

AMS Starter Kit with Modbus Protocol

IoT Modbus Gateway Solution

Features

- Easy-to-do device management
- Rich software interfaces reserve for system integration
- Graphic interface for programming
- Rugged design with high compatibility

Introduction

The AMS starter kit for IoT Modbus gateway solution is a plug-and-play solution with integrating hardware platform and software service for IoT applications. The hardware platform, IC0100-839, is based on the Intel® Celeron® Processor N3350 and runs with Linux OS, Yocto. The AXView 3.0 (pre-alpha) is a web-based management suite with plug-in Modbus (RTU and TCP) protocol for helping users configure their settings and communication with Modbus device quickly and conveniently. The AXView 3.0 also combines browser-based programming editor, Node-RED, for designing data flow more friendly and easily. Thru AXView 3.0, user can do data processing and monitoring, event notifying, dashboard designing and uploading data to Microsoft Azure and AWS. Even user can build up their RESTful/web-socket service and message pushing with MQTT. There are sensors and a Modbus-supported analog-to-digital connector in the starter kit, and a simple hands-on lab is designed for user to familiar with IoT Gateway Solution quickly.

AXView

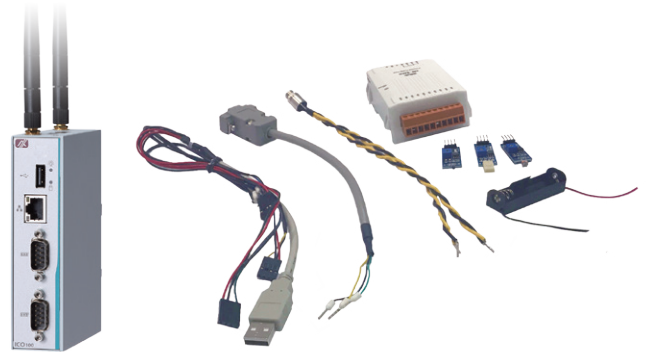
- Device Setting: System control and configuration through web-based service for convenient operation
- On-line Monitoring: 24 x 7 online system monitoring, alarming trigger and visualized data in dashboard
- Protocol Plug-in: Communication support for Modbus, MQTT, REST, WebSocket, HTTP and TCP/UDP
- Node-RED Integrated: Provides a flow-based development tool for visual programming without advantaged programming skill and makes it easy to process data and design processing flows
- Dashboard Built-in: Built-in simple dashboard components for users to generate monitoring dashboards easily and quickly

Starter Kit Platform - IC0100-839

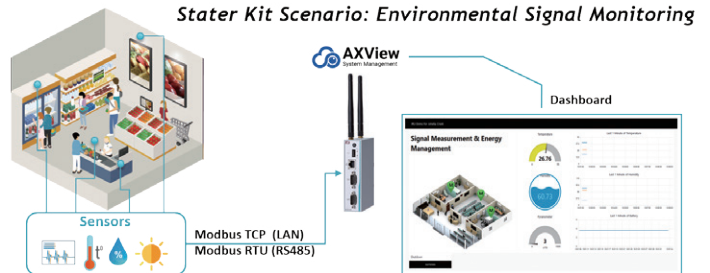
- Extreme cost-effective with fanless and cableless design
- Intel® Celeron® processor N3350
- 2 COM, 2 USB and GbE LAN
- 8-bit programmable DIO for IoT gateway applications
- Wide operating temperature range from -20°C to +70°C
- 12 to 24 VDC wide range power input
- OVP, UVP, OCP, RPP power protection design
- AXView 3.0 device management software for IoT/IIoT

Packing List

- 1 x IC0100-839
- 1 x ADC (tM-AD5)
- 1 x Temperature sensor
- 1 x humidity sensor
- 1 x Sunlight sensor
- 1 x Battery case
- 1 x Sensor cable
- 1 x Data cable
- 1 x Y type power cable
- 1 x Power adapter and one power cord
- 1 x Slotted/flat head screwdriver



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Starter Kit Scenario: Environmental Signal Monitoring

Specifications

AXView 3.0

Communication	Interface	RS-485, RJ-45, Wi-Fi, 3G/4G
	Protocol	Modbus, MQTT, TCP/UDP, HTTP, Socket, Web Socket
Monitoring	System	Voltage, temperature, Digital I/O, fan speed, status, and USB insert/remove
	Connected device for Modbus device	
Develop Tool	Node-RED integrated	
Programming Language	JavaScript supported	
Public Cloud	Connection support: Amazon AWS, Microsoft Azure	
Security	Watchdog timer to ensure normal operation	
	Operating per user ID authentication	
OS	Linux Yocot 2.5.1	

IC0100-839

CPU	Intel® Celeron® processor N3350 (1.1 GHz, dual Core)	
System I/O Outlet	Serial	2 x RS-232/422/485
	USB	2 x USB 2.0
Storage	mSATA shared with mPCIe slot (option eMMC flash onboard)	
	LAN	1 x 10/100/1000 Mbps Ethernet
Display	1 x VGA (DB15 connector)	
DIO	1 x DI/DO (8-bit programmable, DB9 female connector)	
Power Supply	Power Input Range: 12 to 24 VDC, 1.15 to 0.62A	
Operating Temperature	-40°C to +70°C (-4°F to +158°F)	
Weight (net/gross)	0.3 kg (0.67 lb)/0.46 kg (1 lb)	
Certifications	CE, FCC Class A	
Dimensions	31 mm (1.22") (W) x 100 mm (3.93") (D) x 125 mm (4.92") (H)	

Ordering Information

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