



# ZICM2410Px-KITx-1 and ZICM2410-LED-BRD-1

## Intelligent Lighting Control Solution

CEL's MeshConnect Development Kit (part number ZICM2410P0-KIT2-1 or ZICM2410P2-KIT1-1) with the Linear Tech LTM8040 LED driver and Cree XLamp XP-G White LEDs (part number ZICM2410-LED-BRD-1) assists users in both evaluation and development of a wireless LED lighting control system. The kit allows users to place the modules in the target environment and evaluate performance on-site. The user has access to all the MeshConnect module pins enabling easy connection to target systems for application development.

The MeshConnect module contains the MeshConnect IC (CEL ZICM2410, 802.15.4/Zigbee transceiver IC), Crystals, Power Regulator and an integrated PCB antenna with a connector for an external antenna (optional). There are two kits available, one with the original MeshConnect Module and another with the MeshConnect Extended Range Module (ZICM2410P2). The Development Kit features a serial communication interface, a power management module, and peripherals such as potentiometers, LEDs, and GPIO headers. The Development Kit also contains four AA batteries and two USB cables.

### Features

#### MeshConnect Modules

- Software examples for simple out of the box mesh solutions
- 3000+ feet range (ZICM2410P0)
- Over two miles extended range (ZICM2410P2)
- 250 Kb/s, 500 Kb/s, 1 Mb/s data rates
- Integrated voice Codec
- 2.1V to 3.3V input
- 16 RF channels
- 22 inputs/outputs
- Timers, UARTs (2), SPI Master/Slave, I<sup>2</sup>S
- Miniature footprint
- FCC, IC, CE certified

#### LTM8040 $\mu$ Module<sup>®</sup> LED Driver

*Complete LED Driver Circuit in an enclosed plastic package*

- 4 V<sub>IN</sub> to 36 V<sub>IN</sub>
- 14V output clamp prevents LED damage in case of an open in LED string
- Resistor adjustable switching frequency: 500 kHz to 2 MHz
- Adjustable LED current from 0A to 1A
- Resistor and PWM dimming 250:1 ratio
- Less than 1  $\mu$ A quiescent current in shutdown
- LED current amplitude control
- Minimal distortion of PWM LED current even at 10 Hz
- Small, thin 9 mm x 15 mm x 4.32 mm LGA package

#### XLamp XP-G White LED

- Available with typical efficacy up to 132 lm/W
- ANSI-compatible chromaticity bins
- Maximum drive current: 1000 mA
- Low thermal resistance: 6°C/W
- Wide 125° viewing angle
- Reflow solderable - JEDEC J-STD-020C
- Electrically neutral thermal path
- RoHS and REACH-compliant
- UL-recognized component (E326295)

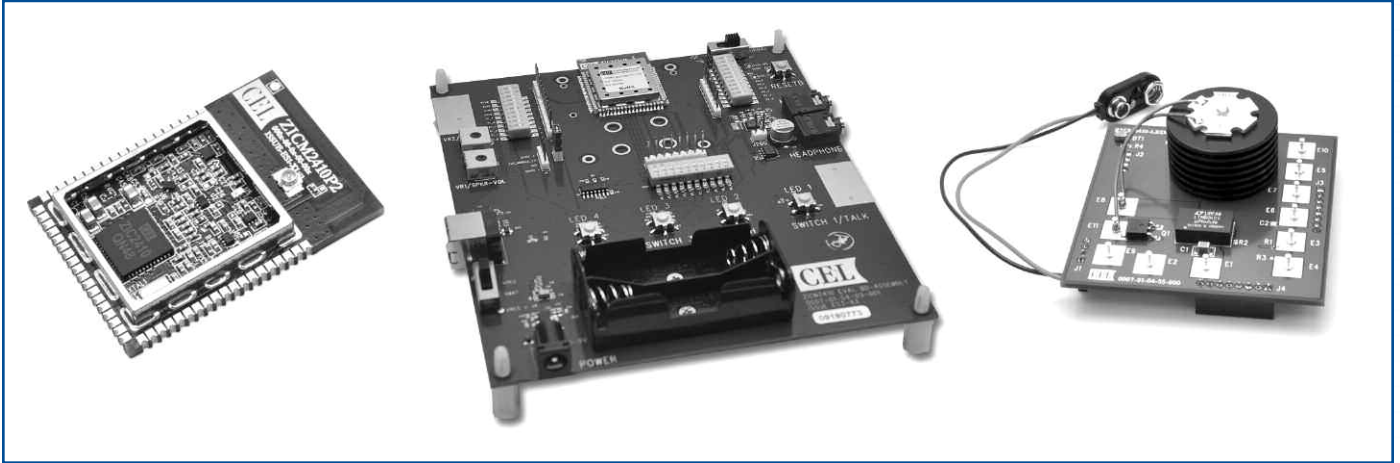
### Benefits

- Practical way to control and dim LED lights
- Dramatically increases life of the LED
- Easy/fast way to install control element
- No wires to pull, greatly reduces installation costs

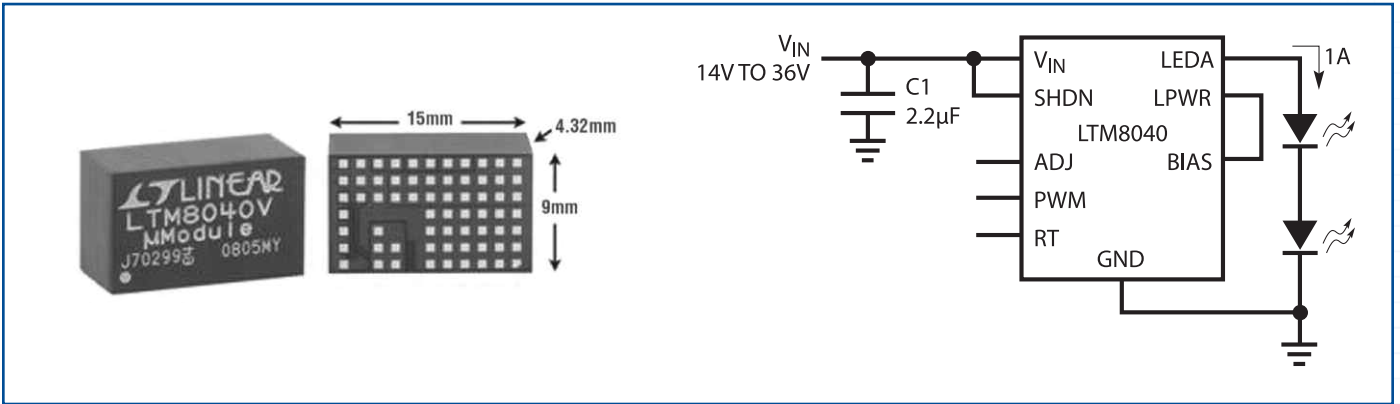
### High Level System View of the Wireless Lighting Control Solution



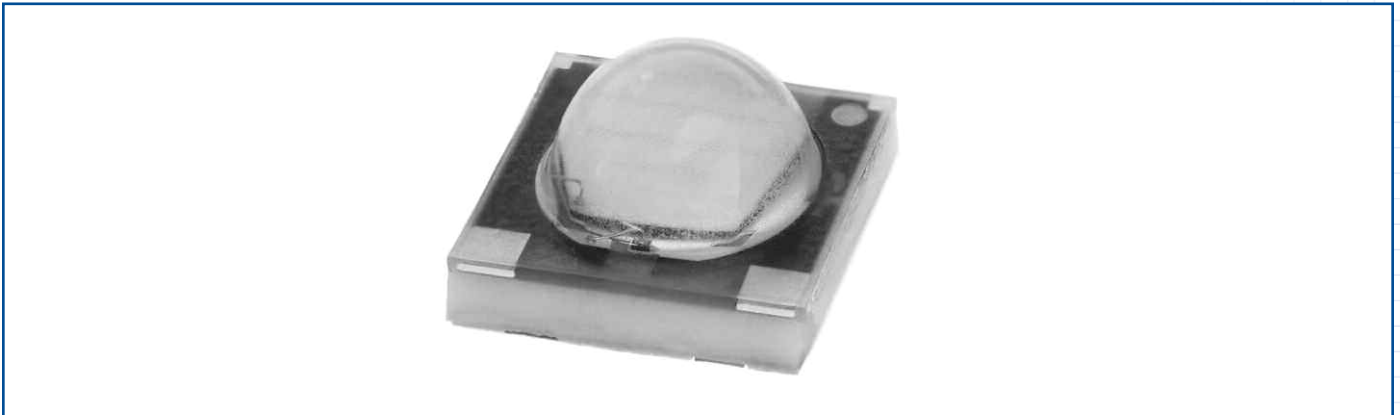
**Wireless Communications: CEL ZigBee Wireless Modules**



**LED DRIVER: Linear Technology LTM8040  $\mu$ Module LED Driver**



**LED: Cree XLamp XP-G White LED**



For more information, such as datasheets and app notes, visit [www.arrow.com/arrowedge](http://www.arrow.com/arrowedge).