Telematics Wireless

ENERGY RESOURCE MANAGEMENT

T-Light™ SMART LIGHTING SYSTEM

T-Light LCU Light Control Unit

T-Light™ is Telematics Wireless's solution for smart lighting control and monitoring systems. It enables utilities or maintenance companies to benefit from an improved, reliable and cost-effective tool for controlling and managing street lights. The system establishes a network with all participating light poles and provides the operator with an easy web-accessed efficient, automatic or manual control of the light pole's continuous operations. Individual and/or specified area light pole operations can be pre-programmed and/or adjusted by the operator in response to changing circumstances and developments.

T-Light LCU is a light pole control unit, easily installed inside the luminaire, or externally, utilizing standard NEMA socket; it controls its LED driver or electronic ballast to provide On/Off and dimming functionality.

The LCU provides various energy measurements, luminaire parameters and maintenance status. The LCU sends the information to the management system and receives commands to control the luminaire, using two-way communications via the **T-Light DCU** (gateway unit). The management system enabling the operator to control the luminaire is the **T-Light CMS** BackOffice system or a 3rd party Management Software.

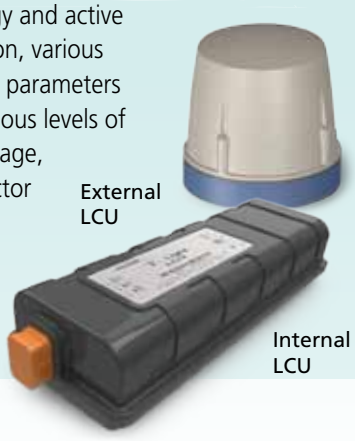
3 types of LCU are available, each utilizing different communication technique – wireless mesh (LCU-M), wide area wireless star, point to multipoint (LCU-S) or Power Line Communication (LCU-P). Depending on optimal topology chosen for specific environment, one of three LCU models is used.

FUNCTIONAL SPECIFICATIONS

- Controls **LED/HID** luminaire to provide On/Off and dimming functionality using **DALI or 0-10V**
- **Controlled Auxiliary output (option)**. e.g. can be used to control Electronic Advertisement displays or Christmas lights
- Optional GPS receiver for autonomous registration
- **Internal** or **External** (with NEMA ANSI C136.41 dimmable socket) configuration
- Equipped with an interface for **light sensor**, that enables autonomous and continuous light pole operation
- **Shock sensor** to alert about events, such as a road accident involving a light pole
- Supports **over the air firmware upgrade**
- Luminaire **Power consumption** measurement (option)
- **Hidden antenna** option in LCU-M – no need for luminaire enclosure modifications for external antenna

REPORTS

Aggregative energy and active power consumption, various luminaire dynamic parameters such as instantaneous levels of ambient light, voltage, current, power factor and temperature



T-Light LCU
Light Control Unit

TECHNICAL CHARACTERISTICS

Remote continuous and gradual dimming from 0-100%	
Ballast Communication Protocols:	DALI or 0-10V
Input Voltage:	110V/230V AC @50-60Hz
Load Current:	10A max
Surge Protection	
Operating Temperature:	-40°C to +85°C
Safety:	IEC60950-1:2005

RF CHARACTERISTICS T-LIGHT LCU-M
under the cover" antenna option"

Frequency:	868-869.5 MHz – EU ISM band
	902-926 MHz – US ISM band
Receiver Sensitivity:	-102dBm@38.4kbps
Output Transmit Power:	Up to +27dBm / 500 mW max
Compliance with FCC CFR47 PART 15	
Compliance with ETSI EN 300 220-1	

RF CHARACTERISTICS T-LIGHT LCU-S

Frequency:	450-470 MHz - License band
Bandwidth:	6.25kHz
Receiver Sensitivity:	-120dBm@4.8kbps
Output Transmit Power:	Up to +36dBm / 4Watt max
Part 90.210 Certification (Spectrum Mask E)	

PLC SPECIFICATIONS T-LIGHT LCU-P

Frequency operating band	100 – 400kHz FCC/ARIB
	9 – 95kHz CENELEC A
	95 – 120kHz CENELEC B
Receiver Sensitivity	1mV PTP
Dynamic Range	85dB
Compliance with EN50065-1, FCC, CENELEC, ARIB	

MECHANICAL CHARACTERISTICS

Internal LCU enclosure:	150 x 50 x 25 mm
External LCU enclosure:	Ø88mm x 90mm
Enclosure:	IP65

INSTALLATION
Easily installed next to the light unit ballast or LED driver inside the light fixture or inside the light column or externally on top of the fixture utilizing NEMA socket.

T-LIGHT SYSTEM ARCHITECTURE

TLL_112_0913L

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