

FOR ENERGY EFFICIENT INNOVATIONS

THINK ON.

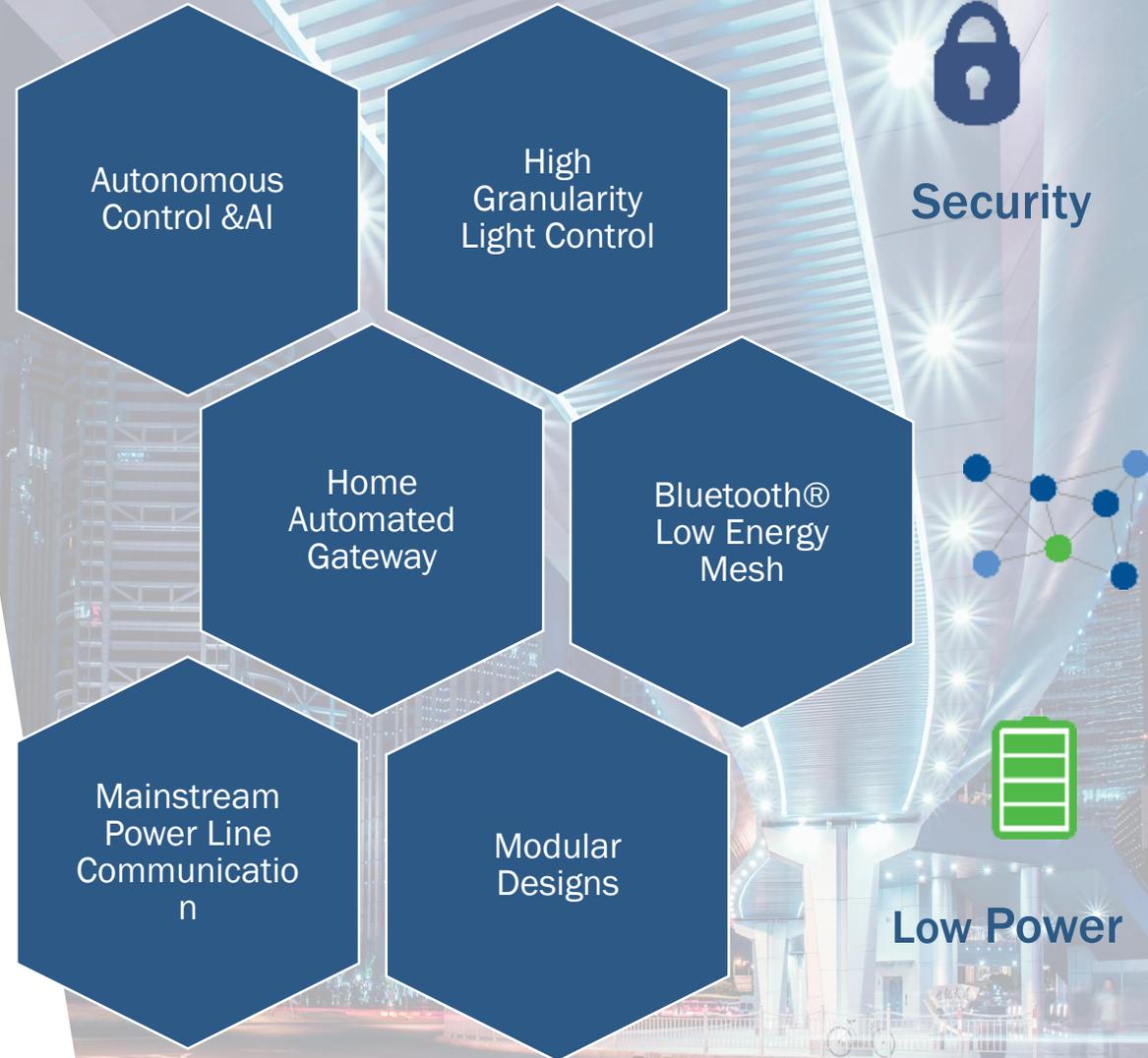
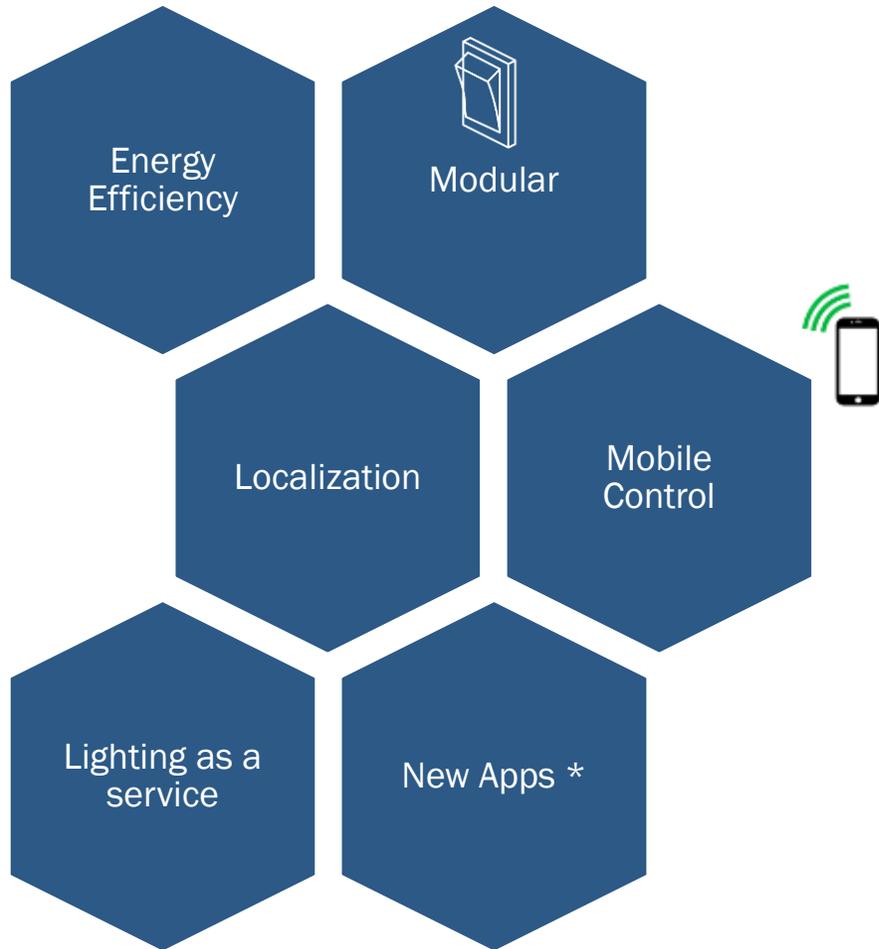
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Connected Lighting : Energy Saving to Building Automation

Innovations in Smart Homes and Buildings
February 2020



Market Trends and Enabling Technologies



Connectivity Options

- Ubiquity
- Widespread Ecosystem
- Ultra-Low-Power
- Energy Harvesting
- Mesh Networking
- Security

Bluetooth® Low Energy



- Ultra-Low-Power
- Energy Harvesting
- Mesh Networking
- Security

Zigbee™ Green Power



- 20-100 Watts of Power
- B2B/Industrial
- Reliable, wired connection

Power Over Ethernet (PoE)

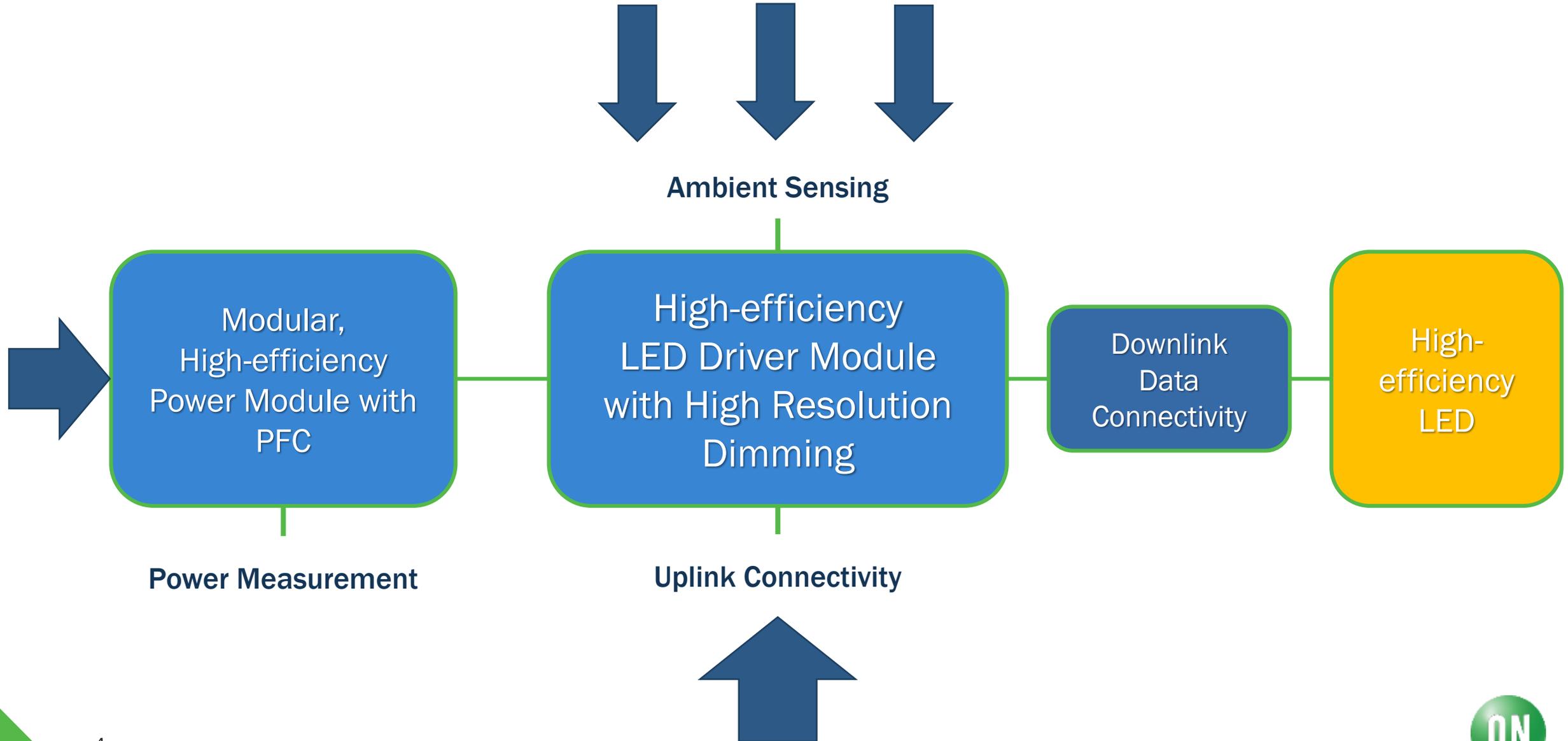


- Pairing
- Security
- Commissioning

Near Field Communication (NFC)



Smart Lighting Platform description



Do's

- Light for Comfort
- Light for Communication
- Light for Health care
- Light for Agriculture
- Human Centric Lighting
- Lighting as a Service



Supported features

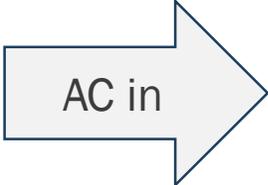
- Configurable Dual Stage Industrial LED Powering module
- Power range and lumen range: 10 to 70 electrical watts (1000 to 7000 Lumen)
- Uplink Connected lighting functions (On/ Off / Dimming / programming/ Mesh)
- 12 bits PWM Dimming (only RSL10, BLE5 SoC)
- *Downlink Connected lighting (Localization low data rate only) Phase 2*
- Multiple LED Strings (1 , 2, 3/4)
- AC 230Vac, 270Vac /100V and 50 / 60Hz combinations
 - Efficiency >90% (reference: normally full load)
- Support Multi sensor shields (PMOD) ALS, PIR, Temp, Moist , Etc
- Support POE Supply (bt) and dimming over IP address
- Cost Effective PCB implementation
- OEM Friendly Layout
- Mobile App for Sense and Control and FOTA
 - iOS and Android



What is the kit made of ?



LIGHTING-CONNECTIVITY-GEVB



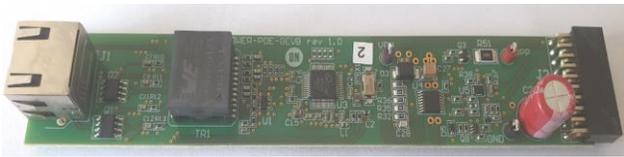
LIGHTING-POWER-AC-GEVB



LIGHTING-LEDDRIVE-7760-GEVB



LIGHTING-LED-GEVK



LIGHTING-POWER-POE-GEVB



BLE Switch



Multi sensor board



Modular LED Lighting Platform

- Four Modules
- Supports Bluetooth® Low Energy, Zigbee, PoE
- 10-70 Watt Output Power Range
- 1000 to 7000 Lumen Range
- Uplink Connected Lighting Functions
 - On/ Off / Dimming / Programmable
- 12-bits PWM Dimming
- Downlink Connectivity
 - *Localization*
- Supports Modular LED Topology
 - Multiple Strings, Multiple LED
- Supports Worldwide AC inputs or PoE
 - 230 Vac, 270 Vac /100 V and 50 / 60 Hz combinations
- >90% efficiency
- Support multi-sensor shields (PMOD) ALS, PIR, Temp, Moist.



Key Takeaways

- Connected Lighting is the fastest growing IoT device category
- Energy savings from connected lighting provide a clear RoI
- Connected lighting being transformed into a Platform supporting several novel use cases
- Low-power connectivity is driving connected lighting innovations, even enabling completely battery-less designs

