

## Cellular modem specifically designed for Itron® ACE6000, ACE8000, SL7000 electricity meters - available for 4G LTE Cat.1 / 2G networks

### UPGRADE THE MODEMS NOT THE SMART METERS!

All around the world mobile operators are shutting down 2G/3G networks in order to give way to 5G. Companies that operate smart meters with 2G/3G connectivity must plan the migration to the latest 4G LTE network which is well-positioned to dominate smart metering communication technologies in the upcoming years. The migration from GSM to 4G LTE has many advantages, for example, a shorter readout time due to the high-speed network with low latency.

Utilities have two options for migration: replace the meters or upgrade the modems within their routers!

The 1st option comes with a high CAPEX, while the 2nd option is a future-proof solution that reduces TCO. Our cellular modem works smoothly and is fully compatible with Itron® SL7000, ACE6000 and ACE8000 type electricity meters. The case was designed to fit under the terminal cover of the meter and is fully compliant with all Itron standards. It connects to the meter through RS232 / RS485 connectors. It can also be mounted externally on a DIN-rail.

This cellular modem represent a future-proof migration solution to the LTE network with the same functionality, on higher data speed. Configuration and firmware updates can be done remotely, minimizing the need for costly site visits. As part of an AMR/AMI solution, the modem provides a stable, transparent 4G LTE / 2G connection to the meter through the HES will receive consumption data of the meter. The modem can transmit data by CSData call (2G) also.

The ideal solution for remote readout of registers and consumption data of the connected electricity meters, and for the download of load profile. The modem is fully configurable by our powerful and easy-to-use WM-E Term® software.



### MAIN FEATURES

- 4G LTE Cat.1 wireless module - with 2G „fallback” feature
- It can be assembled into the meter’s enclosure and fastened securely (sealed and separated from meter)
- Compatibility with the Itron® ACE6000, ACE8000 and SL7000 (3W) electricity meters
- DC power supply from the metrology
- RS232/RS485 transparent data connection (RJ45)
- Transparent data sending, CSData call
- Immediate alarm- and SMS notification
- Remote & safe firmware updates
- Supercapacitor (for Last GASP SMS notification)

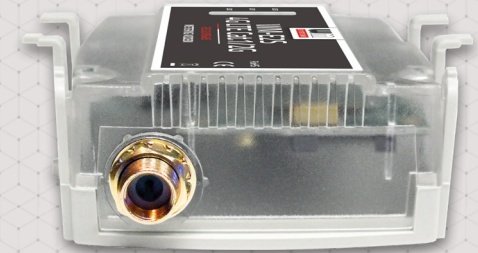
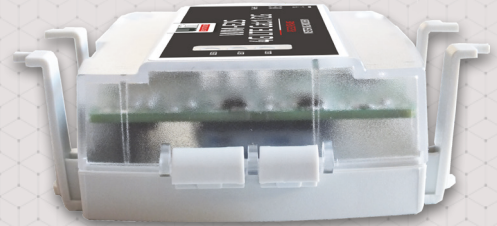
### APPLICATION

- UTILITY COMPANIES
- SMART METERING
- METERING DATA TRANSMISSION TO HES
- INDUSTRIAL MEASUREMENT



## DESIGN AND OUTFIT

- The modular modem is installable into meter enclosure and demountable
- RS232/RS485 interface connection (RJ45 connector)
- DC power supply by meter
- Supercapacitor for Last GASP notification
- SMA antenna connector outfit



## COMPATIBILITY

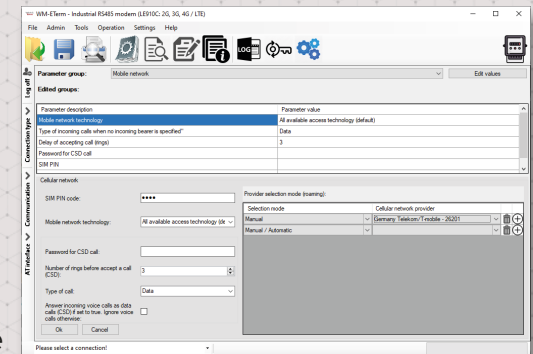
- Itron® ACE6000, ACE8000 and SL7000 meters

## OPERATION

- IEC 62056-21 protocol, transparent data transmission via TCP/IP v4 protocol
- CSDData call (2G)
- Immediate SMS notification, DCD control

## ACCESSORIES (ORDER OPTION)

- RJ45 cable (for meter connection/configuration)
- SMA antenna (50 Ohm) - FME antenna upon request
- DIN-rail adapter - for external modem installation
- WM-E Term® software (mass fw updates, configuration)
- You can manage the device by Device Manager® software



WM-E2S®		4G LTE Cat.1 with 2G "fallback"
<b>Power</b>	Voltage / Nominal frequency	• 8-12V DC +5%/ -5% (via RJ45 interface)
	Consumption / Current	• 220mA (with Itron® SL7000 meter), 120mA (with Itron® ACE6000 meter) @ 8-12 VDC / Max. consumption: 2W @ 10V DC
<b>Communication module</b>	Protection	• Overvoltage protection on the DC power input lines
	Cellular technology	• 4G LTE Cat1 - with 2G "fallback" (2G/4G)
	Internet module	• Quectel EC915U-EU
	Bands / Frequency (MHz)	• LTE Cat.1: B1(2100) / B3 (1800) / B5(850) / B7(2600) / B8(900) / B20(800) / B28(700) • 2G: B2(1900) / B3(1800) / B5(850) / B8(900)
	Supported networks	• The module also operates on the networks of all Greek mobile telephony carriers
	Class / Speed (DL/UL)	• LTE Cat.1, release 10 compliant, Data speed rate: 10/5 Mbps • GPRS multislot, Class 12 / Data speed rate: 85.6/85.6 kbps
	Switching between cellular technologies	• The device allows remote switching of the communication from GSM to 2G/4G LTE and vice versa
	SIM card slot	• mini SIM card slot (2FF type)
<b>Compatibility</b>	Antenna connector	• External antenna connector (SMA, 50 Ohm) - with FME order option. It allows to attach a communication antenna for reduced signal loss.
	Meter type	• Itron® ACE6000, ACE8000 type and ACE SL7000 (3W type) electricity meters - Operates in accordance with DLMS/COSEM meter communication protocol
<b>Interfaces</b>	Connectors	• RJ45 (RS232, RS485 compatible) data connection • Power supplied by meter (10V DC power)
	Protocol / Transmitting	• EN 62056-21, Mode C - from 300 up to 19 200 baud serial data speed (which is configurable) - Transparent data transmitting via TCP/IP v4 protocol (it supports dynamic and static IP addresses) - CSDData call (2G) is also supported
<b>Operation</b>	Notification	• Immediate alarm notification (in case of power outage) - DCD Control
	Maintenance	• The modem allows auto-reboot of the device at regular intervals (configurable between 1 and 24 hours)
	Configuration	• WM-E Term® tool (local/mass parameter configuration, local/mass firmware updates) - AT commands - Device Manager software (order option) • The modem enables the reading and configuration (data rates, codes, communication status, signal strength etc.) by remote operation
	Indication	• 3 status LEDs to indicate device operation (GSM LED: network registration status/cellular technology, SIM LED: SIM status/signal strength, E-METER LED: Meter connection/communication)
	Supercapacitor	• For Last GASP SMS notification of power outages, input status changes / in case of full power exhausting it requires 2-5 minutes charging until able to operate
<b>Environment</b>	Temperature	• Operation: from -30°C to +60°C degree at 95% rel.humidity - Storage: from -30°C to +85°C degree at 95% rel.humidity
<b>Construction</b>	Housing	• IP51 (IEC 60529 standard) plastic transparent case, fits to meter
	Dimension / Weight	• 108 x 87 x 30mm - 73gr



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