ioX-Connect®

RS485 / UART TO LORAWAN CONVERTER
Industrial LoRaWAN Data Bridge for RS485, UART, and Modbus Devices

KEY FEATURES

◆ **Multi-Interface Communication:** Supports RS485, 3.3 V / 5 V UART, I^2C, and digital I/O interfaces.

◆ **Modbus Protocol Support:** Fully compatible with Modbus RTU and customizable user-defined serial commands.

◆ **Dual Power Output:** Provides both controllable 3.3 V and 5 V outputs for powering external sensors.

◆ **Flexible Power Options:** 8500 mAh Li-$SOCl_2$ battery (standard) or solar + Li-ion rechargeable version for continuous operation.

DEVICE OVERVIEW

The ioX-Connect RS485-LWC is a compact, industrial-grade **RS485 / UART to LoRaWAN® Converter** that enables seamless wireless data transmission from existing wired devices to the ioX-Connect platform. It supports multiple communication interfaces, including **RS485, UART (3.3 V / 5 V)**, and **interrupt input**, allowing connection to Modbus and custom serial devices. The converter automatically reads sensor data at defined intervals and transmits it securely via LoRaWAN to your monitoring dashboard.

Built for long-term field deployment, the RS485-LWC offers **IP67 protection, multi-year battery life**, and optional solar power operation. Pre-provisioned with unique LoRaWAN keys, each unit is plug-and-play ready for instant activation on the ioX-Connect platform.

TECHNICAL FEATURES

- **LoRaWAN Version:** v1.0.3, Class A
- **Interfaces:** RS485, UART (3.3 V / 5 V), Interrupt / Digital IN-OUT, I^2C, One-Wire
- **Supported Protocols:** Modbus RTU / Custom Serial Commands
- **RF Output Power:** Up to +22 dBm | **RX Sensitivity:** Down to –139 dBm
- **Power Outputs:** 3.3 V / 5 V controllable outputs to external devices
- **Power Supply:** 8500 mAh Li-$SOCl_2$ (non-rechargeable) or Solar + 3000 mAh Li-ion option *5 Year Battery Life
- **Operating Temperature:** –40 °C to +85 °C
- **Frequency Bands:** EU433 / US915 / EU868 / AS923 / AU915 / IN865
- **Enclosure:** IP67 Waterproof / Dustproof
- **Configuration:** Remote via ioX-Connect platform / Downlink commands

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