Wide Band Power Amplifier 0.8GHz~2.3GHz

Feature

- Gain: 22 dB
- Output power +29dBm typical
- Supply Voltage: +15V @ 450 mA
- 50 Ohm Matched Input / Output
- Size: 3" x 1" x 0.39"

Typical Applications

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

RoHS Compliant

Electrical Specifications, TA = +25 ° C, With Vcc = +15V, 50 Ohm System

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.8		2.3	GHz
Gain	20	22		dB
Gain Flatness		±1.0		dB
Gain Variation Over Temperature(-45 ~ +85)		±1.0		dB
Input Return Loss	12	15		dB
Output Power for 1 dB Compression (P1dB)	28	29		dBm
Saturated Output Power (Psat)		30		dBm
Output Third Order Intercept (IP3)		38		dBm
Isolation S12		50		dB
Supply Current (Idd) (Vcc=+15V)		450	500	mA
Input Max Power(no damage)		+10		dBm
Weight	/			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	+15V
RF Input Power (RFIN)(Vcc= +15V)	+18dB m
Operating Temperature(℃)	-45 ~ +85 ℃
Storage Temperature(℃)	-50 ~ +125 ℃

Biasing Up Procedure

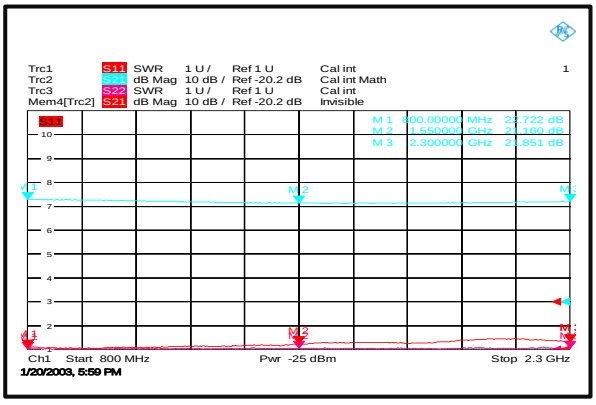
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +15V biasing
Power OFF Procedure	
Step 1	Turn off +15V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environment specifications

Operational Temperature (℃)	-45 ~ +85 ℃
Storage Temperature (℃)	-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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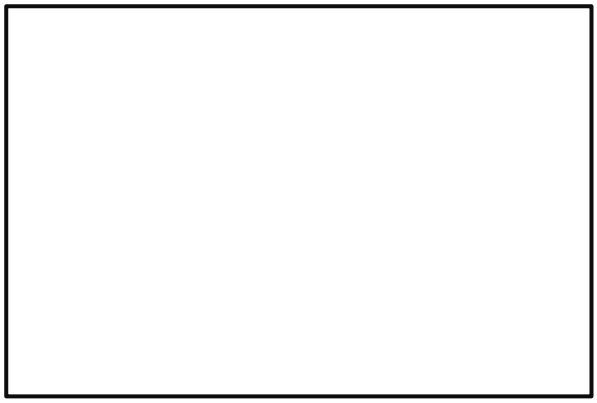
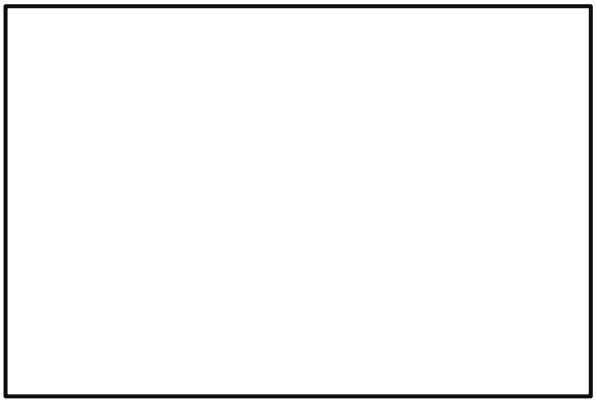
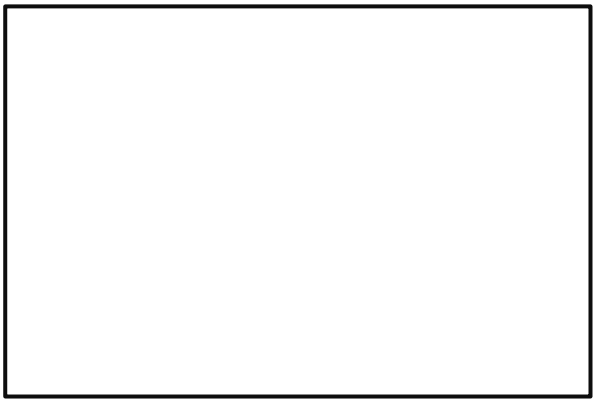
Cain vs. output power



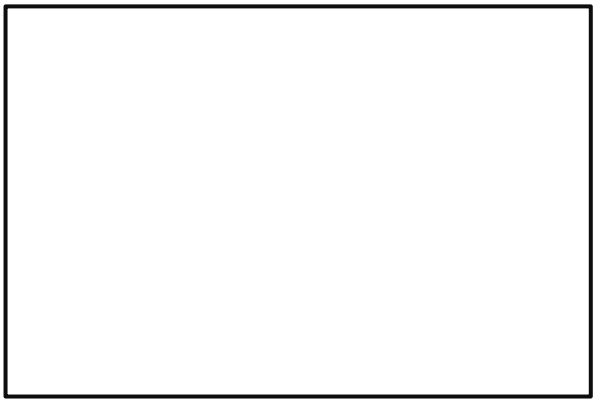
P1dB vs. Frequency



Output Third Order Intercept (IP3)



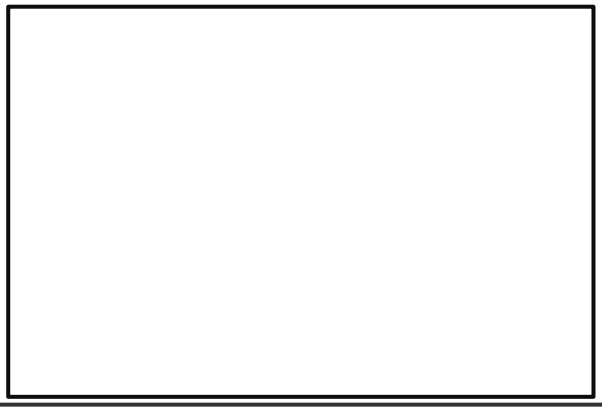
Current



2nd Harmonic Wave output Power

3th Harmonic Wave output Power

4th Harmonic Wave output Power



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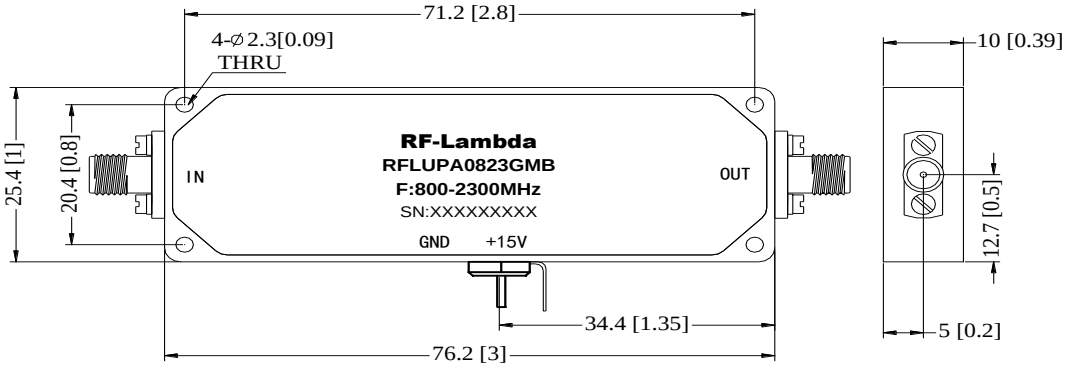
Outline Drawing:

All Dimensions in mm（inches）
Heat Sink required during operation



Ordering Information

Part No	ECCN	Description
RFLUPA0823GMB	EAR99	0.8-2.3GHz Power Amplifier

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