

OM8816-62

Data Sheet | QUAD-BAND GSM/GPRS/EDGE Multi-Mode
Transmit Module with Fourteen Linear TRx Switch Ports and
TDD-LTE

Product Features

LGA: 5.5 mm × 5.3 mm × 0.74±0.06 mm
Fully programmable MIPI RFFE control
Fourteen low-insertion-loss TRx ports (five ultra-low loss) with enhanced linearity, for state-of-the-art 4G performance and GPS/WiFi compatibility
High Efficiency (inclusive of coupler)
Over-current limiting and over-voltage protection for ruggedness and extended battery life
Power control circuitry built-in for improved TRP variation

Applications

Cellular handsets encompassing Quad-Band GSM/EDGE, and TDD LTE

Class 4 GSM850 / EGSM900

Class 1 DCS1800 / PCS1900

Class 12 GPRS multi-slot operation

Linear EDGE operation

TDD-LTE Bands 34/39

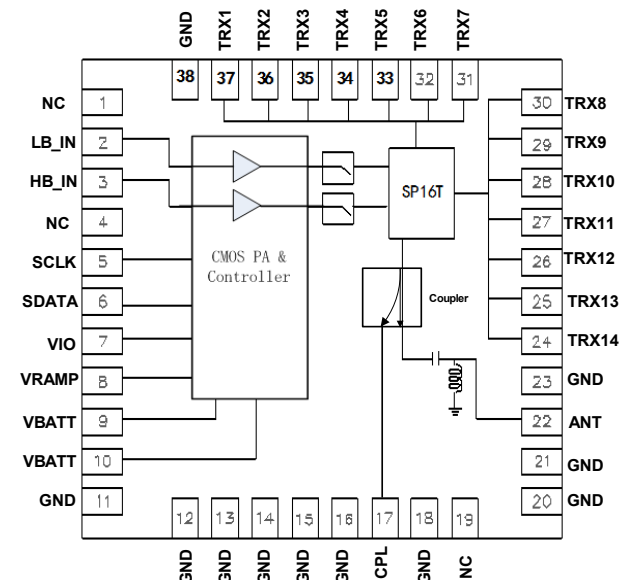
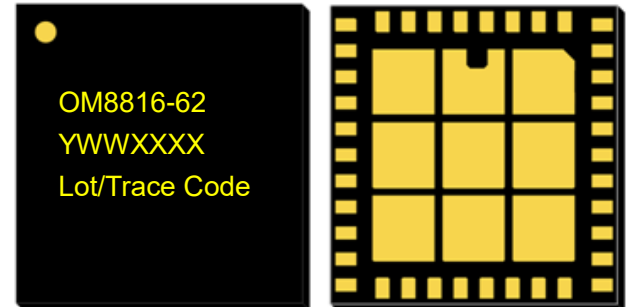


Figure 1. Functional Block Diagram

Product Description

The OM8816-62 is a high-power, high-efficiency Front-End Module for GSM850 / EGSM900, DCS1800 and PCS1900 operation. The FEM supports Class12 General Packet Radio Service (GPRS), EDGE multi-slot operation, and dual band TD-SCDMA / TD-LTE linear transmission. This FEM builds upon OnMicro's unique power amplifier architecture technology to provide maximum efficiency and output power, integrated over-current and over-voltage regulating technology stable ruggedness and TRP performance under load mismatch.

The module provides 50 Ω impedance at input and output ports, consists of a CMOS Controller, a SP16T RF switch with integrated Tx low pass harmonic filtering can achieve best harmonic performance. The OM8816-62 supports both the linear-GMSK operation standard and V_{RAMP}-BASED operation facilitating various platforms application implementation.

This FEM can sustain 8KV ESD at Antenna port, without external components needed, and also guarantees robust 12:1 VSWR on Antenna Port under load mismatch condition.