

T-Light™ LCU NB/M1

Light Control Unit

The **T-Light LCU NB/M1**, or Light Control Unit, is a principal component of the T-Light Street light control system utilizing NBloT or Cat-M1 cellular network. It is easily installed on top of the luminaire, using a standard (twist and lock) NEMA socket. The LCU controls the LED driver or electronic ballast to provide On/Off and dimming functionality. The LCU provides various comprehensive energy measurements, luminaire parameters and maintenances statuses.

The LCU is controlled through the web-accessed **T-Light CMS** software - **BrightCity** or a 3rd party management software.



Functional Specifications

- On/Off and dimming functionality using automatic DALI/0-10 volt selection
- Luminaire power consumption measurement to 0.5% or 1% accuracy
- Analog and digital input for interfacing with external sensors
- Auto-commissioning with built-in GPS chip
- Highly secure wireless communication utilizing AES-128 or AES-256
- NEMA: ANSI C136.41, 7pin;
- Dual backup protection - autonomous operation based on a pre-programmed scenario; built in light sensor (in external configuration), no day-burn
- Supports over the air firmware upgrade
- Data and settings preserved in case of power failure
- LCU stores history of measured parameters to allow for data extraction
- Controlled Auxiliary Output (optional)

Reports

- Reports of events related to exceeding established parameter limits
- Aggregate energy and active power consumption
- Burning hours
- Number of On/Off cycles
- Failure reports
- Various luminaire dynamic parameters such as: power consumption, voltage, current, power factor, temperature and others.

T-Light™ LCU NB/M1 Light Control Unit

Technical Characteristics

Remote continuous and gradual dimming from 0-100%

Ballast Communication Protocols:	DALI or 0-10V
Input Voltage:	90 - 305V AC @50-60Hz
Load Current:	10A
Surge Protection:	350J (10kA)
Operating Temperature:	-40°C to +72°C

Safety:	IEC60950-1:2005
Isolation:	3kVac/5mA/5Sec

Mechanical Characteristics

LCU External configuration:	89 x 108mm
Protection: LCU external	IP66

CELLULAR MODEM CHARACTERISTICS

SUPPORT 4G BANDS	B2, B3, B4, B5, B8, B12, B13, B25, B26, OPTIONAL: B1, B18, B19, B20, B27, B28, B66, B71, B85
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OUTPUT POWER	20 dBm / 23 dBm
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APPROVALS	FCC/IC, RED, GCF, PTCRB, AT&T*, Verizon*, Sprint*
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LTE UE CATEGORY M1(1.4 MHZ) / NB (200 KHZ)	LTE Category M1 (Rel.14) <ul style="list-style-type: none">• Uplink up to 1Mbps• Downlink up to 588 Kbps	LTE Category M1 (Rel.13) <ul style="list-style-type: none">• Uplink up to 375Kbps• Downlink up to 300Kbps
	LTE Category NB2 (Rel.14) <ul style="list-style-type: none">• Uplink up to 160 Kbps• Downlink up to 120 Kbps	LTE Category NB1 (Rel.13) <ul style="list-style-type: none">• Uplink up to 62.5 Kbps• Downlink up to 27.2 Kbps

DATA FEATURES	OMA Lightweight M2M (LWM2M)
	FOTA Over-the-Air firmware update
	SOTA Over-the-Air Software update
	IPv4, IPv6
	MQTT
	HTTPS
	TPC/UDP SOCKET

*MODEM

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* Specifications subject to change without prior notice