

TECHNICAL DATASHEET

Lux AITHA LoRa

LoRa connectivity node for lighting



Type:
Technical datasheet

Product:
Lux AITHA LoRa

System:
AITHANEX

Audience:
Engineering, installation, integration and support

Document version:
1.0

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Product type

LoRa connectivity node for lighting.

It allows light points to be controlled, scheduled and monitored from **AITHANEX** (management and control platform).

A luminaire is the physical device that emits light: a street light, floodlight, high-bay or installed LED point.

Role within the system

Lux AITHA LoRa turns each luminaire into an operational asset within the platform.

Asset here means that each light point is identified, monitored and managed individually. It can report status, consumption and events, and receive individual and/or group scheduling.

Integration with the platform is done through **Router LoRa** (LoRa router/concentrator).

Communication between node and router uses LoRa technology.

Technical characteristics

Area	Scope
Control	Switching on, switching off and dimming of connected luminaires.
Communication	LoRa link with a dedicated router.
Scheduling	Schedules, scenes, profiles and operating rules.
Status	Reporting of operation, consumption and events of the lighting asset.
Synchronization	Integration of data, alarms and scheduling with the platform.

Technical specifications

Parameter	Value
Luminaire connection	4-pin Zhaga Book 18.
Power supply	From the Zhaga connector, with nominal supply of 16 VDC.
Luminaire control	DALI from the Zhaga connector, compatible with DALI-2 and D4i (not certified). DMX on request.
Network	The system's own LoRa.
Output power	Up to 22 dBm, configurable (14 dBm in the EU according to regulations)
Frequency	EByte E22 or E220 extended-band module, 868 MHz (EU) or 915 MHz (Americas), configurable by region
Theoretical range	Up to 5 km. Practical range depends on the scenario, installation and radio environment.

Typical applications

- Municipal street lighting.
- Industrial estates, logistics warehouses and distribution centers.
- Tunnels.
- Bridges.
- Campuses, hospitals and outdoor car parks.
- Roads, walkways and open areas.
- Luminaires with a compatible socket foreseen by the project.

References

- AITHANEX: <https://aitha.es/en/platform/>
- Lux AITHA LoRa: <https://aitha.es/en/products/lux-aitha/>
- Router LoRa: <https://aitha.es/en/products/lux-aitha/technical/>

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