

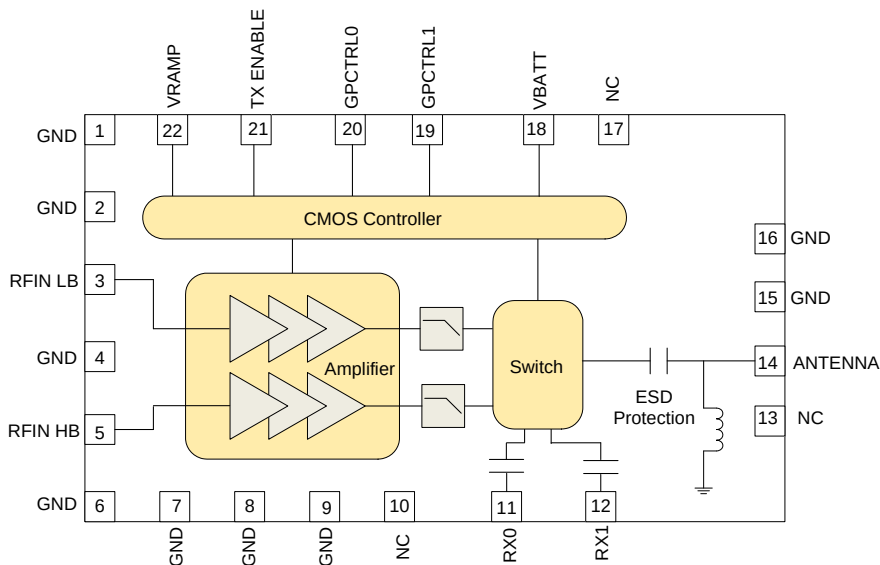


## Features

- Enhanced Performance Transmit Module
- No External Routing
- High Efficiency at rated  $P_{OUT}$   
 $V_{BATT} = 3.5V$   
 GSM850 42%  
 EGSM900 40%  
 DCS1800 36%  
 PCS1900 37%
- 8kV Robust ESD Protection at Antenna Port
- Low RX Insertion Loss
- Symmetrical RX Ports
- 0dBm to 6dBm Drive Level, >50dB of Dynamic Range
- Integrated Power Flattening Circuit

## Applications

- 3V Quad-Band GSM/GPRS Handsets
- GSM850/PCS1900 or EGSM900/DCS1800 Products
- GPRS Class 12 Compliant
- Portable Battery-Powered Equipment



Functional Block Diagram

## Product Description

The RF7180 is a quad-band (GSM850/EGSM900/DCS1800/PCS1900) 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, a 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 handset and eliminates the need for PA-to-antenna switch module matching network. The device provides 50Ω matched input and output ports requiring no external matching components.

The RF7180 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 RF7180 also integrates an ESD filter to provide excellent ESD protection at the antenna port.

## Ordering Information

|                |                                                      |
|----------------|------------------------------------------------------|
| RF7180         | Quad-Band Tx, Dual-Band Rx GSM, GPRS Transmit Module |
| RF7180SB       | Transmit Module 5-Piece Sample Pack                  |
| RF7180PCBA-41X | Fully Assembled Evaluation Board                     |

## Optimum Technology Matching® Applied

|                                              |                                      |                                                |                                   |
|----------------------------------------------|--------------------------------------|------------------------------------------------|-----------------------------------|
| <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"/> RF MEMS  |
| <input type="checkbox"/> InGaP HBT           | <input type="checkbox"/> SiGe HBT    | <input type="checkbox"/> Si BJT                | <input type="checkbox"/> LDMOS    |

# RF7180

*Preliminary*



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**Please contact  
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at (336) 678-5570  
for more information.**