

Repeater for indoor use

Wireless M-Bus repeater designed to extend the range between meters and a gateway. Plug-and-play with a discreet design, available with battery or mains power.

Antenna

- 2 internal antennas (90° for optimal polarization) or 1 external
- SMA models for extended range and larger coverage

Performance

Status packet transmitted every minute (incl. battery & traffic data).
Battery life up to approx. 5 years (standard configuration).
High immunity to electrical interference, suitable for demanding environments.

Routing

- Collision avoidance algorithm
- Supports multihop (up to 4 repeaters in chain)
- Supports OMS and non-OMS packets

Features

- OMS time synchronization
- AES-128 configuration encryption
- Transparent packet retransmission option
- Firmware upgradeable

Conversion

Converts between M-Bus modes (e.g. C-mode ↔ S-mode)

Configuration

Ready to use out of the box, highly configurable.
Configured via dongle or gateway.

Example settings:

- Active/inactive scheduling
- Packet suppression
- Filtering (whitelist/manufacture ID)
- Static routing (multihop)
- RSSI value append



FIRMWARE

INPUT MODE T/C-mode (default) or S-mode
 OUTPUT MODE C-mode (default) or T-mode or S-mode
 REPETITION 2 times* - Once on each internal antenna
 MAX SENSORS R4/RX4 = 932 sensors μ R = 100 sensors
 MAX PACKET LENGTH 255 bytes
 FILTERING 0-30 min suppression timer, RSSI, manufacturer, whitelisting, etc.

SECURITY Supports routing of Security Profile A and B according to OMS 4
 STATUS TX INTERVAL 60 seconds
 MULTIHOP SUPPORT R4/RX4: Yes uR: Partly**

GENERAL INFORMATION

POWER SUPPLY M: 85-305 VAC
 R4-B: 2xER34615***, 38Ah, 3.6V
 BE: 2xER34615***, 38Ah, 3.6V + supercap
 uR-B: 2xER18505****, 7.8Ah, 3.6V

STANDARDS 2014/53/EU (RED)
 EN 13757-3/4:2013, OMS 4.0.2*****
 EN 61000-6-1 (R4/uR, 3V/m)
 EN 61000-6-2 (R4-LR/RX4, 10V/m)

TEMPERATURE M: Max: -35°C/+85°C, rec. -30°C/+50°C
 B: Max: -20°C/+85°C, rec. 0°C/+50°C
 BE: Max: -35°C/+85°C, rec. -30°C/+50°C

RADIO

RECEIVER CLASS 1.5 for μR/R4, 2 for R4-LR/RX4
 OUTPUT POWER Radiated/conducted power
 868.95 T/C-mode, 868.3 S-mode < 14 dBm
 TRANSMISSION Listen before talk, polite spectrum access
 HARDWARE FILTER For LTE/GSM/GPRS and other disturbances:
 R4/μR: No
 R4-LR: Yes
 RX4: Yes (Enhanced)

ENCLOSURE

DIMENSIONS A1/A2: 150x150x53 mm,
 uR: 80x80x25 mm
 IP-CLASSIFICATION uR-B: IP40
 M: IP40 (A1), IP65 (A2)
 B(E): IP40 (A1)
 B(E): IP65 (A2), external antennas
 B(E): IP67 (A2), internal antennas

COLOR A1/A2: RAL 9003 (signal white)
 uR: White

MATERIAL A1/A2: UV-resistant PC/ABS
 uR: ABS

FLAMMABILITY RATING A1/A2: UL 94 HB
 uR: Self-extinguishing

ACCESSORY

CONFIGURATOR Configuration software
 LAN-A-PMB-KIT-ID58-78 Pole mounting kit
 LAN-MAG-R4 Magnet with telescopic shaft
 LAN-R4-IP-KIT Sealing kit for A2 enclosure

*Models with external antenna send twice on the same antenna
 **Works in multihop systems if placed closest to meters, doesn't work between uR
 ***Lithium < 5g/cell, UN3091 class 9
 ****Lithium < 1g/cell, UN3091 limited quantity
 *****Retransmit delay time 24-148 ms
 *****Enhanced filtering
 *****The expected battery lifetime stated is based on simulations and true measurements at the stated recommended temperatures and is valid to the best of our ability but not a guarantee. The calculations and measurements can be sent upon request for your reference and measurements can be sent upon request for your reference.