



Low Noise Amplifier 17-26GHz NF: 2.5dB



- Point-to-Point Radios
- Point-to-Multi-Point Radios & VSAT
- Test Equipment and Sensors
- Military
- Noise Figure: 2.5 dB
- Gain: 19 dB
- OIP3: +23 dBm
- Single Supply: +3V @ 67 mA
- 50 Ohm Matched Input/Output
- RoHS Compliant 4 x 4 mm Package

Electrical Specifications, $T_A = +25^\circ C$, $V_{dd} 1, 2, 3 = +3V$

Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	17 - 22			22 - 26			GHz
Gain	16	19		15	18		dB
Gain Variation Over Temperature		0.02	0.03		0.02	0.03	dB/ ° C
Noise Figure		2.5	3.1		2.6	3.3	dB
Input Return Loss		15			15		dB
Output Return Loss		11			17		dB
Output Power for 1 dB Compression (P1dB)		12			13		dBm
Saturated Output Power (Psat)		15			16		dBm
Output Third Order Intercept (IP3)		23			24		dBm
Supply Current (Idd)(Vdd = +3V)		67			67		mA

Absolute Maximum Ratings

Drain Bias Voltage ($V_{dd1}, V_{dd2}, V_{dd3}$)	+5.5 Vdc
RF Input Power (RFIN)($V_{dd} = +3.0$ Vdc)	+2 dBm
Channel Temperature	175 ° C
Continuous Pdiss ($T = 85^\circ C$) (derate 29 mW/° C above 85 ° C)	2.65 W
Thermal Resistance (channel to die bottom)	34 ° C/W
Storage Temperature	-65 to +150 ° C
Operating Temperature	-40 to +85 ° C
ESD Sensitivity (HBM)	Class 1A

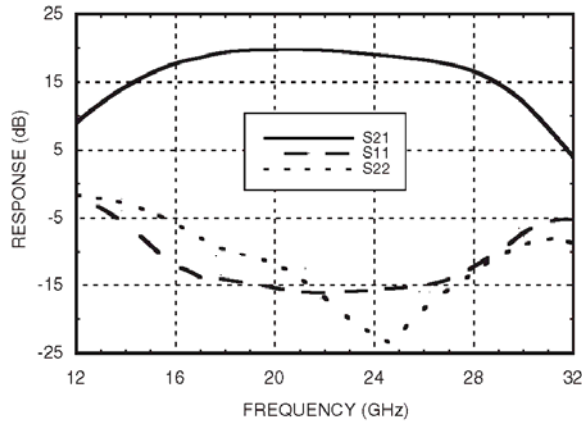
Typical Supply Current vs. Vdd

Vdd (Vdc)	Idd (mA)
+2.5	66
+3.0	68
+3.5	71

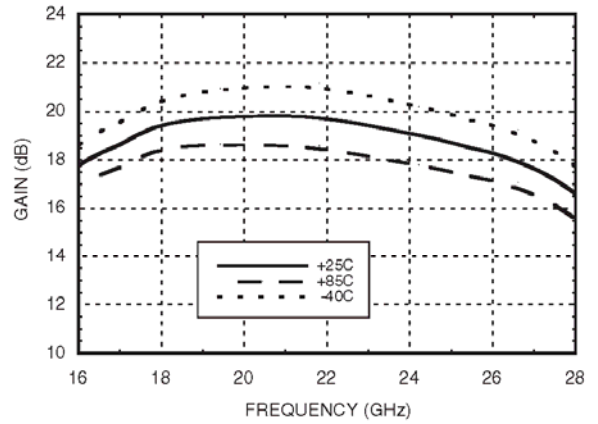




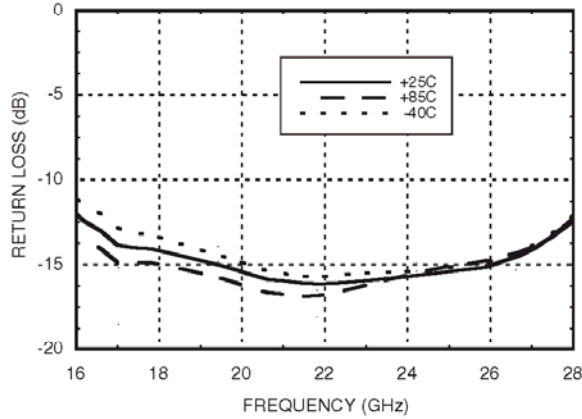
Broadband Gain & Return Loss



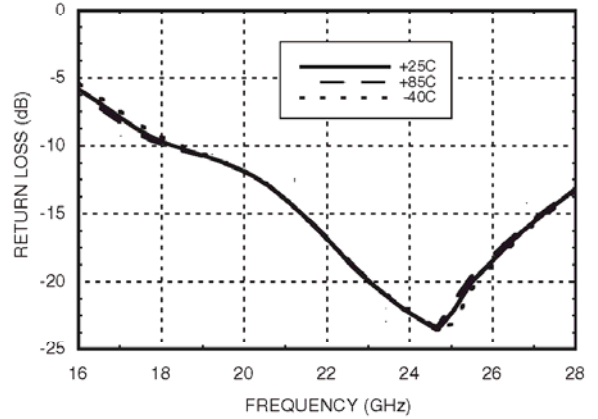
Gain vs. Temperature



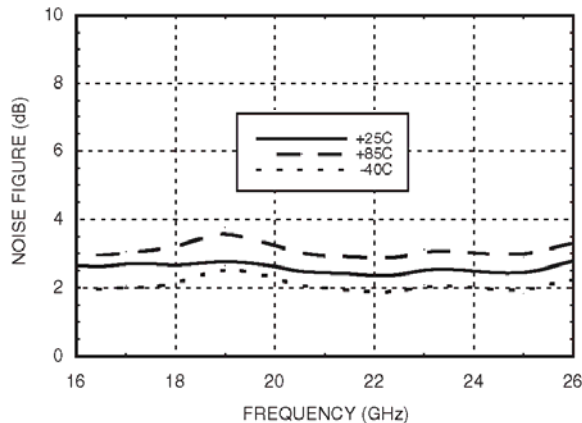
Input Return Loss vs. Temperature



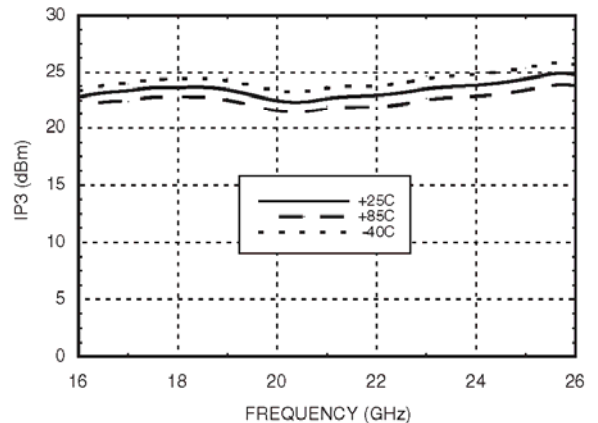
Output Return Loss vs. Temperature



Noise Figure vs. Temperature



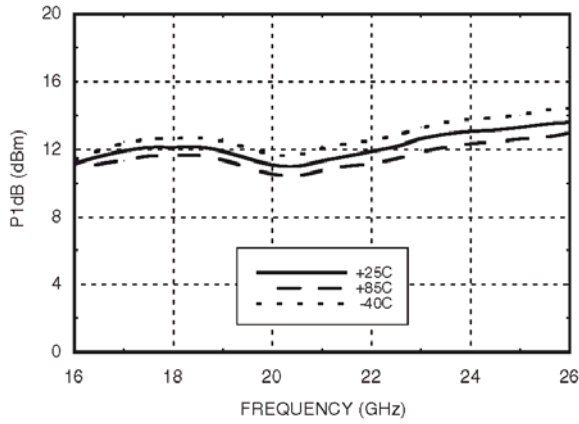
Output IP3 vs. Temperature



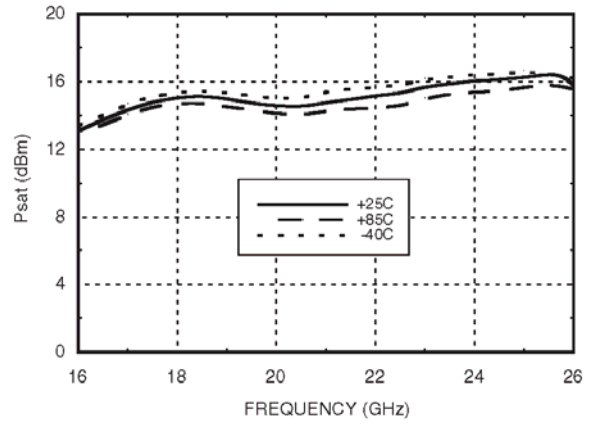
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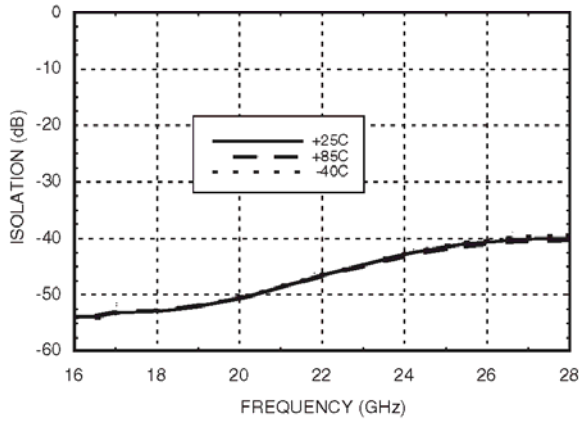
P1dB vs. Temperature



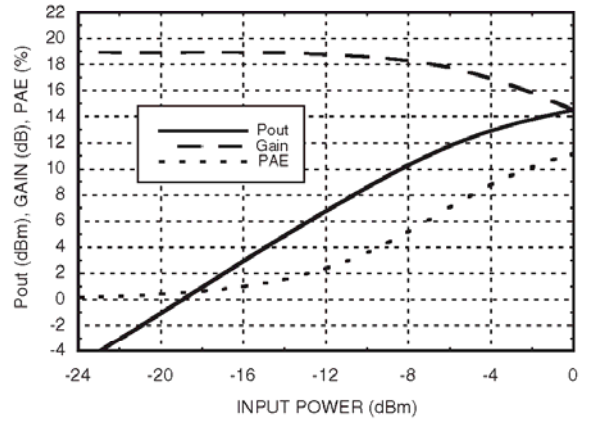
Psat vs. Temperature



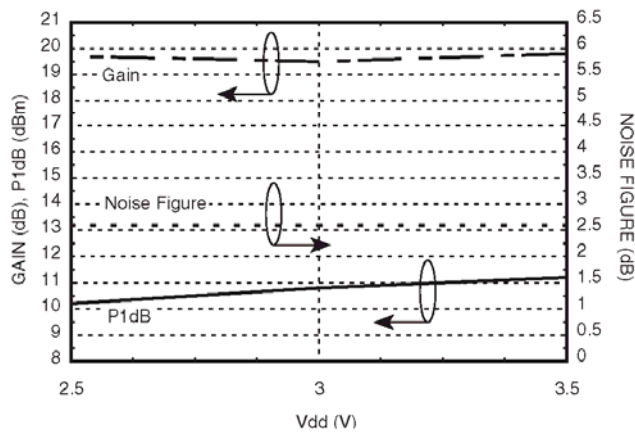
Reverse Isolation vs. Temperature



Power Compression @ 21 GHz



Gain, Noise Figure & Power vs. Supply Voltage @ 21 GHz

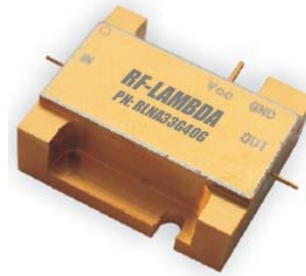
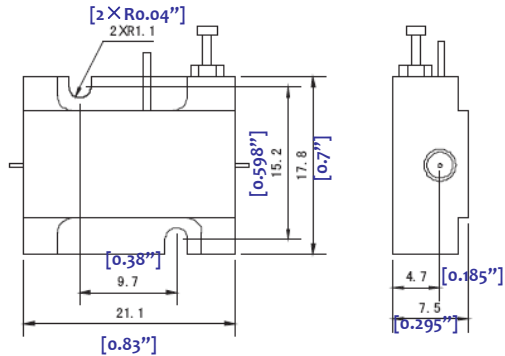




RF-LAMBDA

The power beyond expectations

R17G26GSB



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

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