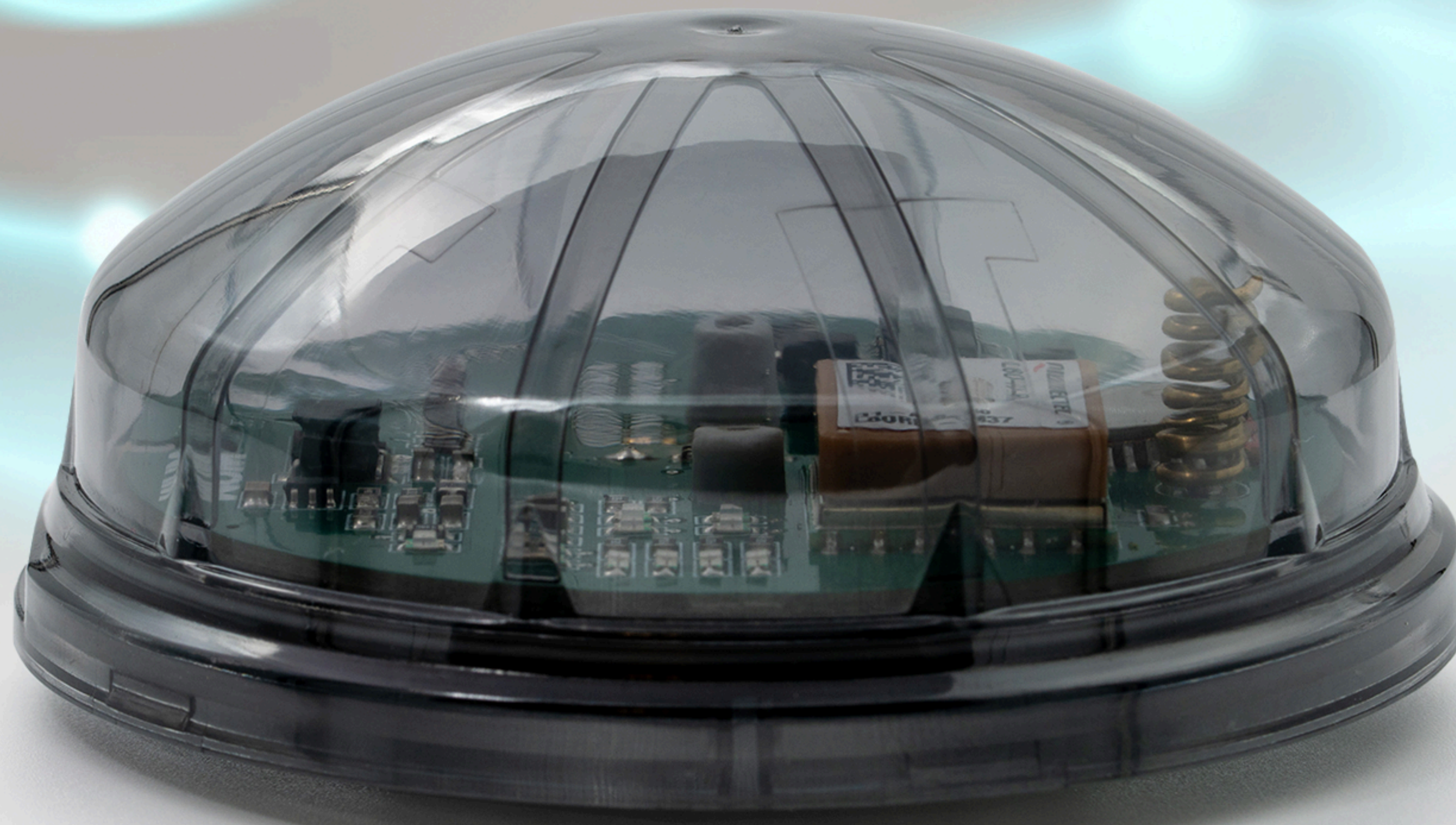


# WUM FIREFLY

Advanced Wireless IIoT LED Controller  
and Nodal Gateway for Street &  
Industrial Lighting



WUM Firefly controllers are compact, performant devices developed to monitor and control street and industrial **LED lighting**. Designed for urban infrastructure, they feature automatic **GPS location** functionality. Plug & Play installation requires no on-site configuration.



centralized monitoring  
and control



Plug & Play  
rapid deployment



GPS  
mapping



energy saving  
scenarios



cable-free  
scalability



security and  
fault tolerance



# FEATURES



## AREAS OF APPLICATION

The iDomus smart lighting system, combined with the C&Mon! Center cloud platform for monitoring and control, delivers substantial savings by lowering energy consumption and operational costs, ensuring a quick return on investment.

- ✓ **Smart City**  
Implies energy efficiency, cost reduction, and development of a digital urban environment.
- ✓ **Industrial sites**  
Provides centralized control of production area and warehouse lighting, with possibility of integration into existing automation and security systems.
- ✓ **Residential & Utility Services**  
Automatic control of lighting around building entrances and on surrounding grounds, with continuous monitoring of energy consumption and equipment diagnostics.
- ✓ **Areas with Limited Connectivity**  
(e.g., military sites, airports) - establishes a reliable, autonomous lighting system, that needs no cellular or Wi-Fi network to operate, thus offering enhanced security.

## DIMENSIONS

Enclosure with ZHAGA connector	IP67
Dimensions	80 x 80 x 37 mm
Weight including enclosure	67/77 g

## COMMUNICATION CHARACTERISTICS

LoRa radio modulation	868 MHz
Rx Sensitivity	-143 dBm
Tx Transmission power	up to +16 dBm

## OPERATIONAL CHARACTERISTICS

Operating temperature	-40...+85 °C
Humidity	up to 92% without condensation

## POWER SUPPLY

Supply voltage	+24 V
Power consumption	150 mA în regim de transmisie



### **SUPPORT FOR DALI PROTOCOL**

(Digital Addressable Lighting Interface)

Enables precise addressing and dimming of lighting fixtures.

### **ZHAGA STANDARD COMPATIBILITY**

Simplifies installation, replacement, scaling, and maintenance of lighting points.

### **PROPRIETARY LORA MESH PROTOCOL**

Combines LoRaWAN advantages with mesh network flexibility. Its use does not require installation of cable infrastructure.

### **C&MON! CENTER IOT PLATFORM**

Cloud-based solution for centralized monitoring, control, and analytics of all lighting system components.

### **SECURITY & RELIABILITY**

The entire system is designed with a focus on cybersecurity and reliability: end-to-end data encryption, the ability to set up backup communication channels, and comprehensive logging and auditing of all system actions.

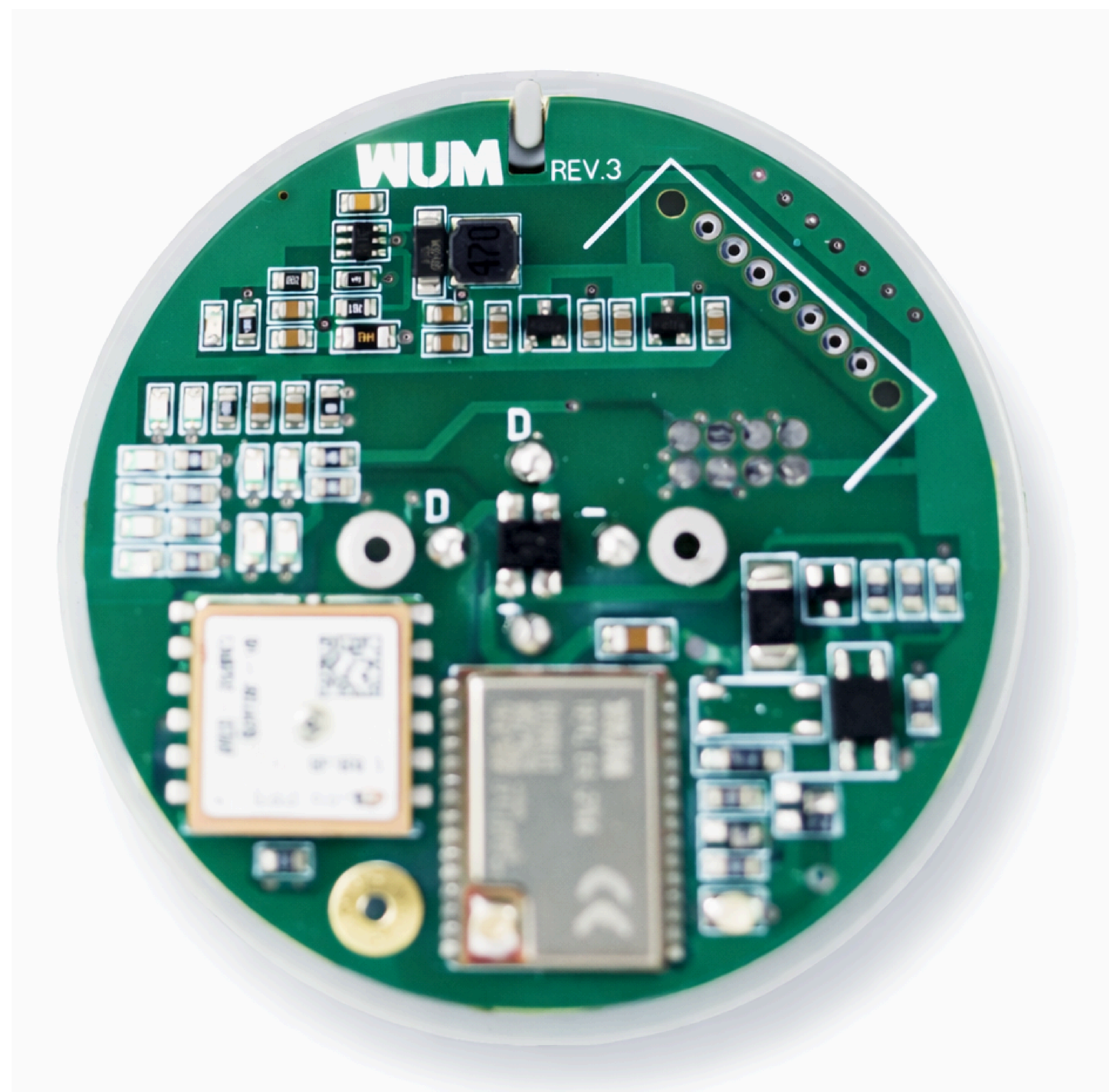
### **PLUG & PLAY TECHNOLOGY**

Ensures quick and easy deployment with minimal installation, setup, and training costs, eliminating human error through automatic registration on the platform.

### **AUTOMATIC GPS MAPPING TECHNOLOGY**

The system automatically detects and displays the location of each light point on a digital map and provides quick time synchronization. For system redundancy, manual input of controller's GPS location is allowed during installation, helping to avoid any interference or GPS malfunctions.

In addition to the listed functions, **WUM Firefly** can also operate as a mesh gateway – managing a corresponding segment of the street lighting network that may include hundreds of controllers. For this purpose, an additional LTE module is incorporated into the WUM Firefly, and the latter is configured as a nodal gateway – **WUM FFG**.



### **AUTOMATED BINDING**

The system automatically associates the location of each controller with the operational data of the connected light fixture, speeding up fault diagnostics and optimizing the maintenance schedule.

### **SELF-HEALING TECHNOLOGY**

Enables automatic controller registration with no need of entering new credentials, thus eliminating manual data entry and reducing administrative workload.

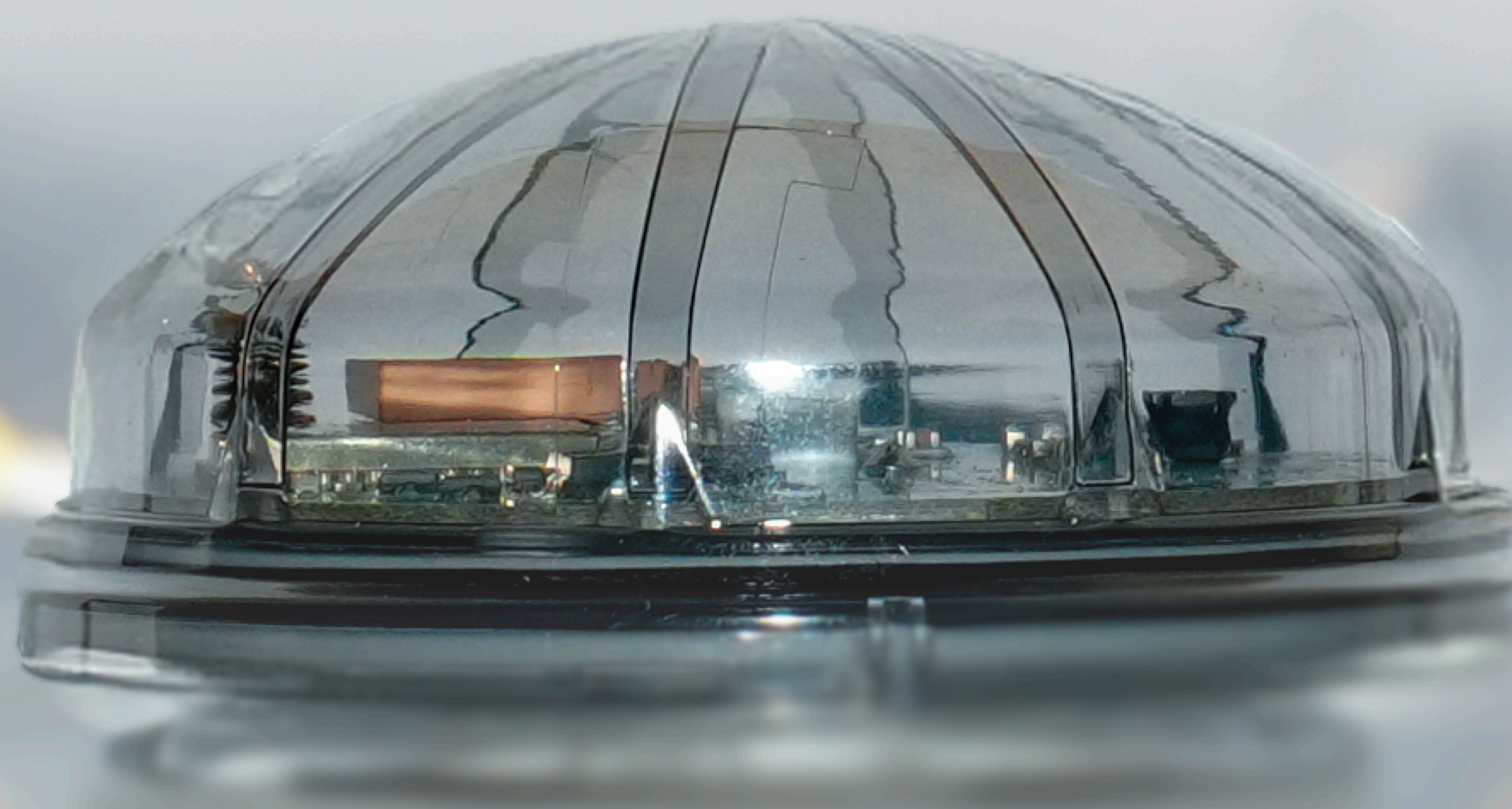
### **OPEN API INTERFACES (REST, MQTT)**

Provides for seamless integration of the platform with urban BMS/SCADA systems, smart city platforms, and security infrastructure.

### **INTELLIGENT LIGHTING CONTROL**

Ensures optimal illumination levels across different zones, reduces light pollution, and enhances urban comfort and safety.





# WUM

## CONTACTS

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The information contained in this document may be changed without prior notice.