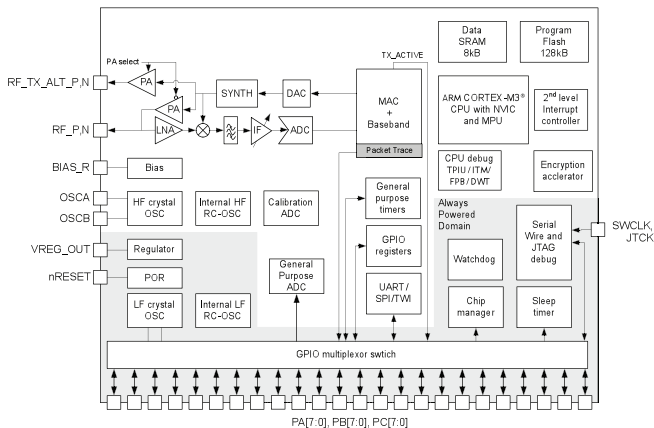


ZigBee Compliant Stack & Development Environment

The EM300 series comes tightly integrated with EmberZNet PRO, the industry's most deployed and field proven ZigBee compliant stack supporting the ZigBee PRO Feature Set and enhanced with unique Ember innovations. Enabling larger, denser, sleepier, more mobile, secure and resilient ZigBee Networks, EmberZNet PRO is a complete ZigBee protocol software package containing all the elements required for sophisticated mesh networking applications on Ember's silicon platforms.

Ember's InSight™ Development Environment is supported by a variety of industry leading IDE's to provide best in class tools to build and debug embedded ZigBee applications. The InSight Desktop tool is designed for developing, compiling, loading and debugging software onto multiple nodes in a networked environment. The availability of standard ARM tools and the ARM serial wire and JTAG debug capabilities provides complete instruction level and register level debugging capabilities. The EM351 and EM357 support special hardware based network debugging capabilities to help identify complex network level interactions that cannot be caught by examining a single node.



About Ember

Ember Corporation www.ember.com develops ZigBee wireless networking technology that enables companies involved in energy technologies—enertech—to help make buildings and homes smarter, consume less energy, operate more efficiently, and keep people comfortable and safe. Ember's low-power wireless technology can be embedded into a wide variety of devices to be part of a self-organizing mesh network. Ember is headquartered in Boston and has its radio development center in Cambridge, England, and distributors worldwide. The company is a promoter and Board member of the ZigBee Alliance and its platform is the "Golden Suite" for 802.15.4/ZigBee interoperability testing.

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General Characteristics

Deep Sleep Current	1uA max
Rx Current	25 mA
Tx Current	31mA at +3 dBm
Crystal Frequency	24 MHz
Operating Temperature Range	-40 to +85 C
Voltage	2.1 to 3.6 V
Package	7 mm x 7 mm 48 pin QFN

RF Characteristics

Data Rate	250 kbps
Frequency	2400 to 2500 16 total 5 MHz Channels
Rx Sensitivity	-99 dBm Normal Mode -101 dBm Boost Mode
Adj Channel Rejection	35 dB
Alt Channel Rejection	43 dB
802.11g Rejection	35 dB
Tx Power	-32 dBm to +3 dBm Normal Mode -32 dBm to +8 dBm Boost Mode

Total Link Budget	Up to 109 dB
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Micro Characteristics

Operating Frequency	12 MHz
Flash	EM351 128 KB EM357 192 KB
RAM	12 KB



EM300-FAMILY-0509
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