

ZHML-6G1

HIGH POWER AMPLIFIER

10 MHz – 6 GHz

The ZHML-6G1 is a Two stage power amplifier module which operates between 10 MHz and 6 GHz. The amplifier provides 26 dB of gain, +42 dBm output ip3 and +32 dBm max of output power at 1 dB gain compression while consuming only 890 ma from a +15V supply. Gain flatness is excellent at ± 0.80 dB from 10 MHz - 6 GHz making the ideal for radar and test equipment applications. These amplifiers are internally matched to 50 Ohms and are DC blocked. Integrated voltage regulators allow for flexible biasing of both the negative and positive supply pins, while internal bias sequencing circuitry allows robust operation.



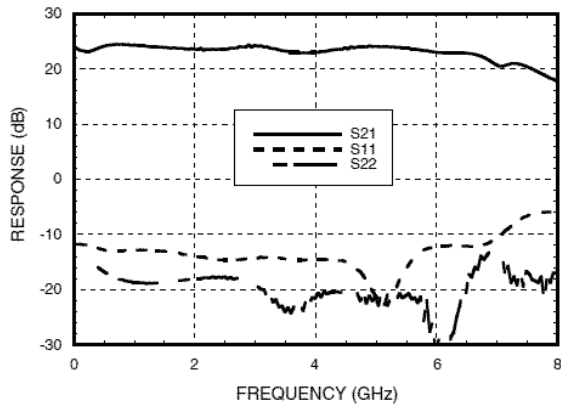
Product Features:

- Gain: 26 dB
- High p1dB Output power: +32 dBm max
- High Output ip3: +42 dBm excellent
- Gain flatness: ± 0.80 dB regulated
- Supply and Bias sequencing field
- SMA female Connectors
- Operating Temperature: -40°C to $+70^{\circ}$
- CLinear Gain: >16 dB at 6.0 GHz

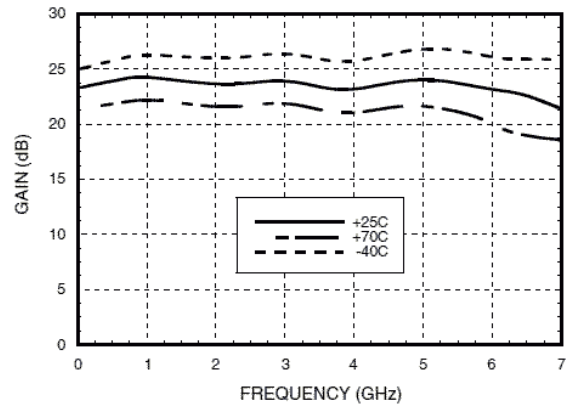
Electrical Specifications, $t_A = +25^{\circ}\text{Vdc} = +15\text{V}$, 900 mA:

Parameter	Min.	Typ.	Max.	Units
Frequency range		0.01 - 6		GHz
Gain	23	26		dB
Gain flatness		+0.80		dB
Gain Variation Over Temperature		0.05		dB/ $^{\circ}\text{C}$
input return loss		14		dB
Output return loss		16.5		dB
Output power for 1 dB Compression (P1dB)	29	30	31.5	dBm
saturated Output power (P_{sat})		32		dBm
Output Third Order intercept (Ip3)		42		dBm
Noise figure		5		dB
supply Current (+15V)		890	925	mA

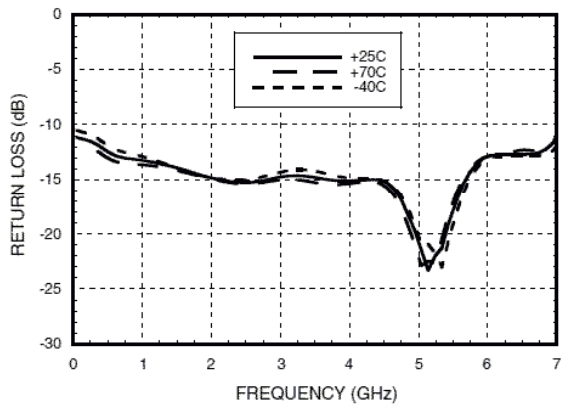
Gain & Return Loss



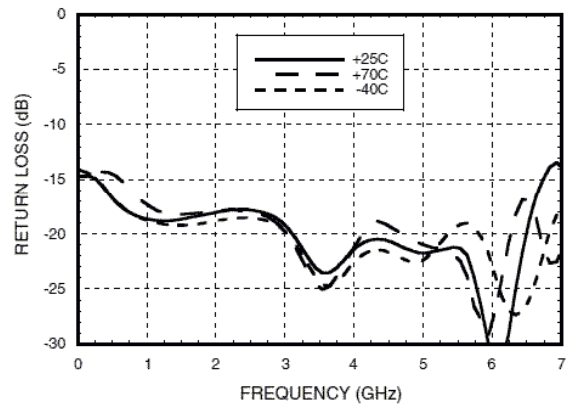
Gain vs. Temperature



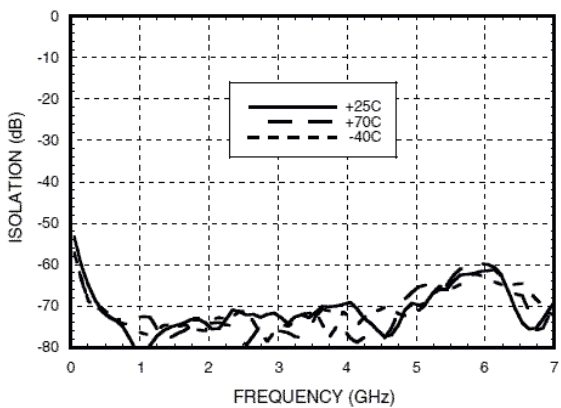
Input Return Loss vs. Temperature



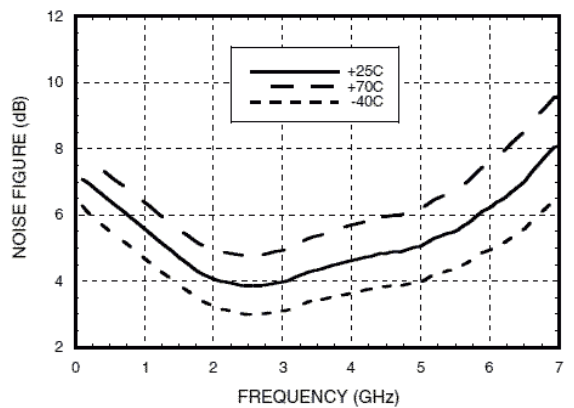
Output Return Loss vs. Temperature



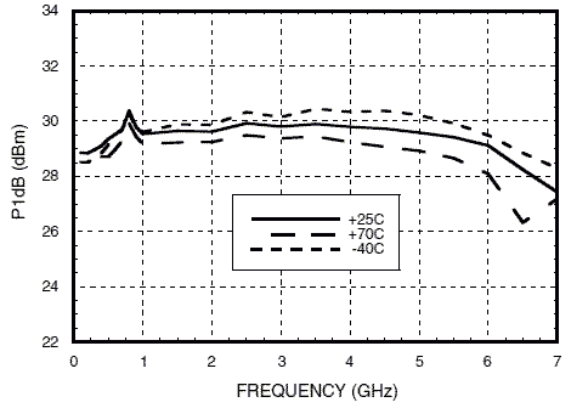
Reverse Isolation vs. Temperature



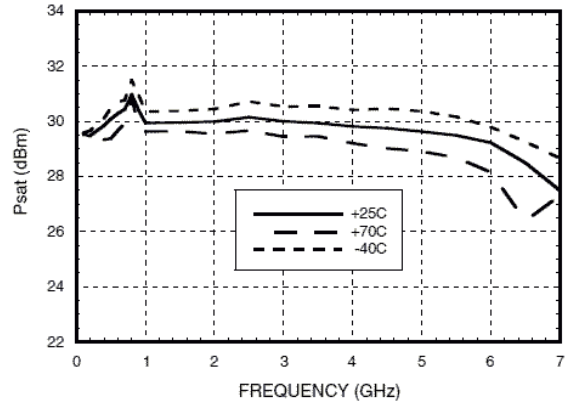
Noise Figure vs. Temperature



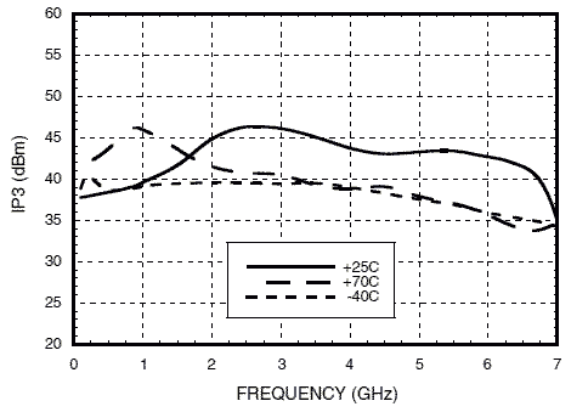
Output P1dB vs. Temperature



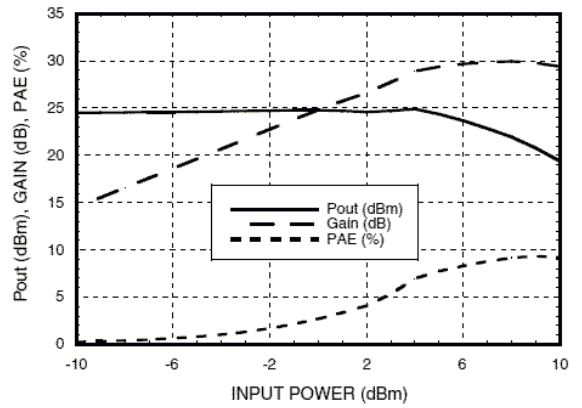
Output Psat vs. Temperature



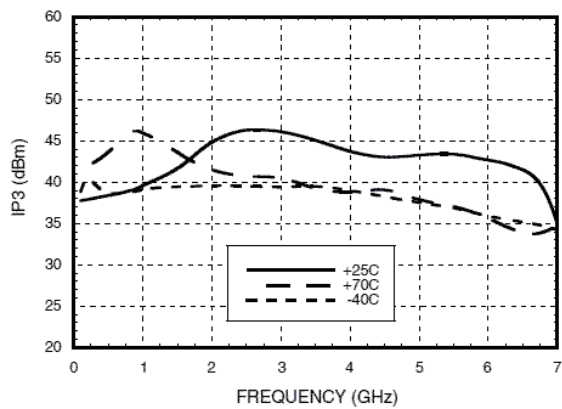
Output IP3 vs. Temperature



Power Compression @ 3 GHz



Output IP3 vs. Temperature



Power Compression @ 3 GHz

