

**PRODUCT SUMMARY**

# SKY77368-11 Power Amplifier Module for Quad-Band GSM / GPRS / EDGE / TD-SCDMA / TDD LTE / HD-FDD LTE

**Applications**

- Cellular IoT Modules
- HD-FDD LTE
  - Low-Bands 5, 8, 12, 13, 17, 18, 19, 20, 26, 28
  - Mid-Bands 1, 2, 3, 4, 25, 39, 66
- 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
- TD-SCDMA
  - Bands 34 and 39
- TDD LTE
  - Band 39

**Features**

- Single device for Half-duplex LTE + 2G operation
- High efficiency in GSM mode
- Programmable bias for improved backed-off efficiency
- High linearity
- Low standby leakage
- Direct battery connection
- Programmable current clamp
- Autonomous Over-Voltage Protection
- Small, low profile package
  - 3.0 x 3.0 mm x 0.67 mm Max.
  - 12-pad configuration



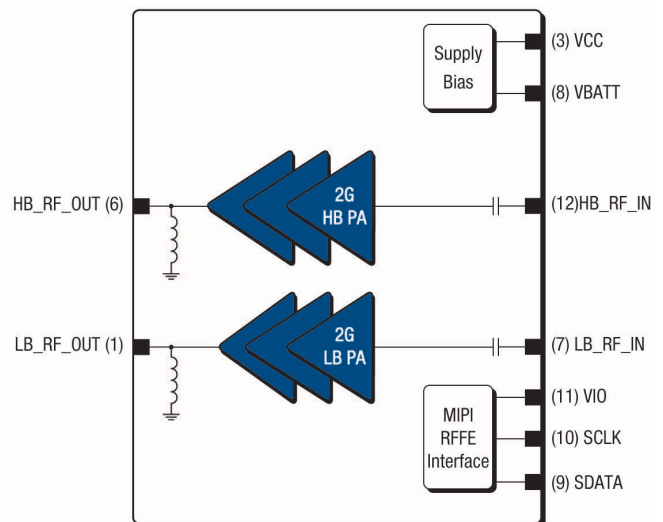
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**Description**

The SKY77368-11 power amplifier module (PAM) is designed for LTE M/NB-IoT modules supporting fixed gain Gaussian Minimum-Shift Keying (GMSK), fixed gain linear Enhanced Data for GSM Evolution (EDGE) modulation in the GSM850/900 and DCS1800/PCS1900 bands, and TD-SCDMA modulation in Bands 34 and 39. Class12 General Packet Radio Service (GPRS) multi-slot operation is also supported.

The compact 3.0 mm x 3.0 mm x 0.67 mm (Max) module consists of GSM850/900 and DCS1800/PCS1900/B34/B39 power amplifier 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 Mobile Industry Processor Interface (RFFE MIPI®).

The heterojunction bipolar transistor (HBT) power amplifier blocks are fabricated onto a single InGaP die; one supports the GSM850/900 bands and the other supports the DCS1800/PCS1900/ B34/B39 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.



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**Figure 1. SKY77368-11 Functional Block Diagram**

Ordering Information

Part Number	Part Description	Evaluation Board Part Number
SKY77368-11	Power Amplifier Module	SKY77368-11-EVB

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