

M331-IG

Industrial 4G LTE IoT Gateway



Introduction

Proscend M331-IG Industrial IoT Gateway, offering high security and performance, is designed to collect data from industrial automation devices such as PLCs, sensors, servos, HVAC systems, and water pumps. These field data are encrypted and transmitted to remote locations via VPN tunnels over 4G/3G cellular networks. Hence, administrators at a central control center can build their own HTTPS and/or MQTT servers to process and analyze data from a large number of M331-IG IoT gateways, and remotely control the industrial automation devices behind one or more designated M331-IG gateways.

Proscend M331-IG stands out for its integration with O'smart SDn IoT software platform, which leverages the unique "Supervisor Defined nodes" value to provide an efficient end-to-end solution. This excellent combination not only significantly enhances the M331-IG's superior performance but also allows IoT operators to actively tailor nodes according to specific requirements. Proscend M331-IG simplifies the remote management of scalable IoT networks and achieves the most cost-effective operation for time-to-market goals.

Features

- Support multi-band connectivity with FDD LTE / TDD LTE / WCDMA / GSM / LTE CAT4.
- Built-in dual Micro SIM slots, serial ports (RS-232, RS-485), and DI/DO interfaces.
- Built-in 3 Gigabit LAN ports, 1 Gigabit WAN port.
- Detachable antenna design for using a wide variety of external antennas.
- LED indicators for connection and data transmission status.
- Industrial rated in compact size from -30 to +70°C for use in harsh environments.
- Support serial communication protocols and self-defined IoT devices attributes.
- Enhance security and encryption for authentication and transmission.
- Integrate with O'smart SDn platform for active remote management of IoT devices.

Specifications

Cellular Interface

- 4G: FDD LTE, TDD LTE
- 3G: WCDMA
- 2G: GSM
- LTE Data Rate: CAT 4

Hardware Interface

- 2 x Micro SIM slots (push-push type)
- 3 x LAN 10/100/1000 Mbps Ethernet port
- 1 x WAN 10/100/1000 Mbps Ethernet port
- 1 x RESET Button
- 1 x RS-232 (TX/RX/GND)
- 1 x RS-485 (D+/D-/GND)
- 1 x DI (Non-Isolated), 1 x DO (Non-Isolated)
- 2 x SMA connectors for detachable LTE antenna
- 1 x SMA connector for detachable GPS antenna
- 1 x DC jack for AC-DC power adapter
- 1 x DC power input

Physical Characteristics

- Enclosure : Metal Case
- Dimensions (W x H x D) : 103 x 25 x 93 mm
- Weight : 350 g
- Installation : DIN-rail, Wall mounting, Desktop

LED Display

- 1 x Power status
- 1 x LTE Signal strength
- 1 x SIM status
- 2 x Speed and Link status (each LAN/WAN port)

Power Supply

- Power Consumption : 7 Watts (Max)
- DC jack power Input : 12 VDC
- Terminal block power input: 8 ~ 26 VDC

Software

■ Network Protocols

IPv4, IPv6, IPv4/IPv6 dual stack, DHCP server and client, PPPoE, Static IP, SNTP, DNS Proxy

■ Routing/Firewall

Static Routing, Policy Route

Virtual Server, MAC Filter, URL Filter, IP Filter, IPS, SPI

■ VPN

OpenVPN, IPSec (3DES, AES128, AES192, AES256, MD5, SHA-1, SHA256), L2TP

■ Cellular

Dual APN, IP Passthrough

■ Others

DDNS, QoS, UPnP, SMS Action

■ Alarm

SMS, VPN/WAN Disconnect, SNMP Trap, E-mail

■ IoT

Modbus over MQTT, Modbus Data, Data Report, Remote Control

■ Management

Web GUI for remote and local management, CLI

Syslog monitor

Remote management via SSH v2, HTTPS

Local management via Telnet, SSH v2, HTTP/HTTPS

O'smart SDn

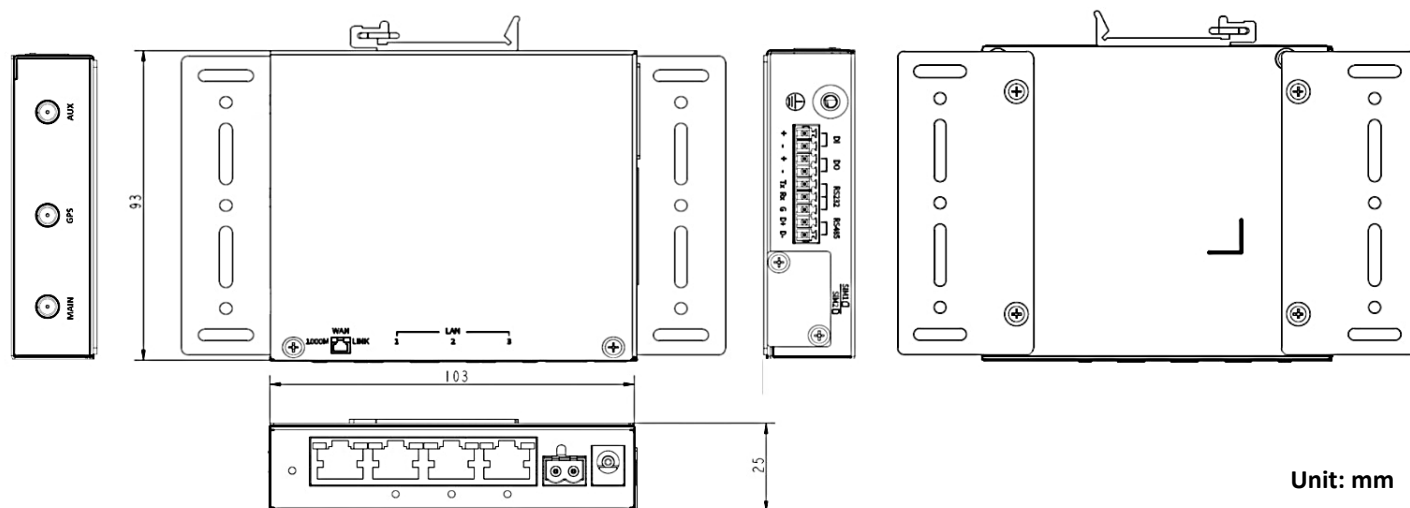
Environment

- Operating Temperature -30 ~ +70°C
- Storage Temperature -40 ~ +85°C
- Ambient Relative Humidity 10 ~ 95%HR (non-condensing)
- Humidity 0 ~ 95%HR (non-condensing)

Standards and Certifications

- NCC & BSMI CNS15936 & CNS15598-1

Dimensions



Ordering Information

Model Name	Description
M331-IG	Industrial 4G LTE IoT Gateway

NOTE: Features and specifications are subject to change without prior notice.