

# Edge-Q | TECHNICAL OVERVIEW

Tondo Smart Lighting Module

# EDGE-Q



## What is the Tondo Smart Lighting Module?

Tondo's Smart Lighting Module (SLM) is the heart of an open and flexible platform that connects lighting, sensors, and applications to your smart city or building network.

Easy to install and operate, the Tondo SLM enables unified management, monitoring and control making it easy for you to create a smart, connected, safe and energy-efficient environment.

## What does the Tondo Smart Lighting Module do?

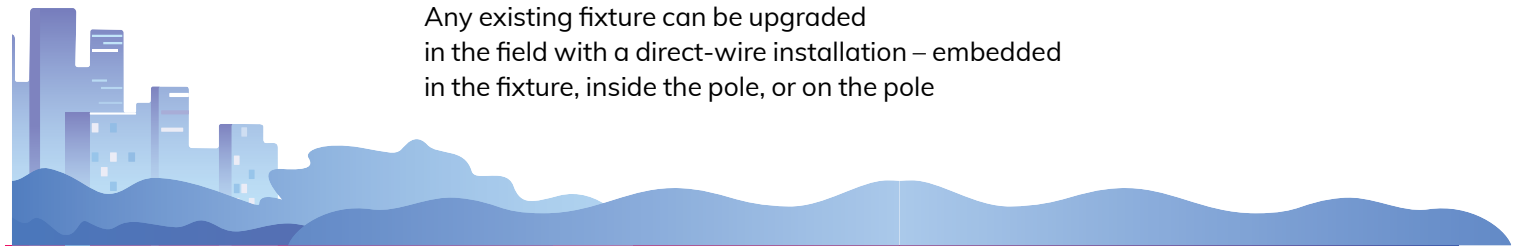
**Tondo's SLM makes any lighting fixture smart and connected so you can:**

- Remotely control and monitor the power and dimming level of any street light (DALI, 0-10, 1-10, relay); one by one or thousands at a time.
- Integrate a wide array of sensors and devices to deliver adaptive lighting that is comfortable, safe and energy-efficient.
- Patented plug and play commissioning interrogates the host light fixture and automatically configures interface controls (DALI, 0-10, relay) and location for instant operations with no operator intervention.

## One Tondo, many form factors.

**Tondo's SLM solution adapts to the needs of the installation environment and deployment team. Upgrade existing infrastructure or specify it in new installs.**

- **NEMA socket**  
Plug-and-play upgrade for lamps with compatible 7 and 5 pin (ANSI C136.41) and 3 pin (ANSI C136.10) NEMA sockets
- **ZHAGA socket**  
Plug-and-play upgrade for lamps with compatible 4-pin Zhaga Book 18 socket
- **Field-wired connection**  
Any existing fixture can be upgraded in the field with a direct-wire installation – embedded in the fixture, inside the pole, or on the pole



## Tondo is real-world ready

IP65 protection handles the harshest weather conditions. Autonomous operations ensure that smart scheduling for on/off and dimming continues even when connectivity is lost. Remote management keeps all of your infrastructure safe, secure and up to date with active monitoring and secure firmware update.

## Tondo saves you money

Cut installation costs with plug-and-play deployments that are intelligently managed through any mobile device. Lower maintenance costs through active monitoring, real-time malfunction alerts, and remote support improve maintenance efficiency. Reduce energy consumption with grid aware real time feedback and interactive control that encourages optimization.

## Tondo is open and flexible

Tondo's Smart Lighting Module is the hub of a network of possibilities. A single Tondo SLM can control multiple drivers, sensors and devices. Support for multiple interfaces including DALI, 0-10v, 1-10V and relay ensures every light can become smart and connected.

Tondo's DALI master capability extends the value of your lighting network by making it easy to integrate industry-standard sensors and devices. Multifunctional communication capabilities matches Tondo to your needs; pick your favorite or mix and match to suit your project.

## Tondo is Complete

Tondo provides everything you need to bring smart lighting solutions to life. With wide ranging flexibility with connectivity, communications and expansion, Tondo's Smart Lighting Module is an open and flexible hub of possibilities. The fundamental building block of your smart lighting network, Tondo's SLM make it easy to leverage the power of industry-standard sensors and devices to make the environment smarter.

A supporting array of gateways and hubs is available to make deployments easy and complete. Tondo's Lighting Manager puts you in control. Centrally configure intelligent schedules and policies to deliver adaptive lighting that is comfortable, safe and energy-efficient. Monitor and manage and control your complete lighting solution from our simple dashboard or use one of our many integrations to connect Tondo to the CMS/BMS you are already using.

# Tondo Edge-Q Specifications

## ELECTRICAL

- Operating voltage range: 85 to 308 VAC, 50-60Hz
- Power consumption: less than 1 watt at 230V
- NEMA Socket Compatibility  
Compliant with ANSI C-136-41 on 5 and 7 pin receptacles  
Compliant with ANSI C-136-10 on 3 pin receptacles (reduced functionality – no dimming)

## ENVIRONMENTAL

- Ambient temperature range: -20C to +70C
- Relative Humidity: up to 99% non-condensing
- Enclosure is ANSI 65 when mounted per ANSI C-136-41/ANSI C-136-10

## CAPABILITIES

- Onboard GNSS/GPS geo-spatial positioning with global coverage
- Integrated accelerometer for movement & damage monitoring
- burn-time and cycles counters
- Operational Status Monitoring: Standard
- Output Status Monitoring: Standard
- Optional Inputs: Support for any DALI or LSI compliant sensor
- Security: integrated TPM & AE
- Power metering: amperage, voltage, power (+/- 0.5 % accuracy), power factor, energy, burn-time and cycles counters - C12.20 metering protocol compliance

## CONTROLS

- DALI/DALI2 control as Master (integrated DALI power supply supports up to 6 LED drivers) or Slave
- 0-10V (IEC 60929 Annex E, ANSI C82.11), 1-10V and 10-0V dimming – dynamically configurable, sinks up to 5mA
- Linear and Logarithmic dimming
- Integrated relay, maximum switching load 10 amps

## COMMUNICATIONS

- **Cellular:** LTE Cat M1 & Cat NB1 & EGPRS, soldered or socketed SIM
- **LoRaWAN:** EU433, US902-928, EU863-870
- **Bluetooth 5.0:** Beacon services, BT Mesh, local OOB configuration and diagnostics
- Integrated high-performance PCB mounted antennas

## LISTINGS

- Israel EN 302 208
- UL94V-0 Flame retardant ABS or Epoxy molding
- UL, CE, FCC (in-process)
- DALI Compatible  
(DALI Compliant in process)

## WARRANTY

Limited 2-year warranty

