

WB169-RFG



USAGE

The gateway is designed to receive radio messages from devices for remote reading of consumption meters, sensors and converters operating in the WACO or Wireless M-Bus communication system in the 169 MHz band and to transmit these messages via GSM/LTE to the central system.

UNIT DESCRIPTION

The gateway is designed to mediate data transmission between 169 MHz radio remote readout units and a central computer application that receives and processes the data. The gateway receives radio messages of the "User Data" type encoded according to the Wireless M-Bus standard according to EN 13757-3 / EN 13757-4 for the 868 MHz band, checks their correctness, encodes ("packs") them into an IP/UDP frame and sends them to the configured IP address and port number of the central application. It uses Softlink's proprietary "NEP" encoding system when encoding messages into IP/UDP frames. To access the Internet, the gateway uses mobile data services, for which it uses an integrated GSM/LTE modem; alternatively, an integrated 10/100 Mbps Ethernet port can be used.

TECHNICAL PARAMETERS

Wireless interface

- Frequency Band: 169,400 - 169,475 MHz
- Wireless Technology: Wireless M-Bus
- Protocols: wM-Bus
- Modulation: 2-GFSK, 4-GFSK
- Channel Width: 12.5 or 50 kHz
- Transmission Power: 500 mW
- Receiver Sensitivity: - 109 dBm

- Data Rate: 2,4 - 19,2 kBd
- Output Impedance: 50 Ω
- Antenna: external, SMA-female connector

Ethernet interface

- Ethernet standard: IEEE 802.3
- Physical layer: 10/100 Base-T
- Ethernet connector: RJ-45

Power

- Power supply: DC 9 - 24V
- Maximum current: 200 mA
- Connector: clamps

Physical Properties

- Length: 58 mm
- Width: 70 mm
- Height: 90 mm
- Weight: 200 g

Operating Conditions

- Operating Temperatures: (-20 to +50) $^{\circ}\text{C}$
- Storage Temperatures: (0 to +40) $^{\circ}\text{C}$
- Relative Humidity: 90% (non-condensing)
- IP Rating: IP20

UART configuration

- UART Data Rate: 9.6 kbps
- Transmission method: Asynchronous
- UART parameters: 8 data bits, 1 stop bit, no parity
- Voltage Level: 3.6 V (CMOS)

USB configuration

- USB Data Rate: 115.2 kbps

IrDA configuration

- IrDA datarate: 115.2 kbps
- IrDA physical layer: IrDA 1.4