Project		Catalog #		Type	
Prepared by		Notes		Date	

WaveLinx Pro

Wireless Area Controller, WAC2

Controls and manages communications between WaveLinx Pro wireless, Low-Voltage, network devices and the intuitive mobile application

Typical Applications

Office • Education • Healthcare • Hospitality • Retail
Industrial • Manufacturing

Interactive Menu

Product Certification

- Complies with the following electromagnetic requirements:

FCC part 15 Sub Part B	EN/IEC 61000-4-4
EN/IEC 61000-4-3	IEC60950-1 (Impulse Test)
EN/IEC 61000-4-5	UL/IEC 62368-1
EN/IEC 61000-4-2	

Product Features

Wi-Fi Signal · IEEE 802.15.4 · Device Security · Customer Security · DLC LISTED

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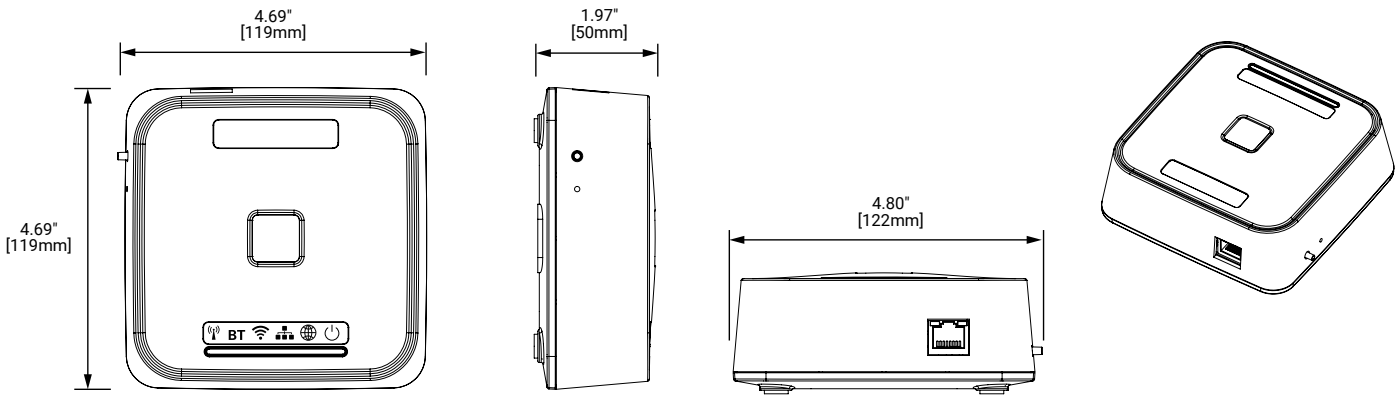
Top Product Features

- Central to the WaveLinx Pro connected lighting system
- Supports up to 200 devices (150 best practices) for up to 50 areas (49 user-defined + 1 construction area) and 200 zones
- Built-in WiFi provide secure WPA2 connectivity with the WaveLinx Mobile Application (available for both iOS and Android operating systems)
- Built-in Ethernet 10/100 Mbps port for PoE power and connection to local area networks
- Independently IEC 62443-2 cyber-security certified and DLC QPL Listed

Dimensional Details



Order Information

All WaveLinx Pro connected lighting (WCL) system accessories require at least one WaveLinx Pro Wireless Area Controller (WAC2) for communications. Ensure the bill of material includes one of the following components.

Catalog Number

Catalog Number	Description
WAC2-120	Wireless Area Controller G2 with 120VAC to PoE Injector
WAC2-POE	Wireless Area Controller G2, PoE powered

Optional Accessories

For connection to 120VAC outlets.

Catalog Number

Catalog Number	Description
WPOE2-120	120VAC to PoE Injector

Product Specifications

Key Features

- Easily installed on or above ceilings (plenum rated), walls, shelves, racks, or DIN rail
- Powered via Power over Ethernet (PoE - IEEE 802.3af)
- Controls up to 200 (150 best practice) WaveLinx Pro devices (light fixtures, relay switchpacks, wallstations, sensors, etc.)
- Supports 49 user-defined and one construction area with multiple lighting zones, occupancy sets, and daylight sets per area
- Drag and drop programming of lighting zones and areas via WaveLinx Pro Mobile App
- Connects to building LAN for access (via Trellix) to BMS and OpenADR interfaces

Mechanical

Size: 4.69" W x 4.80" H x 1.99" D (119mm x 122mm x 50mm)

Weight: 0.70 lbs (0.32 kg) with bracket
0.62 lbs (0.28 kg) without bracket

Environment:

- **Operating temperature:** 32°F to 131°F (0°C to 55°C)
- **PoE Injector temperature:** 32°F to 122°F (0°C to 50°C)
- **PoE Injector storage temperature:** -13°F to 158°F (-25°C to 70°C)
- **Storage temperature:** -22° F to 185° F (-30°C to 85°C)
- **Relative humidity operating:** 5% to 90% RH (non-condensing)
- For indoor use only

Mounting: Ceiling, wall or din rail mount options

Color: White

Electrical

Input Connections:

- POE 1-/100BaseTx Cat. 5 RJ45 port
- PAIR button allows devices to join the network

Input Power:

- PoE (IEEE 802.3af)
- 4W (typical) / 8W (max)

Hardware Specifications

Status Indicators:

- LAN connectivity LED - green
- WAN connectivity LED - green
- Wi-Fi connectivity LED - blue
- BT reserved for future functionality - blue
- IEEE 802.15.4 connectivity LED - blue
- Power indication LED - blue

Software Specifications

Programming:

- Settings and Configuration stored in non-volatile flash memory
- Up to 200 total WCL devices (for best performance, connect up to 150 devices)
- 49 user defined areas + 1 construction area
- Up to 200 total zones per WAC2
- Up to 100 occupancy sets per WAC2
- Individual luminaire daylight sets (when using integrated sensors)

Wireless Specifications

Radio: 2.4GHz

Standard: IEEE 802.15.4 (802.11 wifi used for mobile app connection)

Transmitter Power:

- IEEE802.15.4: Max 16 dBm, Min 14 dBm
- WiFi: Max 14 dBm, Min 11 dBm

Range: 150ft (50m) LOS through 2 standard construction walls (best practice)

Note – consult outdoor sensor spec sheets for guidance when connecting to devices located outdoors

System Performance

Maximum number of Devices: 200 per Wireless Area Controller (best practice 150 devices)

Standards/Ratings

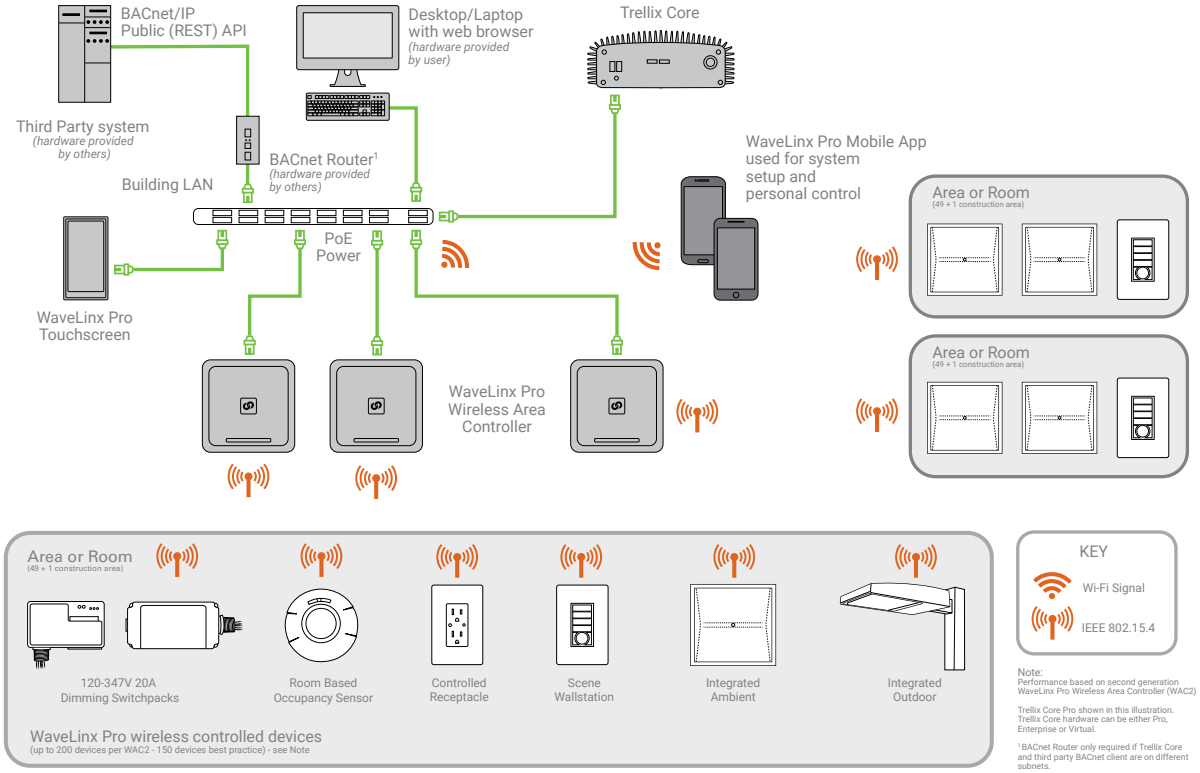
- UL/IEC 62368-1 (IT Equipment)
- UL 2043 (Plenum Mounting)
- FCC Part 15/ICES-003
- IEC 62443-4-2 Cybersecurity Certification
- Complies with the following electromagnetic requirements:
  - FCC part 15 Sub Part B
  - EN/IEC 61000-4-2
  - EN/IEC 61000-4-3
  - EN/IEC 61000-4-4
  - EN/IEC 61000-4-5
  - IEC60950-1 (Impulse Test)
  - UL/IEC 62368-1

Warranty

Five year warranty standard

System Architecture

This diagram shows the main components of the WaveLinx Pro connected lighting (WCL) system. The WCL system communicates using wireless mesh technology based on the 802.15.4 standard. A POE LAN connection for each Wireless Area Controller (WAC) is required for power and data access to the building wireless network. System setup is achieved through a simple mobile application via wireless communication to the system.



Overview

The Wireless Area Controller (WAC) is the main component of the WaveLinx Pro connected lighting (WCL) system. WaveLinx Pro eliminates the cost and complexity of typical wireless control system commissioning while providing a flexible and reconfigurable topology for on the fly space adjustments. The WaveLinx Pro system meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings.

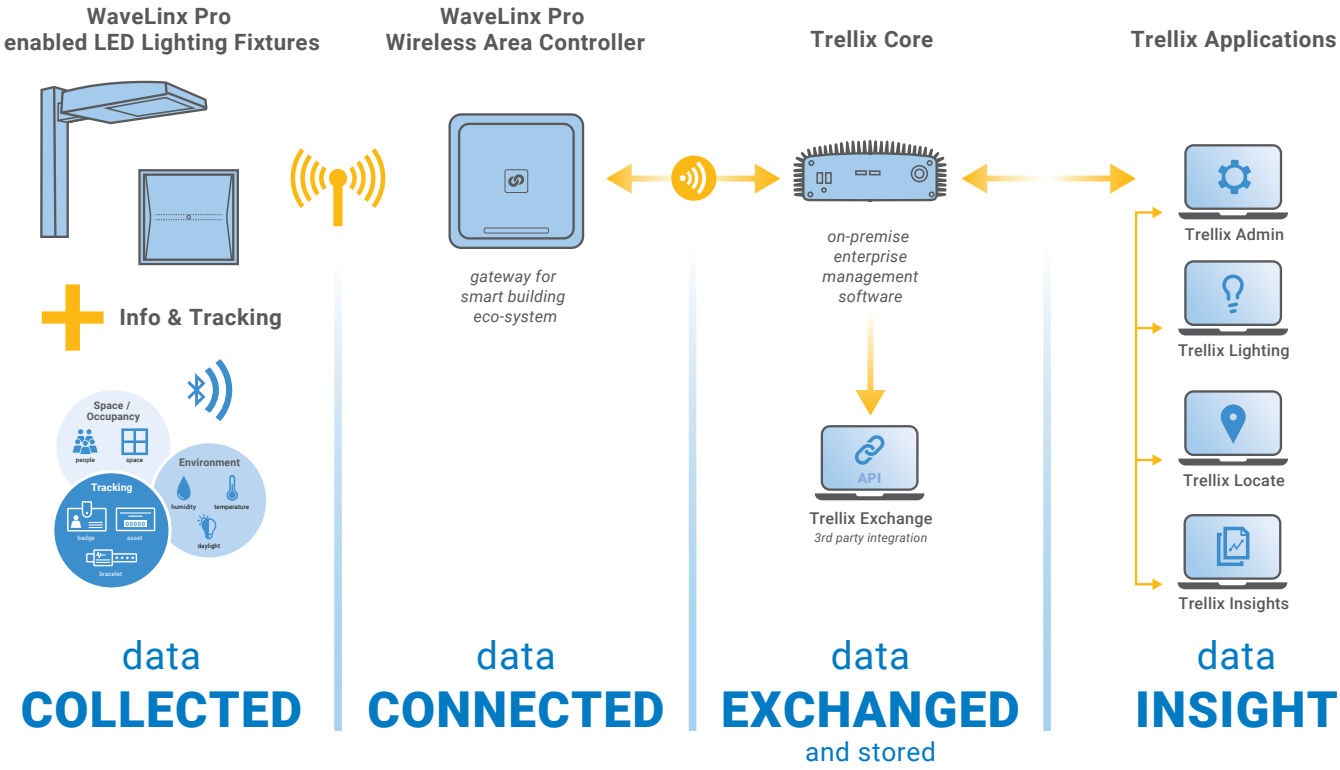
The WAC coordinates between the WaveLinx Pro smart and connected Mobile App and various WaveLinx Pro devices to create communications and a building ecosystem that provides out-of-the-box functionality and leverages Cooper Lighting Solutions patent pending automatic code commissioning features. Using standard-based wireless mesh compliant topology the WAC communicates to various WaveLinx Pro standard-based devices to provide area, lighting zone configuration, monitoring, and control.

The WAC provides centralized coordination of multiple areas for partial ON/partial OFF scheduling, demand response (Trellix application required) , lighting, occupancy and daylight settings and scene control. A single WAC can be connected to the building Local Area Network (LAN) to coordinate 49 user-defined and one construction area, or multiple WAC's can exist on a building LAN to scale the system to hundreds of areas all accessible for setup, configuration and control through the WaveLinx Pro Mobile App.

Better Data. Better Decisions.

Trellix combined with our WaveLinx Pro connected lighting system is a distributed network of LED lighting fixtures with integrated sensing and beacon technology that captures real-time data; making your facility smarter so you can make smarter decisions.

Trellix provides an open IoT platform and infrastructure that connects intelligent sensors leveraging the real-estate of the physical light fixture to solve higher complexity problems in a commercial building to deliver actionable insights through the aggregation of valuable data.



Control Systems

- Trellix
- WaveLinx Pro wireless

Cooper Lighting Solutions
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com