SMART METERING

JUST GOT A LOT SMARTER

Silicon Labs’ wireless products offer an unparalleled combination of sensitivity, reliability and efficiency to meet the demands of intelligent metering and smart grid applications. Ultra-low-power wireless MCUs enable up to 20 years of battery life, further range and reliability of wireless data reception, and more intelligence to capture, compute and communicate information in the system. Their single battery operation and small size are ideal for space-constrained applications. Silicon Labs’ Ember® ZigBee® product line has proven the ability to enable scalable AMI and AMR network solutions. The EmberZNet PRO stack implements advanced “deep sleep” modes that minimize power consumption for gas and water meter applications, where multi-year battery life is critical. In addition to leading silicon and ZigBee stack software, Ember software and tools provide the infrastructure to deliver complete, robust solutions quickly.

Si10xx Wireless MCUs
- Industry’s lowest active mode and sleep mode currents
  - 160 μA/MHz - active mode
  - 10 nA sleep with brown out detection (BOD) disabled
  - 50 nA sleep with BOD enabled
  - 300 nA sleep with internal RTC
  - 600 nA sleep with external crystal
  - 2 μs wake-up time
  - 1.5 μs analog settling time
- 25 MHz, single-cycle 8051 compatible CPU
- Integrated sub-GHz RF Transceiver
  - 240–960 MHz
  - -121 dBm sensitivity
  - Max output power +20 dBm
  - FSK, GFSK and OOK modulation

Ember ZigBee SoC/NCP
- Industry leading ARM® Cortex™-M3 based family of ZigBee SoCs
- Exceptional RF performance
- 128 kB and 192 kB flash variants available
- 12 kB RAM
- High code density to accommodate the most sophisticated applications
- Lowest deep sleep current and multiple sleep modes
- Excellent immunity to other 2.4 GHz devices for reliable co-existence
- Built-in memory protection
- Flexible antenna interface allows easy antenna connection with or without PA

www.silabs.com/metering

©2013 Silicon Laboratories Inc. Ember, Silicon Laboratories and the Silicon Labs logo are trademarks or registered trademarks of Silicon Laboratories Inc. ARM and Cortex® are trademarks or registered trademarks of ARM Holdings. ZigBee is a registered trademark of ZigBee Alliance Inc. All other product or service names are the property of their respective owners. For the most up to date information please see your sales representative or visit our website at www.silabs.com.