

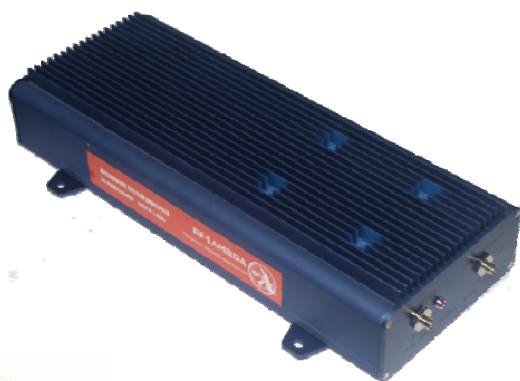


RF-LAMBDA

LEADER OF BROADBAND SOLUTIONS

RAMP01M04GD

Ultra Wide Band AC – Power Amplifier 0.1GHz~4GHz



Feature

- Gain: 32dB Typical
- Output power +35dBm Typical
- High P1dB: +32dB m Full Band
- 50 Ohm Matched Input / Output
- Size: 11.22" x 5.83" x 2.28"

Typical Applications

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

Electrical Specifications, TA = +25 ° C, With Vcc = AC110~220V, 50 Ohm System

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	0.1		2	2		4	GHz
Gain	30	32		30	31		dB
Gain Flatness		±1.5			±1.0		dB
Gain Variation Over Temperature(-45 ~ +85)		±1.0			±1.0		dB
Input Return Loss		14			12		dB
Output Power for 1 dB Compression (P1dB)	32	33		31	32		dBm
Saturated Output Power (Psat)		35			33		dBm
Output Third Order Intercept (IP3)		40			35		dBm
Isolation S12	60	65		70	75		dB
Reference Supply Current (Idd) (Vdd= +12V)		250	1000		250	1000	mA
Input Max Power(no damage)			+5			+5	dBm
Weight	70.55						ounces
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(AC)	110~220V
RF Input Power	+5dB m
Operating Temperature	-45 to +85 °C
Storage Temperature	-50 to +125 °C

Biasing Up Procedure

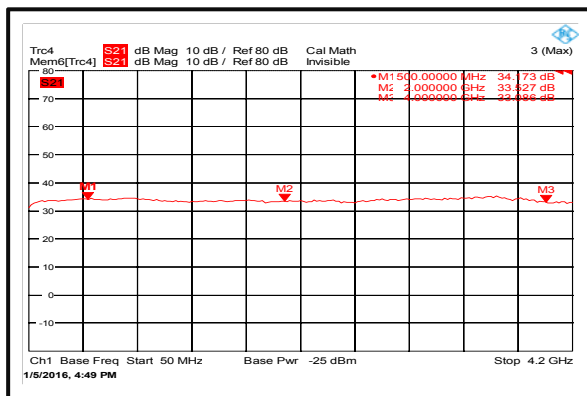
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect AC110~220Vbiasing
Power OFF Procedure	
Step 1	Turn off AC110~220Vbiasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environment specifications

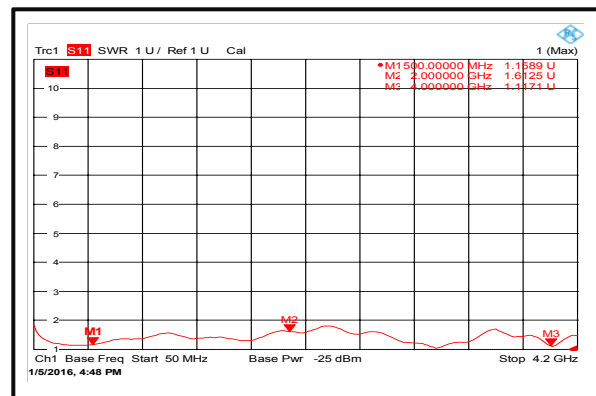
Operational Temperature (C°)	-45 to +85
Storage Temperature (C°)	-50 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

Typical performance plots

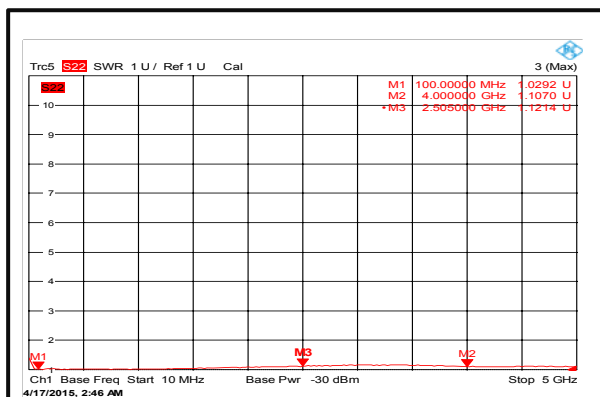
Gain



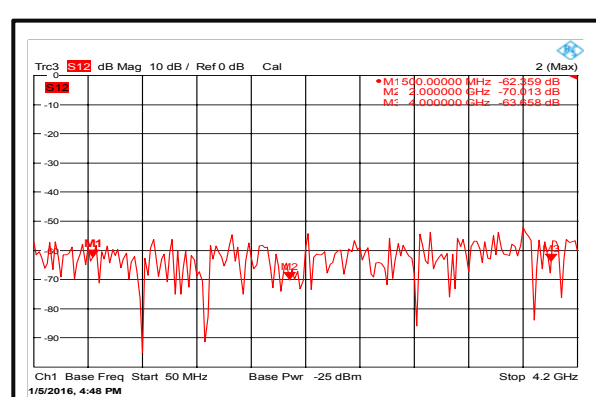
Input VSWR



Output VSWR



Isolation



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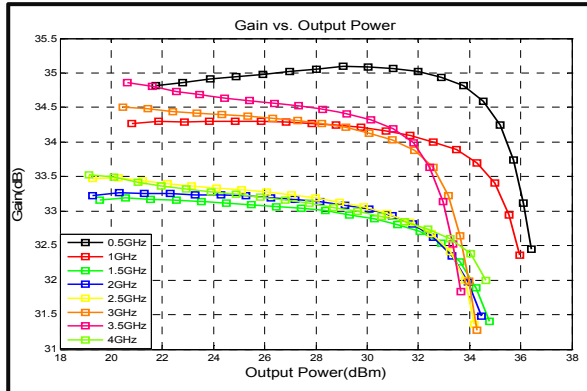


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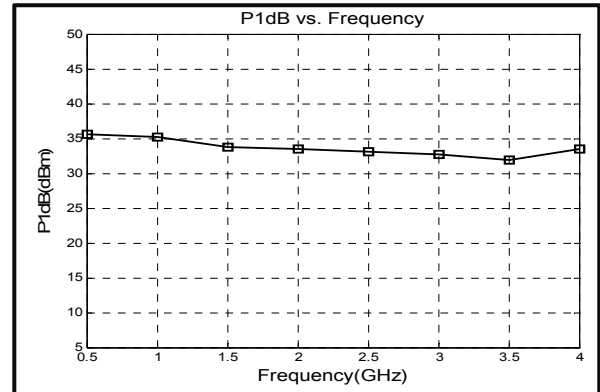
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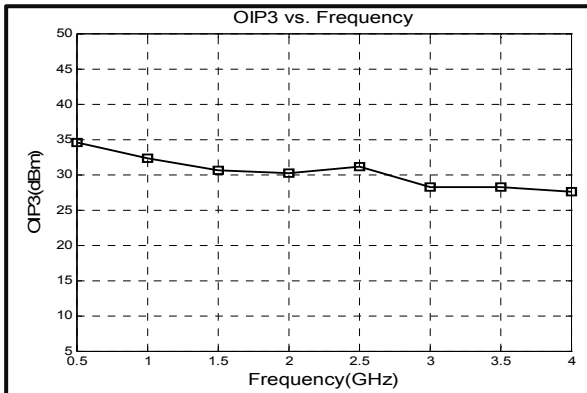
Gain vs. output power



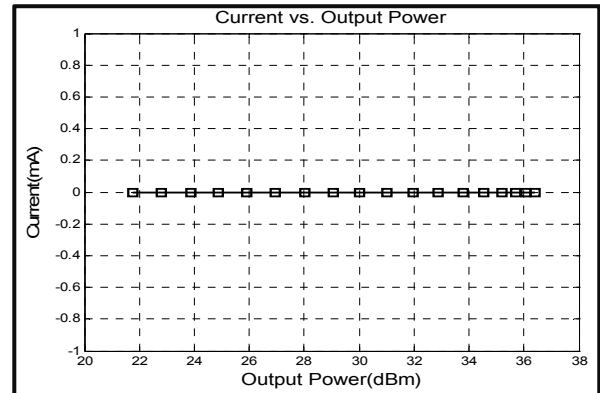
P1dB vs. Frequency



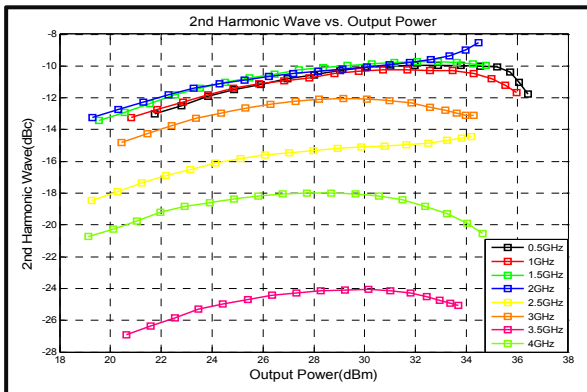
Output Third Order Intercept (IP3)



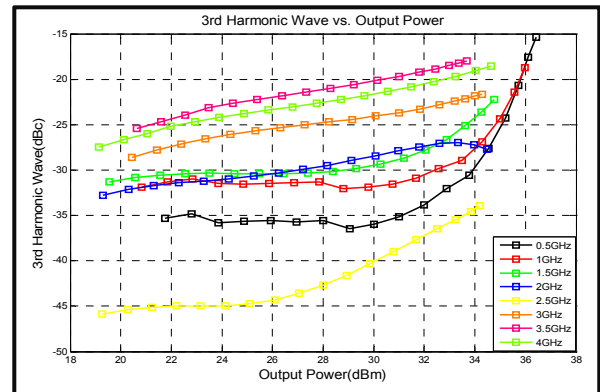
Current



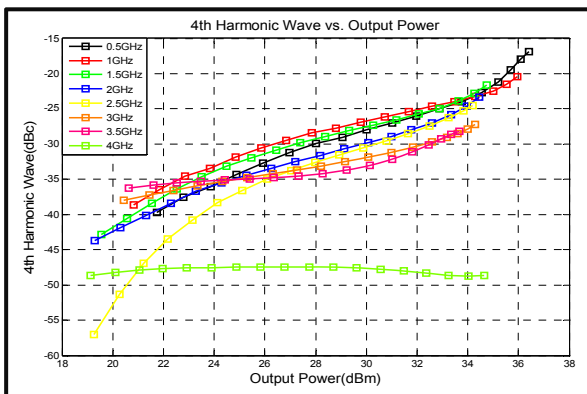
2nd Harmonic Wave output Power



3rd Harmonic Wave output Power



4th Harmonic Wave output Power



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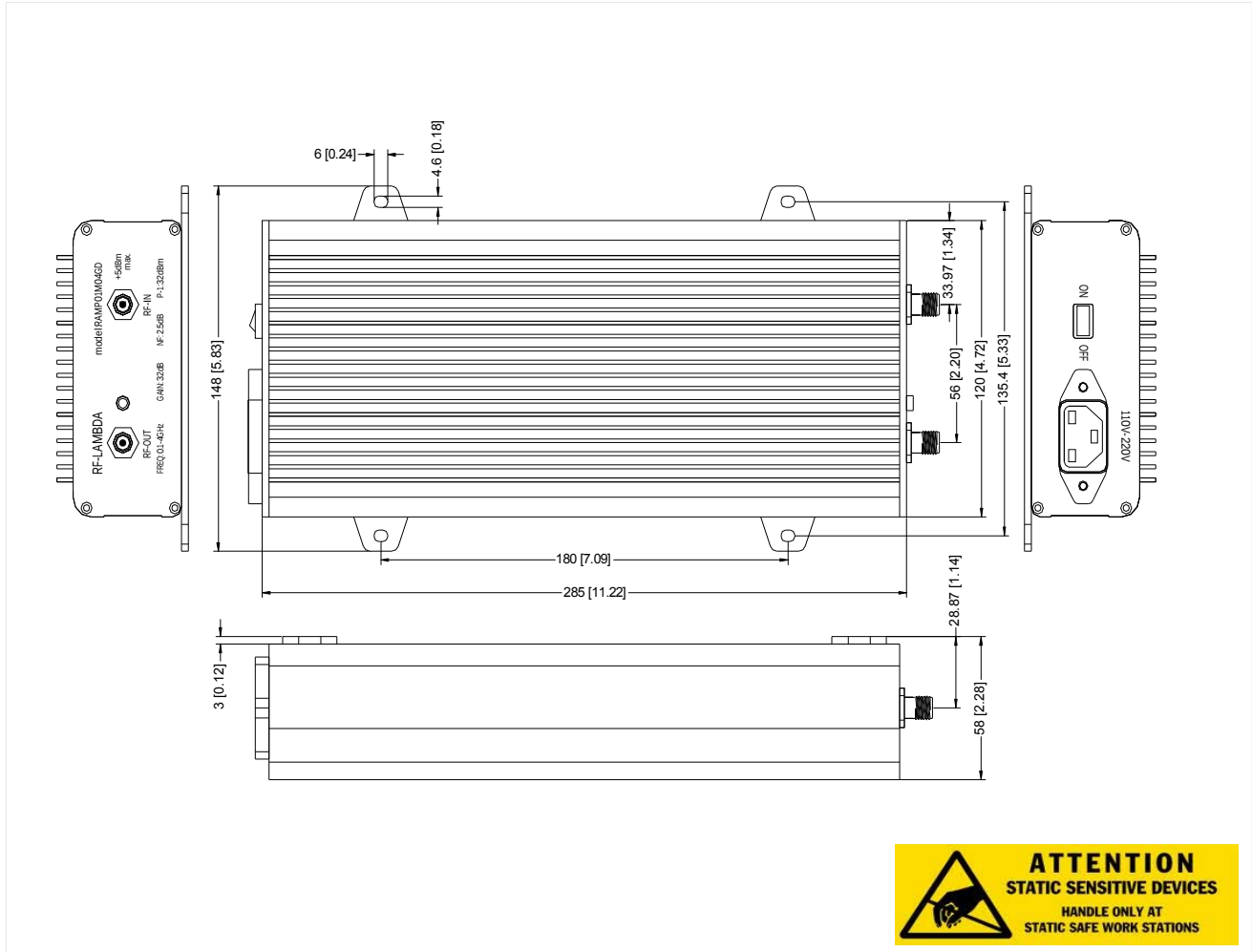
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Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation



Ordering Information

Part No	ECCN	Description
RAMP01M04GD	EAR99	0.1-4GHz Power Amplifier

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