FOR ENERGY EFFICIENT INNOVATIONS

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Zigbee Smart Home with NCS36510

STR-NCS36510-ZB-EH-1-GEVK

Strata ZigBee™ green power

Public Information

NCS36510 – 2.4 GHz 802.15.4 (Zigbee) SoC

Value Proposition

Ultra low power optimized RF MCU for IEEE 802.15.4 applications including ZigBee, Thread, and proprietary. ARM Cortex-M3 MCU and 2.4 GHz 802.15.4 RF transceiver.

Unique Features & Benefits

- Frequency: 2.4 GHz at 250 Kbps
- Modulation: Offset QPSK
- **Industry Leading Rx Current: 3.6 mA**
- Competitive Tx Current: 14.3 mA @ ~8 dBm
- Great Sensitivity: -99 dbm, as low as -102 if Tx/Rx split
- MCU: ARM Cortex-M3 core with 32MHz Clock, 48 kB RAM, **320x2 KB Flash (FOTA)**

Other Features & Specifications

- **Firmware based on the DSR ZBOSS Zigbee® 3.0 & Zigbee® Green Power Stacks, provided to customers free of charge in IAR SDK**
- 1V mode: 1 V – 1.6V; 3V mode: 2 V – 3.6 V
- -40°C to +85°C, tested to +105°C

Markets & Applications

- IOT (Internet of Things)
- Automated Meter Reading (AMR)
- Building & Home Automation
- Wireless Networks
- Battery Powered Portable
- Battery less applications

Typical Application Schematic

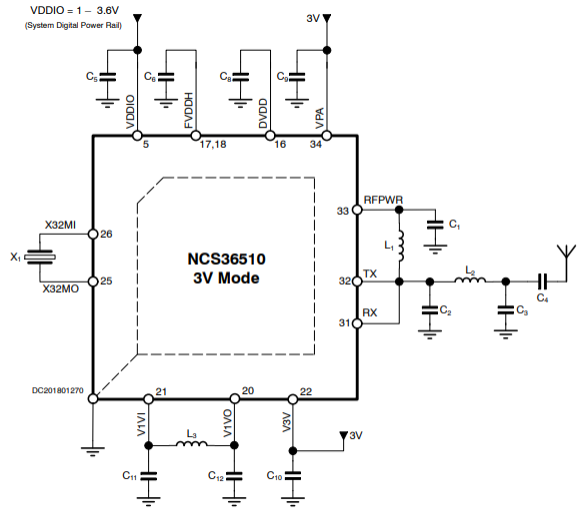
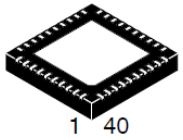


Figure 24. 3 V System Application Diagram

Ordering, Packaging Information & Availability

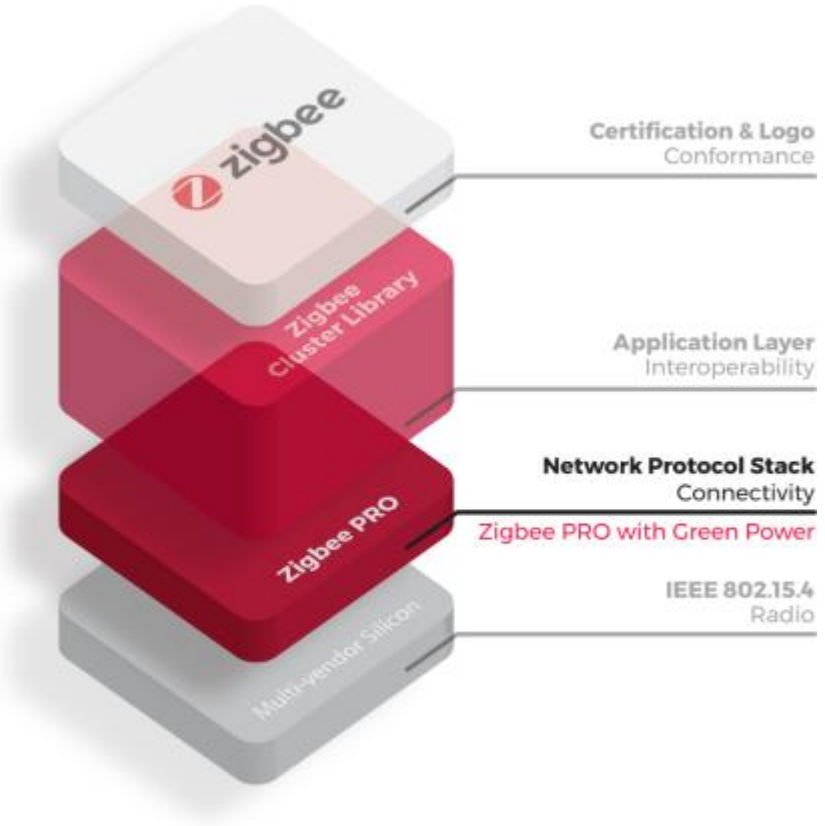
- Device: NCS36510MNTXG (QFN40, 3000pcs /reel)
- Demo Board #1: NCS36510GEVK
- Demo Board #2: STR-NCS36510-ZB-EH-1-GEVK



Zigbee Green Power & Energy Harvesting

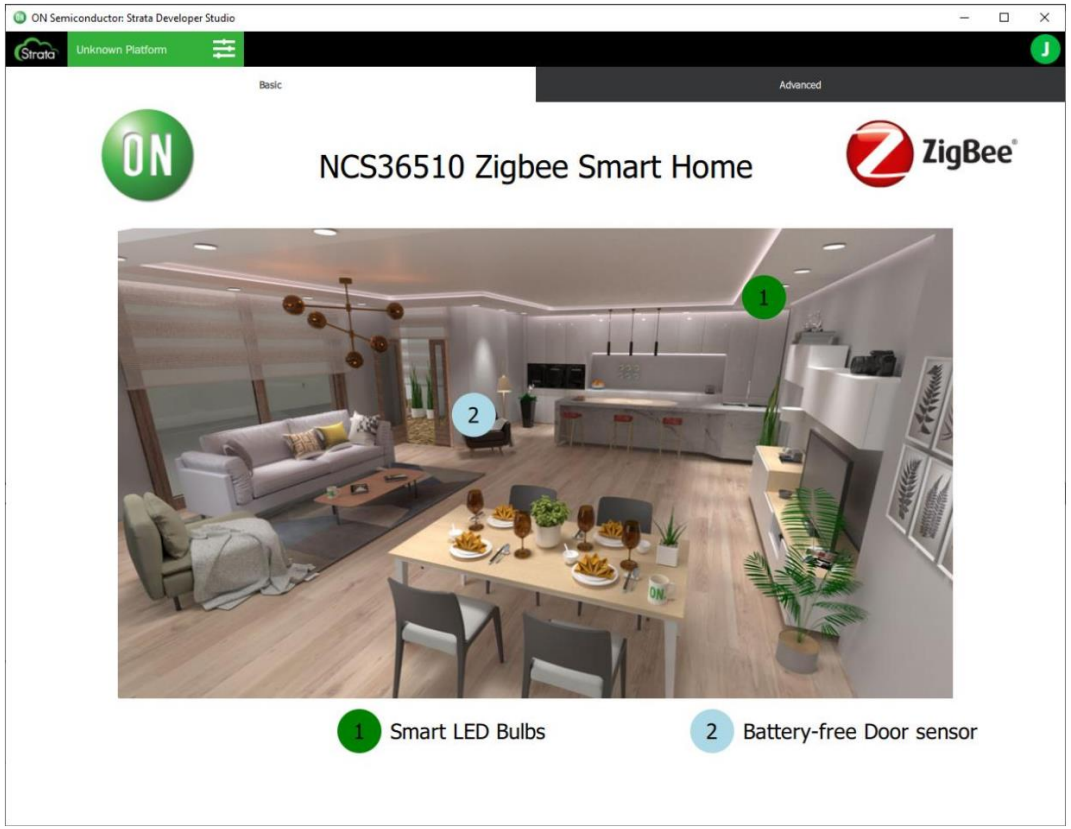
Zigbee Green Power

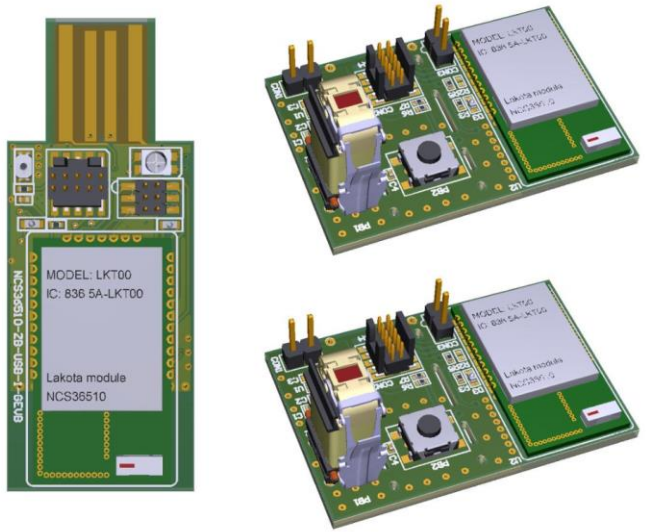
- Subset of Zigbee PRO standard, included in ZigBee 3.0
- Provides a simplified protocol that enables a shorter transmitter time, saving power, while maintaining a secure and reliable link
- Compatible with other Zigbee networks
- Very low power consumption, suitable for energy harvesting applications:
  - Motion
  - Ambient Light
  - RF
  - Etc.

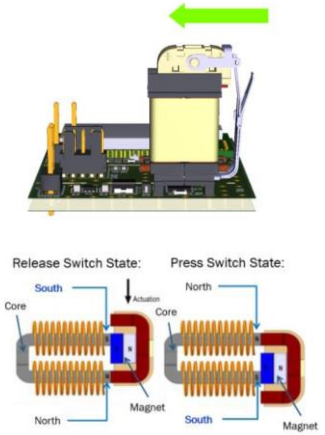


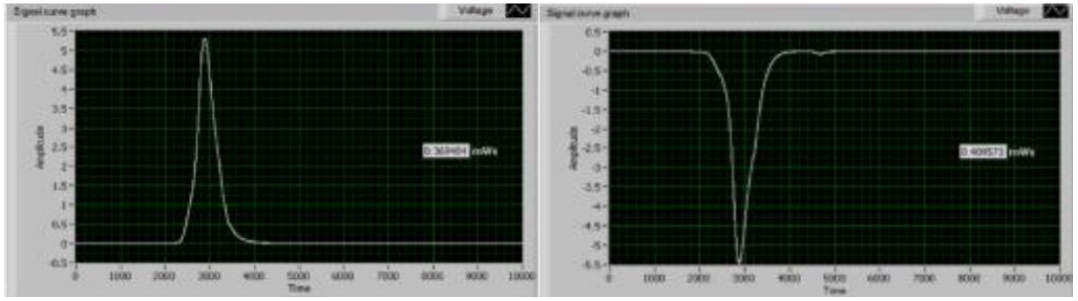
NCS36510 - Zigbee Green Power

- ***True Battery-Free*** Zigbee network control
- Range ~100 ft+
- STR-NCS36510-ZB-EH-1-GEVK









EVK: STR-NCS36510-ZB-EH-1-GEVK – Schematics & BoM