

### **T-Light™** SMART LIGHTING SYSTEM



# **T-Light™ DCU2 PRO**

The T-Light Data Communication Unit 2 Pro, DCU2 Pro, utilizes an RF Mesh topology to manage information traffic and commands for both individual lighting units and for groups of lights. The DCU2 Pro stores all status and energy consumption information of the remote Luminaire Control Units (T-Light LCU). Using robust and encrypted two-way communications, it communicates with the Central Management System (CMS), and transmits all control commands to the luminaires. The DCU provides the monitoring status of each luminaire, including aggregative energy and active power consumption. It provides detailed parameters and values, such as voltage, current, power and temperature. The DCU2 Pro can control up to 1000 LCUs; multiple networked clusters of luminaires, each controlled by a DCU2 Pro, can be combined to form a wider T-Light Pro system network.

The DCU2 Pro when configured with its modem and power supply, forms three different models:

DCU2-I for indoor use. A housing unit contains the DCU2 Pro and the modem, the power supply is external.

**DCU2-E** for external use. The DCU2 Pro and modem are contained inside a housing unit, the power supply is mounted to the housing unit. The unit can be mounted directly onto a light pole, or placed at the preferred customer location.

DCU2-C should be mounted inside a free standing cabinet; the cabinet can be placed indoors or outdoors The DCU2 Pro, modem, and power supply are mounted on a DIN Rail EN-50022.

#### **KEY FEATURES**

- Manages the RF Mesh network of Light Control Units
- Remotely controlled using advanced management software
- Built-in Cellular modem
- Configurable alerts provided by SMS or EMAIL
- Can act as a smart street light controller – replaces the traditional street light programmable logic controllers with advanced scheduling properties
- Ethernet ,WiFi and Cellular communication for remote management
- Supports over the air firmware upgrade
- ModBus interface to Power Meters and I/Os (DCU2-C).







DCU2-E



DCU2-C

## **T-Light**<sup>™</sup> **DCU2 Pro**

#### **RF SPECIFICATION**

Frequency:	902-928 MHz - US ISM band
	869.5 MHz - EU ISM band
Receiver Sensitivity:	-102dBm @ 38.4kbps
Output Transmit Power:	Up to +27dBm/500mW max

#### **COMPLIANCE**

Radio:	EN300 220-1, FCC CFR47 PART 15 Subpart C
EMC:	EN301 489-1, EN301-489-3,
	FCC CFR47 PART 15 Subpart B
Safety:	EN60950-1, UL916

#### **EXTERNAL INTERFACE**

WIFI	Cellular Modem (3G)
Ethernet (Cat - 5e)	RS485 (DCU2-C only)
	I/O (DCU2-C only)

#### **ELECTRICAL SPECIFICATIONS**

Power Supply:	100-277 Vac
Operating Temperature:	-30°C to +70°C
Surge Protection (DCU2-E only)	

#### **MECHANICAL SPECIFICATIONS**

Physical Dimensions: DCU2-E: 365 x 280 x 146 mm

**DCU2-I:** 210 x 180 x 65 mm **DCU2-C:** 300 x 500 x 100 mm

### T-Light SYSTEM ARCHITECTURE



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Telematics Wireless Ltd. 26 Hamelacha St. POB 1911 Holon 5811801, Israel

Tel: +972-3-557 5700 Fax: +972-3-557 5703 Telematics Wireless USA Corp. 7750 N. MacArthur Blvd. Ste 120-274, Irving, TX 75063 SALES:

sales.tlight@tlmw.com Tel: (650) 276-8478