

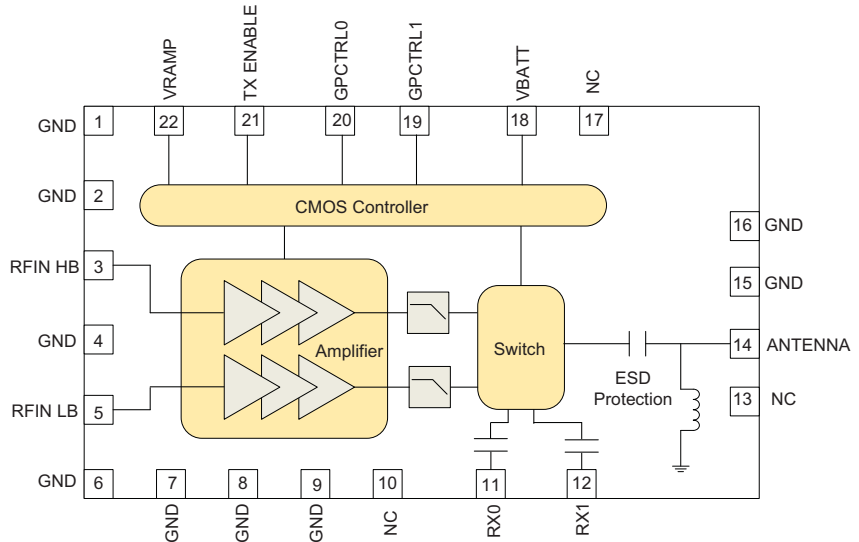


Features

- Enhanced Performance Transmit Module
- High Efficiency at Rated P_{OUT}
 $V_{BATT} = 3.5$
EGSM900 40%
DCS1800 36%
- Integrated Power Flattening Circuit
- Integrated V_{BATT} Tracking Circuit
- 8kV Robust ESD Protection at Antenna Port
- No External Routing
- Low RX Insertion Loss
- Symmetrical RX Ports
- 0dBm to 6dBm Drive Level, >50dB of
- Dynamic Range

Applications

- EGSM900/DCS1800 Products
- 3V Multimode Mobile Applications
- GPRS Class 12 Compliant
- Portable Battery-Powered Equipment



Functional Block Diagram

Product Description

The RF7176D is a dual-band (EGSM900/DCS1800) GSM/GPRS Class 12-compliant transmit module with two symmetrical receive ports. This transmit module builds upon RFMD's leading power amplifier with PowerStar® integrated power control technology, pHEMT 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 EGSM900/DCS1800 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 RF7176D 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 RF7176D also integrates an ESD filter to provide excellent ESD protection at the antenna port.

Ordering Information

RF7176D	Dual-Band TX/Dual-Band RX GSM/GPRS
RF7176DSB	Transmit Module 5-Piece Sample Pack
RF7176DPCBA-41X	Fully Assembled Evaluation Board

Optimum Technology Matching® Applied

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|--|--------------------------------------|--|------------------------------------|
| <input checked="" type="checkbox"/> GaAs HBT | <input type="checkbox"/> SiGe BiCMOS | <input checked="" type="checkbox"/> GaAs pHEMT | <input type="checkbox"/> GaN HEMT |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS | <input checked="" type="checkbox"/> Si CMOS | <input type="checkbox"/> BiFET HBT |
| <input type="checkbox"/> InGaP HBT | <input type="checkbox"/> SiGe HBT | <input type="checkbox"/> Si BJT | <input type="checkbox"/> LD MOS |

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RF7176D



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