

T-Light™ DCU2 PRO

The **Data Communication Unit (DCU)** uses robust and encrypted two-way communications to manage information traffic and commands for both individual lighting units and for groups of lights. Storing all status and energy consumption information of the remote Luminaire Control Units (T-Light LCU), the DCU 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 in aggregate energy and active power consumption. It provides detailed parameters and values, such as voltage, current, power and temperature.

For optimal topology, various DCU models can be deployed depending on the specific environment and applications.

The **T-Light DCU2 Pro** serves as a communication gateway for a cluster of luminaires utilizing an RF Mesh topology. It can control up to 1000 LCUs. Multiple networked clusters of luminaires, each controlled by a DCU-Pro, can be combined to form a wider **T-Light Pro** system network.



DCU2 PRO

Key Features

- Manages the light pole network remotely using advanced management software
- Built-in Cellular modem
- Occupancy sensor interface
- Configurable alerts provided by SMS or EMAIL
- Optional - battery Backup for supporting alert submission in case of DCU electricity shutdown
- Can act as 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

T-Light™ Smart Lighting System

T-Light™ DCU2 PRO

RF Specification

Frequency:	902-928 MHz - US ISM band
	868 - 869.5 MHz - EU ISM band
	920-925 MHz - SG, TW ISM band
Receiver Sensitivity:	-102 dBm @ 38.4kbps
Output Transmit Power:	Up to +27 dBm / 500 mW max
Compliance with FCC CFR47 PART 15	
Compliance with ETSI EN 300 220-1	
CE compliant	

External Interface

Ethernet, USBx2	External Cellular Modem
RS485 (including MODBUS protocol)	3G / 4G optional
Isolated I/Os	External antenna
MODBUS interface (Pro)	SIM card
WIFI	
Bluetooth	
GPIO 4 inputs & 4 outputs as standard	

Electrical Specifications

External power supply:	12V @ 60W
Operating Temperature:	-40°C to +85°C

Mechanical Specifications

Installations:	DCU in IP65 enclosure
Physical Dimensions:	260 x 180 x 65 mm

T-Light DCU2 PRO System Architecture



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