



Ultra Wide Band Low Noise Amplifier 0.05GHz~20GHz



- Output power +16dBm Type.
- Low Noise Figure: 2.3dB typical.
- High P1dB >12dBm full band.
- No External Matching Required
- Applicable for base station ,repeaters of cellular network
- Aerospace and military application
- LMDS multi-carrier operation
- High peak to average handle capability
- All specifications can be modified upon request

Electrical Specifications, TA = +25 ° C, With Vdd = +12V

Parameter	Min	Type	Max	Min	Type	Max	Units
Frequency Range	0.05~15			15~20			GHz
Gain	29	30		26	28		dB
Gain Variation Over Temperature		0.5	0.8		0.5	0.8	dB
Noise Figure		2.3	2.8		2.5	3.5	dB
Input VSWR		1.5	1.8		1.7	2.2	
Output VSWR		1.5	1.8		1.5	1.8	
Output Power For 1dB Compression (P-1dB)	14	15		12	14		dBm
Saturated Output Power (Psat)	15	16		14	15		dBm
Output Third Order Intercept (IP3)		26			26		dBm
Supply Current (Idd) (Vdd=+12V)		160	180		160	180	mA
Isolation S12	65	70		60	65		dB
Input Max		-10			-10		dBm
Weight	100						g
Impedance	50						Ohms
Input /Output Connector	SMA-Female						
Finishing	Gold plating						
Material	Aluminum/copper						



RF-LAMBDA

The power beyond expectations

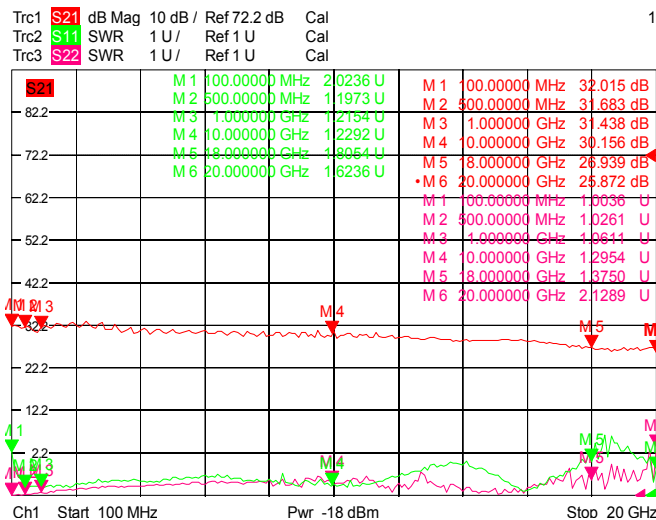
RLNA05M20GA

Absolute Maximum Ratings	
Biasing	+12V
Input RF power	-100dBm
Storage Temperature (C°)	-50 ~ +125

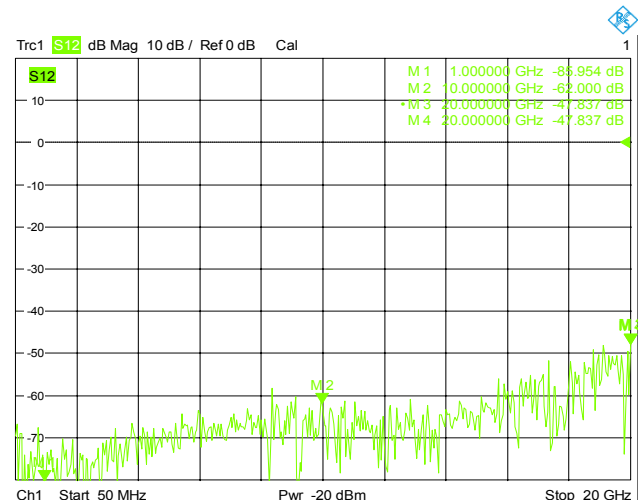
Ordering Information		
Part No	ECCN	Description
RLNA05M20GA	EAR99	1-20GHz LNA Amplifier

Biasing Up Procedure	
Step 1	Connect input and output
Step 2	Connect Ground Pin
Step 3	Connect +12V biasing
Power OFF Procedure	
Step 1	Turn off +12V 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. (Controlled environment)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msc half sin wave,3 axis both directions



GAIN & VSWR (Over Frequency)



Amplifier Isolation (S12)

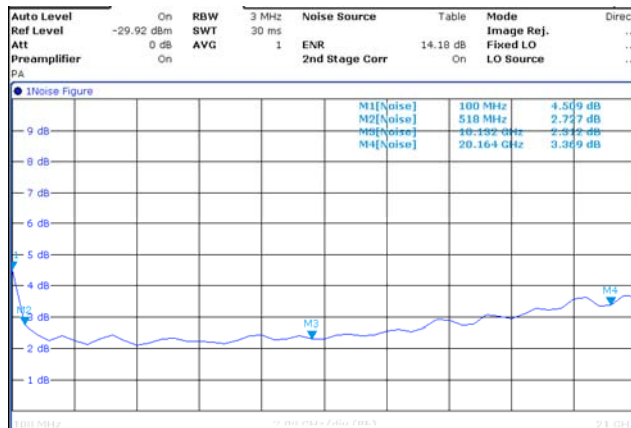
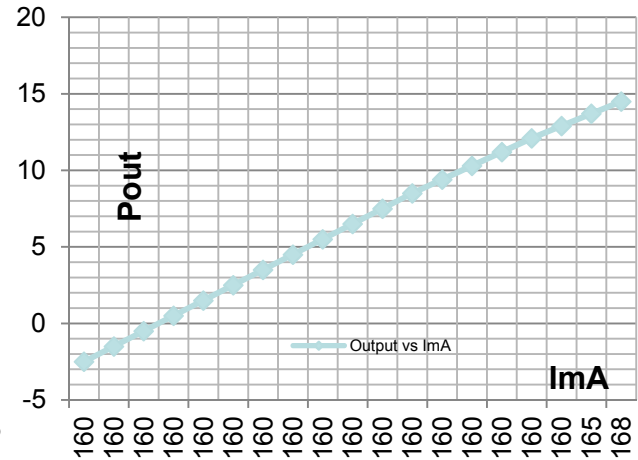
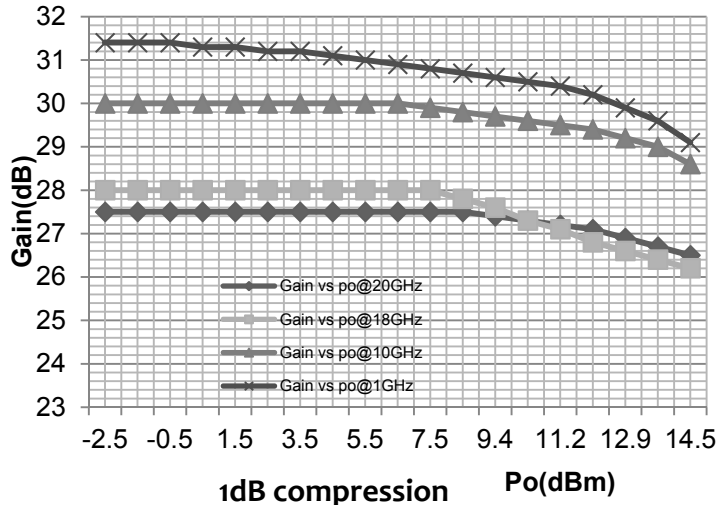
Ultra Wide Band Low Noise Amplifier 0.05GHz~20GHz



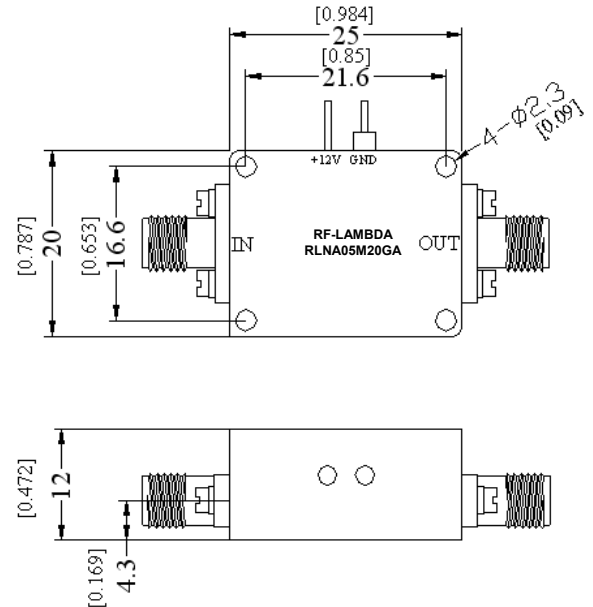
RF-LAMBDA

The power beyond expectations

RLNA05M20GA



Noise Figure (Over Frequency)



Heat Sink required during operation.



Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information.

RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.