

NTA 2.1 – LTE – M Smart Meter communication module

Data exchange with the acquisition system is realized via an IPv4 connection over LTE-M technology



Product overview

Xemex's product line includes a range of versatile Smart Meter data communication modules, each designed with both grid operators and end users in mind. Our NTA 2.1 communication module is no exception.

A secure local maintenance interface on the E-meter provides direct access to the module (P0). All our modules are mains-powered and come optionally equipped with a customer data port (P1), allowing end users to access their energy consumption data, should our clients choose to enable this option.

The unit supports the industry-standard protocols –DLMS–COSEM (P3) and optionally M-Bus EN 13757-(3-4) (P2). Data exchange with the acquisition system is realized via an IPv4 connection over LTE-M technology. A 2G fallback is available for the WAN connection. The module can be optionally be equipped with wired or wireless M-bus technology for the data collection from peripheral energy meters.

Status indicators on the front panel provide users with visual indication of the module's operation.

A configuration and maintenance tool allows authorized personnel to conveniently, quickly and securely manage the devices on the network.

The tool is a management solution that offers configuration, provisioning and troubleshooting for a wide range of products including Xemex's Smart Meter data communication modules.

The NTA2.1 – LTE-M communication module is ideal for companies looking for a cost-effective, easy-to-use and easy-to-manage solution that simplifies firmware update, configuration and provisioning.

Technology

General

- Start-up message on power-on
- Real-time clock + calendar
- Clock sync during communication session
- Tamper detection
- Logging of events, errors and alarms
- Firmware upgradeable via DLMS protocol
- 4 M-Bus data channels*
- Application based on DSMR 2.3+ (upgrade to (E)SMR5 possible).

AMR

- Security: AES-128 DLMS/M-Bus compliant
- Actual meter reads:
 - index registers in kWh
- Periodic meter reads:
 - 15-min intervals for 10 days
 - Storage for 40 daily reads
 - Storage for 13 monthly reads
- Calendar-based data logging
- Tariff control settings (day/night switching)

Interfaces - Data ports

- P1 - Customer data port *
- P2 - Wireless M-Bus LAN connectivity *
- P3 - Interface :
 - LTE-M with 2G fallback for WAN connectivity
 - Supported frequency bands: band 3, 8 & 20
 - PAP or CHAP authentication
 - Internal antenna and external antenna connector
 - Local maintenance interface through optical port of the E-meter (P0)

Technical specification

- Operating voltage:
 - Mains: 85V -> 265V
- Power consumption:
 - Mains: 0.3W -> 2.75W max
- Temperature range:
 - -25°C -> 70°C
- Dimensions:
 - HxWxD (mm): 32 x 124 x 93.5
- Housing:
 - Compliant with L+G E350 meters

Optional

- P1 - RJ11 connector in meter cover
- P2 - Wireless M-bus transceiver