CMLMicro

PRODUCT PREVIEW

CMX90A002

1 – 2 W, 860 – 960 MHz Power Amplifier

The CMX90A002 is a two-stage, fully matched MMIC PA delivering +32.5 dBm of saturated output power for use in the 860 – 960 MHz frequency range, applicable to license-free bands.

The device is optimised for maximum efficiency at a wide-range of collector voltages of 1.9 – 4.5 V, making it suitable for systems operating either from a Supercapacitor backup storage, or from a single-cell Li-Ion battery.

CMX90A002 is highly integrated for ease of use, minimising external component count and reducing board area. RF input and output matching are incorporated on-chip, as well as active bias circuitry and input DC-blocking capacitor.

Using advanced GaAs HBT technology to provide a combination of high efficiency and gain, the CMX90A002 is intended as both a booster PA for the sub-1GHz band in low-voltage systems, and a high-power final stage ISM band PA in wireless applications for higher-voltage use.

FEATURES

- Frequency range 860 – 960 MHz
- Supply voltage 1.9 – 4.5 V
- Output power: 32.5 dBm @ 3.6 V, 29.5 dBm @ 2.5 V
- Input and output matched to 50 Ω
- Small signal gain 30 dB
- High PAE 49%
- Shut-down and output power control

APPLICATIONS

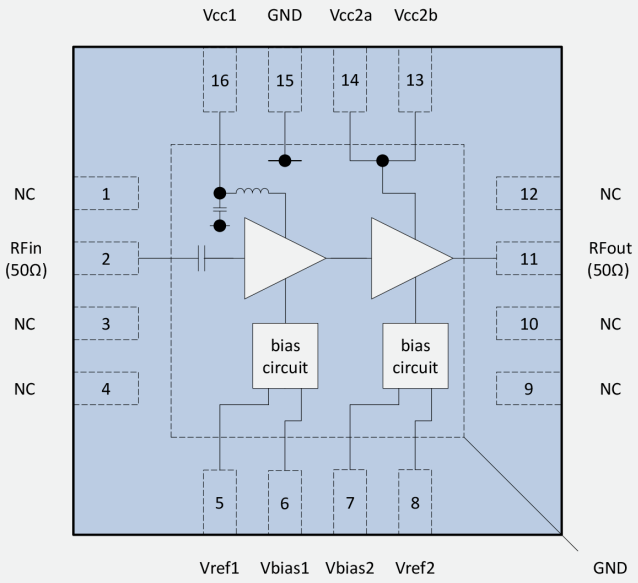
- Automatic meter readers (AMR)
- Smart meters
- Wireless modules
- Final stage PA
- Internet of Things (IoT)
- 868 / 915 MHz ISM
- Li-Ion battery powered systems

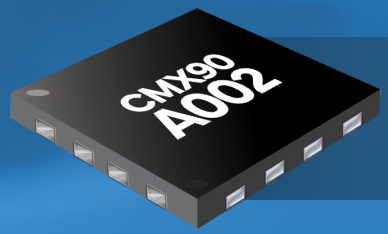
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Functional Block Diagram





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