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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

LTE-M

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

afaq ISO 9001 Qualité AFNOR CERTIFICATION

Key Features

- **Indoor LoRa® Gateway,**
- **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
- 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).

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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

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

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

Added-Value Services for all gateways

• Lifetime Guarantee
• Access to Kerlink Wiki
• Zero Touch Provisioning (ZTP) and Zero Touch Maintenance (ZTM)

More options :

• Maintain offer : Priority support, Access to Wanesy Maganement Cockpit including inventory, Software packages management, remote reboot, alerting features
• Operate offer : SLAs, Network Operating Center, Pro-Active and preventive maintenance, Reports and recommendations for network optimization

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:

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Available from
CONCEPT 13
www.concept13.co.uk
(The LoRaWAN Experts)

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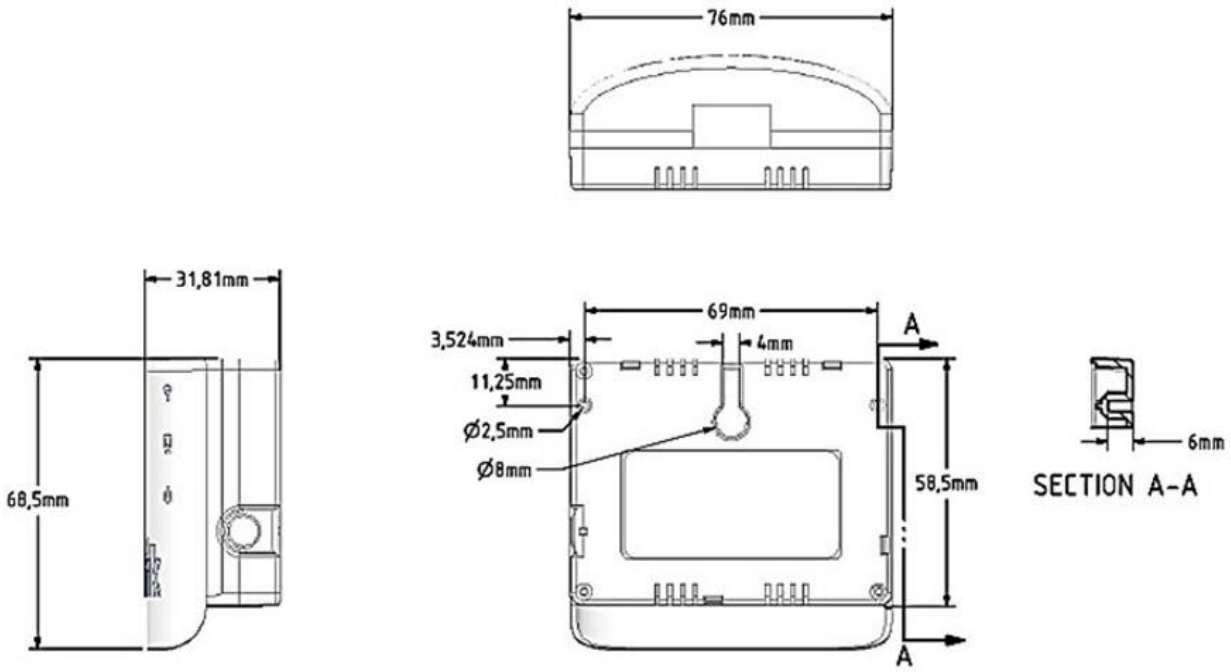

Certifications

868	915
• Europe (CE)	• 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