

MULTI-PROTOCOL INDUSTRIAL IOT GATEWAY

Every IoT Company needs hardware to collect data from data-points & this hardware would consist of Sensor Nodes, Basic Gateway (Protocol Converter), IoT Gateway with Data processing capability or Edge Computing Gateway with AI/ML Hardware Engines so-called TPU/VPU/GPU. RuggedBoard being one of the industrial open source SBC, it is a suitable and robust selection for the usage in multi-protocol Gateway.



yocto
PROJECT



Industrial Solution

Robust, ruggedized, cost- and EMI-optimized industrial-grade design with comprehensive verification and test coverage.



Customizable

Scale up or down for performance, RAM, flash and other features.



Product Longevity

Pro-active Product Lifecycle Management for over 15+ years of continued production.

Feature	Description
Processor	<ul style="list-style-type: none"> ARM Cortex A5/A7 CPU @ 500+ MHz ARMv7-A Arch
Operating System	<ul style="list-style-type: none"> Yocto-Linux, Kernel-Version 4.9
Memory	<ul style="list-style-type: none"> 64MB/512MB RAM 32MB/512MB NOR Flash
I/O	<ul style="list-style-type: none"> 1 x Ethernet 10/100 Mbps 2 x RS-232 1 x RS-485 1 x CAN 4x DIN (Opto Isolated) 4x DOUT (Opto Isolated) 1 x Micro SD 1 x SIM 2 x USB 2.0* (1x Muxed mPCIe)
Connectivity	<ul style="list-style-type: none"> WiFi, BLE, ZigBee, LoRa, 3G/4G
Expansion Header	<ul style="list-style-type: none"> 22 x GPIO's, 4 x ADC, 1 x I2C
Micro BUS	<ul style="list-style-type: none"> UART, I2C, SPI, 1 x ADC, 1x PWM, GPIO's
Power Input	<ul style="list-style-type: none"> 5V DC, 3A
Dimension (mm)	<ul style="list-style-type: none"> 160(W) x 45(H) x 140(D)
Programming Language	<ul style="list-style-type: none"> C / C++, Python3, NodeJS
Database	<ul style="list-style-type: none"> SQLite - with support for C and Python3
Web Server	<ul style="list-style-type: none"> Lighttpd Webserver
Network Protocols	<ul style="list-style-type: none"> SSH, FTP, NTP, SNMP, TFTP, OpenVPN
Connectivity	<ul style="list-style-type: none"> PPP, libQMI, AT Commands WPA-Supplicant, BlueZ 5.50
Field Bus Protocols	<ul style="list-style-type: none"> LibModbus,Socket CAN
IoT Protocols & Frameworks	<ul style="list-style-type: none"> MRAA library provides interface to IO & Hardware Buses (GPIO, UART, I2C, SPI, ADC, PWM) on Linux In C & Python UPM sensor library with high-level APIs for sensors and actuators in IoT solutions. MQTT, COAP & libcurl for HTTP Protocol SDK for AWS LoRAWAN

Specific Applications

- WiFi gateway
- BLE gateway
- LoRa Gateway
- Modbus Gateway
- Soft PLC
- OPC UA Gateway
- LTE 4G Gateway
- 5G Gateway
- RTU
- DCU
- Data logger
- Building Automation
- Connected Vehicle
- Vehicle Diagnostics
- Process Control
- Security / Access Control

- Traffic Management
- Point of Sale
- Oil / Gas Application
- Wind Power Automation
- Intelligent Transportation System (ITS)
- Medical & Healthcare
- Automatic Meter Reading (AMR)
- Asset Management / Tracking
- Fleet Management
- Vending / Kiosks

Customization

We provide customization services based on specific needs of the customer such as additional interfaces, wireless connectivity, housing etc.

