

# CALIFORNIA EASTERN LABORATORIES

## Apex ZAXM-201 Series ZigBee Pro-Ready Modules



### APEX FEATURES:

- ▶ Ember™ EM250 Platform
- ▶ 100 mW Power Amplifier
- ▶ 4000ft+ Line of Sight Range
- ▶ Integrated Inverted-F PCB Antenna
- ▶ 16 RF Channels
- ▶ Small Form Factor: 25.4x32.4 mm
- ▶ Supported by *InSight Desktop*
- ▶ FCC, IC, CE Certified

### SPECIFICATIONS:

- ▶ Frequency: 2400 to 2483.5 MHz
- ▶ Data Rate: 250 Kbps
- ▶ Security: 128 bit AES
- ▶ Sensitivity: Up to -98dBm
- ▶ Power Consumption:
  - Transmit: 170 mA @100mW
  - Receive: 37 mA (Max)
- ▶ Deep Sleep Current: 5uA (MAX)
- ▶ Voltage Input: 2.1V to 3.6V

### Long Range Performance

Apex Modules provide a fully integrated, easy-to-use solution for your wireless networks. Ideal for AMR/AMI, industrial, home and building automation applications, they combine an Ember™ EM250 ZigBee transceiver IC and 16-bit MCU with an onboard 100mW Power Amplifier to deliver over 4000 feet of range. Using Ember's *EmberZNet Pro™* tool chain, they support a variety of network topologies including mesh, point-to-point, and point-to-multipoint.

Apex modules feature an integrated inverted-F PCB antenna or can be ordered with an optional MMCX connector to support an external antenna. They're also FCC, IC, and CE certified, eliminating the need for a costly, time-consuming certification process.

Apex Modules are unique in that they deliver the same long range performance over their entire 2.1 to 3.6V voltage input range. This helps ensure consistent performance over the life of the battery.

### California Eastern Labs + LSR Research

CEL has over 45 years design and product development experience, while LSR is an acknowledged leader in RF hardware and software development. LSR's *Certification Center* completes the compliance process for these products and provides safety certifications. LSR's design and development strengths are a perfect compliment to CEL's sales, marketing, customer support, and global supply chain expertise.

### MODELS

Part No.	Power Out	Antenna	Eval Kit
ZAXM-201-1	100mW	Integrated PCB	ZAXM-201-KIT-1
ZAXM-201-1C	100mW	MMCX Connector	



Worldwide Acceptance  
FCC (U.S.A.), IC (Canada), CE (Europe)

Systems that contain the Apex Modules inherit the LS Research certification. Contact LS Research for a complete list of government agency approvals.



4590 Patrick Henry Drive Santa Clara, CA 95054  
TEL 408.919.2500 FAX 408.988.0279  
[www.cel.com](http://www.cel.com)