

Product Features

- Triple-core Cortex A7 + single-core Cortex M0, with a maximum clock speed of 1.5 GHz .
- 1 x Fully Isolated RS485 (RS232 Multiplexed) Interface
- 1 x 100M/10M Ethernet interface
- Multi-protocol support: Modbus , BACnet , OPC UA , IEC104 , DLT/645 , S7 , etc.
- Supports MQTT cloud communication
- Supports online monitoring of web services .
- Supports alarm settings and push notifications
- Support edge computing
- Supports JavaScript scripts for logic control
- Supports remote monitoring and firmware upgrades
- Operating temperature: -40 ~ 85°C
- Supports 4G
- Supports a maximum of 1024 data points

Product Introduction

103-IoTlite is designed for specific data acquisition and protocol conversion in industrial, commercial, or enterprise environments, acting as a bridge between devices and cloud platforms, SCADA , and MES systems. It requires professional installation, embeds standard data acquisition drivers, and provides proprietary protocol integration. It provides data externally via Modbus , BACnet , and OPC UA services. It transmits data with cloud platforms using MQTT and HTTP protocols, providing a unified data interface, making it ideal for digital factories, smart buildings, and energy management.

Product Specifications

Hardware parameters	Memory	256MB DDR3
	Nand flash	512MB NAND Flash
	Power supply	DC9V ~ 30V , supports reverse connection protection, overcurrent protection, etc.
	LED indicator light	POWER , SYS , serial port transmit/receive indicators
	Enclosure protection rating	IP50
	Power consumption	The maximum average power consumption of the entire device is $\leq 5W$. Under extreme conditions, the instantaneous peak power consumption of wireless data transmission may reach 10W . The effective output power of the power supply provided by the user must be $>10W$.
	Installation method	Supports wall mounting and DIN rail back mounting, DIN rail side mounting.
	SIM card	Micro SIM card (12 × 15mm)
I/O interface	Serial port	1xRS485
	Network port	1xLAN port
	Power connector	1x3-pin terminal
Environmental parameters	Operating relative humidity	20-90 % No condensation
	Relative humidity during storage and transportation	15 % -95 % No condensation

Northbound Data Services

The gateway provides various data services for automatic control systems such as SCADA , power, and BA .

- Modbus service
- BACnet service
- OPC UA service
- IEC104 service
- OPC XML-DA Server

IoT

The gateway communicates with the cloud server via the MQTT protocol.

- Standard MQTT client
- Thingsboard
- IoTDA
- Amazon
- Customized private cloud connection
- LM ThingsIoT Value-Added Cloud Services

List of southbound data acquisition drivers (supports customization of private protocols)

	Data acquisition driver	Serial Port	Network port
Meter	Modbus	Modbus RTU	Modbus TCP
		ModbusAscii	Modbus RTU_over_TCP
		ModbusRTUBroadcast	
		ModbusRTU Monitoring	
		ModbusRTU Service	
	DLT645	DLT645-1997	DLT645_over_TCP
		DLT645-2007	
		DLT645.98	
		DLT645 Monitor	
	CJ188	CJ188	CJ188_over_TCP
	Mbus	Mbus_EnergyMeter	
		Mbus_EN1434	
PLC	Mitsubishi	Mitsubishi Fx3U	MC_Qna-3EBinary
		Mitsubishi Fx485	MC_Qna-1EBinary
			EtherNet/IP CIP
	Siemens	Siemens S7-200 PPI	Siemens S7-200 Network
			Siemens S7-300 Network
			Siemens S7-400 Network
			Siemens S7-1200 Network
			Siemens S7-1500 Network
			FetchWrite
	AB	Allen_Bradley_DF1	AB NET
	Omron	HOSTLINK-FINS	OMRON_FINS
		HOSTLINK-CMODE	
	Matsushita	Mewtocol	EtherNet/IP CIP
	Yokogawa		Yokogawa PLC
	Rich Machine		FUJI_SPH_NET
	KEYENCE		KEYENCE host link communication
OPC			OPC UA
			OPC DA
			OPC XML DA
IEC			IEC104
			IEC61850
Smart Buildings	BACnet	BACnet MS/TP	BACnet IP
		BACnet Routing	
		Hitachi Elevator	
IT Interface			MQTT Client
			HTTP Client

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC compliance statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure statement This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.