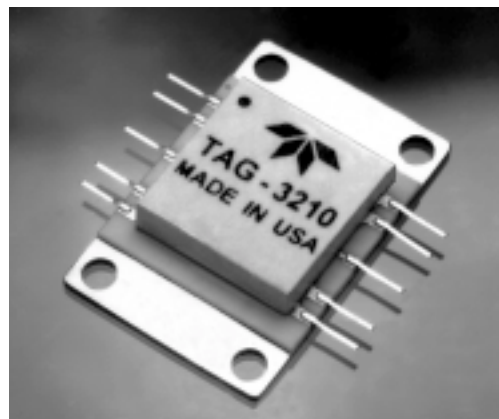


TAG-3210 5.8 - 6.4 GHz GaAs MMIC Power Amplifier

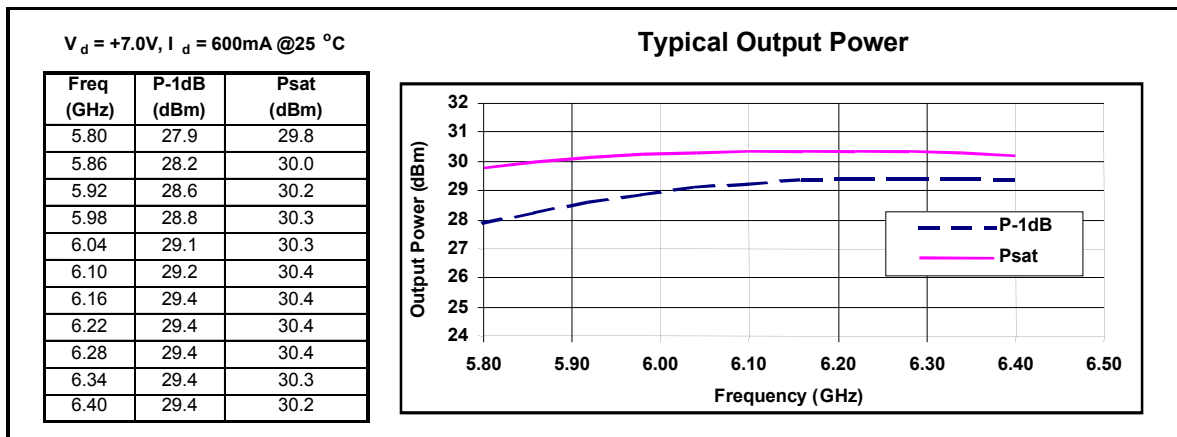
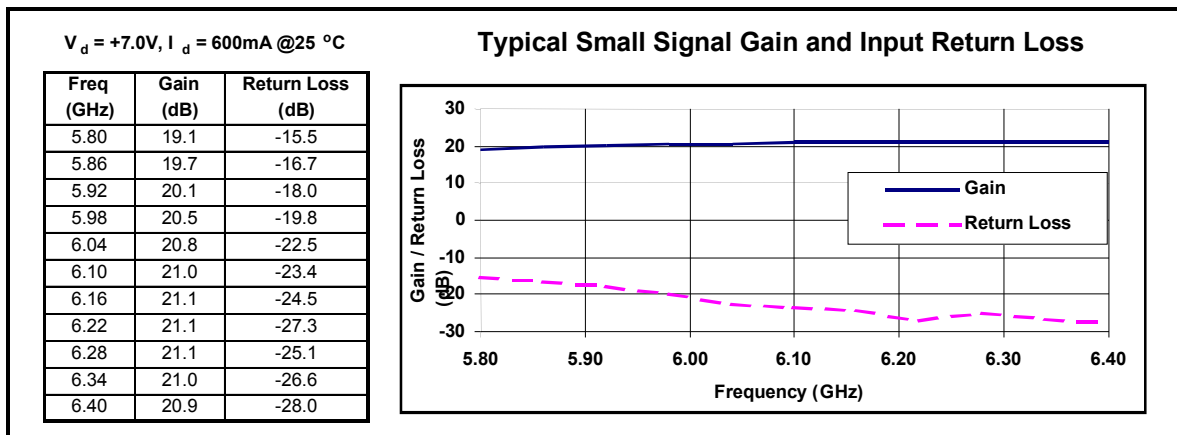
Features:

- ◆ Dual Input / Output Amplifier
- ◆ 20 dB Small Signal Gain per Channel
- ◆ +26 dBm Linear Output Power per Channel
- ◆ Thermally Efficient Copper-Tungsten Package



Product Description:

The TAG-3210 amplifier is ideally suited to provide linear power amplification for C-Band VSAT satellite applications. Typical uses are as a driver amplifier for VSAT power modules and C-Band SATCOM transmitters. The amplifier provides a minimum +26 dBm linear power output per channel and when both are externally combined, over +29 dBm linear power can be achieved. Typical DC power consumption is 1200 mA at +7.0V and 10 mA at -1.0V.



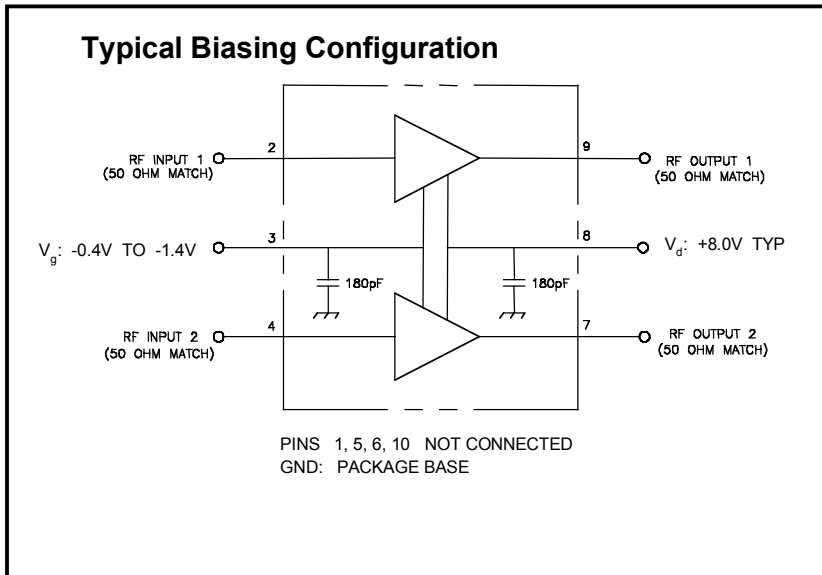
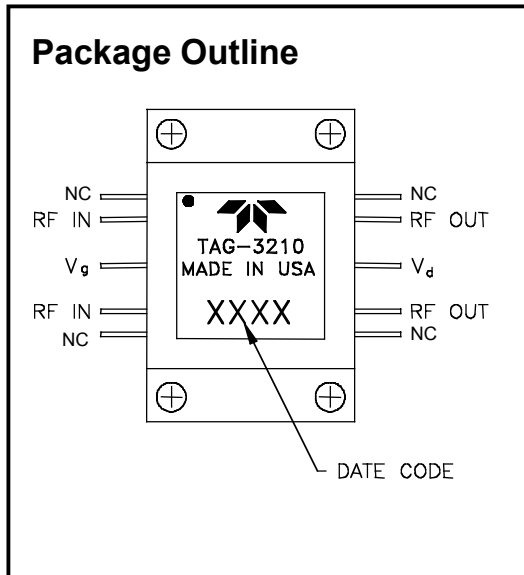
TAG-3210

5.8 - 6.4 GHz GaAs MMIC Power Amplifier

Electrical Specifications

T = at 25°C, $V_d = +7.0V$, $I_d = 1000$ to 1400 mA

Parameters per Channel	Symbol	Frequency	Min	Max	Typical	Units
Small Signal Gain	S_{21}	5.8 to 6.4 GHz	20.0	-	23.0	dB
Input Return Loss	S_{11}	5.8 to 6.4 GHz	-	-10.0	-16.0	dB
Reverse Isolation	S_{12}	5.8 to 6.4 GHz	30.0	-	48.0	dB
	-	5.8 GHz	26.0	-	27.5	dBm
Output Power @ 1dB Gain Compression	P_{-1dB}	6.1 GHz	28.0	-	29.2	dBm
Per Channel	-	6.4 GHz	28.0	-	29.2	dBm
Temperature Coefficient of Gain	ΔS_{21}	5.8 to 6.4 GHz	-	-	-0.045	dB/°C



Notes:

- 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.
- 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.
- A 180 pF DC supply line decoupling capacitor is included on both V_d and V_g lines. Additional external capacitance may be required (see typical biasing configuration shown above).
- 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 specifications herein. "Typical" parameters can and do vary.