

ADVANCE INFORMATION

CGY2178HV

C band High Gain Low Noise Amplifier

DESCRIPTION

The CGY2178HV is a Plastic Packaged High Gain, Low Noise Figure Amplifier designed for use with the OMMIC Integrated Core chip, Attenuator/Phase Shifter Chip Set or as a general purpose Low Noise Amplifier in band C.

The CGY2178HV uses a simple external matching circuit to provide excellent input matching and low noise figure between 5 and 6 GHz. All biasing, decoupling and output-matching networks are on chip.

The die is manufactured using OMMIC's 0.18 μm gate length PHEMT Technology. The MMIC uses gold bonding pads and backside metallization and is fully protected with Silicon Nitride passivation to obtain the highest level of reliability.

This technology has been evaluated for Space applications and is on the European Preferred Parts List of the European Space Agency.

APPLICATIONS

- ▶ Radar
- ▶ Telecommunication
- ▶ Instrumentation

FEATURES

- ▶ C-band QFN Packaged LNA
- ▶ Bandwidth : 5 - 6 GHz
- ▶ Gain : 30 dB
- ▶ Noise Figure : 1 dB
- ▶ Output $P_{1\text{dB}}$: 15 dBm
- ▶ Bias : 3 V and 40 mA
- ▶ S11, S22 < -15 dB (7.5% Bandwidth)
- ▶ S11, S22 : < - 10 dB (5–6 GHz)
- ▶ Circuit size : 1.5 mm x 1.6 mm
- ▶ Device Availability :
 - Tested, Inspected Known Good Die (KGD)
 - Demonstration Boards

