

Project		Catalog #		Type	
Prepared by		Notes		Date	



# WaveLinx

## Area Hub (WAH-C-POE-ID)

Bridging Device for WaveLinx Network Solution

### Typical Applications

Office • Education • Healthcare • Hospitality • Retail

### Interactive Menu

- Order Information [page 2](#)
- Additional Resources [page 2](#)
- Wiring Diagrams [page 3](#)
- Connected Systems [page 4](#)
- Product Warranty



- cULus Listed - Emergency Lighting and Power Equipment (UL924)
- Meets latest ASHRAE 90.1 - 2019 requirements
- Meets latest IECC - 2021 requirements
- Meets latest Title 24 - 2019 requirements
- Manufactured in an ISO 9001 certified factory

### Product Features



### Compatibility



## Overview

The WaveLinx Area Hub (WAH-C-POE-ID) is an IP-to-CAT bridge connecting CAT devices to the WaveLinx Area Controller. This device is an integral component of the communication backbone in the topology of a connected space. The Area Hub has 8 RJ45 ports into which areas of daisy-chained WaveLinx CAT devices can connect. The device acts as a router, allowing data exchange between the CAT devices and the WaveLinx Area Controller.

## Product Features & Benefits

- **8 RJ45 ports for WaveLinx CAT communication bus** – Allows up to 80 WaveLinx CAT devices to be connected to the WaveLinx Area Controller with up to 40 devices per port
- **LED indicators per port** – Helps installer to assess the network connection status quickly
- **Plenum rated** – Allows installer to install the device in a plenum space
- **Remotely upgradeable** – Allows installer to upgrade the device over ethernet
- **PoE powered** – Simplifies the design of a connected spaces solution by leveraging the benefits of power over ethernet

product diagrams

## Order Information

Catalog Number

Catalog Number	Description
WAH-C-POE-ID	WaveLinx Area Hub

### Required Accessory

The WaveLinx CAT network requires termination of the local CAT bus network on both ends.

Catalog Number

Catalog Number	Description
ACC-C-TP-6PK	ACC-C Canbus Termination Plug - 6PK

### Optional Accessories

Catalog Number

Catalog Number	Description
GGRJ45-03-G	RJ45 cables 3 feet
GGRJ45-10-G	RJ45 cables 10 feet
GGRJ45-25-G	RJ45 cables 25 feet
GGRJ45-50-G	RJ45 cables 50 feet
GGRJ45-100-G	RJ45 cables 100 feet
GGRJ45-10P-G	RJ45 cables 10 feet plenum rated
GGRJ45-25P-G	RJ45 cables 25 feet plenum rated
GGRJ45-50P-G	RJ45 cables 50 feet plenum rated
GGRJ45-100P-G	RJ45 cables 100 feet plenum rated

## Product Specifications

### Mechanical

**Size:** 4.4" x 8.2" x 1.6" (112mm x 220mm x 39.55mm)

**Mounting:** Extended Chase Nipple

**Color:** Black

### Environmental:

- **Operating temperature:** 32°F to 122°F (0°C to 50°C)
- **Storage temperature:** 22°F to 185 °F (-30°C to 85°C)
- **Relative humidity operating:** 5 to 95% non-condensing
- For indoor use only

### Electrical

#### Power Input:

- PoE (IEEE 802.3af, PD max 12.95W)
- 6W (typ.) - 8W (max) (as tested)

#### Network connection:

- CAT5 Solid Copper 24AWG
- T568B pin/pair assignment is recommended for all CAT5 cable

### Standards/Ratings\*

- cULus Listed - Energy Management Equipment (UL916)
- UL Listed (UL508)
- cULus Listed - Emergency Lighting and Power Equipment (UL924)
- FCC Part 15, Part B
- Manufactured in an ISO 9001 certified factory
- Meets latest ASHRAE 90.1 - 2019 requirements
- Meets latest IECC - 2021 requirements
- Meets latest Title 24 - 2019 requirements
- Plenum UL2043
- Chicago Plenum rated
- WaveLinx CAT is DLC Listed for interior applications - meeting the NLC5 Technical Requirements

#### Environmental Regulations:

- RoHS

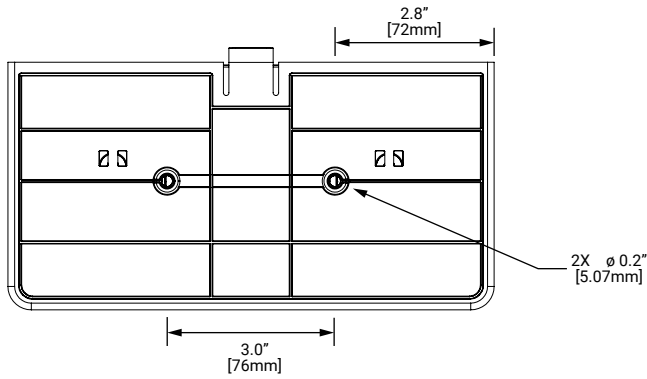
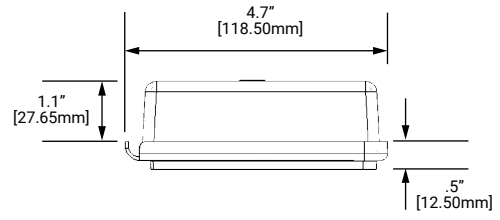
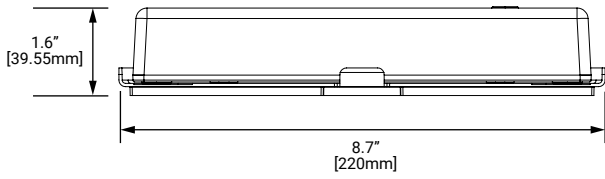
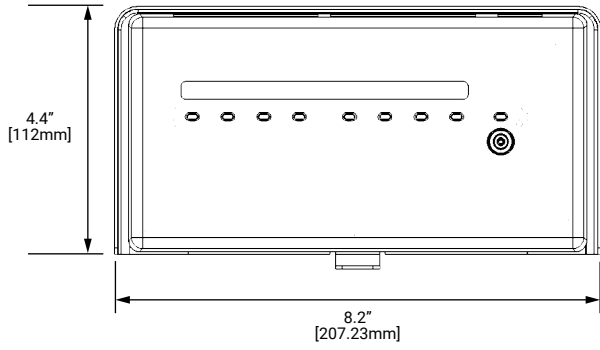
### Warranty

Five year warranty standard

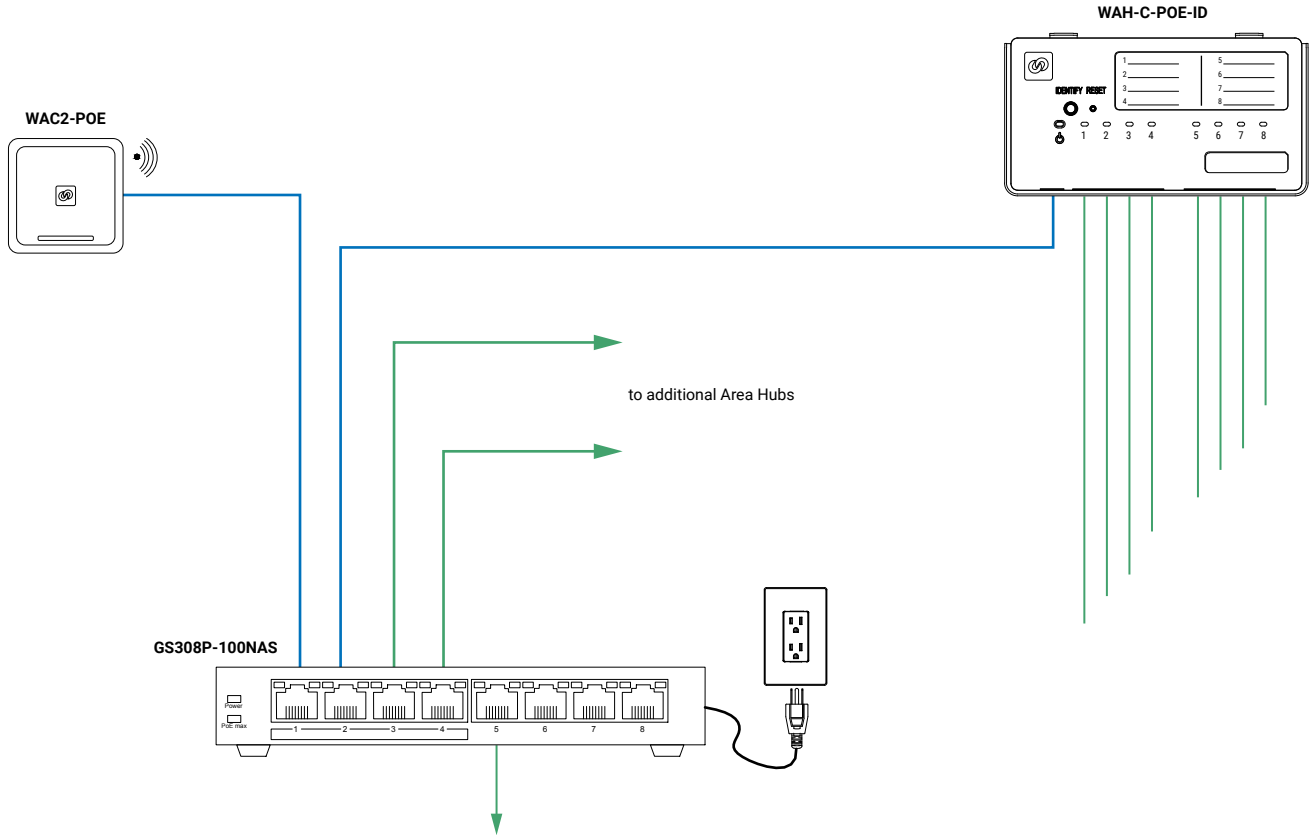


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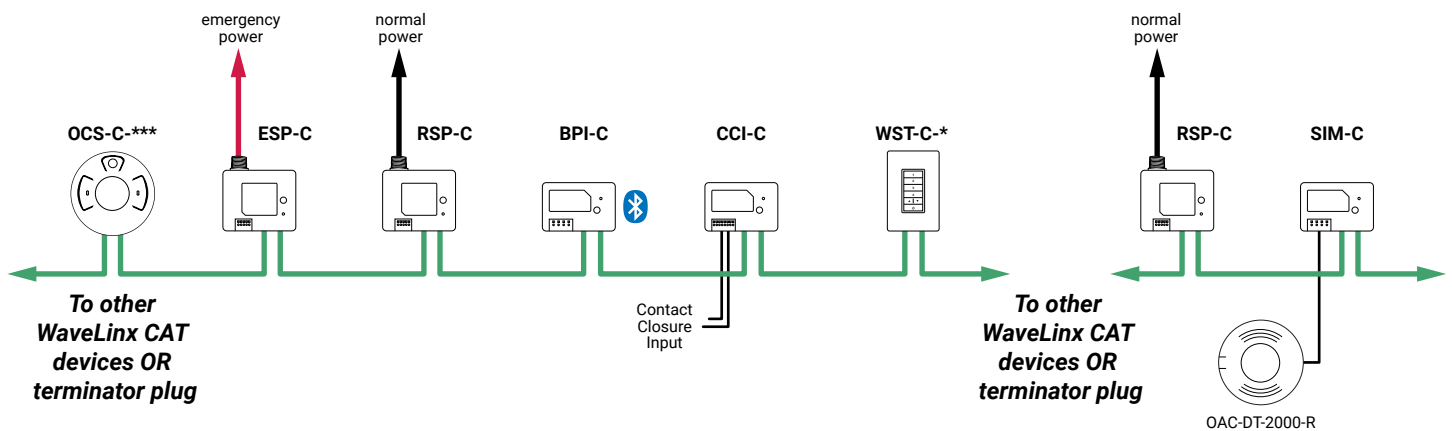
## Dimensional Details



## Wiring Diagram



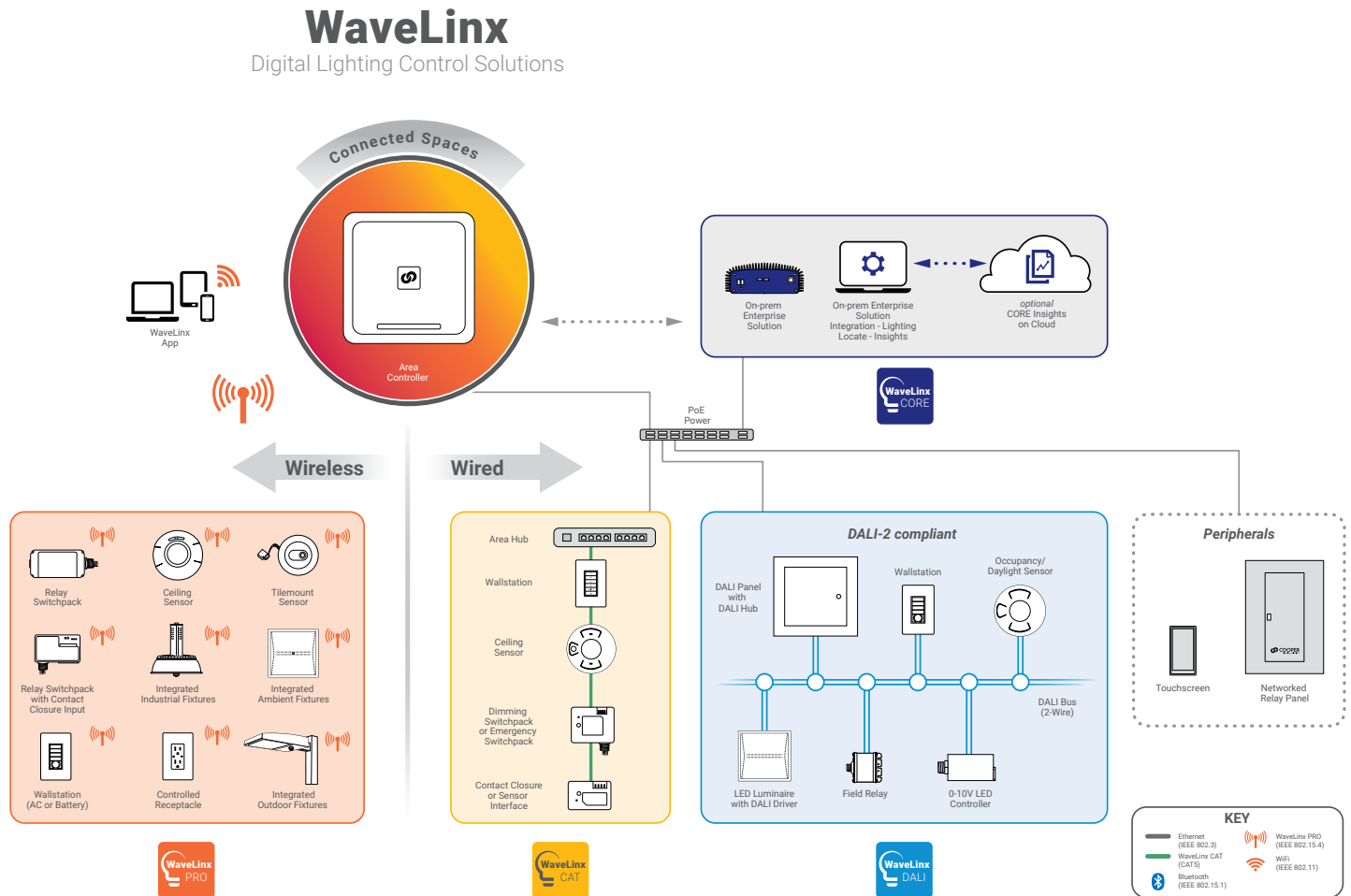
## Typical Topology



## System Diagram:

This diagram shows the main components of the WaveLinx connected lighting system with WaveLinx DALI, CAT and PRO devices. The PRO devices communicate using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network. The CAT devices communicate over the category 5 based communication bus and control the light fixtures using a relay (on/off) and 0-10V output (dim/raise). WaveLinx DALI devices communicate via a DALI bus (2 wires), which connects various components including DALI fixtures, a DALI DAC (DALI to 0-10V converter), DALI field relays, DALI wallstations, and DALI occupancy sensors. WaveLinx Area Controllers (WAC) communicate with WaveLinx CORE Apps over the Ethernet network.

[View WaveLinx PRO Network and IT Guidance Technical Guide](#)



**Control Systems**  
• WaveLinx