

OM9901-11

Data Sheet

Power Amplifier Module for Quad-band GSM/GPRS/EDGE

Applications

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| Quad-band cellular handsets |
| GMSK Modulation |
| - Class 4 GSM850/EGSM900 Band |
| - Class 1 DCS1800/PCS1900 Band |
| - Class 12 GPRS multi-slot operation |
| EDGE Modulation |
| - Class E2 GSM850/EGSM900 |
| - Class E2 DCS1800/PCS1900 |

Product Features

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| High efficiency |
| Programmable bias for improved backed-off efficiency |
| High linearity for 8PSK |
| Low stand-by leakage |
| Compatible with DC-DC converter |
| Autonomous Over-voltage Protection |
| Vramp GMSK Power Control Mode |
| Flip-chip package |
| Small, low profile package |
| - 3.0 mm x 3.5 mm x 0.67 mm Typical |
| - 12-pads configuration |

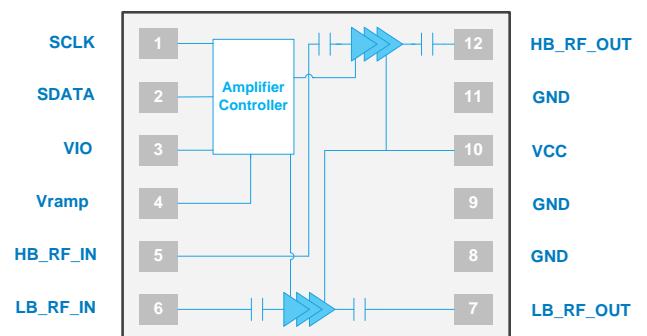
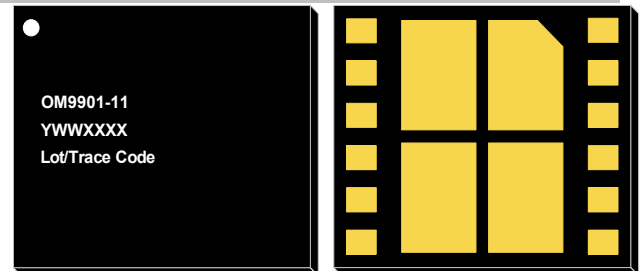


Figure 1. Functional Block Diagram

Product Description

The OM9901-11 power amplifier module (PAM) is designed and optimized for 2G quad-band cellular handsets supporting user-optional control of linear RF or analog Vramp of the GMSK envelope. The low band (LB) PA transmits in the GSM850/EGSM900 bands. The high band (HB) PA supports DCS1800/PCS1900 bands.

The compact 3.0 mm x 3.5 mm x 0.67 mm module consists of a quad-band power amplifier die, a silicon CMOS controller, 50 Ω input and output matching circuitry. The silicon CMOS controller supports fully programmable through the RF Front-End Mobile Industry Processor Interface (RFFE MIPI) with providing PA bias and product identification read-back capability.

The power amplifier blocks, the controller and the passive components are mounted by flip-chip package technology on a multi-layer laminate substrate. The entire assembly is encapsulated with plastic over mold.