

BAYLAN

WATER METERS

BAYLAN WIFI-RF MODEM

TECHNICAL SPECIFICATIONS

1-) CHARACTERISTICS OF HANDHELD DEVICE

- Powered by an internal rechargeable battery.
- Average operating current consumption is between 70 mA and 80 mA.
- Possible to connect to a computer with feature of USB 2.0 Virtual Com Port Device.
- STM32L151 Cortex M3 ARM core is used as processor.
- 2 LEDs provide information during data flow and charging operation.
- The average working time is 24 hours with a full charge.



1-A) WIFI MODULE PROPERTIES

- Fully supports WIFI 801.11n
- The maximum data rate is 115200 kbps
- Virtual com communicates in port transparent mode.
- Pairing and connection distance with WIFI device is minimum 50 m.

1-B) RF MODULE FEATURES

- Center Frequency: 868.03 MHz and support to whole wM-Bus frequency channel
- EU compatible license-free 868 MHz ISM / SRD band
- Channel Interval: 59.9 KHz
- Modulation: GFSK, FSK
- Frequency Deviation: Adjustment to wM-Bus standart bandwidth
- Data Rate: 38.4 kbps , 100 kbps (wM-Bus)
- Transmitter power: 14 dBm (25 mW)

- Transmitter current consumption: 32mA
- Receiver bandwidth: 102 kHz (Receiver is configured for Handheld terminal)
- Crystal Frequency: 32 Mhz +/- 10ppm
- Distance: 750 meters in open area and sight distance (according to installation instructions)

2-) WORKING PRINCIPLE OF THE COLLECTOR UNIT

Reading the number, consumption, and status information of BAYLAN RF meters located in a 750 mt circle and keeping/transmitting the information in/from memory and executing commands which are come from the connected device are aims of Baylan WIFI Device.

When the collector is turned on, buzzer sound will be heard 3 times. Collecting RF signals is started. The WIFI unit will be ready for connection by another device within 15 seconds.

3-) CHARGING OF THE COLLECTOR UNIT

Baylan WIFI Device unit is charged with USB port. Charge power is DC 5V, 250mA. Any desktop computer, laptop computer, or universal USB charger will suffice to charge the charging unit. Maximum charging duration is 12 hours. The information LED, which is near to the USB port, lights up during charging. LED will be turned off, when charging is completed. You can continue to use your device during charging. The device can be used for 24 hours with a full charge.

4-) FUNCTIONAL PROPERTIES

- WIFI communicates over the ComPort in the wired MBus mode according to EN13757-3 standard.
- USB 2.0 communicates via VirtualComPort in wired MBus mode according to EN13757-3 standard.
- The command package is protected by AES128 encryption.
- Supports wM-Bus T2 and S2 modes in standard EN13757-3.
- Supports special Baylan Water Meters RF protocols.
- Audible warning can be given at the time of RF communication.
- LED can be signaled at the time of RF communication.

5-) ENVIRONMENTAL PROPERTIES

- Operating temperature: from -20 °C to +70 °C
- Relative humidity: 5% - 95% (non-condensing)
- Dimensions: 110mm x 75mm x 25mm
- Weight: 250 grams

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