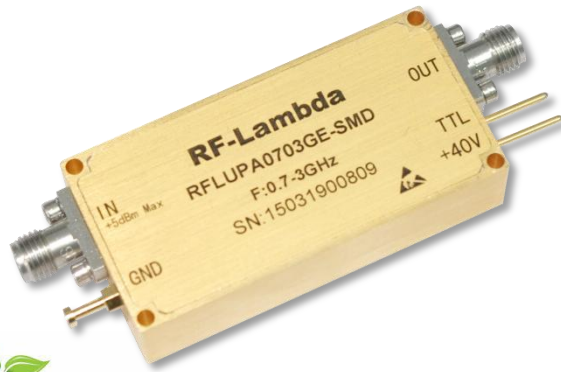




Wide Band Power Amplifier 0.7GHz~3GHz



Feature

- Gain: 38dB Typical
- Output power + 38dBm Typical
- High P1dB: + 35 dB m Full Band
- 50 Ohm Matched Input / Output
- Size: 2" x 1" x 0.472"

Typical Applications

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

Electrical Specifications, TA = +25 ° C, With DC = +40V, TTL=+5V,50 Ohm System

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.7		3	GHz
Gain	35	38		dB
Gain Flatness		±1.5		dB
Gain Variation Over Temperature(-45 ~ +85)		±3.0		dB
Input Return Loss	10	16		dB
Output Return Loss	10	12		dB
Output Power for 1 dB Compression (P1dB)	35	36		dBm
Saturated Output Power (Psat)		38		dBm
Output Third Order Intercept (IP3)		45		dBm
Reference Supply Current (Idd) (Vdd=+40V, TTL=+5V)		400	1000	mA
The turn-on time (TTL=+5V)			0.5	us
The turn-off time (TTL=0V)			1.5	us
Efficiency at P1dB		/		%
Isolation S12	50	65		dB
Input Max Power(no damage)			+5	dBm
Weight	60			g
Impedance	50			Ohms
Input /Output Connector	SMA-Female			
Finishing	Gold Plating			
Material	Aluminum/copper			
Package Sealing	Epoxy Sealing			

Wide Band Power Amplifier 0.7GHz~3GHz



RF-LAMBDA

The power beyond expectations

RFLUPA0703GE-SMD

Absolute Maximum Ratings

Operating Voltage	DC +40V
TTL	DC +5V
RF Input Power	+5dB m
Operating Temperature(C°)	-45 to +85 °C
Storage Temperature(C°)	-50 to +125 °C

Biasing Up Procedure

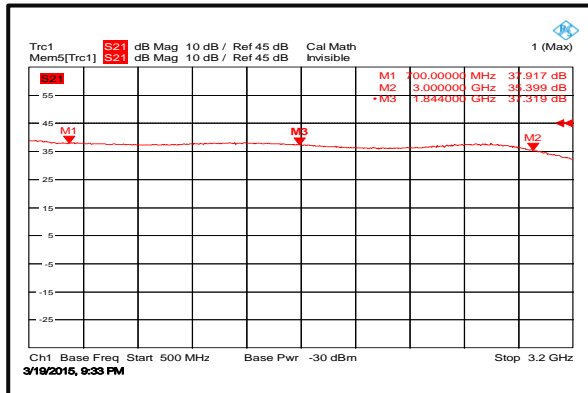
Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +40V
Power OFF Procedure	
Step 1	Turn off +40V
Step 2	Remove RF connection
Step 3	Remove Ground.

Environment specifications

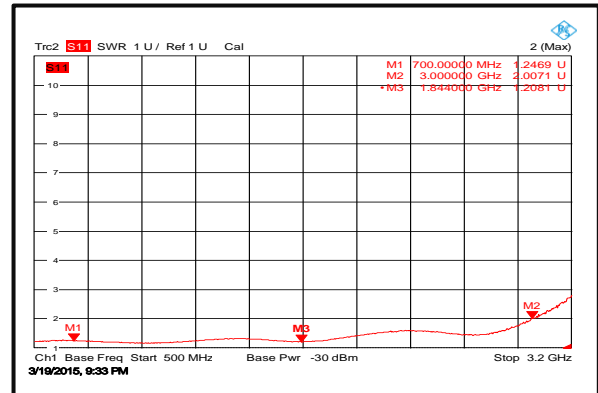
Operational Temperature (C°)	-45 to +85
Storage Temperature (C°)	-50 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40°c
Shock	20G for 11msc half sin wave, 3 axis both directions

Typical Performance Plots

Gain



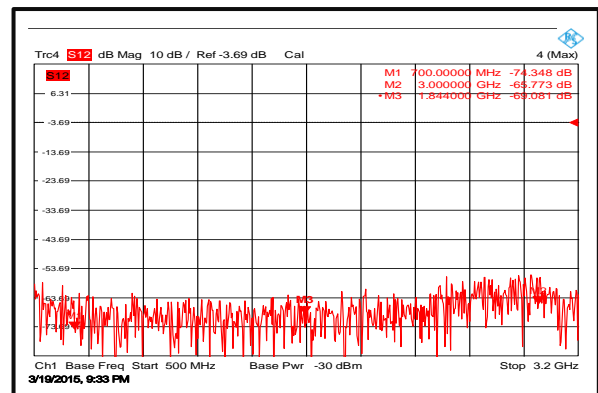
Input VSWR



Output VSWR



Isolation



Wide Band Power Amplifier 0.7GHz~3GHz

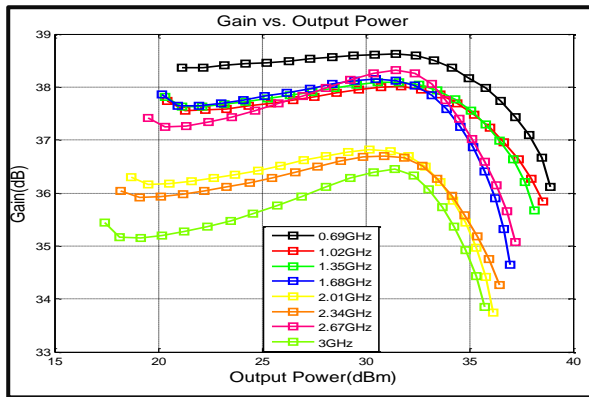


RF-LAMBDA

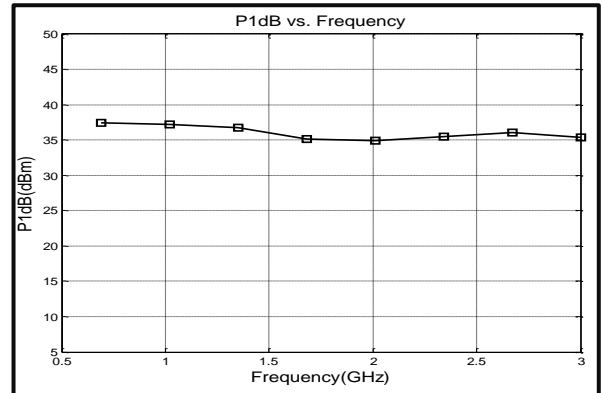
The power beyond expectations

RFLUPA0703GE-SMD

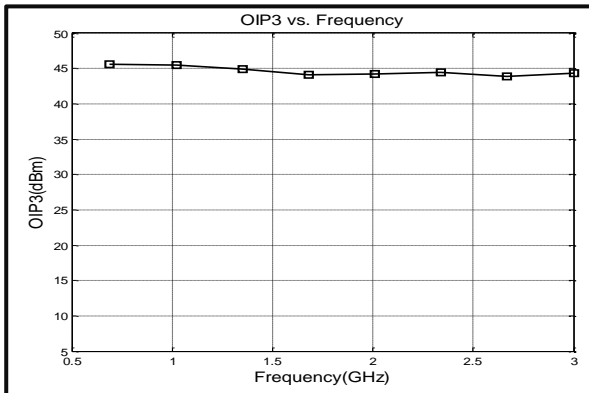
Gain vs. output power



P1dB vs. Frequency



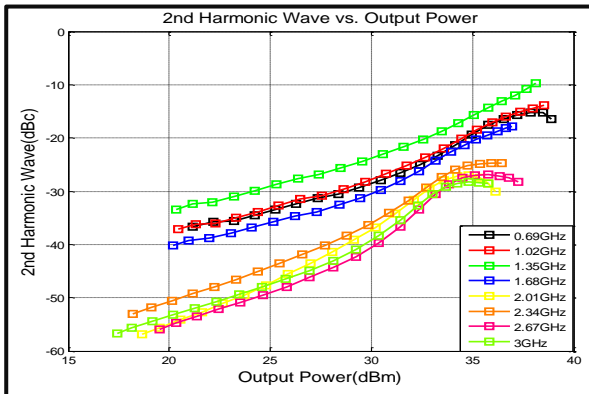
Output Third Order Intercept (IP3)



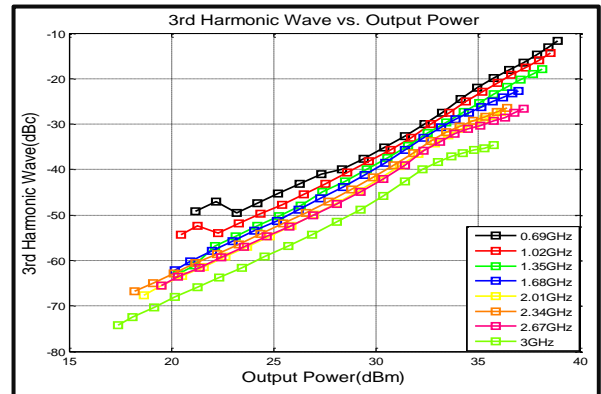
Current



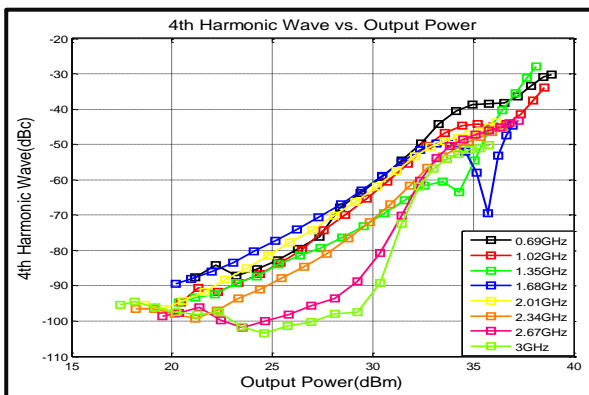
2nd Harmonic Wave output Power



3rd Harmonic Wave output Power



4th Harmonic Wave output Power



Wide Band Power Amplifier 0.7GHz~3GHz



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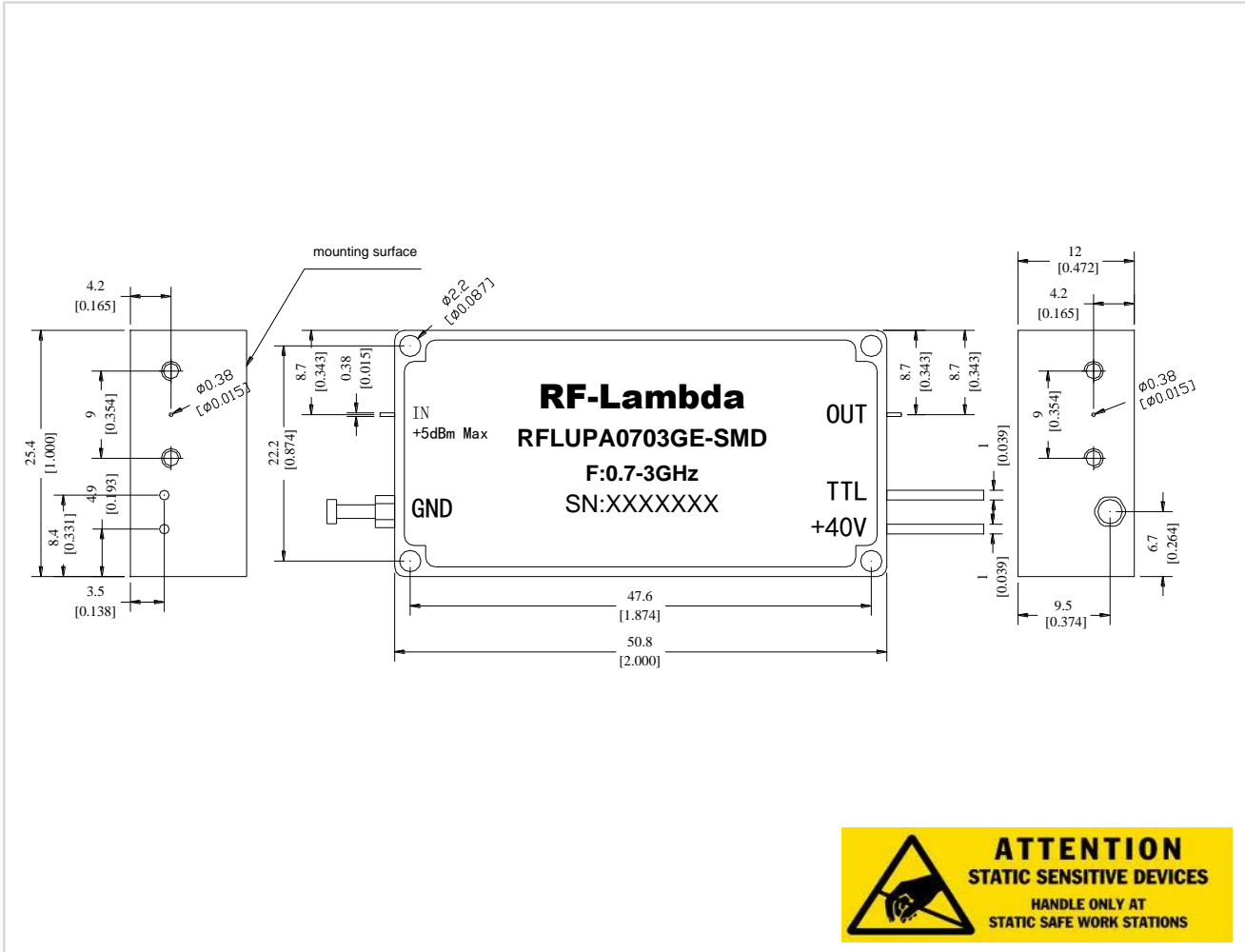
The power beyond expectations

RFLUPA0703GE-SMD

Outline Drawing:

All Dimensions in mm (inches)

Heat Sink required during operation



Wide Band Power Amplifier 0.7GHz~3GHz

Ordering Information

Part No	ECCN	Description
RFLUPA0703GE-SMD	EAR99	0.7-3GHz Power Amplifier

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