GW-002-1-LTE

OMEGA™

Long Range LTE Enabled Wireless Gateway with Cloud Connectivity

- **Includes 1 Year of Renewable LTE Service**
    - **Service Begins Once Device is Shipped**
    - **AT&T Network Coverage**
- **Free Omega Link Standard Cloud Service Accessible from any Connected Device[1]**
- **Easy One-Button Pairing with Smart Sensor**
- **Transmits up to 3.2 km[2]**
- **AES-256 Encrypted Wireless Link keeps your Data Secure**
- **Wireless Gateways can connect up to 40 Smart Sensors per unit[3]**

LTE-Enabled Gateway

The GW-002-1-LTE is a high performance wireless gateway that seamlessly connects to up to 40 long range Omega Link Smart Sensor devices. LTE network-enabled connectivity ensures fast, wireless connection to the Omega Link Cloud. Local access is also available through the built-in web server accessible through an RJ45 port. The GW-002-1-LTE supports wired devices including Modbus TCP and RTU RS232/RS485 through a 5-pin serial terminal and an RJ45 port (used for local configuration only). It includes one USB port to enable local smart probe connections through a wired Omega Link Smart Interface.

1 Year LTE Service Included

The product is ready to go right out of the box and features an internal SIM card with 1 year of LTE service. This service is activated upon shipment and provides 1 year of connectivity from the gateway to the Omega Link Cloud. Annual renewals can be purchased through the Omega website.

Easy Wireless Smart Sensor Setup

The Omega Link LTE Gateway is easily paired to Omega Link Smart Sensors with the press of a button and will automatically show up on your Omega Link Cloud account. Local data logging for your Smart Sensor devices keeps your data secure in the event of a power or network outage. Reports, History, and E-mail alerts from the Omega Link Cloud keep you informed on the status of all your vital processes.

Secure

Omega Link wireless products are designed with state of the art security features to protect your data with robust AES256 encryption and advanced PKA-EC521bit (NIST) elliptic-curve cryptography to protect your data. The gateway features a Trusted Platform Module secure hardware element which protects the safety of all encryption keys and uses X.509 device certificates for secure communication between the gateway and the Omega Link Cloud.

Long Range

Omega Link Wireless Gateways utilize Sub GHz Frequency Hopping Spread Spectrum (FHSS) technology to ensure robust, long range communications to Omega Link Smart Sensors. Transmission ranges of up to 1.2 km can be achieved when the sensor is powered with the standard AA batteries, and transmission ranges of up to 3.2 km can be achieved with a Smart Sensor in range boost mode powered by a standard external 5V USB power supply. [2]

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1. Visit https://omega.com/en-us/omega-link-cloud for subscription options. Total number of sensors that can connect to Omega Link Cloud varies with subscription tier.

2. Clear line of sight. Actual range may vary depending on environment and sensor type.

3. 40 smart sensors are supported at typical update intervals, on the order of 10 minutes, higher data rates or adverse environmental conditions may diminish the number of sensors supported.

omega.com

GW-002-1-LTE

Specifications

Wireless Communication
Frequency*: 915 MHz
Range:** Up to 3.2 km
LTE Service Provider: AT&T
Supported LTE Bands: 2, 4, 12
*Wireless communication is only available on qualifying variants
**Maximum range possible when Smart Sensor is powered by USB and without obstruction

Power

AC Adapter: DC 12V @ 2A

Interface

RJ45: 1x port (TCP Modbus local config only)
USB: 1x USB 2.0
DC Jack: DC 12V power input
Serial Port: RS232/RS485
Alarm: SSR 36VDC 100mA
Antenna: • One Antenna for Sub-1G
• One Antenna for LTE network connectivity

Mechanical

Dimensions: 170 mm L x 100 mm W x 42 mm H (6.69" x 3.93" x 1.65")

Certifications

Contains FCC ID: WR3-MOD16370915
Contains IC ID: 8205A-MOD16370915
Emission & Immunity for EMI/EMS
    FCC: FCC Part 15B

Environmental

Rating: IP40
Operating Temperature: -20ºC to 65ºC (-4ºF to 149ºF,) non-condensing

Radio Frequency & Human Exposure/SAR
    FCC: FCC Part 15C (15.247) FCC MPE

Safety
    LVD: EN 62368-1

General

Max number of Smart Sensors: Up to 40 Smart Sensors can connect to the LTE Gateway unit.

All specifications are subject to changes without prior notification. Please visit Omega.com for the latest information.

LTE Gateway and Service

Model Number	Description
GW-002-1-LTE	Wireless LTE IIoT Gateway Pro connects up to 40 Omega Link Smart Sensors, Modbus RTU RS232/RS485 and Modbus TCP, 1x RJ45 port, 1x USB port - 915 MHz
LTE1YR	1 year of LTE data service renewal

Smart Sensors

The Omega Link ecosystem supports a variety of Smart Sensors. Up to 40 Smart Sensors can connect to an LTE Gateway unit. We currently offer the following options:

Model Number	Description
SS-001-1-NA	Temperature and Humidity Smart Sensor - 915MHz
SS-002-1-NA	Thermocouple, RTD Temperature, Humidity, Barrometic Pressure, and Light Smart Sensor
SS-002-0-NA	Thermocouple and RTD Smart Sensor
SS-001-3-NA	Temperature, Humidity, Barometric Pressure, Light Smart Sensor - 915MHz

Smart Interfaces

Omega Link Smart Interfaces pair with Omega Link Smart Probes to enable both wired and wireless connectivity options to your gateway.

Model Number	Description
IF-001	Wired USB Serial Smart Interface
IF-002	Wired Modbus RS485 Smart Interface
IF-006-1-NA	Wireless Sub-GHz Smart Interface with optional external power

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Omega Link Smart Probes

Compatible Omega Link Smart Probes are integrated with an advanced suite of IIoT Smart Core features. These features enable plug and play connectivity, alarms and notifications, data assurance, data logging, and storage.

Model Number	Description
SP-001 Series	Smart Probe IR, 6:1 field of view, with discrete I/O
SP-002 Series	Smart Probe IR, 10:1 field of view with discrete I/O
SP-003 Series	Temperature, Humidity, Barometric Pressure, Dewpoint, Humidex, and Heat Index Smart Probe with discrete I/O - Tube Housing
SP-004 Series	Temperature, Humidity, Dewpoint, Humidex, and Heat Index with discrete I/O - Tube housing or Bulkhead housing, 5" variant also available
SP-005 Series	Temperature and RTD Smart Probe with discrete I/O
SP-006 Series	Pressure Monitoring and Control Smart Probe with discrete I/O
SP-010 Series	Load Cell Smart Probe with discrete I/O
SP-013 Series	Digital Interface Smart Probe with discrete I/O
SP-014 Series	Process Monitoring Smart Probe with discrete I/O
SP-016 Series	Heat Flux Smart Probe with discrete I/O

Your Data at a Glance with the Omega Link Cloud

The Omega Link Cloud consolidates and brings your data to you when you need it, wherever you are. The intuitive cloud interface allows you to monitor and store your data, set alarms and alerts, and provides insights on device activity. Visit the OMEGA website for more details.