



RF-LAMBDA

The power beyond expectations

R71G86GSB

Low Noise Amplifier 71-86GHz NF: <5dB



- Short Haul / High Capacity Links
- Wireless LANs
- Automotive Radar
- Military & Space
- E-Band Communication Systems
- Noise Figure: <5 dB
- P1dB: +7 dBm
- Gain: 13 dB
- Supply Voltage: +2.4V
- 50 Ohm Matched Input/Output
- Die Size: 3.2 x 1.6 x 0.1 mm

Electrical Specifications [1], TA = +25 ° C

Vdd1=Vdd2 = 2.1V, Vdd3=2.4V, Idd1+Id2+Id3 = 30 mA [2]

Parameter	Min.	Typ.	Max.	Units
Frequency Range	71 - 86			GHz
Gain	11	13		dB
Noise Figure		4.5		dB
Input Return Loss		8		dB
Output Return Loss		10		dB
Output Power for 1 dB Compression (P1dB)		7		dBm
Total Supply Current (Id1+Id2+Id3)		30		mA

Absolute Maximum Ratings

Drain Bias Voltage	+3 Vdc
Gate Bias Voltage	-1 to +0.3 Vdc
RF Input Power	-5 dBm
Thermal Resistance (channel to die bottom)	195.6 ° C/W
Storage Temperature	-65 to +150 ° C
Operating Temperature	-55 to +85 ° C



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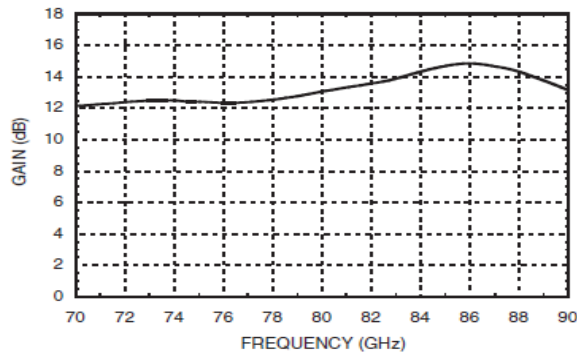


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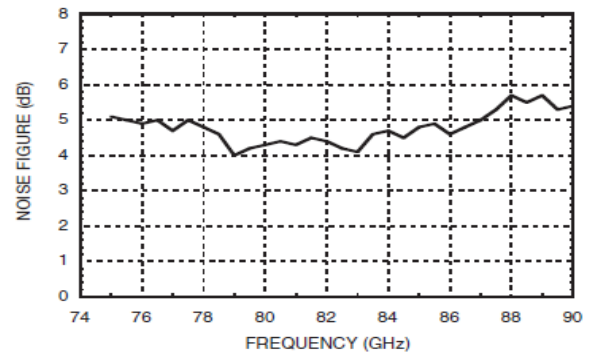
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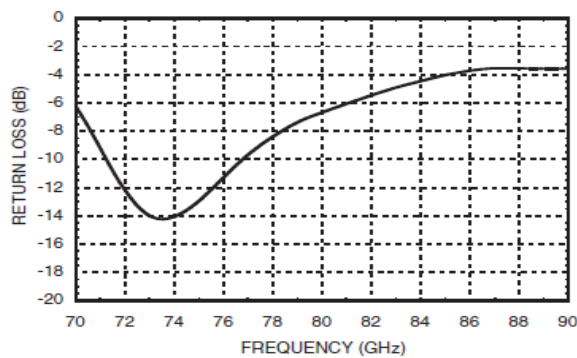
Linear Gain vs. Frequency



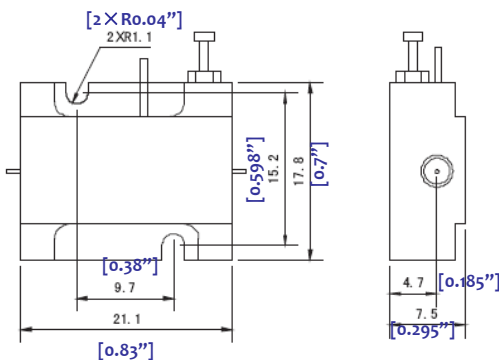
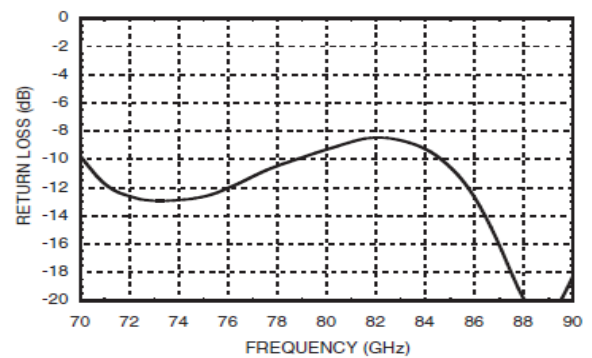
Noise Figure vs. Frequency



Input Return Loss vs. Frequency



Output Return Loss vs. Frequency



Heat Sink required during operation. (Heat Sink sold separately)

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