

# Wirnet™ iZeptoCell Cellular

## LoRaWAN® Indoor Gateway for the Internet of Things



The “Wirnet™ iZeptoCell Cellular” is the ideal gateway to support you in your smart city, smart building or every smart project that requests dedicated indoor coverage and/or network densification, providing both a unique superior LoRa® coverage and operational excellence with embedded LTE-M backhaul.



Smart Cities



Smart Building



Smart Metering



Smart Retail



In France, Kerlink is certified ISO9001: 2015 by AFNOR certification. The Quality Management System gives high priority to Customer satisfaction and progress implementation.



## Key Features

- Indoor LoRa® Gateway,
- Lifetime Guarantee,
- Supported unlicensed bands: 863-870MHz (EMEA, India), 902-928MHz (North America),
- Supported LoRaWAN® regional parameters: EU863-870, IN865-867, RU864-870, US902-928,
- 8 x 8 packets detectors, 8ch RX (125 kHz, multi Spreading Factor) + 1ch RX (250kHz or 500kHz, mono Spreading Factor) + 1ch RX (FSK) + 1ch TX,
- Backhaul : LTE CatM1 / EGPRS / GPRS worldwide connectivity with remotely configurable eUICC,
- Powered through USB-A connector using:
  - AC/DC power supply (90-264VAC/5VDC), direct mounting (included accessory),
  - USB-A extension cable (included accessory),
  - USB-A to USB-C cable (optional accessory, not included),
  - PoE/USB power splitter (optional accessory, not included),
- Highly secured device relying on a Trustzone firmware

## Key Differentiators

### High performance and reliability

- Our product is **made in France**,
- Semtech CoreCell Reference Design,
- Integrated LoRa and LTE antennas,
- Built-in high rejection filters,

### Secure hardware and software architectures

- SecureBoot (Signed firmware),
- SecureStorage (keys and certificates in secured area) using Trusted Execution Environment solution,
- Secured links and backhaul protection (OpenVPN/IPsec),
- Reboot (watchdog) and recovery on previous Management config (or factory config if the boot issue is not fixed).

All product specifications are subject to change without notice (V3.6)

## Easy deployment

- Easy installation: wall mounting by 1 oblong holes or by VELCRO® strips or by double sided adhesive tape, or direct mounting on AC/DC supply or lay on a table,
- Easy access to connectivity:
  - eSIM with LTE-M/GPRS worldwide connectivity,
  - 3 LEDs:
    - 1 LED (green/red) for Gateway status,
    - 1 LED (green/red) for Backhaul status,
    - 1 LED (green/red) for LoRa® RF activity (Uplink,Downlink),
- USB Type A connector for power supply,
- Integrated LoRa® and LTE antennas,
- Reset button,
- Remotely configurable, manageable, via intuitive Web GUI

## Technical Features

- LoRa® performance:
  - Rx Sensitivity: -140 dBm (SF12BW125),
  - Tx conducted power: configurable from 5dBm to 25dBm
  - Maximum EIRP: 27dBm
- LTE CatM, GPRS, EGPRS module supporting:
  - +23dBm output power (class 3),
  - Bands 1, 2, 3, 5, 8, 12, 13, 18, 19 20, 25, 26, 27, 28, 66, 71, 85,
  - EU RED, US FCC, CA ISED, BRAZIL ANATEL, JAPAN JRF & JTBL, CHINA CCC, Singapore INDA, Australia RCM, Taiwan NCC, Korea approvals,
- MFF2 eUICC remotely configurable,
- CPU: ARM Cortex A7 792MHz,
- DDRAM 256 MB,
- 4GB eMMC (2GB available for user)
- Power consumption: 1W nominal, 5.5W max
- Operating Temperature Range: 0°C +55°C (for gateway only, without power supply),
- Humidity: 5% to 95%,
- Size: 76 x 68.5 x 32 mm,
- Weight: 65g (gateway only); 250g (with packaging),
- Casing: IP30

Thanks to their expertise and experience, Kerlink teams are fully mobilized to help you develop your business and reduce your operational and commercial risks.

Don't hesitate to contact us.

## Software Features

- Same Kerlink software on all i-Series (for infrastructure homogeneity and easy maintenance)
- **Dynamic web interface (On-the fly modifications),**
- **Programmable Gateway:** Toolchain, libraries and header files for compilation of in-house SW, or extra packages additions,
- **Including:**
  - Operating System: KerOS with embedded GNU/Linux based on Yocto LTS and Kernel LTS,
  - Native Language Support: Python 3, C/C++ and Shell,
  - Kerlink Common Packet Forwarder (Semtech Packet Forwarder, GWMP), Basic Station

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## Added-Value Services for all gateways

- **Access to Kerlink Wiki**

The Kerlink Wiki gives you full access to comprehensive and up-to-date documentation about the delivered solution: installation and setup instructions, configuration steps, connectivity options, etc.

The content of the wiki at the time of ordering is **the reference** and prevails in case of discrepancy.

**Consult it before buying to ensure the solution fits your needs:** [Click here](#)

- **Zero Touch Provisioning (ZTP) and Zero Touch Maintenance (ZTM)**
- Access to embedded Chirpstack LNS

## Available Options

### **Maintain Program**

For customers aiming to enhance their IoT network based on Kerlink gateways.

**Including:**

- Unlimited level 2/3 support
- Team of dedicated experts
- Response within 8 working hours
- Clear history and tracking
- Personalized support
- Access to our Wanasy Management Cockpit
  - Real-time overview of your gateway's health
  - Precise monitoring of your network's performance

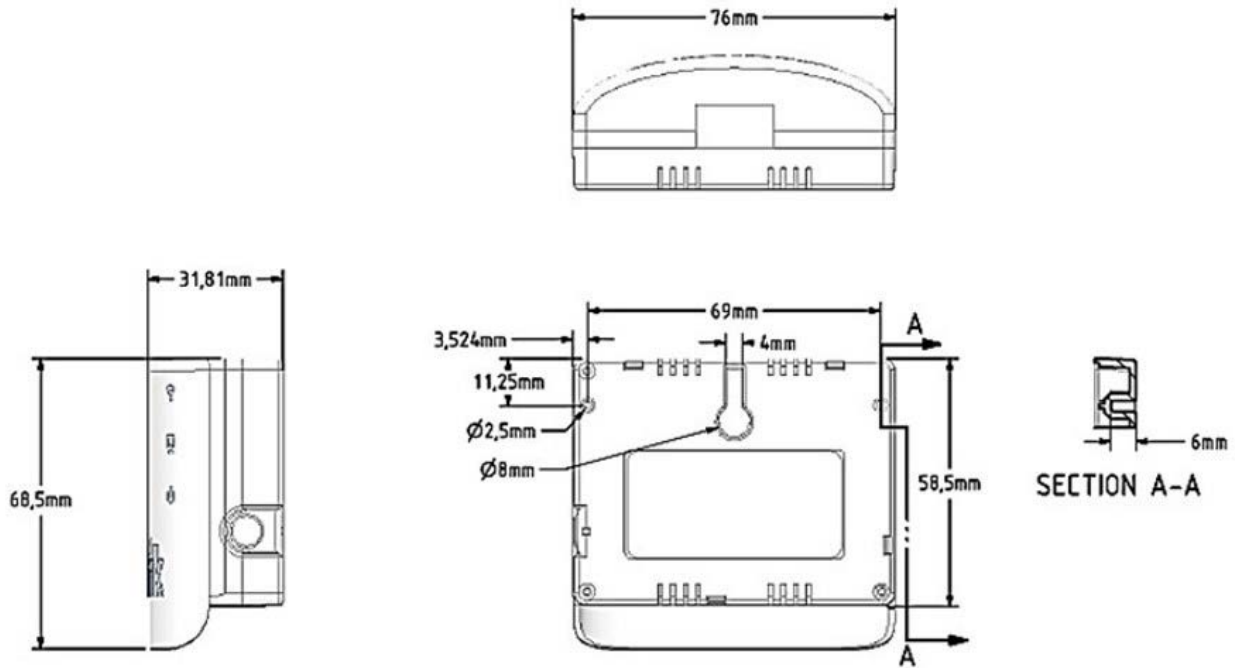
### **Operate offer**

For customers focused on their core business.

**Including:**

- Maintain Program
- Kerlink commitment on data air availability (SLAs)
- Network Operating Center with dedicated experts monitoring your network
- Pro-active and preventive maintenance
- Monthly reports about health of network (and recommendations)
- Dedicated Account manager

For more informations about our Maintain Program or our Operate offer, contact us: [sales@kerlink.com](mailto:sales@kerlink.com)



## Certifications

**868**

- Europe (CE)

**915**

- USA (FCC)
- Canada (ISED)

(For any specific need, please contact us)

## Product Ordering references

### Wirnet™ iZeptoCell Cellular - Ordering references

#### Product Ordering References

Reference	Designation	Description	ISM Frequencies
PDTIOT-IZEC800	Wirnet iZeptoCell Cellular	8CH LoRa, Indoor, Cellular (LTE-M) backhaul	863-870 MHz
PDTIOT-IZEC900	Wirnet iZeptoCell Cellular	8CH LoRa, Indoor, Cellular (LTE-M) backhaul	902-928 MHz

#### 868 and 915 Accessory Ordering References (Wirnet™ iZeptoCell)

Power connectivity	Designation	Description	Recommendation
KLK03537	2,8m USB C to USB A extension cable		Optional, not included in the box

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