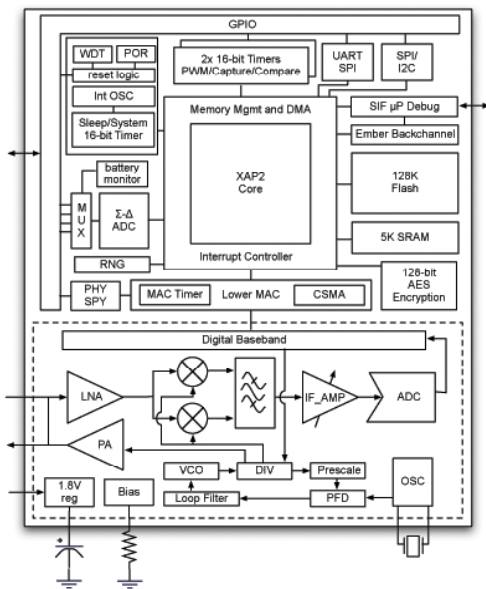




## Development

The EM250 is supported by InSight Desktop, a comprehensive integrated development environment (IDE) and C-language compiler tool-chain. Ember InSight Desktop is designed for writing, compiling, loading, and debugging software onto multiple nodes in a networked environment: in addition to supporting instruction level and register level debugging capabilities, the EM250 IDE supports a special hardware-based network level debugging capability that helps quickly identify complicated bugs that can't be caught by examining a single node.

EmberZNet PRO utilizes Ember's widely used and well-tested fourth generation embedded mesh networking API, providing a smooth transition for users of previous generation Ember software and guaranteeing a well supported and low risk introduction for first-time users.



## General Characteristics

Deep Sleep Current (with sleep timer running)	1uA max
RX Current (CPU@12MHz + RF)	28mA – Normal Mode 30mA – Boost Mode
TX Current (CPU@12MHz + RF, +5dBm)	24mA – Normal Mode 34mA – Boost Mode
Crystal Frequency	24MHz
Operating Temperature Range	-40 – +85 C
Voltage (internal reg)	2.1 – 3.6V
Package	7mm x 7mm, 48 pin QFN

## RF Characteristics

Data Rate	250kbps
Frequency	2400 – 2500 16 – 5 MHz Channels
RX Sensitivity	-99dBm – Normal Mode -100dBm – Boost Mode
Adj Channel Rejection (15.4)	>35dB
Alt Channel Rejection (15.4)	>40dB
802.11g Rejection (+12 / -13 MHz)	>35dB
TX Power	-32dBm + 3dBm – Normal Mode -32dBm + 5dBm – Boost Mode

## About Ember

Ember Corporation develops ZigBee wireless networking technology that enable companies involved in energy technologies—enertech—to help buildings and homes consume less energy, operate more efficiently, and keep people comfortable, safe and secure. Ember low-power wireless technology can be embedded in potentially any device 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.

## Micro Characteristics

Operating Frequency	12MHz
Flash	128KB
RAM	5KB

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