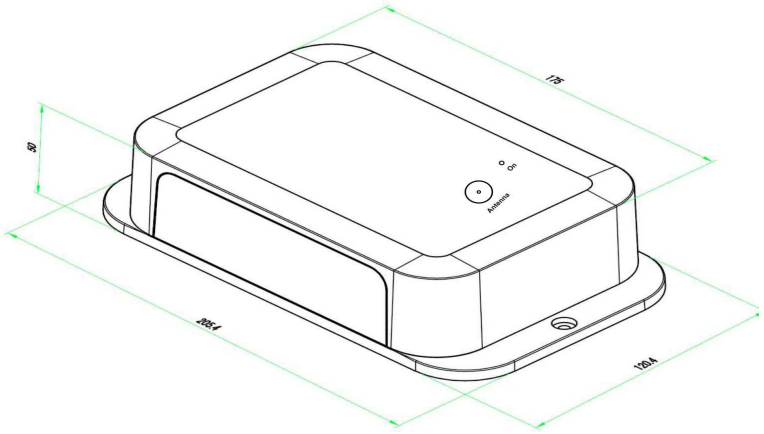
7 "Iskarsko shausse" blvd, building 4
1528 Sofia, Bulgaria
tel/fax: +359-2-9758105
www.gineers.com
office@gineers.com

3. Dimensions



5. Warranty

The warranty of the device is limited to 2 years from the date of sale. If the device shows any defect or malfunctions during that period, the manufacturer is obligated to repair the device in its own service for manufacturer's expense, or, if the repair is impossible, to replace the device with new one. The transportation costs to the manufacturer's service are due to the client. The warranty voids if this manual' instructions are not met, warranty seals are removed or the device was opened by unauthorized by the manufacturer personnel.

Date of sale:..... Signature:.....

6. The package contains

- RPT230batt - 1 pc.
- 868MHz RF 1/4 antenna, external
- Instruction manual - 1 pc.

7. Manufacturer

Gineers Ltd.
7 "Iskarsko shausse" blvd, TCE, building 7
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tel./fax (+359-2) 9758105
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Wireless m-bus repeater **RPT230batt** **WM-BUS Series**

Instruction manual

RPT230batt is an wireless m-bus repeater, intended to re-transmit data from various devices, working in modes T, S or C according to wireless m-bus standard (EN13757-4). RPT230batt has the following main features and characteristics:

- radio interface in 868MHz range for communicating with external device (computer, communication device/controller, etc.)
- quarter-wave antenna with centre frequency 868MHz, 5dBi
- battery powered, 3.6Vdc, size D

1. General technical data

- RF band – 868 - 870 MHz
- Wireless m-bus modes - **T, S, C or T+C (default)**
- power supply – 3.6Vdc @ 38Ah
- max. power consumption – < 3 mW *
- ambient temperature, operating – 5 ÷ +45 °C
- ambient temperature, storage – 5 ÷ +45 °C
- air humidity, operating & storage – 40÷90 %
- dimensions (L/W/H) – 205/120/50 mm (without antenna)
- protection class - IP42
- weight – 0.900 kg with batteries

• consumption is calculated on 2-hour daily work basis

2. RPT230batt operation

RPT230batt starts work immediately after turned on, or automatically on pre-defined time (24-hour clock). To preserve the batteries device is following algorithm:

- for some pre-defined period it works in **Re-transmit mode**. This means that each received telegram is re-transmitted, working exactly as a powered repeater RPT230 Vac;

- when this period passes - device **goes to sleep,** minimizing the power consumption. Only the internal clock is working, waiting for next ***turn on*** time to come.

The repeater in general cases does not need set up, but if needed – can be set via the air with proper software and wireless m-bus transceiver (like WMR-IoT, v2). By default device is set to start normal operation at 07:00 am and work for 2 hours, up to 09:00 am.

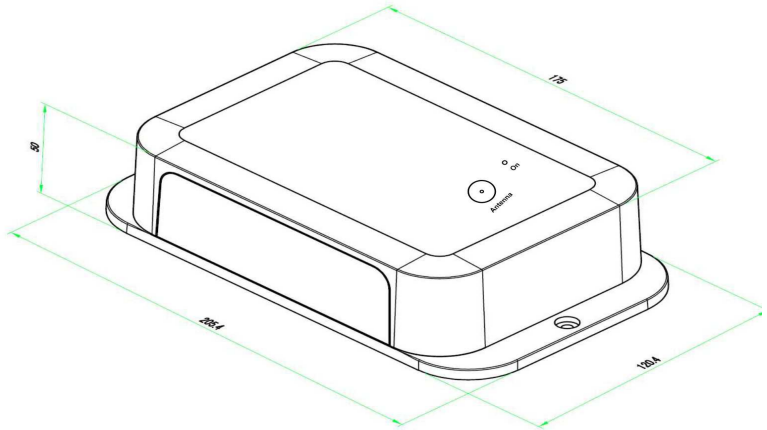
During the years clock can have deviation, due to element characteristics. Each repeater is calibrated in the factory and frequency compensation of the oscillator is made, which leads to something around 5 ppm per year deviation. In some rare cases this value can be up to 10 ppm.

When coming from the factory repeater is put in *"Storage mode"*, which means that it does not receive or transmit. To put the repeater in normal operating mode, user must press a button the board – see section 3. Then repeater starts to work immediately, next time will start when it becomes 07:00 am. The starting hour and working period in hours can be set via the air, knowing the serial number of a particular repeater.

Software for setting the repeaters is free for use, but is provided on request and only to authorized Gineers re-preventatives. Software uses as a base our WMR-IoT transceiver to communicate with the repeater. Of course, to whom interested Gineers can provide description of commands and data protocol.

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