LightGrid™ Wireless Control System

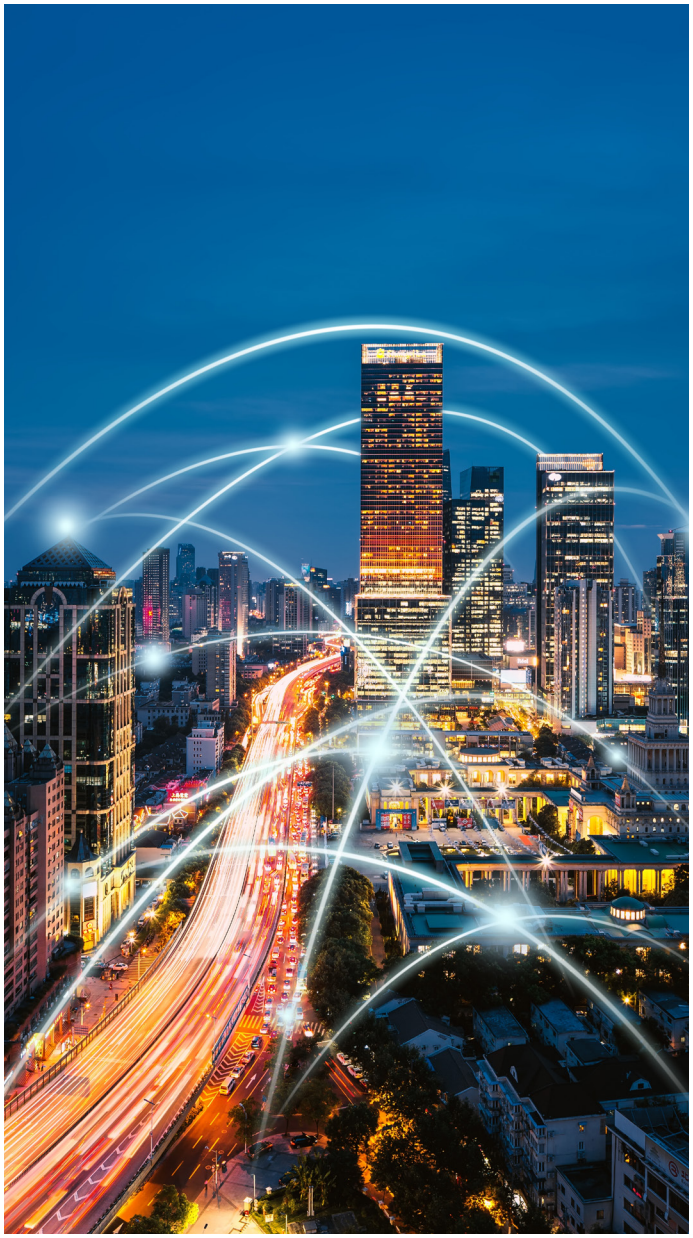
Mesh Node (ELWN)

Project Name _____

Date _____ Type _____

Notes _____

Outdoor Lighting Control System Designed for Street and Roadway Applications. It enables remote monitoring, control, and asset management of a single fixture or a group of fixtures through a web enabled Central Management System.



SYSTEM ARCHITECTURE

Nodes reside on top of each light fixture on a standard ANSI socket and operate in a mesh network, communicating to each other as well as the gateway. The gateway connects nodes to the CentralManagement System through a standard TCP-IP interface.

WHY MESH?

Mesh systems provide a cost-effective lighting controls solution in urban environments that typically have dense pole locations, because each gateway can support up to 550 nodes.

- Optimized Energy Usage: *On/Off & Dimming*
- Query by Location: *Available Every 15 Minutes*
- Reduce and Streamline Repair Calls: *Day Burner/Dark Night Alerts*
- Accurate Energy Usage Measurement: *+/- 0.5% Accuracy*

PRODUCT FEATURES

Universal Voltage (120-480V) Standard
Enhanced Surge Protection 10kV/5kA per ANSI C136.2-2015
0-10V (Analog) and DALI (Digital) Dimming Interfaces
Plug and Play Auto Commissioning
Connects through ANSI 7-Pin
Integrated GPS
Max Load 1,000 Watts / 1,500VA

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LightGrid™ Wireless Control System

Mesh Node (ELWN)

Catalog Logic and Spec Tables

Project Name ______________________

Date ______________ Type ______________

Notes ______________________

ELWN

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ID	VOLTAGE	CONFIGURATIONS	METERING TYPE	METERING PRECISION	COMMISSIONING	MAX LOAD	NETWORK	LOCATION OPTIONS	DIMMING	OPTIONS
ELWN	1 = 120-480V	A = ANSI Socket (External Node)	8 = Load + Node	U = 0.5% Utility Grade	B = GPS	A = 1,000 Watts/1,500 VA	A = Network A	XX = Default	AD =0-10V/ DALI	None = Default
							B = Network B			2 = 5.16.8 update
							C = Network C			
							D = Network D			

Examples

ELWN0IXUXXXXXAD: 120-277V, Internal Node, Load and Node Metering, Utility Grade, Direct Connected Antenna, 1000W Load, Network A, DALI/0-10V Dimming
ELWN0IXUSXBXXAD2: 120-277V, Internal Node, Load and Node Metering, Utility Grade, SMA Connector for Antenna, 1000W Load, Network A, DALI/0-10V Dimming, 5.16.8 Firmware Update.

NODE SPECIFICATIONS

Input Voltage: 120-277V
Both 0-10V and DALI Dimming Supported per ANSI C136.41-2013
Operating Temp: -40° to +70°C
Surge Protection: 10kV/5kA Standard, per ANSI C136.2-2015
Typical Power Consumption: 1.5W @ 120V, 2W @ 277-347V, 2.4W @ 480V
Photocell: Complies with ANSI C136.10-2006
GPS Accuracy: +/- 3m in clear open sky
Max Load Capacity: 1,000 Watt / 1,500VA Load
Inrush Current Limiting at Turn On
Utility Grade Energy Measurement per ANSI C12.20
IR Output for Utility Meter Calibration Validation
Ingress Protection: Class IP65
Digital In/Out and Analog Inputs
Configurable Serial In/Out Communication
Weight: 0.52 lbs

NETWORK, COMPLIANCE & SECURITY

Radio Frequency: 915 MHz ISM Band, FCC CFR 47 15.247 Intentional Radiators, ICES-005
Network Communication: IEEE 802.15.4 6LoWPAN, 50 Channel FHSS
EMI: Complies with FCC CFR 47 15.208, 15.209 and ICES-005 (B)/ NMB-005 (B)
Security: AES Encryption and "End to End" Certificate Based Authentication

WARRANTY

☐ **5 Year (Standard)** ☐ **10 Year (Optional)**