# BLU R2

## RADIO MODEM FOR AMR

ISM BAND 868 MHZ
25mW - 500mW POWER OPTIONS

COMPATIBLE WITH
ISM BAND USAGE STANDARTS

INTEGRATED with M2M & IOT and AMR PROTOCOLS
TRANSPARENT COMMUNICATION SUPPORT

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SCALE 1:1

# BLU **R2**
RADIO MODEM FOR AMR

# CUSTOMIZED SUPERIOR SOLUTIONS
# FOR SMART ELECTRICITY METERS

- Contains an SMPS power source with i mpact resistance against 8000V mains power. Has fuse protection and harmonics filter within the power input. Due to having SMPS, it can easily run on both AC and DC grids. 9–36VDC Power Option is available.

- It provides the most economical solution in the industry where wireless data transmission is needed.

- Supports IEC62056-21 communication modes A/C and D. Baud switching support for Mode C is also presented. Moreover, DLMS/COSEM protocol support lies within the modem. Provides MODBUS / RTU protocol support for Network Analyzers and Energy Quality Loggers.

- Equipped with one RS485 and one RS232 communication hardware. Thus it enables reading of more meters with a sole modem.

- Modem firmware updates can be done easily with USB.

- Any configuration changes can be performed by using  TROLL Software. If needed, modem can be restarted remotely or can be totallt turned off for usage.

- With its AES 128 /256 bit encryption support, it provides a communication safety in its data transmission traffic between AMR system. The encryption system  can be deactivated.

- Modem has 2 input ports that can withstand 3500V isolation value.These ports are compatible with standard 9–60VAC/DC input support.

- There are 2 pieces 5A Relay outputs on the modem.

- "Listen before Talk" feature that prevents data overlaps.

- Data transmission with minimal data loss thanks to powerful packet management.

- Ability to use different RF systems together with RF Network ID definition.

- Special communication protocol between RF Router and RF Modem, which provides the reliability of TCP Protocol.

- Ability to control and collect information with external Input / Output cards.

- Ability to initiate bidirectional communication with Server / Client mode.

- Communication with Electricity & Water & Natural Gas & Wastewater Meters & Other Energy Quality Devices

- With deep sleep mode at measuring points without electric power, models capable of operating up to 10 years with battery

**85-265VAC POWER RATING**

**ISM BAND 868 MHZ**

**6000 V SURGE PROTECTED**

**CONFIGURATION UPDATE REMOTELY**

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## RADIO MODEM FOR AMR

- Available 9 different colours leds on modem. Monitoring signal level, power status ,communication status and error by using leds.

- With 10 Channel support, it is possible to access many different meters at the same time and to select the empty channel remotely.

- Thanks to the TCP port structure it supports, it can work with the softwares of different software manufacturers.

- 3,6 Lithium Battery, 9-36VDC and 85-265VAC Power Options.

- Works and communicates with meters in accordance with IEC 62056-21 by using Auto Baud Switch.

- Self-reset during the loss of communication by using configurable reset time.

- RS-485 2 wires port for surge voltage protection (15KV)

- Implementation with 35 mm DIN RAIL or screw connection.

- SMA 50 OHM Female Antenna Connector.

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Txd    Inp

Rxd    Out

Con    Tx

Rdy    Rx

Status

BLU
R2
RF

# TECHNICAL SPECS

| | |
|---|---|
| POWER RAITING | 85-265 VAC  (9-36VDC OPTIONAL.) |
| RF TRANSMIT POWER | Max. 500mW / +27 dBm |
| RF RECEIVING SENSITIVITY | -117 dBm |
| RF BANDWIDTH | 250 KHz  869.400-869.650 Mhz (g3) |
| MAXIMUM CHANNEL DIVISION | 10  Channels |
| MODULATION TYPE | 2GFSK |
| RUNNING MODE | Addressing Mode |
| TOPOLOGY | Star Topology |
| DATA TRANSMISSION RANGE | Max. 8 Km. |
| COMMUNICATION PORT | One Half Dublex RS 485 |
| TRANSMIT POWER CONSUMPTION | Max. 450 mA |
| RECEIVING  POWER CONSUMPTION | Max. 50 mA |
| STAND-BY POWER CONSUMPTION | 10 uA |
| SLEEP MODE POWER CONSUMPTION | 5 uA |
| ANTENNA PROPERTIES | SMA  - 50 Ohm |
| RF COMMUNICATION RATE | 4800 Baud - 57.600 Baud |
| PORT COMMUNICATION RATE | 300-115.200  Baud |
| COMMUNICATION PROTOCOLS | IEC 62056-21 ModA/ModC/ModD<br>DLMS/COSEM<br>MOD-BUS RTU |
| PC COMMUNICATION PORT | USB 2.0 , 12 Mbit ,USB Mini connector |
| TEMPERATURE RANGE | Running Temp.    : -30 C ..... +70 C<br>Storage Temp.    : -40 C .... +80 C<br>Humidity            : 0 -96 % |
| MECHANICAL SPECS. | IP 54 / ABS Material<br>150 Gr. |
| CONFIGURATION | Using TROLL software closely and remotely with RF |
| FIRMWARE  UPDATE | With USB |
| MOUNTING TYPE | 35 mm DIN RAIL  or Screw Mounting |

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