

2G Transmit Modules for Entry-level Handsets

Voice and lower-data-rate applications covered by GSM, GPRS, and EDGE constitute the largest segment of mobile devices in the world. Expansion in emerging markets and the choice by operators to employ EDGE for down-link sustain continued growth. This mature segment has benefited for years from the ease of use and system-level function coverage afforded by RFMD transmit (TX) modules.

Transmit modules combine a power amplifier and antenna switch for the front end of a mobile phone's radio. RFMD's TX modules start with our proven **PowerStar®** core which delivers consistent power margin across temperature, battery voltage, and into VSWR. RFMD's switch technology is added for best-in-class insertion loss, harmonic rejection, and ESD ruggedness

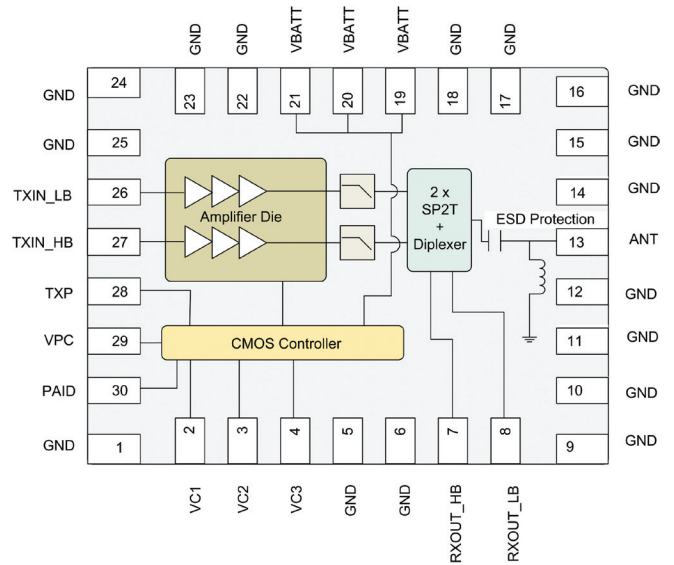
on the antenna pin. RF design excellence using leading-edge assembly process technologies connect this system inside a compact Pb-free, RoHS compliant, laminate-based module.

Handset designs in the 2G segment vary by region, operator network requirements, and the selected chipset vendor. RFMD's breadth of portfolio covers these varying priorities with transmit modules that are footprint compatible between GPRS and EDGE, scale in band count, and align with all major chipsets. Whatever their selection, handset designers enjoy improved time to market due to RFMD transmit modules' integration and superior performance. Handset manufacturers benefit from RFMD's industry-leading quality and supply chain reliability for their high-volume needs.

<i>Application</i>	<i>Part Number</i>	<i>Description</i>	<i>Package Dimensions (mm)</i>
EDGE	RF9801, RF9802	Dual band and Full Quad band. Pin compatible with RF7182 and RF7163	6.6 x 5.2
GPRS, EDGE-down link	RF7176, RF7180, RF7182	Quad-band TX; Dual band RX footprint variations for chipset alignment	6.6 x 5.2
	RF7163, RF7161	Full Quad band	6.6 x 5.2
	RF3284, RF3285	Dual band (EU and US coverage) Power and harmonic performance into mismatch	6.0 x 7.0

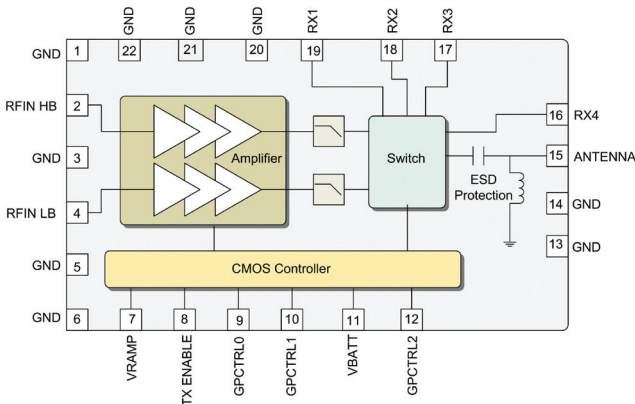
RF3284/RF3285

- GPRS and EDGE down-link
- GSM900 / DCS1800 (RF3284)
- GSM850 / PCS1900 (RF3285)
- Efficiency: GSM850 / GSM900 - 40% at P_{MAX} , 36% at Rated Po, DCS1800 / PCS1900 - 38% at P_{MAX} , 34% at Rated Po
- Enhanced PowerStar® architecture: reduced power and current variation into mismatch



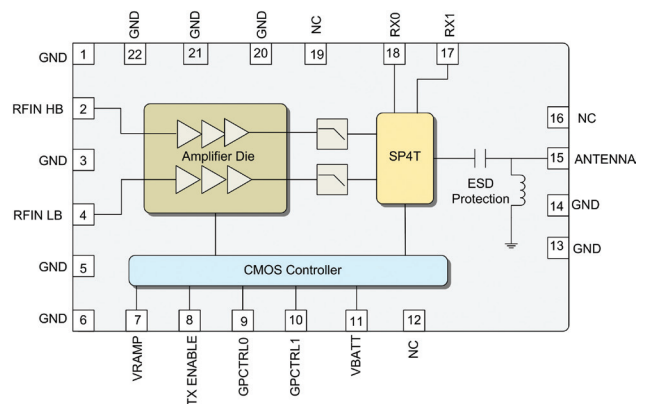
RF71xx Family

- GPRS and EDGE down-link
- Quad-band Tx with two interchangeable Rx switch ports: RF7176, RF7180, RF7182 are footprint options for optimum layout flexibility
- Full quad-band Tx and Rx: RF7161 and RF7163 (mirrored footprint)
- Enhanced PowerStar® architecture with improved mismatch performance
- Rated power efficiency: 40% LB, 38% HB



RF9801/RF9802

- EDGE
- Dual-band transmit and receive (GSM 900, DCS) - RF9801
- Quad-band transmit (GSM850/900, DCS/PCS) and receive - RF9802
- GSM900 PAE at 33 dBm - 40%
- Proven PowerStar® architecture
- Integrated power flattening circuit
- Digital bias control for linear EDGE
- Pin-to-pin compatible with RF7182 and RF7163 for GPRS and EDGE down-link handsets



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MPG.2G Power Platform.0211.100



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