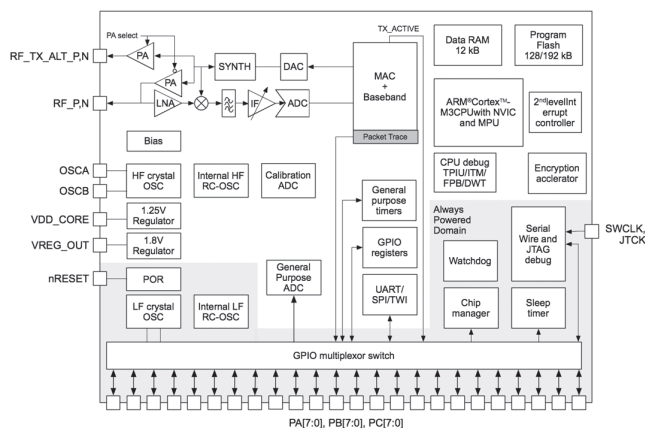




## ZigBee Compliant Stack and Development Environment

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.



## General Characteristics

Deep Sleep Current	1 uA max
Rx Current	25 mA
Tx Current	31 mA 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	-55 dBm to +5 dBm Normal Mode -55 dBm to +8 dBm Boost Mode
Total Link Budget	Up to 109 dB

## About Ember

Ember Corporation ([www.ember.com](http://www.ember.com)) develops wireless mesh networking technology — chips, software and tools — for Smart Energy, connected homes, and many other monitoring and control applications enabling greener living and work environments. The Boston-based company is a promoter of the ZigBee Alliance with an IC design center in Cambridge, England, an office in Hong Kong and sales channels and distributors worldwide.

### US Headquarters:

25 Thomson Place  
Boston, MA 02210  
USA  
+1 617 951 0200  
[www.ember.com](http://www.ember.com)

### European office:

Cambridge Science Park  
Unit 300, Milton Rd.  
Cambridge, CB4 0XL, UK  
+44 (0) 1223 423322  
[www.ember.com](http://www.ember.com)

### Asian office:

18 Java Road, Unit 2101  
North Point, Hong Kong  
China  
852 8199 0313  
[www.ember.com](http://www.ember.com)

## Micro Characteristics

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



EM300-FAMILY0411  
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