Urbana RFTZ NB-IoT Module

Born to be smart

Urbana RFTZ Module is a Plug&Play control device for smart lighting applications. The device incorporates the multifunctional control unit which implement the DALI 2.0 protocol to communicate wth the smart driver. It is able to track power parameters and set operating values. The device is compliant with the Zhaga Book 18 guidelines and is a plug-and-play solution for integrating any luminaire into Urbana IoT Platform.

Best in class for energy efficiency.

Adapt current flow according to physical parameters of the lamp. Customize power and light level dinamically and in real-time to the preferred power level.

Real-time optimization through Urbana IoT Platform.

All lamps, thanks to Urbana RFTZ Module, can be programmed and reprogrammed whenever needed with a personalized lighting plan so the lamp will shine accoriding to the requirements.

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TECHNICAL SPECIFICATIONS

Mechanical

Housing:	Solid case
Material:	Plastic
Dimensions (mm):	47 (D) x 45 (H)
Mounting:	Luminaire
Connectors:	Zhaga Book 18

Electrical

Input Voltage:	+9VDC to +28 VDC
Internal backup battery duration	10 days

Environmental

Operating Temperature:	-40/+70 °C
Storage Temperature:	-50/+80 °C
Operating Relative Humidity (max):	100%
IP Rating:	IP67
Certification:	CE, RoHS

Average lifetime

Mean Time To Failure	3,000,000 hours

Interfaces and Protocols

Control input/output interface:	DALI 2.0, SR
Navigation:	GPS/GLONASS*
Radio Interface:	LTE Cat-M1 and Cat-NB1
Deployed bands:	1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19 20, 26, 28

* On request
** Under processing
Urbana products are continuously evolving. Urbana reserves the right to change technical and formal specifications without any public advice.

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TECHNICAL SPECIFICATIONS

Monitoring parameters

Power consumption ***
Active power ***
Reactive power ***
Apparent power ***
Power factor ***
Line voltage ***
Driver status ***
Driver current ***
Energy consumption ***
LED fade time ***
Controller over temperature
Driver over temperature ***
Driver over/under voltage ***
GPS error **
Generic fault **

Dimming
Daily programming with up to 16 dimming points
Ambient light sensor
Geolocation (GPS version)
On/Off
Controller operating hours
LED/lamp operating hours
On/Off cycles
DALI error ***
Flash memory error **
Eeprom memory error **
Ambient light error **
Main voltage down

Emergency functions

RTC status is kept for 10 days after line voltage down event. Upon line voltage recovery event, the device restores the last lighting program even without network connectivity.
In case line is down for more than 10 consecutive days, network is unreachable and RTC is resetted, the controller executes the light sensor-based program.

Compliances

EN 55024
EN 55024/A1
EN 55032
EN 61000-3-3

EN 62368-1:2014
EN 62368-1/A11:2017
EN 62368-1/EC
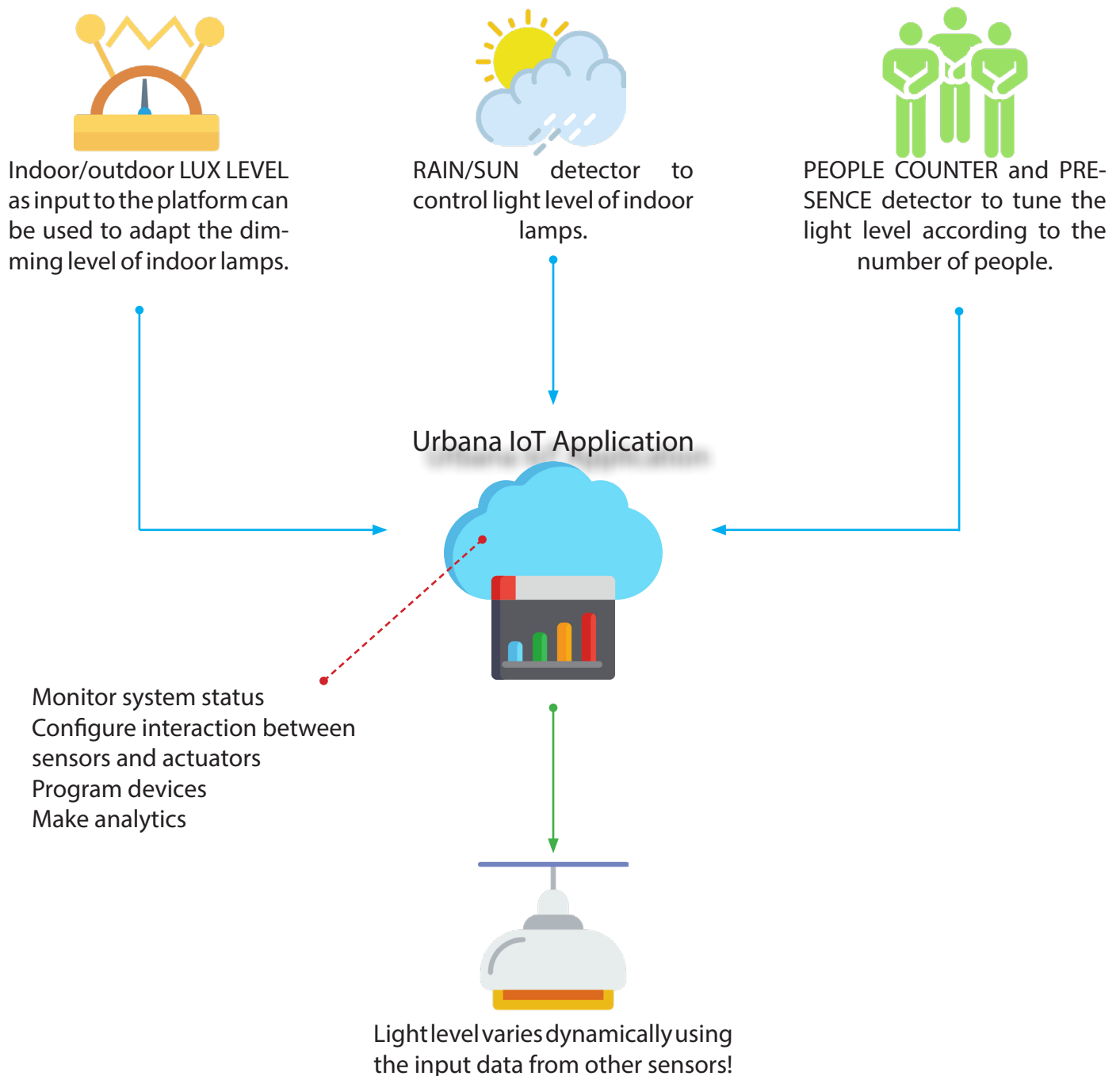
EN 62479 (R.E.D.)

*** If available from the driver
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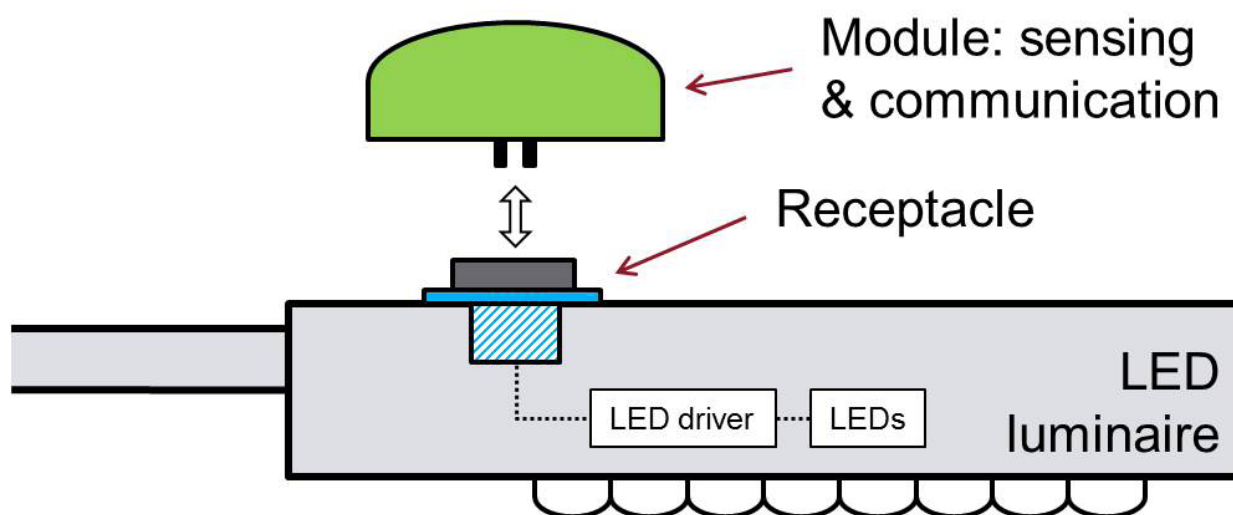
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URBANA IoT PLATFORM

Urbana RFTZ Module is compatible with Urbana IoT Platform, a platform that integrates lighting service with a lot of Smart services like video surveillance, environmental sensors. The application allow to quickly integrate input data from several sensor to be used to properly tune the lighting system. External sensor and device mounted sensor can be used to adaptively change the light level.

Indoor/outdoor LUX LEVEL as input to the platform can be used to adapt the dimming level of indoor lamps.

RAIN/SUN detector to control light level of indoor lamps.

PEOPLE COUNTER and PRESENCE detector to tune the light level according to the number of people.

Urbana IoT Application

Monitor system status
Configure interaction between sensors and actuators
Program devices
Make analytics

Light level varies dynamically using the input data from other sensors!

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CONNECTION SCHEME - ZHAGA BOOK 18

Module: sensing & communication

Receptacle

LED driver ···· LEDs

LED luminaire

RFTZ device

Top view

Bottom view

Part to be installed on the luminaire

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PRODUCT CODE

Products are identified by the following notation.

PRODUCT	RADIO	GPS
RFTZ	NB: LTE Cat M1 & NB1	N: w/o GPS S: GPS

ex. **RFTZNBN**