

**DESCRIPTION**

RS485 to LoRa convertor replaces the wired approach for sending the sensor data to the centralized server. The device collects the data through MODBUS (RTU) protocol and sends it to the Gateway using LoRa. LoRa is a modulation technique that provides long range communication. The Gateway sends the data to the server using Http protocol. The adapter takes the input from RS485 half duplex device ( Also supports full duplex).

The RS485 to LoRa adapter has inbuilt processing, sensing, storage and RF transmission unit.

**SPECIFICATIONS****Interface Support:**

Serial - RS485/ TTL / RS232(MODBUS RTU)

**Power Supply:**

Input Voltage : 3.3V(typical).

**Battery life:**

Secondary Internal 4.2V, 1100mAh battery

Battery operation upto 15 hours\*.

**Communication:**

Modulation - LoRa

Frequency – 862 to 1020 MHz

Transmit Power – 14dBm

Bandwidth – 7.8 to 500 Khz

Bit rate – 0.018 to 37.5 Kbps

Spreading factor – 6 to 12

Antenna – Internal Antenna.

Range – 1.2 kms \*

**User Interface:**

- User friendly application where the access is given hierarchy based.

- The user can easily manage and monitor the usage.

**Physical Parameters:**

Operating temperature - 0 to 45 degree Celsius

Storage temperature - 0 to 45 degree Celsius

**Enclosure:**

Dimension : 50 \* 50 \* 50mm

Grade : IP66

\* Life time of the battery is calculated when the input to the adapter is digital pulse.

\*\* tested line of sight and it may vary depends upon antenna selection.

**KEY HIGHLIGHTS**

1. low power
2. Long Range
3. Secured communication

## OUR OTHER PRODUCTS

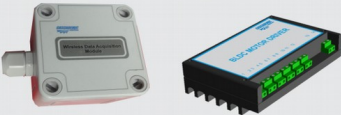
### Thermal Printer & Driver Cards



### Metering Adapter & Gateway



### Data Logger & Motor Driver



### Wireless Access Control & Battery Monitoring



### IoT , Interface & Controller Modules



### OPTIONAL FEATURE

1. User interface for the solution
2. RF low frequency( 137 to 175 MHz and 410 to 525 MHz)
4. Antenna (based on required performance)

### APPLICATIONS

1. Smart remote metering
2. Water monitoring and measuring
3. Gas metering
4. Energy meter
5. Smart city
6. Irrigation and agriculture industry
7. Wireless sensor network

## CASCADEMIC Solutions Pvt. Ltd.

With IoT and M2M being the core of development in the modern embedded era, we at CASCADEMIC develop Industrial solutions in SCADA, M2M & Growing IIoT

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