



RF-LAMBDA

The power beyond expectations

RFLUPA05G08GA

Wide Band Power Amplifier 5GHz~8GHz



Feature

- Gain: 24 dB
- Output power +33dBm typical
- High P1dB: +26 dB m Full Band
- Supply Voltage: +24V @ 150 m A
- 50 Ohm Matched Input / Output
- Size: 0.63" x 0.59" x 0.39"

Typical Applications

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

Electrical Specifications, TA = +25 ° C, With Vcc = +24V, 50 Ohm System

Parameter	Min.	Typ.	Max.	Units
Frequency Range	5		8	GHz
Gain	23	24		dB
Gain Flatness		±1		dB
Gain Variation Over Temperature(-45 ~ +85)		±1.5		dB
Input Return Loss	15	20		dB
Output Power for 1 dB Compression (P1dB)	26	27		dBm
Saturated Output Power (Psat)		33		dBm
Output Third Order Intercept (IP3)		35		dBm
Supply Current (Idd) (Vcc=+24V)		150		mA
Efficiency at P1dB	-	-		%
Isolation S12	65	67		dB
Input Max Power(no damage)			+25	dBm
Weight	25			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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Absolute Maximum Ratings

Operating Voltage	+24V
RF Input Power (RFIN)(Vcc= +24V)	+25dB m
Operating Temperature(C°)	-45 ~ +85 °C
Storage Temperature(C°)	-50 ~ +125 °C

Biasing Up Procedure

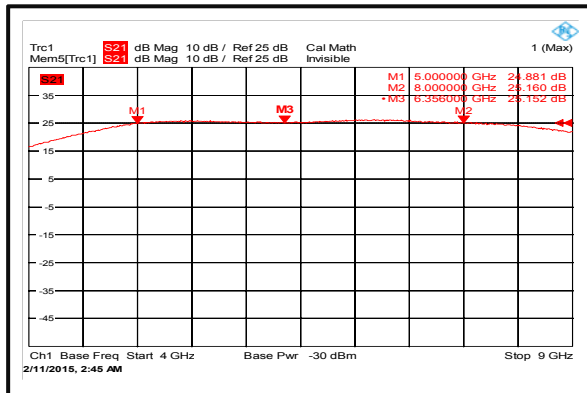
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +24V biasing
Power OFF Procedure	
Step 1	Turn off +24V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environment specifications

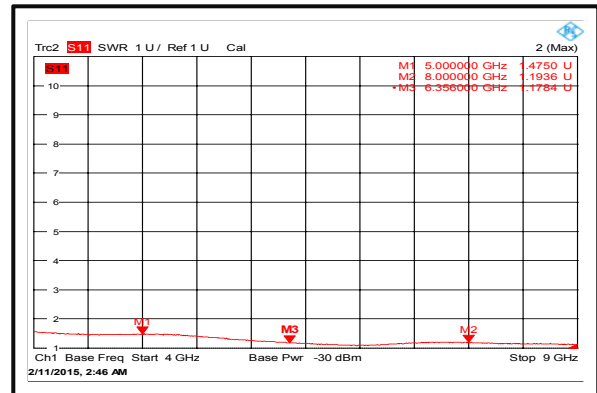
Operational Temperature (C°)	-45 ~ +85
Storage Temperature (C°)	-50 ~ +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

Typical Performance Plots

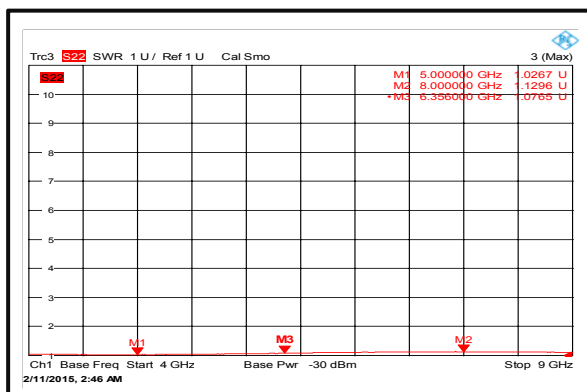
Gain



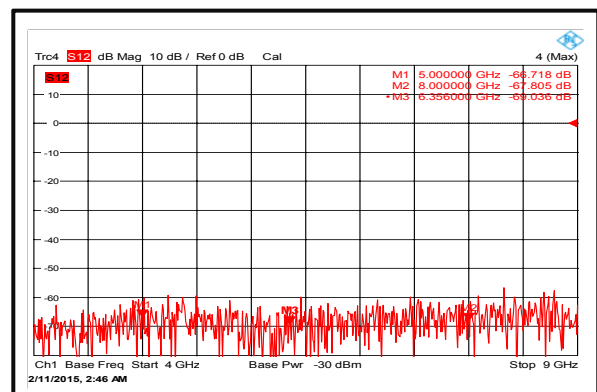
Input VSWR



Output VSWR



Isolation



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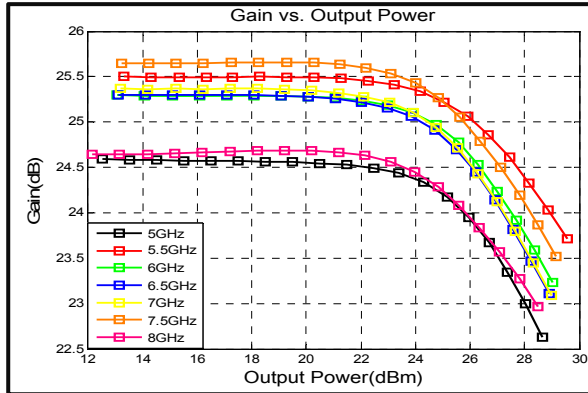


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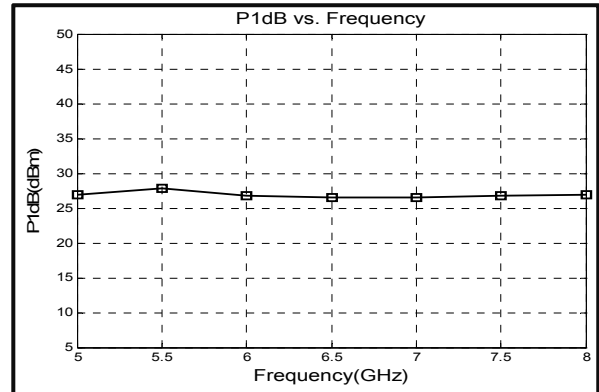
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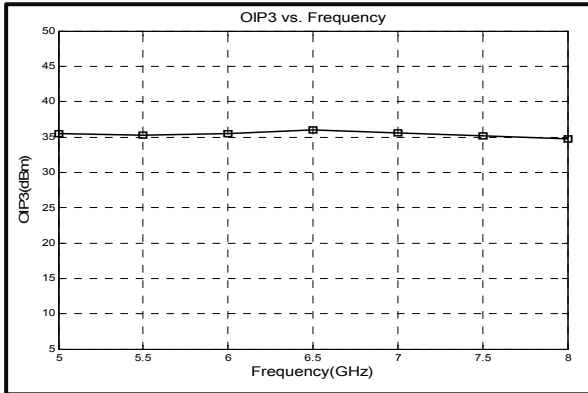
Gain vs. output power



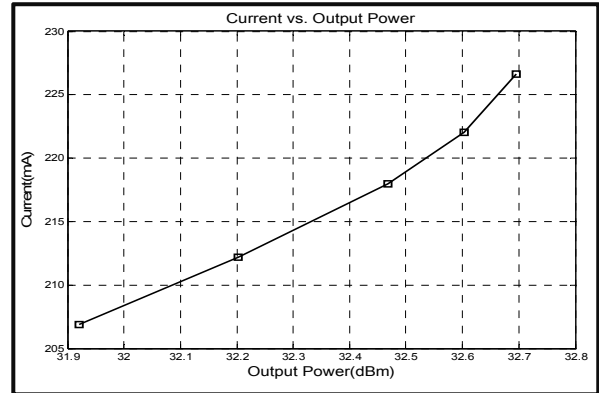
P1dB vs. Frequency



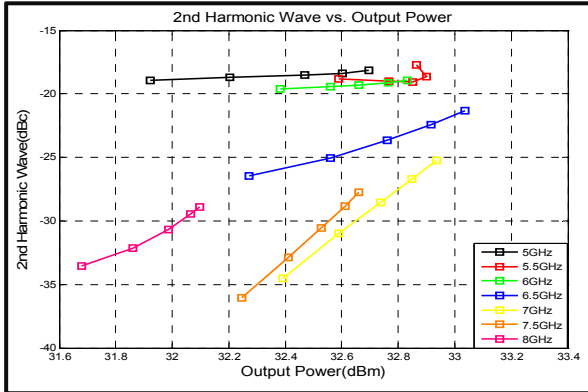
Output Third Order Intercept (IP3)



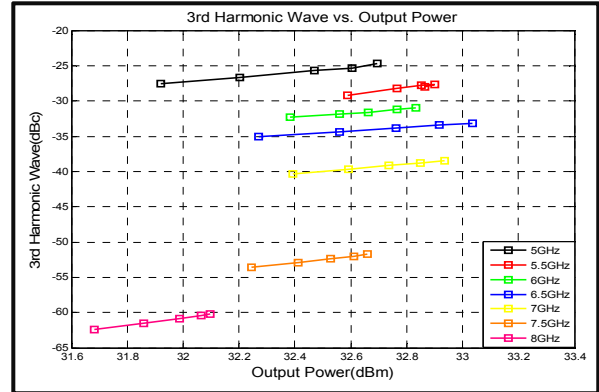
Current



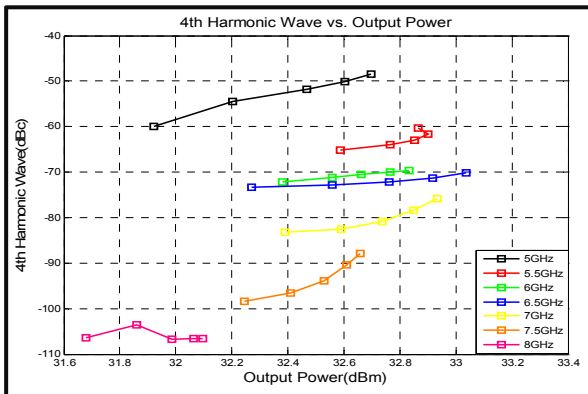
2nd Harmonic Wave output Power



3th Harmonic Wave output Power



4th Harmonic Wave output Power



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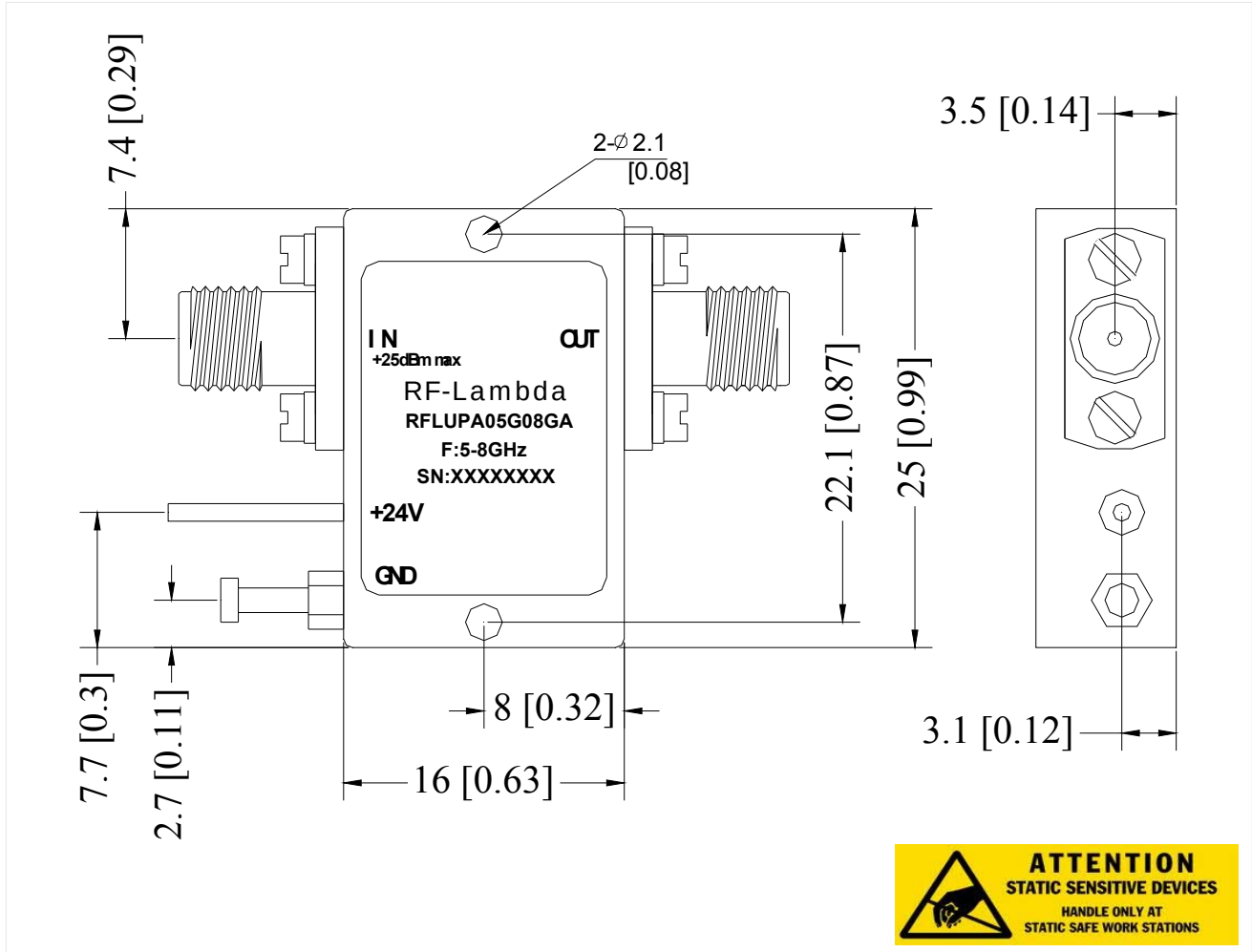
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Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation



Ordering Information

Part No	ECCN	Description
RFLUPA05G08GA	EAR99	5-8GHz Power Amplifier

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