



RF-LAMBDA

The power beyond expectations

R27G33GSA

Low Noise Amplifier 27-33GHz NF: 3dB



- Point-to-Point Radios
- Point-to-Multi-Point Radios
- VSAT
- Test Equipment & Sensors
- Military & Space
- Noise Figure: 3 dB
- Gain: 20 dB
- P1dB Output Power: +12 dBm
- Supply Voltage: +2.5V @ 52 mA
- Die Size: 1.80 x 0.73 x 0.1 mm

Electrical Specifications ^[1], $T_A = +25^\circ \text{C}$, $V_{dd} = 2.5\text{V}$, $I_{dd} = 52\text{mA}$ ^[2]

Parameter	Min.	Typ.	Max.	Units
Frequency Range	27 - 33			GHz
Gain	18	20		dB
Gain Variation over Temperature		0.03		dB / °C
Noise Figure		3	3.5	dB
Input Return Loss		12		dB
Output Return Loss		14		dB
Output Power for 1 dB Compression	10	12		dBm
Supply Current		52		mA

Absolute Maximum Ratings

Drain Bias Voltage	+5 Vdc
Gate Bias Voltage	-1 to +0.3 Vdc
RF Input Power	-3 dBm
Channel Temperature	180 ° C
Storage Temperature	-65 to +150 ° C
Operating Temperature	-55 to +85 ° C



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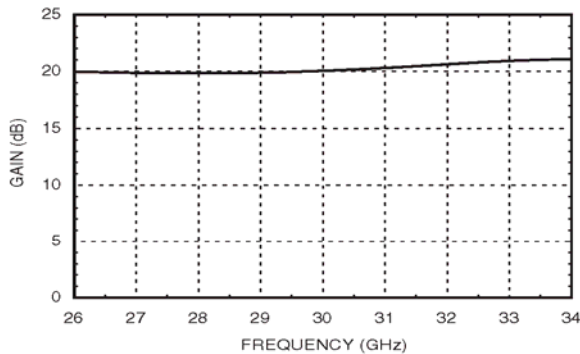
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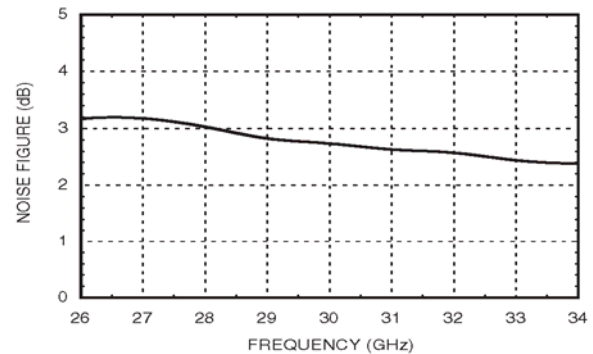
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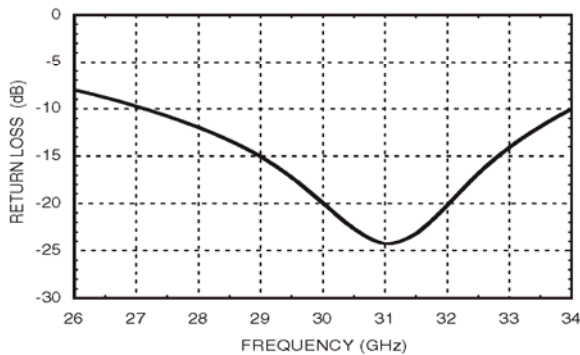
Linear Gain vs. Frequency



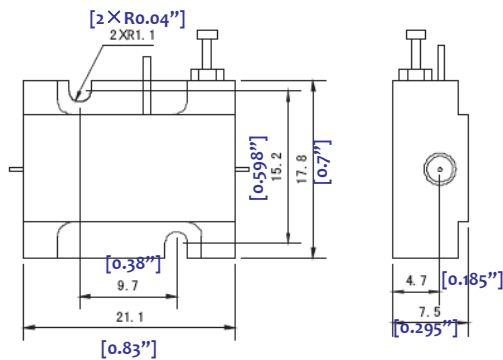
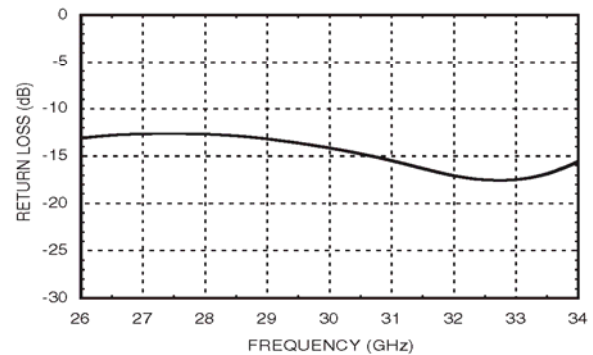
Noise Figure vs. Frequency



Input Return Loss vs. Frequency



Output Return Loss vs. Frequency



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

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