Revision History

Rev 1.0
Based on IST-A21 Lighting Demo Board Reference Design

Rev 2.0
Debug Header, Simplicity Header, and Mini-Simplicity Header location modified.
Debug header "Target Vdd" pin connected to 3v3

Rev 3.0
Added Giant Gecko Debugger for interface between USB and EFR.
Mini-Simplicity Header location modified to avoid Rubber Feet
USB connector made through hole
I2C lines pulled up
Silk screen modified to add more information
All test points except PWM ones made Surface Mount
6 PWM capability, with 5 going to LEDs and 1 being used for network status LED
Switch used for turning On/Off network status LEDs
Removed bottom power connectors for Wooden Demo Board
Added PCB slot for LED diffuser

Rev 4.0
Added serial connections to Giant Gecko
Power nets connected differently to account for which devices need to be always powered.

Rev 5.0
EEPROM address set to 000.
GPIO (F13) test point moved further away from the switch.
Removed Giant Gecko debugger and associated components from BOM
**LED Brightness Selection**

OPAMP_OUT signal is input to transistors in series with LEDs, to control current through LEDs.

**Lighting Demo LEDs**

Each LED consumes either 1mA or 10mA of current, depending on the brightness selection.

**LED Brightness Control using Current Mirroring**

Each LED consumes either 1mA or 10mA of current, depending on the brightness selection.
Lighting Demo LEDs - PWM Controls

Page Test Points

Network Status LED Power/Mode
Lighting Board Input Power Options

Battery Charger

Page Test Points

Lighting Board Power Selection

Always Powered:
1. Giant Geeks MCU
2. Board ID EEPROM (LDB)
3. SPI Flash
4. Board ID EEPROM (Interposer)

Selected by Switch:
1. MCU Module
2. All LEDs
3. 10-pin MSC Output
4. Op-Amp