WL868-RFG

USAGE

The gateway is intended for receiving radio messages from devices for remote reading of consumption meters, sensors, and converters operating in the LoRaWAN communication system in the 868 MHz band, and for transmitting these messages via GSM/LTE to the central system.

UNIT DESCRIPTION

The gateway is designed to facilitate data transmission between LoRaWAN radio units for remote reading in the 868 MHz band and the central computer application that receives and processes this data. The gateway receives radio messages encoded according to the LoRaWAN standard for the 868 MHz band, verifies their accuracy, encodes (or 'packages') them into a UDP/IP frame, and sends them to the designated IP address and port number of the central application. When encoding messages into UDP/IP frames, it uses Softlink's proprietary 'NEP' encoding system. For Internet access, the gateway uses mobile data services, for which it is equipped with an integrated GSM/LTE modem, or alternatively, the integrated 10/100 Mb/s Ethernet port can be used.

TECHNICAL PARAMETERS

Wireless interface

- Frequency Band: 863-870 MHz
- Wireless Technology: LoRa
- Protocols: LoRa Wan
- Modulation: Lora spread spectrum
- Transmission Power: 27dBm
- Receiver Sensitivity: -139 dBm
- Data Rate: 0,3 kbps - 11 kbps

- Output Impedance: 50
- Antenna: external, SMA-female connector

Ethernet interface

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

LTE WAN interface

- LTE TDD bands: B38, B40, B41
- LTE FDD bands: B1, B3, B5, B7, B8, B20
- UMTS/HSPA+ bands: B1, B5, B8
- GSM/GPRS/EDGE bands: B3, B8
- LTE cat1 data rate: U: 5Mbps, D: 10Mbps

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 ^{o}C
- Storage Temperatures: 0 to +40 ^{o}C
- Relative Humidity: 90% (non-condensing)
- IP Rating: IP20

USB configuration

- USB Data Rate: 115,2 kbps
- USB transmission parameters: 8,1,N

IrDA configuration

- IrDA datarate: 115,2 kbps
- IrDA physical layer: IrDA 1.4