



RF-LAMBDA

The power beyond expectations

R07G26GSA

Low Noise Amplifier 7.5-26.5GHz NF: 2.5dB



- Point-to-Point Radios
- Point-to-Multi-Point Radios
- Military & Space
- Test Instrumentation
- Low Noise Figure: 2.5 dB
- Gain: 13 dB
- P1dB Output Power: 13 dBm
- Single Supply Voltage: +3.5V @ 70mA
- Output IP3: +23 dBm
- 50 Ohm Matched Input/Output
- 24 Lead 4x4 mm SMT Package: 16mm²

Electrical Specifications, $T_A = +25^\circ \text{C}$, $V_{dd1} = V_{dd2} = +3.5\text{V}$, $I_{dd} = 70 \text{ mA}$

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	7.5 - 10			10 - 24			24 - 26.5			GHz
Gain	10	12		10	13		8	10		dB
Gain Variation over Temperature		0.027			0.024			0.024		dB / ° C
Noise Figure [1]		2.5	3.7		2.5	3		2.7	3.7	dB
Input Return Loss		13			10			7		dB
Output Return Loss		10			12			11		dB
Output Power for 1 dB Compression		10			12			13		dBm
Saturated Output Power (Psat)		14			15			15		dBm
Output Third Order Intercept (IP3)		22			23			25		dBm
Supply Current (Idd) (Vdd = 3.5V, Vgg1 = Vgg2 = Open)		70	95		70	95		70	95	mA

Absolute Maximum Ratings

Drain Bias Voltage	+4V
RF Input Power	+10 dBm
Channel Temperature	150 ° C
Continuous P _{diss} (T = 85 ° C) (derate 5.97 mW/° C above 85 ° C)	0.39 W
Thermal Resistance (Channel to ground paddle)	167.6 ° C/W
Storage Temperature	-65 to +150 ° C
Operating Temperature	-40 to +85 ° C
ESD Sensitivity (HBM)	Class 1A



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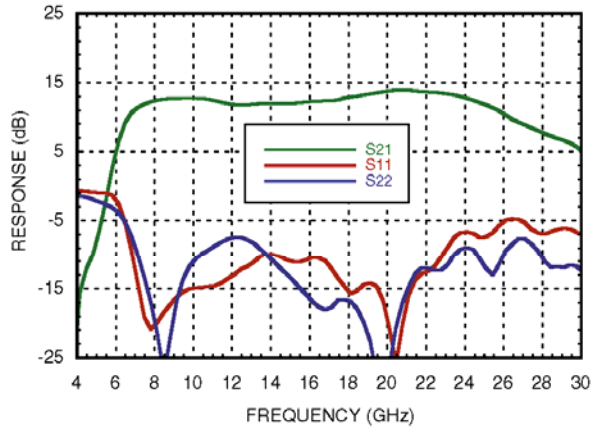
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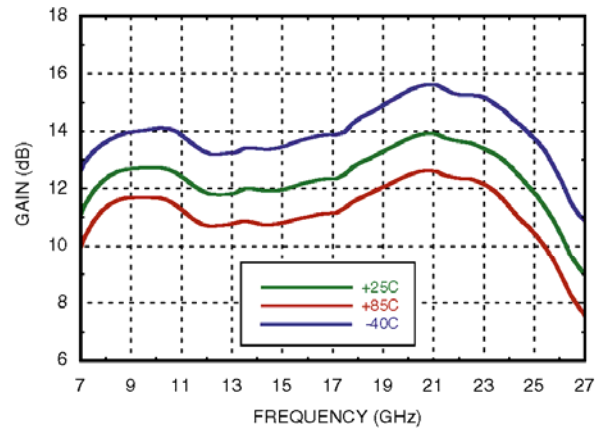
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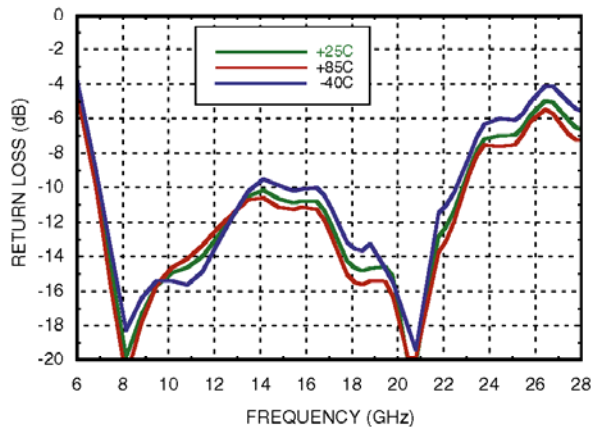
Broadband Gain & Return Loss



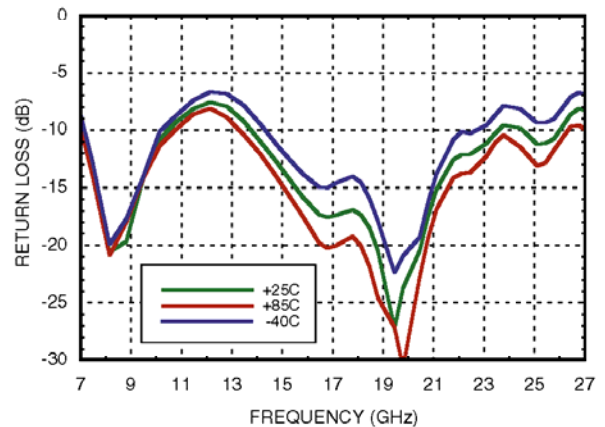
Gain vs. Temperature



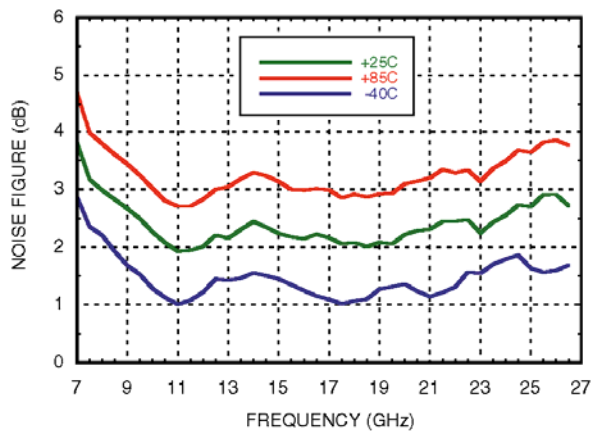
Input Return Loss vs. Temperature



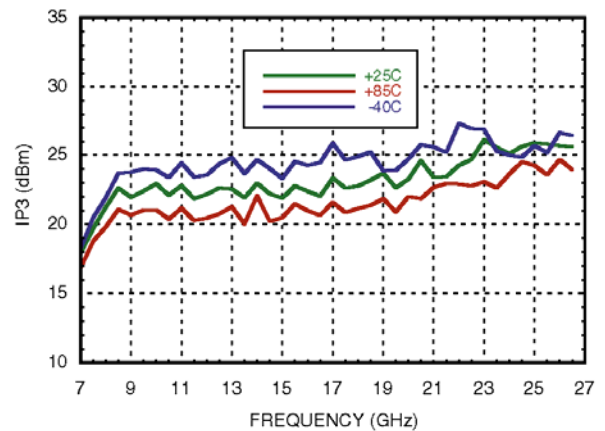
Output Return Loss vs. Temperature



Noise Figure vs. Temperature ^[1]



Output IP3 vs. Temperature





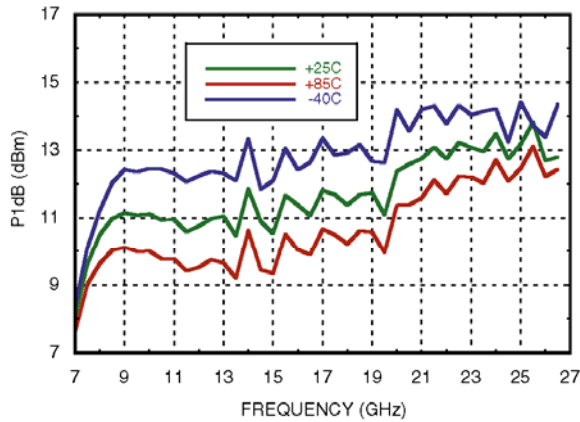
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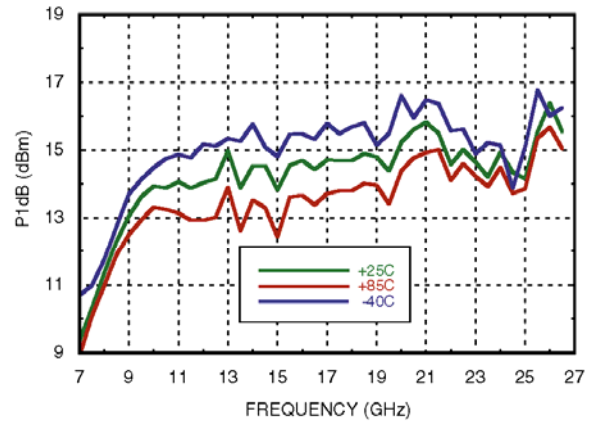
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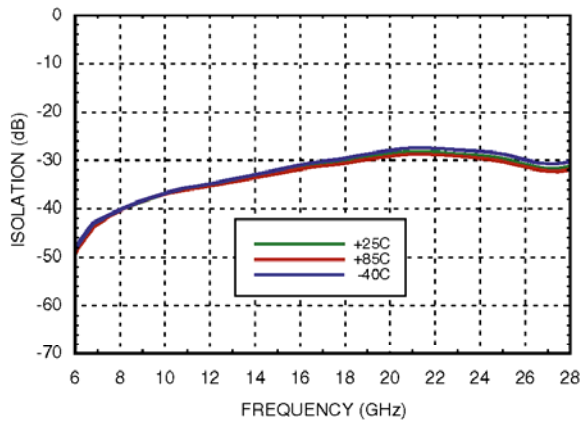
P1dB vs. Temperature



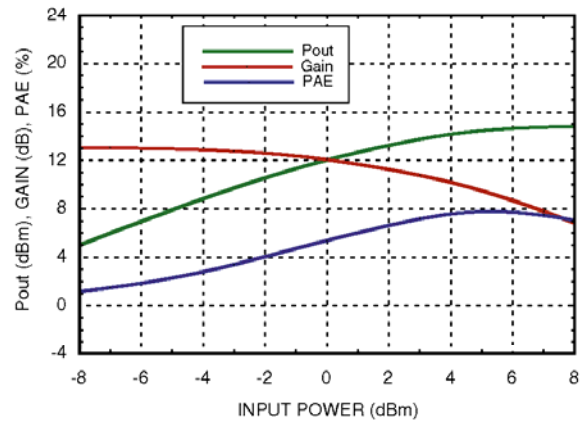
Psat vs. Temperature



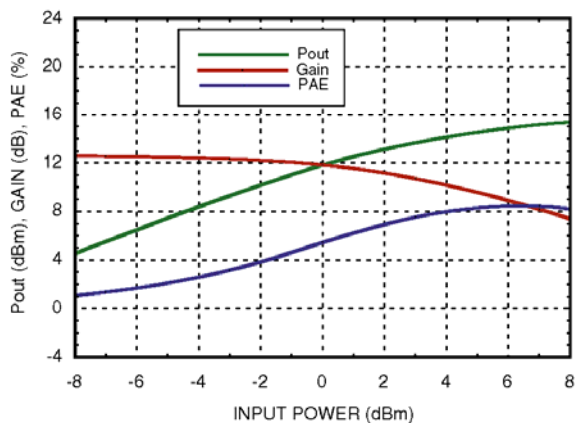
Reverse Isolation vs. Temperature



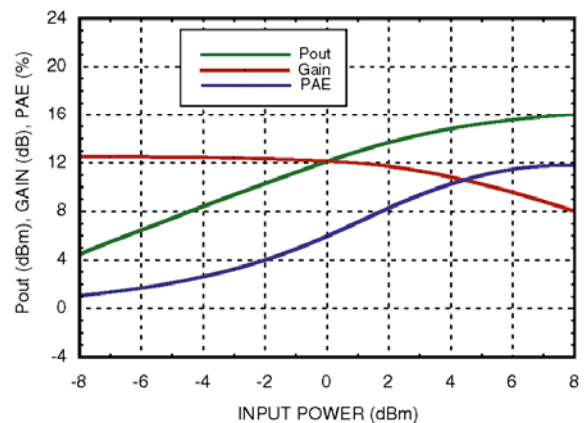
Power Compression @ 10 GHz



Power Compression @ 17 GHz



Power Compression @ 24 GHz

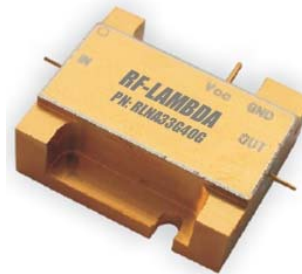
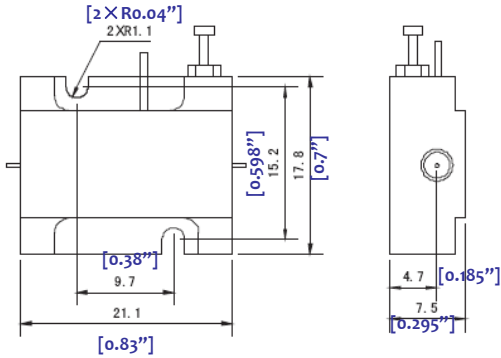




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Heat Sink required during operation. (Heat Sink sold separately)

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