Low Noise Amplifier 6-20GHz NF: 2.5dB

- Point-to-Point Radios
- Point-to-Multi-Point Radios & VSAT
- Test Equipment and Sensors
- Military & Space
- Noise Figure: 2.5 dB
- Gain: 21 dB
- OIP3: 20 dBm
- Single Supply: +3V @ 53 mA
- 50 Ohm Matched Input/Output
- RoHS Compliant 5 x 5 mm Package

Electrical Specifications, T_A = +25 ° C, Vdd 1, 2, 3 = +3V

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		6 - 12			12 - 20		GHz
Gain	19	21		16	18.5		dB
Gain Variation Over Temperature		0.025	0.035		0.025	0.035	dB/ ° C
Noise Figure		2.5	2.8		2.5	3	dB
Input Return Loss		15			12		dB
Output Return Loss		13			15		dB
Output Power for 1 dB Compression (P1dB)	8	10		9	11		dBm
Saturated Output Power (Psat)		11			13		dBm
Output Third Order Intercept (IP3)		20			21		dBm
Total Supply Current (Idd)(Vdd = +3V)		53	75		53	75	mA

Absolute Maximum Ratings

Drain Bias Voltage (Vdd1, Vdd2, Vdd3)	+3.5 Vdc
RF Input Power (RFIN)(Vdd = +3.0 Vdc)	0 dBm
Channel Temperature	175 ° C
Continuous Pdiss (T= 85 ° C) (derate 8.5 mW/° C above 85 ° C)	0.753 W
Thermal Resistance (channel to ground paddle)	119.5 ° C/W
Storage Temperature	-65 to +150 ° C
Operating Temperature	-40 to +85 ° C
ESD Sensitivity (HBM)	Class 1A

Typical Supply Current vs. Vdd

Vdd (Vdc)	Idd (mA)
+2.5	51
+3.0	53
+3.5	56

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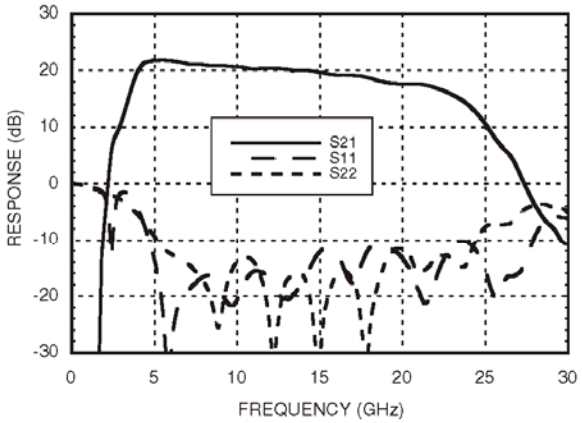
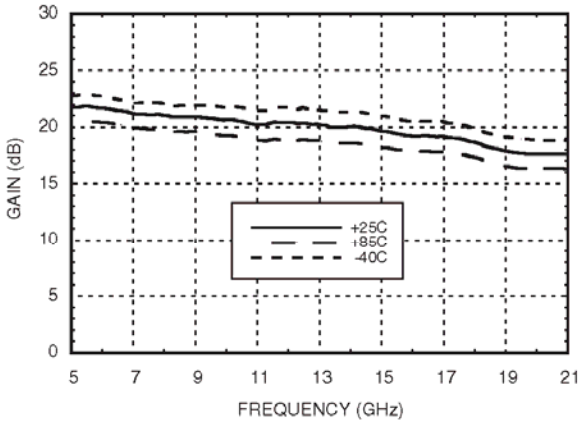
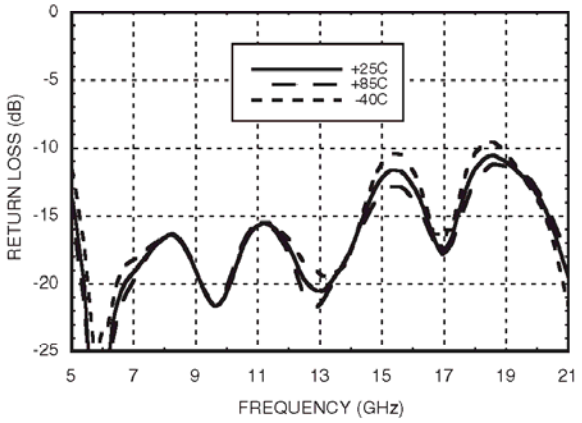
Broadband Gain & Return Loss



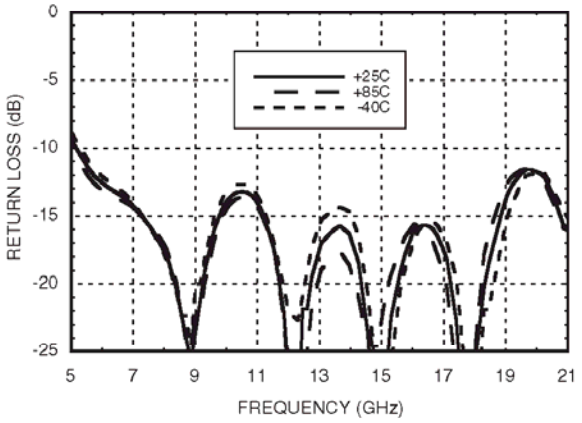
Gain vs. Temperature



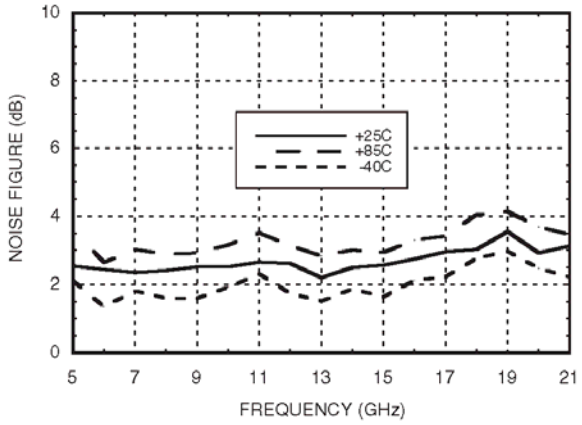
Input Return Loss vs. Temperature



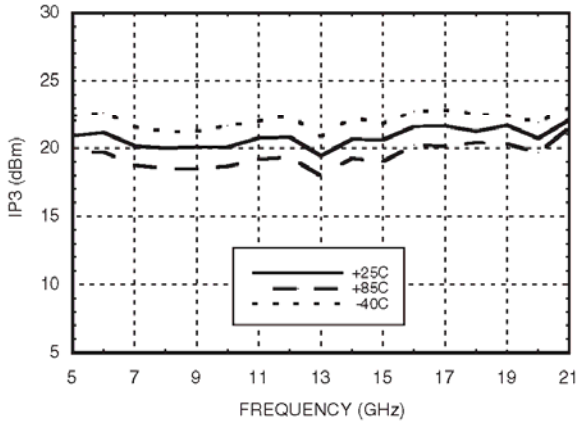
Output Return Loss vs. Temperature



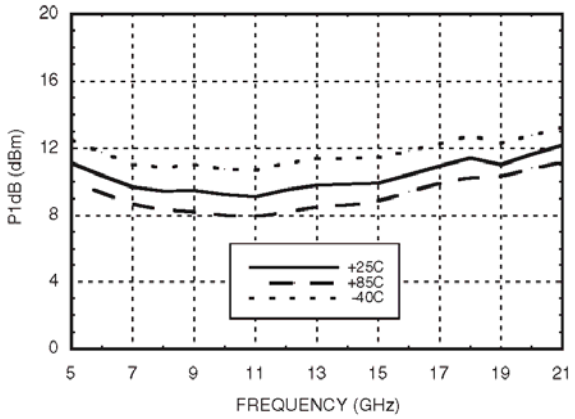
Noise Figure vs. Temperature



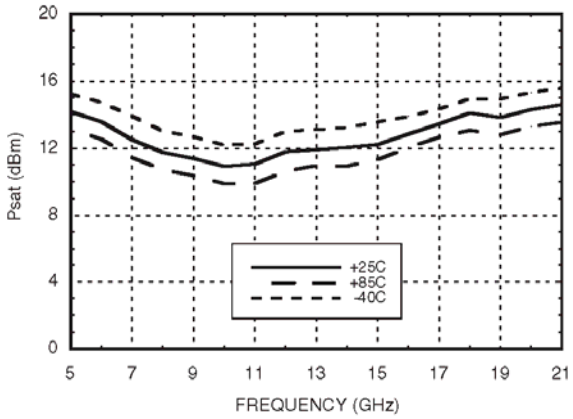
Output IP3 vs. Temperature



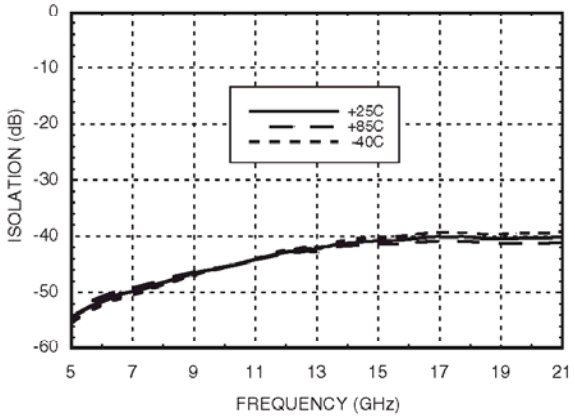
P1dB vs. Temperature



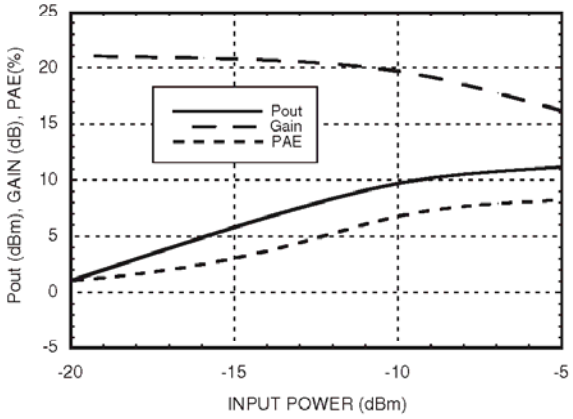
Psat vs. Temperature



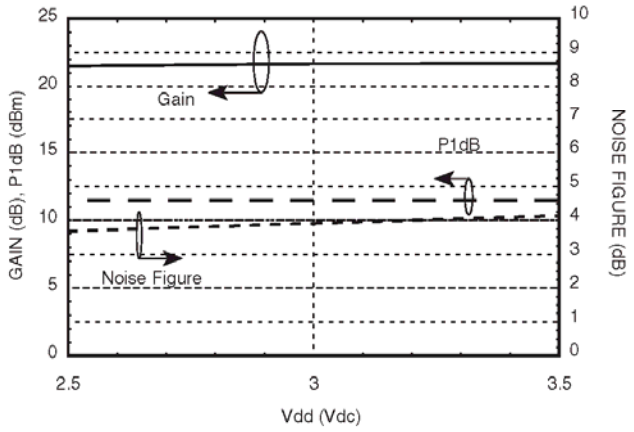
Reverse Isolation vs. Temperature



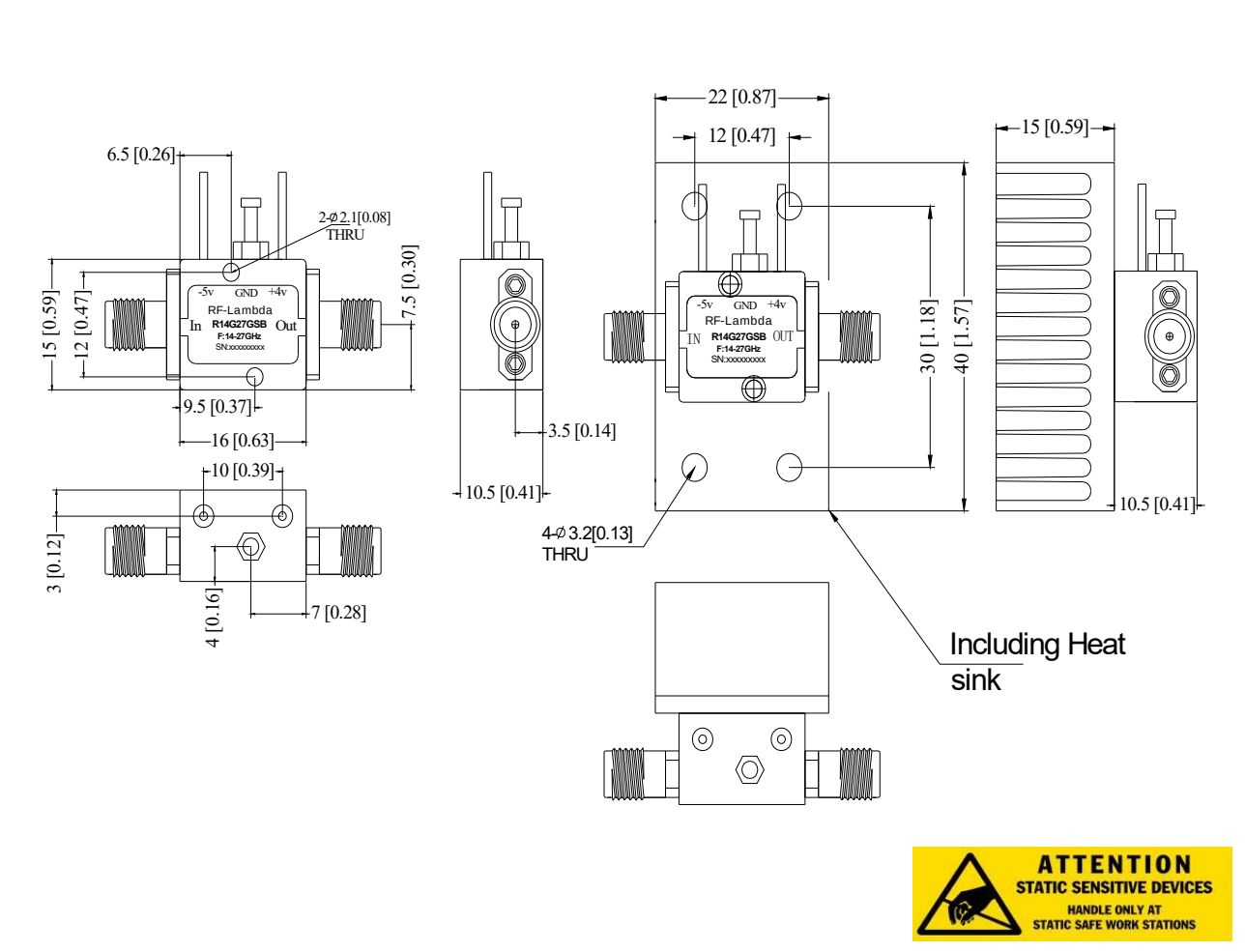
Power Compression @ 12 GHz



Gain, Noise Figure & Power vs. Supply Voltage @ 12 GHz



Heat Sink required during operation (Sold Seperately)



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