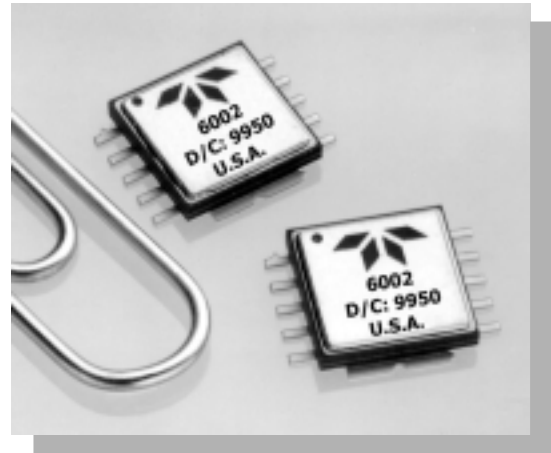


6002 5.150 to 5.300 GHz GaAs MMIC Hiperlan Band Power Amplifier

Features

- ◆ 24 dB Small Signal Gain
- ◆ 24dBm Linear Output Power
- ◆ 30dBm Third Order Intercept Point
- ◆ Thermally Optimum Copper-Tungsten Package

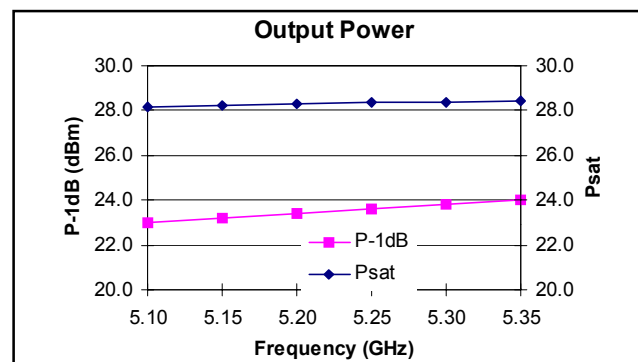
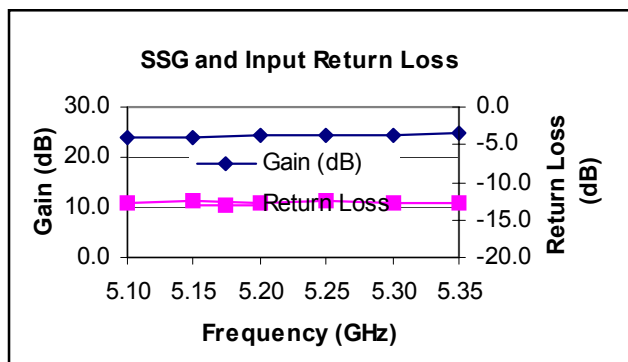


Product Description

The 6002 GaAs MMIC power amplifier is designed to operate in the Hiperlan band of 5.150 to 5.300 GHz. It provides a minimum of 20 dB gain, a minimum of +20 dBm linear output power when measured at P-1 dB, and has an IP3 of +30 dBm. It is housed in a thermally optimum copper-tungsten surface mount package and is capable of performing within typical commercial system operating temperature ranges.

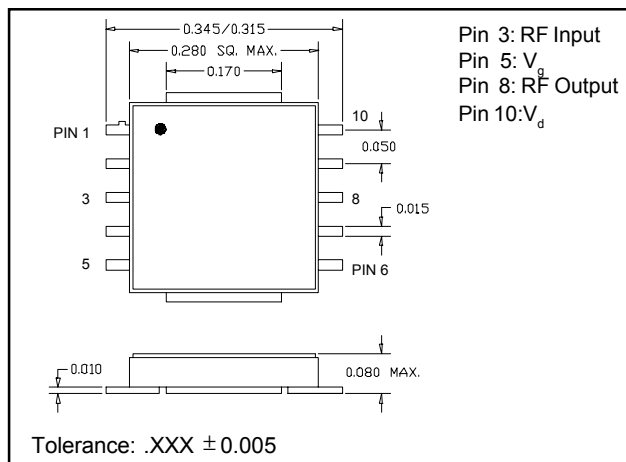
Electrical Specifications (All Specifications at 25°C, $V_d = +7.0V$, $I_d = 600$ mA)

Parameter	Symbol	Min	Max	Typical	Units
Operating Frequency	F_{OP}	5.15	5.30	-	GHz
Small Signal Gain	S_{21}	23	-	24.0	dB
Input Return Loss	S_{11}	-	-	-10.0	dB
Reverse Isolation	S_{12}	-	-	52.0	dB
Output Power @ 1dB Gain Compression	P_{-1dB}	23	-	24.0	dBm
3rd Order Intercept Point	IP3	-	-	30.0	dBm
Temperature Coefficient of Gain	ΔS_{21}	-	-	-0.045	dB/°C

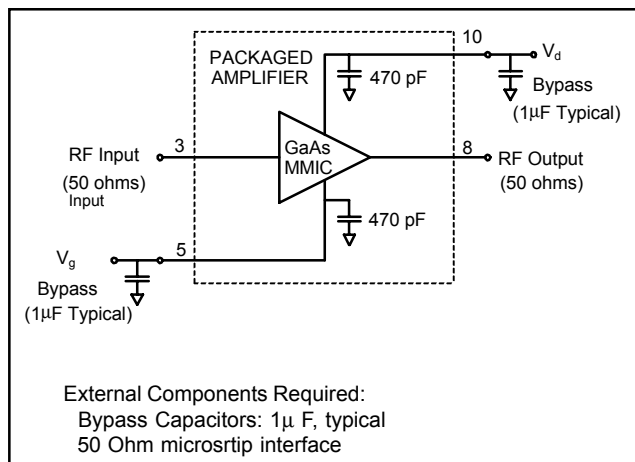


5.150 to 5.300 GHz GaAs MMIC Power Amplifier for Hiperlan Applications

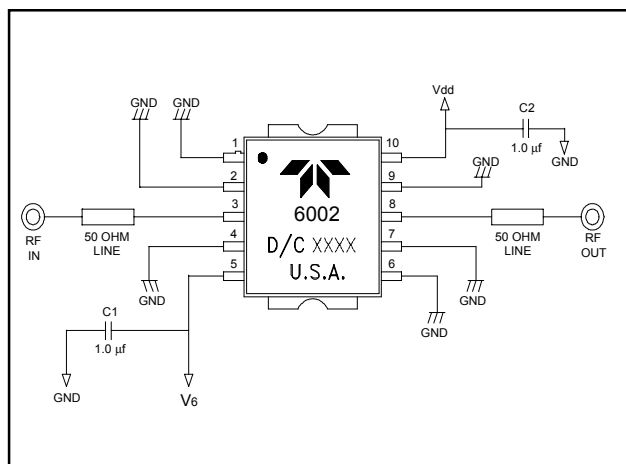
Package Outline



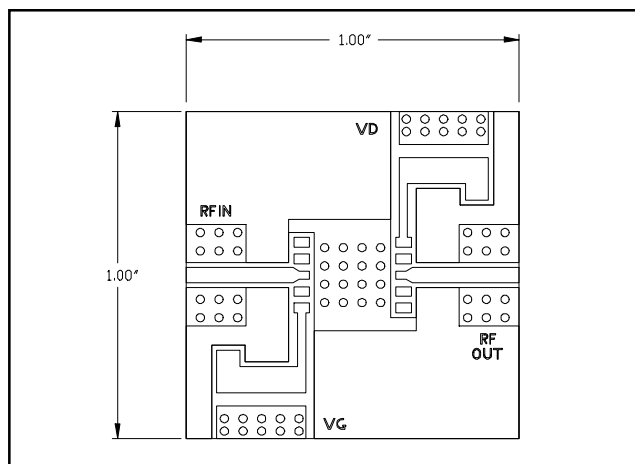
Typical Biasing Configuration



Evaluation Circuit



Evaluation Board



Notes

1. DC supply sequencing and protection circuitry not included. User must apply V_g (negative voltage) before applying V_d (positive voltage) to prevent damage to amplifier due to excessive current.
2. The bias point of the amplifier can be varied by adjustment of V_g for specific applications. Lower DC current levels and greater efficiencies can be obtained trading off absolute output power level and small signal gain using V_g adjustments.
3. The unit must be soldered to DC and RF ground for best results.

Teledyne reserves the right to make changes without further notice to any specification herein. "Typical" parameters can and do vary.