



AC 110V / 220V Ultra Wide Band Low Noise Amplifier 0.1GHz~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	0.1~15			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						



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The power beyond expectations

RAMP05M20GA

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

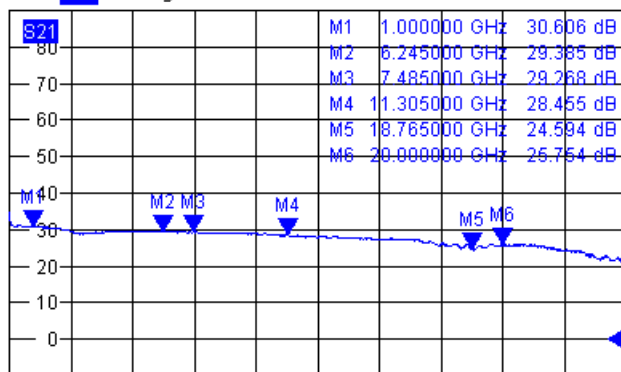
Ordering Information		
Part No	ECCN	Description
RAMP05M20GA	EAR99	1-20GHz LNA Amplifier

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

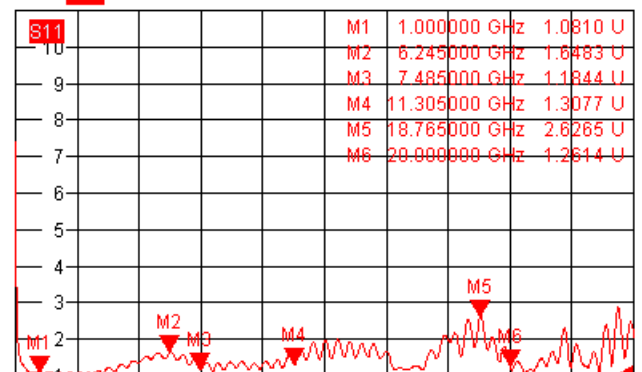


Trc1 S21 dB Mag 10 dB / Ref 0 dB Cal



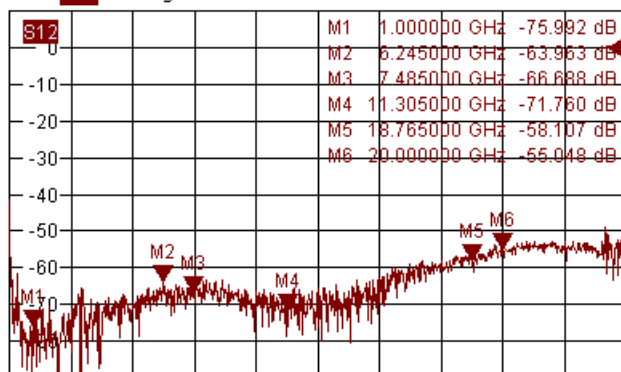
Ch1 f0 Start 10 MHz Pb -30 dBm Stop 25 GHz

Trc2 S11 SWR 1 U / Ref 1 U Cal



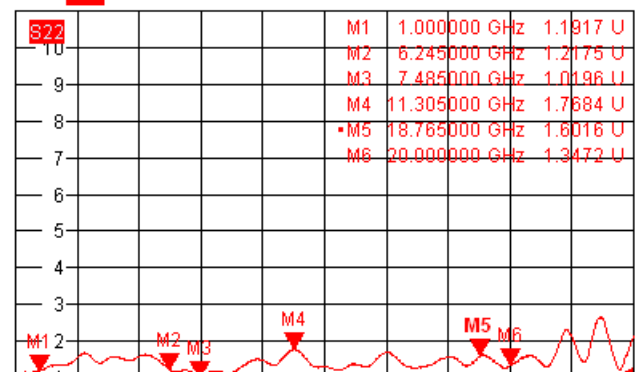
Ch1 f0 Start 10 MHz Pb -30 dBm Stop 25 GHz

Trc3 S12 dB Mag 10 dB / Ref 0 dB Cal



Ch1 f0 Start 10 MHz Pb -30 dBm Stop 25 GHz

Trc4 S22 SWR 1 U / Ref 1 U Cal



Ch1 f0 Start 10 MHz Pb -30 dBm Stop 25 GHz

9/11/2013, 11:50 AM

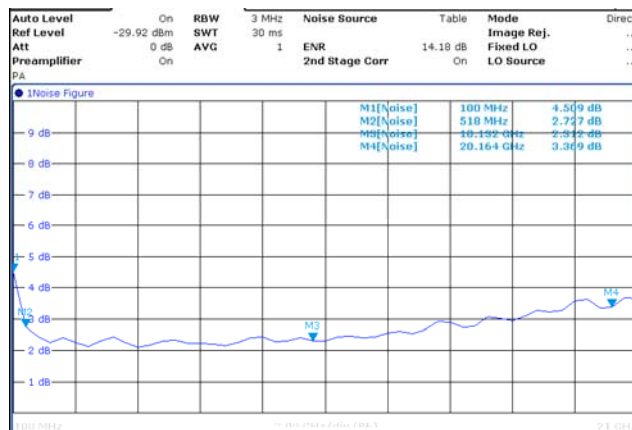
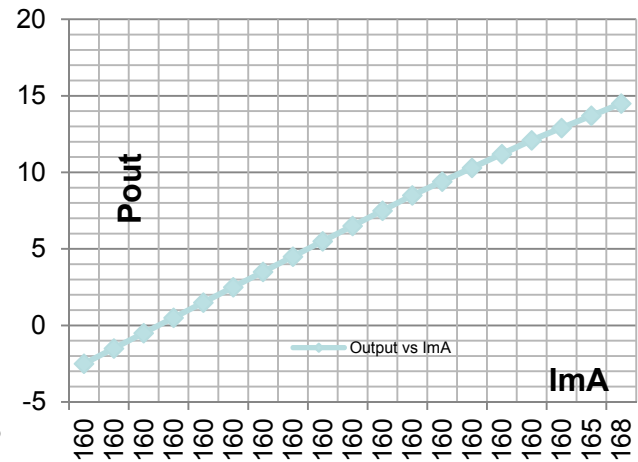
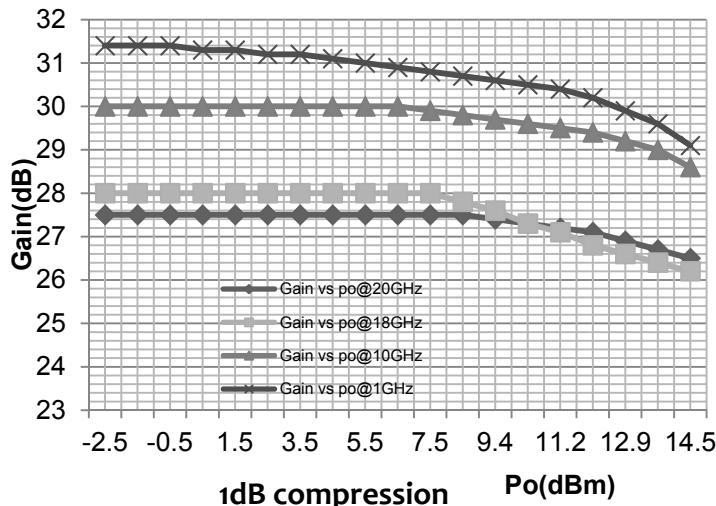
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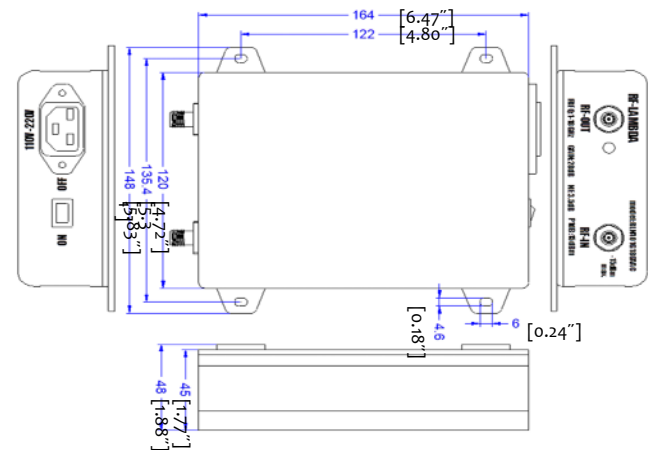
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The power beyond expectations

RAMP05M20GA



Noise Figure (Over Frequency)



Heat Sink required during operation.

Important Notice

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