

## PRODUCT SUMMARY

# SKY77365-11: Power Amplifier Module for Quad-Band GSM / GPRS / EDGE

## Applications

- Quad-band cellular handsets
- GMSK Modulation
  - Class 4 GSM850/900
  - Class 1 DCS1800/ PCS1900
  - Class 12 GPRS multi-slot operation
- EDGE Modulation
  - Class E2 GSM850/900
  - Class E2 DCS1800/ PCS1900

## Features

- High efficiency
- Programmable bias for improved backed-off efficiency
- High linearity
- Low standby leakage
- Compatible with DC-DC converter
- Programmable Current Clamp
- Autonomous Over-voltage Protection
- Self-shielded
- Small, low profile package
  - 3.0 x 3.5 mm x 0.8 mm Max.
  - 12-pad configuration



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## Description

The SKY77365-11 PA module (PAM) is designed for 2G quad-band cellular handsets supporting fixed gain Gaussian Minimum-Shift Keying (GMSK) and fixed gain linear Enhanced Data for GSM Evolution (EDGE) modulation in the GSM850/900, DCS1800 and PCS1900 bands. Class12 General Packet Radio Service (GPRS) multi-slot operation is supported.

The compact 3.0 mm x 3.5 mm x 0.8 mm module consists of GSM850/900 and DCS1800/PCS1900 PA blocks, 50-ohm input and output matching circuitry, and a multi-function power amplifier control (MFC) block. The custom silicon CMOS MFC provides PA bias and product identification read-back capability and is fully programmable through the RF Front-End MIPI.

The heterojunction bipolar transistor (HBT) PA blocks are fabricated onto a single InGaP die; one supports the GSM850/900 bands and the other supports the DCS1800/PCS1900 bands. Both PA blocks share two common power supply pads. The InGaP die, silicon die, and the passive components are mounted on a multi-layer laminate substrate. The entire assembly is encapsulated with plastic over mold.

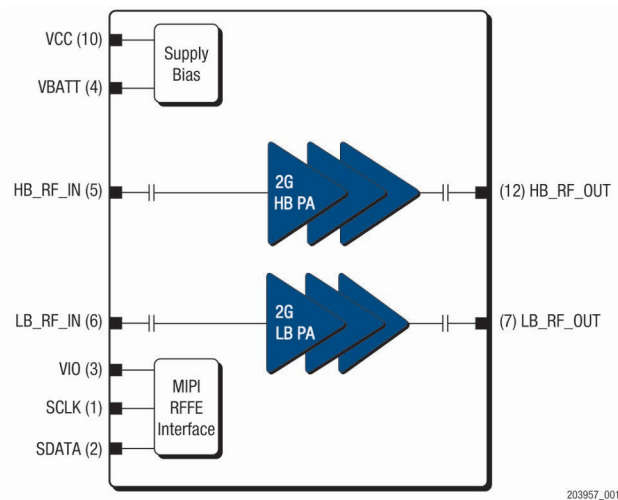


Figure 1. Functional Block Diagram

## Ordering Information

| Part Number | Product Description                                    | Evaluation Board Part Number |
|-------------|--------------------------------------------------------|------------------------------|
| SKY77365-11 | Power Amplifier Module for Quad-Band GSM / GPRS / EDGE | SKY77365-11-EVB              |

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