RFMD®

ZigBee® RF Component Solutions from RFMD®

Solutions

RFMD has an extensive portfolio of single-chip integrated front end modules (FEMs) developed for high-performance AMI and ZigBee applications in the 2.4 to 2.5GHz ISM band. RF5745 and the RF65xx series are specifically designed to address the need for aggressive size reduction in a typical IEEE 802.15.4 front end design, offering reduced footprint and minimized component count outside the core chipset. Each of RFMD's FEMs meets or exceeds the RF front end needs for 802.15.4 RF systems and are fully DC- and RF-tested.

RFMD FEMs have architectures consisting of combinations of power amplifiers with:

- Tx harmonic filters
- Rx path linear amplifiers
- Antenna switches
- Switches used to combine the Rx and Tx paths at the transceiver interfaces

The RF65xx series of modules addresses multiple RF transceiver interface configurations:

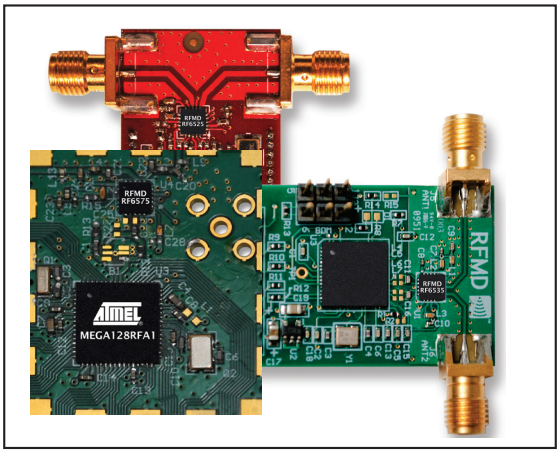
- Single-port bi-directional
- Single-ended and differential
- Dual-port separate Rx and Tx single-ended
- Differential with integrated baluns

Logical interfaces have been developed that match transceiver requirements for minimal current draw and standard voltage levels. The RF antenna ports are matched to 50Ω and incorporate integrated DC-blocking capacitors.

Joint Reference Designs for ZigBee Solutions

Working jointly with major ZigBee chipset providers to produce reference designs allows RFMD to more easily support product development. It also enables customers to shorten time-to-market, cut costs, and reduce risks. Joint reference designs are themselves proof of platform cost, size, and performance.

These reference designs address manufacturers' needs for proven design technology, minimized power consumption, and range extension at higher output levels from 100mW to 500mW. The reference designs are fully tested, with complete documentation sets available consisting of schematics, bills of material, and design files in standard Gerber format.



SPECIFICATIONS

Architecture	Freq Range (MHz)	Gain (dB)	Avg P_{OUT} (dBm)	V_{CC} (V)	Current at P_{OUT} (mA)	Package (dim. in mm)	Part Number
PA, SP2T, DP2T, LNA	2400 to 2500	25.0	18.0	2.0 to 3.6	70	5.0 x 5.0 x 1.0	RF6555
PA, SP2T	2400 to 2500	28.0	20.0	3.3	160	3.5 x 3.5 x 0.5	RF6515
PA, DP2T, LNA	2400 to 2500	28.0	20.0	3.3	160	3.5 x 3.5 x 0.5	RF6525
PA, DP2T, SPDT	2400 to 2500	28.0	20.0	3.3	160	3.5 x 3.5 x 0.5	RF6545
PA, DPDT, SPDT, LNA	2400 to 2500	28.0	20.0	3.3	160	3.5 x 3.5 x 0.5	RF6575
PA, DP2T, LNA	2400 to 2500	28.0	22.0	3.3	210	3.5 x 3.5 x 0.5	RF6535
PA, SP3T, LNA	2400 to 2500	30.0	23.0	3.3	230	3.0 x 3.0 x 0.5	RF5745
PA, SP2T, DP2T, LNA	2400 to 2500	28.0	27.0	3.6	500	3.5 x 3.5 x 0.6	RF6505
PA, SP2T, DP2T, LNA	2400 to 2500	25.0	23.0	2.0 to 3.6	175	5.0 x 5.0 x 1.0	RFFM6201

MPG.ZigBee.0112.200

RFMD®
Mobility. Connectivity. Energy.

RFMD® Solutions for ZigBee®

RFMD's extensive portfolio of
single-chip integrated front end modules (FEMs)
is developed for high performance
AMI and ZigBee® applications
in the 2.4 to 2.5GHz ISM band.
They are specifically designed for
aggressive size reduction in typical
IEEE 802.15.4 front end designs.
Each meets or exceeds RF front end needs
for 802.15.4 RF systems and are
fully DC- and RF-tested.

Reference Designs can be found at www.rfmd.com/ZRG0611.
Contact RFMD Technical Support at smartgrid@rfmd.com for more information.

RFMD®
Mobility. Connectivity. Energy.™