

PRODUCT SUMMARY

SKY77336 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:
 - GSM850, 52%
 - GSM900, 52%
 - DCS, 50%
 - PCS, 50%
- Small outline
 - 5 x 5 mm
- Low profile
 - 0.9 mm, max
- Low VRAMP current
 - 10 μ A

NEW Skyworks Green™ products are lead (Pb)-free, RoHS (Restriction of Hazardous Substances)-compliant, conform to the EIA/EICTA/JEITA Joint Industry Guide (JIG) Level A guidelines, and are free from antimony trioxide and brominated flame retardants.

Description

SKY77336 Power Amplifier Module (PAM) is designed in a compact form factor for quad-band cellular handsets comprising GSM850/900, DCS1800 and PCS1900, supporting Gaussian Minimum-Shift Keying (GMSK) and Polar Enhanced Data for GSM Evolution (EDGE) modulation. Class 12 General Packet Radio Service (GPRS) multi-slot operation is also supported.

The module consists of GSM850/900 PA and DCS1800/PCS1900 PA blocks, impedance matching circuitry for 50 Ω input and output impedances, and a Power Amplifier Control (PAC) block. The custom CMOS integrated circuit provides the internal PAC function and interface circuitry. Fabricated in InGaP/GaAs, the Heterojunction Bipolar Transistor (HBT) PA blocks support the GSM850/900 bands and DCS1800/PCS1900 bands. Both PA blocks share common power supply pads to distribute current. The InGaP/GaAs die, Silicon (Si) controller die, and passive components are mounted on a multi-layer laminate substrate and the entire assembly is encapsulated with plastic overmold.

RF input and output ports of the SKY77336 are internally matched to a 50 Ω load to reduce the number of external components for a quad-band design. Extremely low leakage current (10 μ A, typical) of the PAM module maximizes handset standby time.

The SKY77336 also contains band-select switching circuitry to select GSM (logic 0) or DCS/PCS (logic 1) as determined from the Band Select (BS) signal. See Figure 1 shown below.

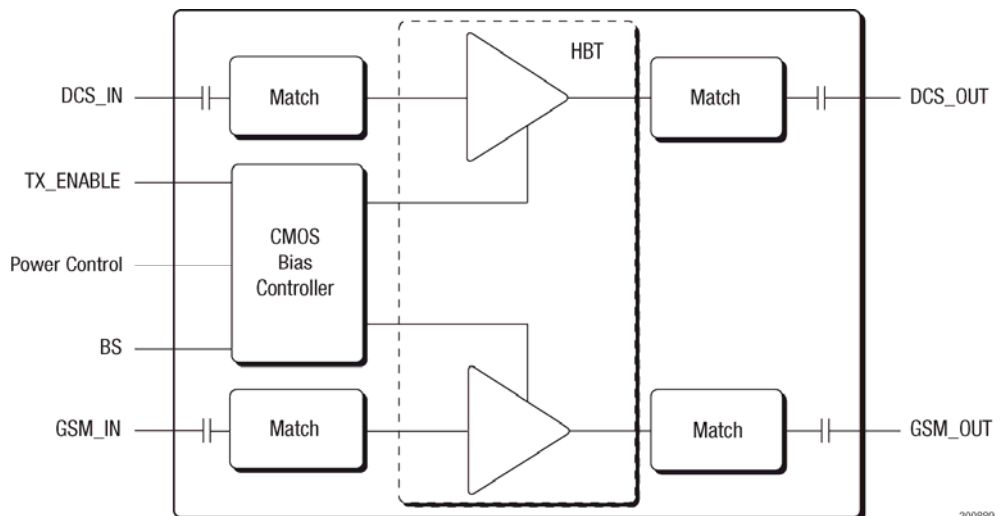


Figure 1. SKY77336 Functional Block Diagram

200889_001

Ordering Information

Model Number	Manufacturing Part Number	Product Revision	Package	Operating Temperature
SKY77336	SKY77336		5 x 5 x 0.9 MCM-16	–20 °C to +85 °C

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