



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RLNA04M06GETS

ALC-Automatic Level Control OdBm Output Ultra Wide Band Amplifier 0.1GHz~6GHz



Note: The photo is for illustration purposes only.
Please refer to the outline drawing.

Features

- Ultra Wide Band 0.1-6GHz
- Input power dynamic range ≤ 60 dB
- Output Power: 0dBm Typical
- Supply Voltage: +5V

Typical Applications

- Wireless Infrastructure
- Military & Aerospace
- Test and Measurement

Electrical Specifications, $T_A = 25^\circ\text{C}$, $V_{CC} = +5\text{V}$

Parameter	Min.	Typ.	Max.	Units
Frequency Range	0.1		6	GHz
Gain Flatness		± 2.5		dB
Noise Figure		12		dB
Input level	-60		0	dBm
Input VSWR		2.0		: 1
Output Power	-5	0	+3	dBm
Output Stabilization		± 0.5		dBm
Response Time		30		us
IMD ₃		-30		dBc
Supply Current ($V_{CC}=+5\text{V}$)		500		mA
Weight	/			Ounces
Impedance	50			Ohms
Finish	Standard: Gold 40 micron; Nickel 220 micron thickness			
	Option: Gold 80 micron; Nickel 180 micron thickness			
Material	Aluminum			
Package Sealing	Epoxy Sealed (Standard)			
	Hermetically Sealed (Optional)			

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Absolute Maximum Ratings

Operating Voltage	+5.5V
RF Input Power	+0dBm

Biasing Up Procedure

Step 1	Connect Ground Pin
Step 2	Connect input and output
Step 3	Connect +5V biasing
Power OFF Procedure	
Step 1	Turn off +5V biasing
Step 2	Remove RF connection
Step 3	Remove Ground.

Environmental Specifications and Test Standards

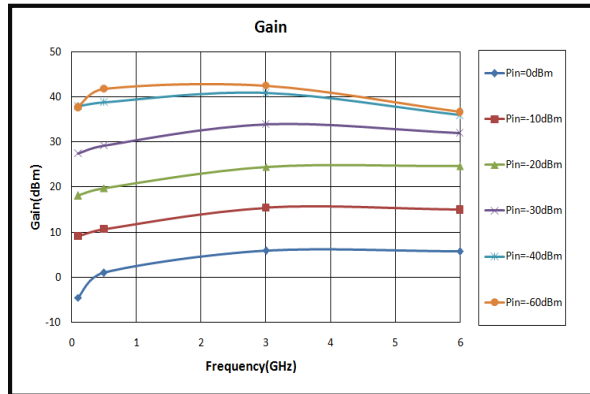
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-45°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	MIL-STD-883	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)		MIL-STD-883 (For Hermetically Sealed Units)

ALG-Automatic Level Control 0dBm Output Ultra Wide Band Amplifier 0.1GHz~6GHz

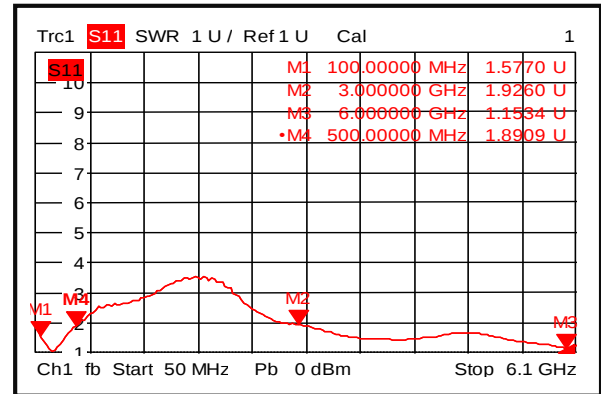


Typical Performance Plots

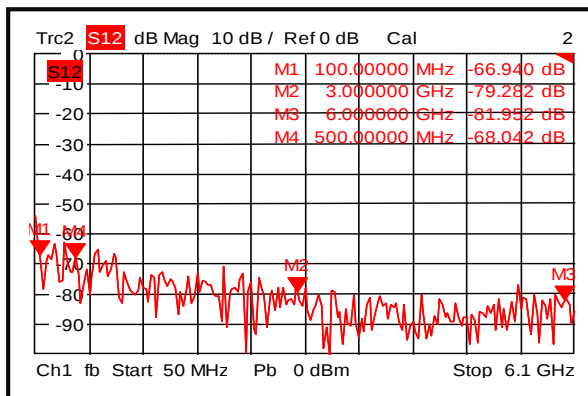
Gain



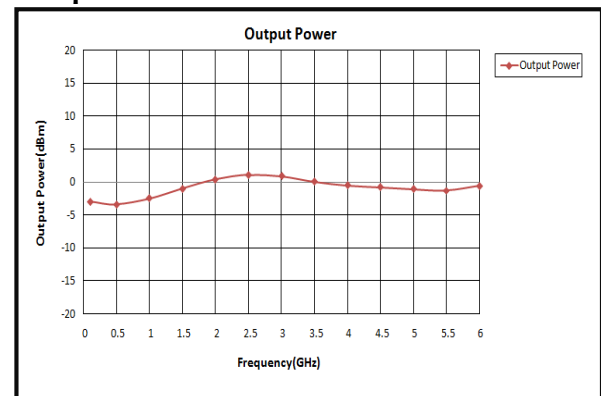
Input VSWR



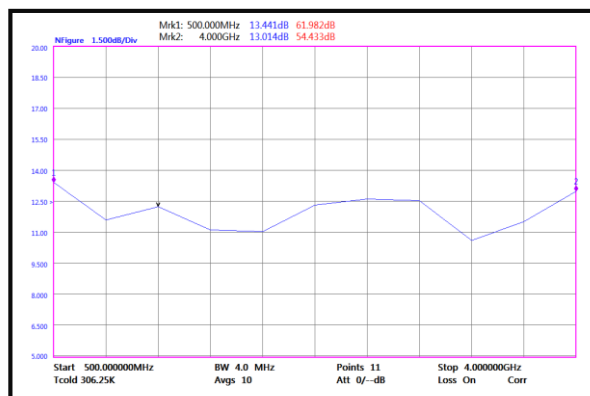
Isolation



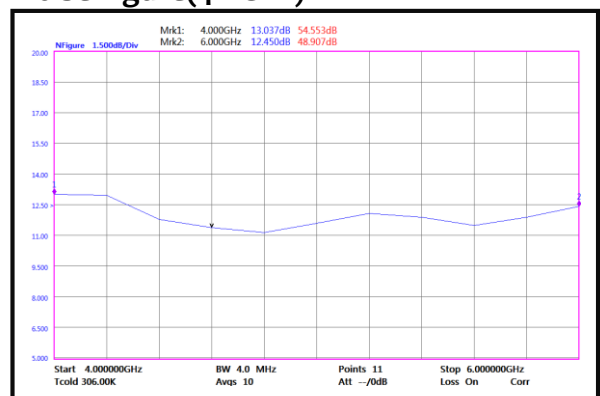
Output Power



Noise Figure(0.5-4GHz)



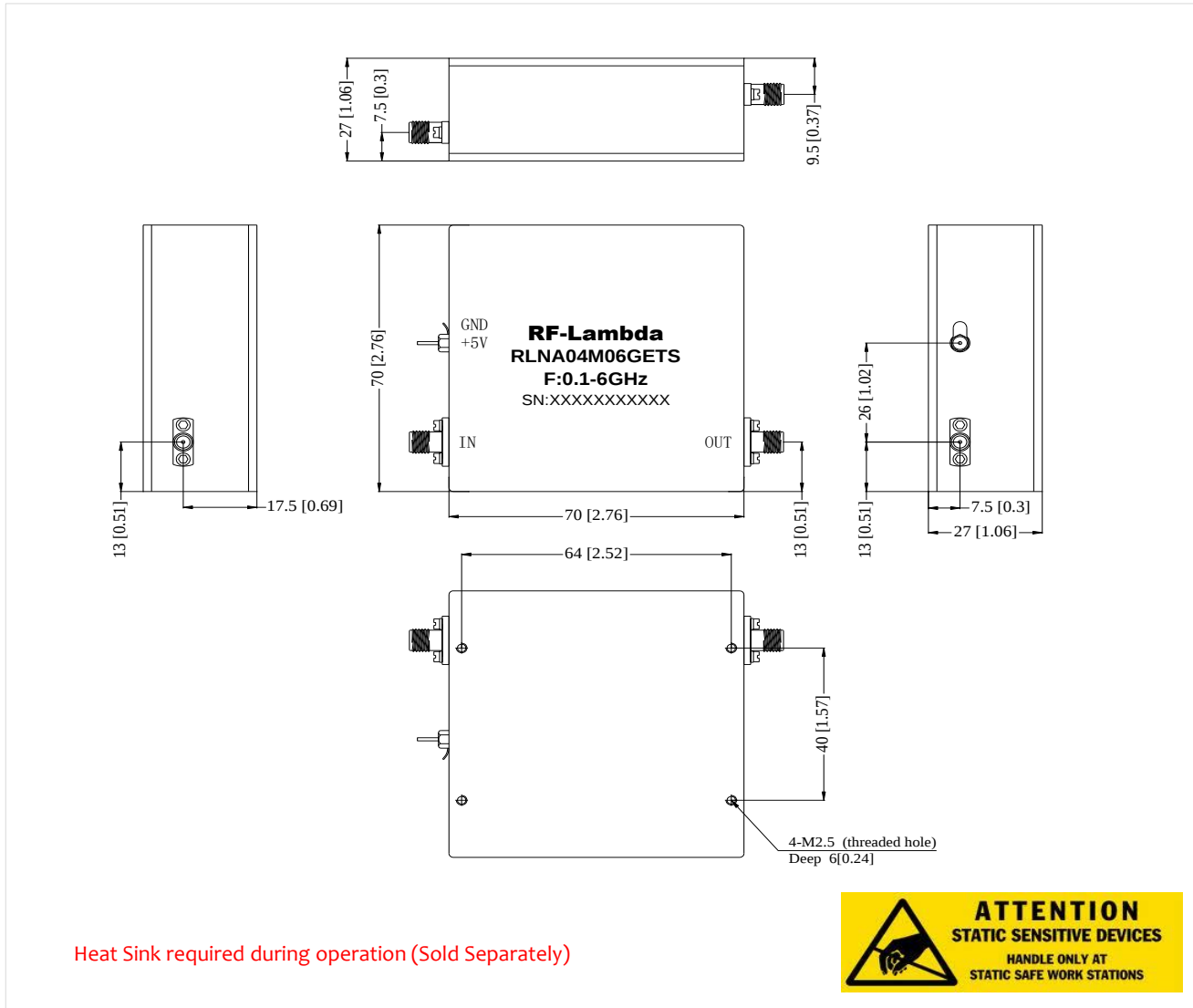
Noise Figure(4-6GHz)





Outline Drawing:

All Dimensions in mm [inches]



Ordering Information

Part No.	Description
RLNA04M06GETS	0.1-6GHz ALC Amplifier

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