RF3237

QUAD-BAND GSM/GPRS TX MODULE WITH UMTS TRANSMIT/RECEIVE PORTS

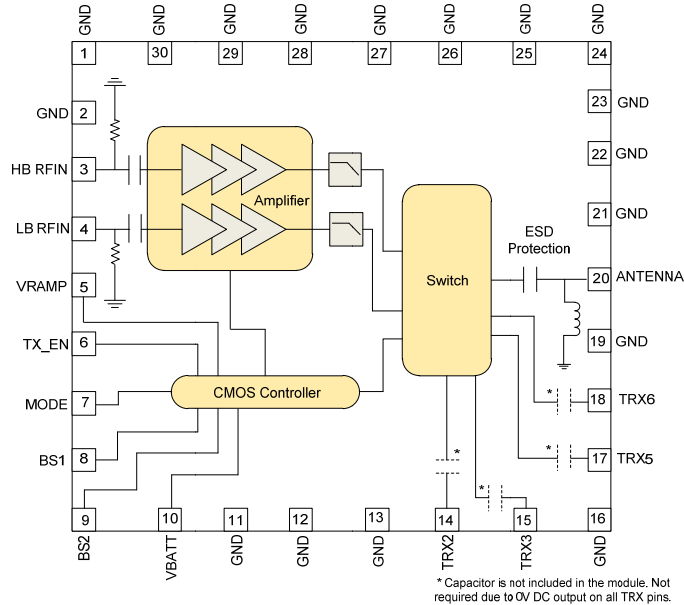**Package: Module, 30-Pin, 6mm x 6mm x 1mm**

RFMD
RF3237

Features

- High Efficiency at Rated P_{OUT}
  V_{BATT} = 3.5V
  GSM850/EGSM900 = 43%
  DCS1800/PCS1900 = 36%

- Integrated Power Flattening Circuit

- Integrated V_{BATT} Tracking Circuit

- 8kV Robust ESD Protection at Antenna Port

- No External Routing

- No External DC Blocking Needed on TRx Ports

- Low TRx Insertion Loss for 3G Efficiency and Improved Rx Sensitivity

- Four High Linearity TRx Ports

- High TRx to TRx Isolation

- 0dBm to 6dBm Drive Level, >50dB of Dynamic Range

Applications

- Single and Dual Band UMTS Handsets and Connected Devices Including TDSCDMA and CDMA

- GSM850/EGSM900/DCS1800/ PCS1900 Products

- 3V Multimode Mobile Applications

- GPRS Class 12 Compliant

Functional Block Diagram

* Capacitor is not included in the module. Not required due to 0V DC output on all TRX pins.

Product Description

The RF3237 is a quad-band (GSM850/EGSM900/DCS1800/PCS1900) GSM/GPRS Class 12-compliant transmit module with four transmit/receive ports for UMTS use that also serve as GSM Rx ports. This transmit module builds upon RFMD's leading PowerStar® integrated power control technology, SOI (silicon-on-insulator) switch technology, and integrated transmit filtering for best-in-class harmonic performance. The results are high performance, reduced solution size, and ease of implementation. The device is designed for use as the final portion of the transmitter section in a GSM850/EGSM900/DCS1800/PCS1900/UMTS handset and eliminates the need for a PA-to-antenna switch module matching network. The device provides 50Ω matched input and output ports requiring no external matching components.

The RF3237 features RFMD's latest integrated power-flattening circuit, which significantly reduces current and power variation into load mismatch. Additionally, a V_{BATT} tracking feature is incorporated to maintain switching performance as supply voltage decreases. The RF3237 also integrates an ESD filter to provide excellent ESD protection at the antenna port.

Optimum Technology Matching® Applied

☑ GaAs HBT	☐ SiGe BiCMOS	☐ GaAs pHEMT	☐ GaN HEMT
☐ GaAs MESFET	☐ Si BiCMOS	☑ Si CMOS	☐ BiFET HBT
☐ InGaP HBT	☐ SiGe HBT	☐ Si BJT	☐ LDMOS

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