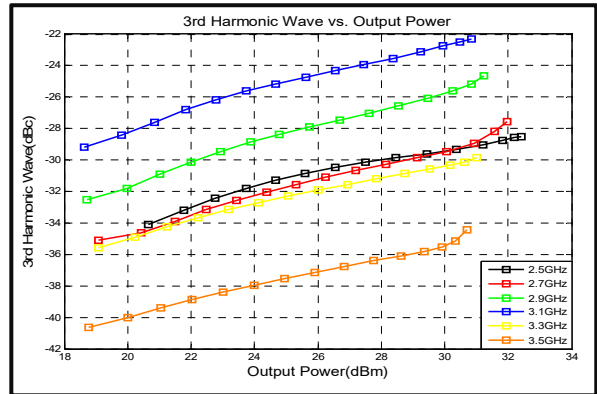
Noise Figure



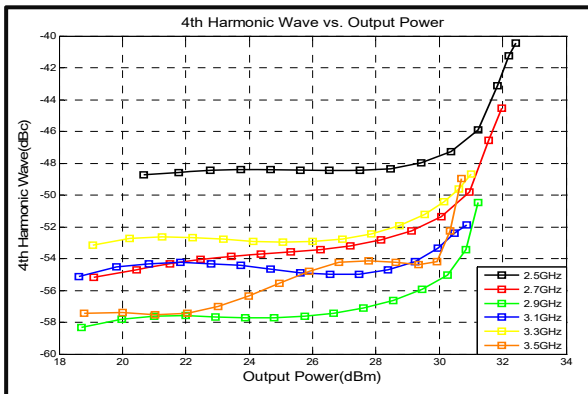
2nd Harmonic Wave output Power



3rd Harmonic Wave output Power



4th Harmonic Wave output Power



Medium Power Driver Amplifier 2.5GHz~3.5GHz



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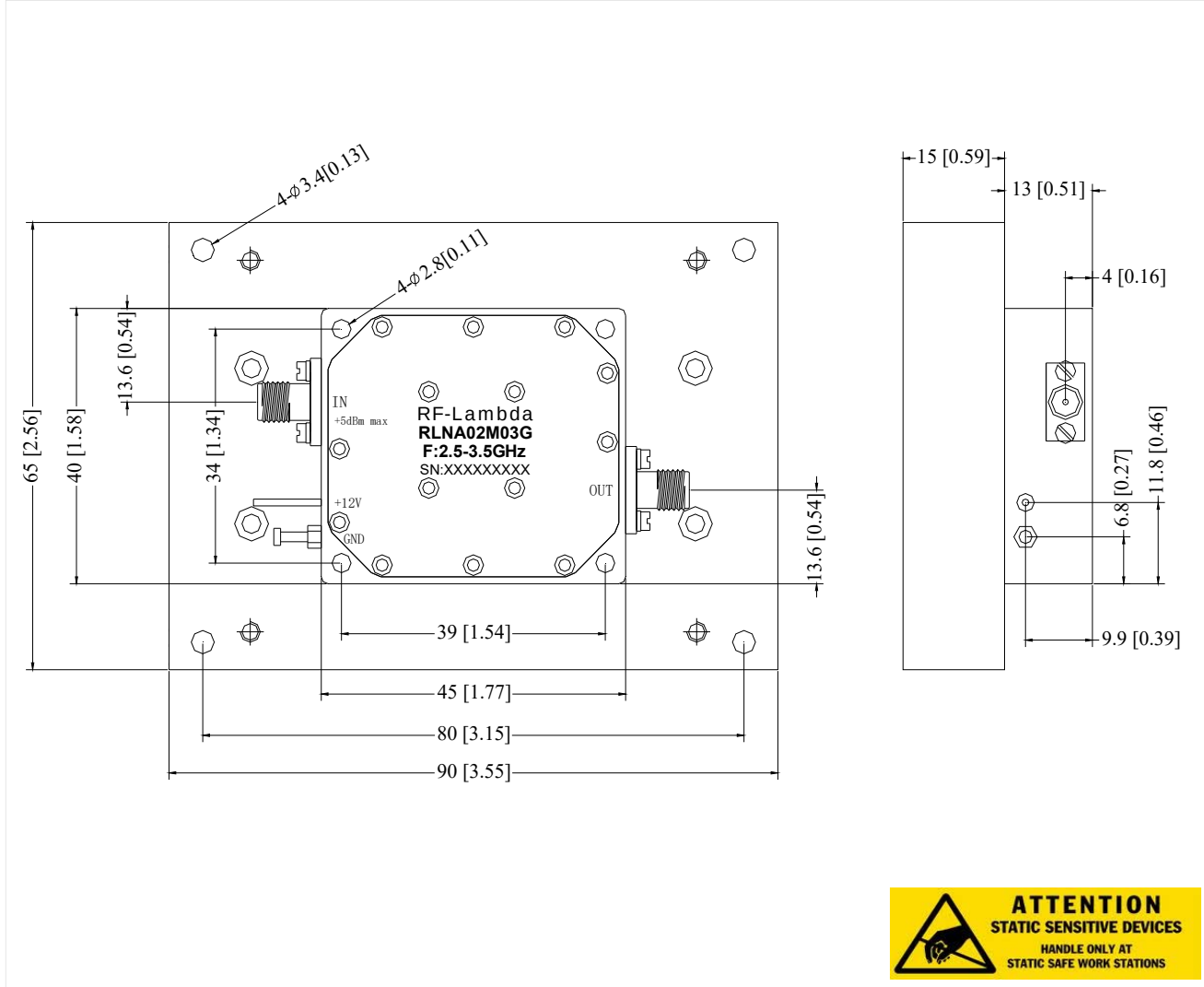
The power beyond expectations

RLNA02M03G

Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation



Ordering Information

Part No	ECCN	Description
RLNA02M03G	EAR99	2.5-3.5GHz LNA Amplifier

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