

# IEG-3000 Series

2-port 10/100 RJ45, 2-port RS-232/RS-422/RS-485,  
2-port DI/2-port AI, Wi-Fi, 4G LTE module  
Industrial IoT Gateway

## Description

IEG-3000 is an industrial IoT gateway with 2 10/100Base-TX Ethernet port, 2 serial ports, 2 Digital Input & 2 Analog Input ports, wireless (Wi-Fi) connection and 2 Micro SIM slots 4G LTE module. Both wireless modules can work simultaneously. It helps operating engineers to monitor all factory stages even from wireless devices and predict production failure in advance.

IEG-3000 permits different protocol devices to coexist at an Ethernet-based interface and data protection is assured with its VPN functions. It supports MQTT and Modbus RTU to TCP protocols to transmit the data from sensors to the SCADA server through the Ethernet network. This way, non-Ethernet base PLCs, sensors, factory machines and wireless devices interact in an industrial Ethernet network for automation.



## Features Highlight

### MQTT messaging protocol support

MQTT uses publish/subscribe operations to exchange data between clients and the server. Its small size, minimized data packets and ease of implementation make the protocol ideal for the Industrial Internet of Things.

### Modbus RTU to Modbus TCP

IEG-3000 has 2 serial ports to connect to the Modbus serial devices and through Ethernet port or Wi-Fi to connect to the SCADA supervisor. It converts from serial to TCP/IP protocol to communicate between serial devices and SCADA system.

### Communication through Wi-Fi connection

IEG-3000 supports 2.4 GHz Wi-Fi wireless band connection, and it can operate in AP mode or client mode or AP+client modes. IEG-3000 also supports SMA connectors to have external antennas connection flexibility.

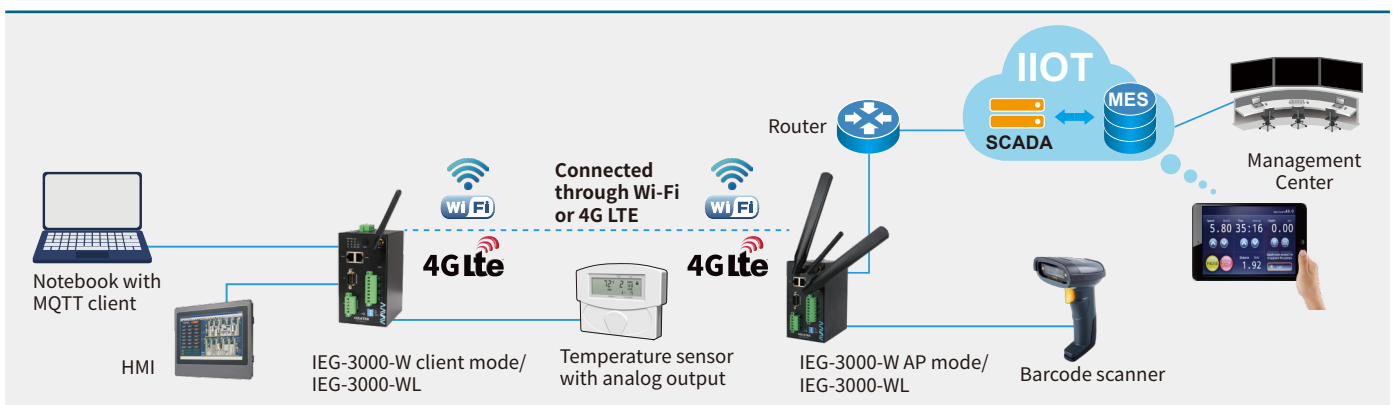
### Secure and Easy-to-use VPN Connection

Capable of creating a secure VPN (Virtual Private Network), IEG-3000 is "VPN client" and can create the VPN tunnel with "VPN server" (Cloud). Using IEG-3000, you can instantly access your office resources through a secure VPN connection.

### Digital Input and Analog Input

It has 2 DI and 2 AI input ports to receive analog inputs and digital inputs. The analog input type (Voltage or Current) can be selected using DIP switch.

## Applications



## Specifications

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	100BASE-TX
IEEE 802.3	Nway Auto-negotiation
IEEE 802.3x	Flow Control
IEEE 802.1AB	LLDP
Interface	
<b>Ethernet Interface</b>	2 x LAN 10/100BASE-TX RJ45 ports 2 x (RS-232/422/485)
<b>Serial Interface</b>	Connector type: terminal block (1 x 5 pins)+1 x DB9 1 x RS-232: (TxD, RxD, GND) 1 x RS-422/RS-485: (T+, T-, R+, R-), (D+, D-), GND Baud rate: 300bps~460kbps Optical Isolation: 3KV ESD Protection: 15KV Surge Protection: 6KV Over Current Protection: Yes
<b>Wireless - Wi-Fi</b>	SMA Connector: 1 x 2dBi Wi-Fi (1T/1R): 802.11 b/g/n
<b>Internal Module Interface</b>	1 x Mini PCIe for LTE
<b>Wireless - LTE*</b>	SMA Connectors: 2 x 4dBi 4G LTE: Yes SIM card number: 2 SIM card type: Micro SIM
<b>Digital Input</b>	2 x pairs, Wet Contact Voltage level : On (10V~50VDC), Off (4VDC max) Input Impedance: 10k ohm Overvoltage Protection: 70VDC
<b>Alarm Relay output</b>	24VDC, 1A 2 x pairs
<b>Analog Input</b>	Contact Parameters Voltage : ±10 VDC Current: +4 ~ +20 mA Resolution: 16bit Accuracy: 0.1% FSR Sampling rate: 10Hz Input Impedance: Voltage: 2M ohm, Current: 140 ohm Overvoltage protection 240Vrms Overcurrent protection: 50mA@110VDC
<b>Grounding Screw</b>	Yes
<b>Reset Button</b>	System reboot:5~10 seconds Factory default: >10 seconds
<b>Watch Dog</b>	Yes
Software Features	
<b>Network Protocol</b>	TCP, ICMP, DHCP, HTTP, HTTPS, FTP, Telnet
<b>Serial Port</b>	Serial Port Protocol: TCP client, TCP server, Modbus RTU to Modbus TCP, Modbus TCP to Modbus RTU Software selectable for RS-232/RS-422/RS-485 mode Baud Rate Setting: 300~460kbps Parity: None, Odd, Even Data Bits: 7, 8 (RS-232) Stop Bits: 1,2 (RS-232) Flow Control: None, (RS-232) Software termination configuration of RS-485 (enable/disable)
<b>VPN</b>	OpenVPN, VPN Interface Select (Ethernet (LAN,WiFi) LTE)
<b>NAT</b>	NAT supports LAN port and WAN port. WiFi and Ethernet 1 are always LAN ports. If user did not configuration any WAN interface, the working behavior is same as now. Port forwarding function. DHCP server and default gateway when NAT function enable.

Software Features	
<b>Wireless (Wi-Fi)</b>	Wi-Fi Mode: AP mode / Client mode (Software Configurable) Wi-Fi Security: Encryption - Enable/Disable,WPA/WPA2, Wi-Fi Standard Setting: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n Auto WPA-PSK, Hidden SSID, Channel setting
<b>Data Acquisition</b>	MQTT client, MQTT Broker
<b>Management</b>	<b>IP Address:</b> Management IP address/subnet mask, Default Gateway, DHCP Client, IPv4 <b>Time:</b> SNTP <b>Management Interface:</b> HTTP, Telnet, SSH, HTTPS <b>Firmware upgrade:</b> HTTP, HTTPS <b>Configuration file:</b> Backup / Restore
Power	
<b>Power</b>	Connector Type: Terminal Block Input Voltage: 9~48VDC Dual power Input support
<b>Power Consumption</b>	System: <6W (without LTE module)
<b>LED Panel</b>	PWR,RPS, ALM, S1, S2, WiFi, EXT, 100, LNK/ACT
Mechanical and Environment	
<b>Housing</b>	Metal, IP30
<b>Mounting</b>	DIN Rail
<b>Operating Temperature</b>	-40°C~70°C (-40°F~167°F)
<b>Storage Temperature</b>	-40°C~85°C (-40°F~185°F)
<b>Operating Humidity</b>	5~95% RH (non-condensing)
<b>Storage Humidity</b>	5~95% RH (non-condensing)
<b>Weight</b>	850g (without Antenna)
<b>Dimensions (WxDxH)</b>	75x106x136mm (with AI/DI type)
Certifications	
<b>Radio</b>	EN300 328, EN301 893, EN301 489
<b>EMC</b>	FCC Part 15, EN 55022 (2006/A1: 2007) Class A IEC 61000-4-2(ESD) Level 3, IEC 61000-4-3 (RS) Level 3 IEC 61000-4-4 (EFT) Level 3, IEC 61000-4-5 (Surge) Level 3 IEC 61000-4-6 (CS) Level 3, IEC 61000-4-8 Level 3
<b>Shock</b>	IEC60068-2-27
<b>Vibration</b>	IEC60068-2-6
<b>Free Fall</b>	IEC60068-2-31
Ordering Information	
<b>IEG-3000-WL</b>	Industrial IoT Gateway With 2 x 10/100 RJ45 & 2 x RS-232/RS-422/RS-485 & 2 x DI/ 2 x AI, Wi-Fi & LTE PCIe
<b>IEG-3000-W</b>	Industrial IoT Gateway With 2 x 10/100 RJ45 & 2 x RS-232/RS-422/RS-485 & 2 x DI/2 x AI, Wi-Fi
Option Accessories	
<b>LTE Module - AT&amp;T</b>	LTE Module for IloT Gateway, AT&T
<b>LTE Module - Verizon</b>	LTE Module for IloT Gateway, Verizon
<b>LTE Module - AU</b>	LTE Module for IloT Gateway, ANZ, Taiwan, Brazil
<b>LTE Module - J</b>	LTE Module for IloT Gateway, Japan
<b>LTE Module - EU</b>	LTE Module for IloT Gateway, Europe, Korea, Thailand
<b>LTE Module - G</b>	LTE Module for IloT Gateway, Global (Verizon Pending)

\*Specifications subject to change without notice.



## Dimension

