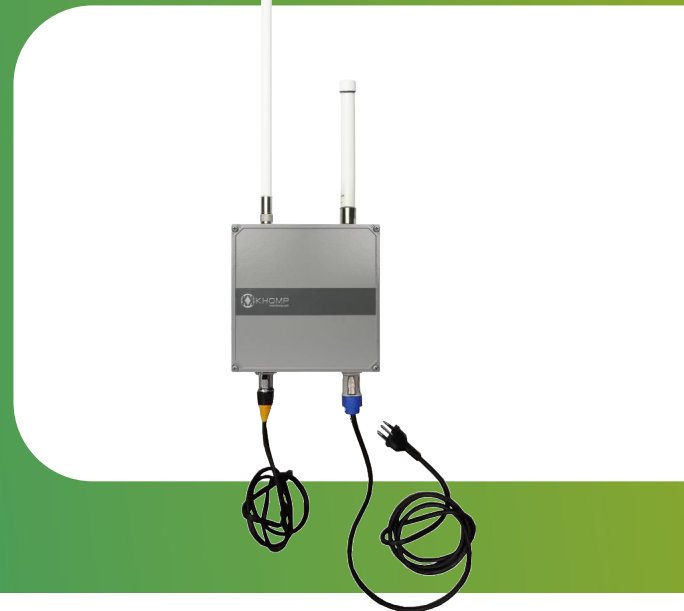


# Wide coverage IoT gateway for external environments



## Main features

- External protection with waterproof rating; optional external antennas with waterproof rating
- Ethernet port to ensure availability in data transmission
- GSM Module for 2x 3G SIM cards\*
- Module for wireless communication with endpoints through LoRaWAN™ protocol\*

\* *Optional feature - available at an additional cost. The system requires that at least the "optional LoRa® Antenna" be installed in order for it to function.*

## Applications

- A solution for integrators with special demands for the monitoring of environments
- Monitoring of industrial and corporate environments, hospitals, agribusiness and Smart City environments, among others, for the reading of data from climate sensors in the supervision of environments

## Overview

The ITG 200 Outdoor LoRa® is a gateway developed for integration with IoT solutions. It manages information received from sensors connected to it, transmitting to the client's external servers through a secure integration protocol via HTTPS or MQTT. This information can be used for a variety of applications developed by the client, allowing for the creation of a wide range of monitoring platforms using the data collected by the sensors.

It's system is compatible with the LoRaWAN™ protocol and with NetworkServer management of connections (internal or external).

The objective of the ITG 200 Outdoor LoRa® is to complement the use of the gateway in external environments since it is an waterproof product, which means it is totally waterproof. It is equipped with an OLED display with 4 internal buttons making it possible to display customized system information and assisting with information necessary for each operating scenario.

## 3G for better assurance in the sending of data

The 3G data module allows for installation of up to two SIM cards in the ITG 200 Outdoor LoRa®, providing a fallback system. This module increases the guarantee of the delivery of information, creating a more reliable system. The 3G network is used only when the Ethernet network is unavailable (**optional item**).

# Wireless communication

The module for wireless communication with endpoints provides the ITG 200 Outdoor LoRa® with scalability. This module makes it possible to increase the number of reading sensors and expand the monitoring area by installing sensors in locations that are far from the gateway.

The module operates on the LoRaWAN™ protocol and provides management of NetworkServer connections (internal or external). The LoRa® communication module allows the gateway to monitor extensive areas, operating in the segments of Agribusiness, Smartcity, Industry 4.0, Corporative, Clinics / Hospitals, among other environments.

## Technical specifications

### Physical/Environmental

- RJ45 fast Ethernet Port 10/100 Mbps
- External kit and power plug with waterproof rating for waterproofing protection, and optional external antennas (LoRa® and GSM) with waterproof protection
- Dimensions (DxHxW): 4.3" x 8.3" x 8.3" (110x210x210 mm)
- Approximate weight of complete kit: 4.8 lb (2.2 kg) without packaging
- Power adapter:
  - Input: 100–240 VAC, 50/60 Hz
  - Consumption: 5 W
  - Output: 12 VDC
- Operating temperature: -4 °F to 122 °F (-20°C to 50°C)
- Storage temperature: -40 °F to 185 °F (-40°C to 85°C)
- Operating humidity: 10–90% (non-condensing)
- Storage humidity: 10–90% (non-condensing)
- Internal attributes:
  - OLED Display with 4 buttons (ITG 200)
  - Reset button
  - Power LED
  - Device status LED

### Waterproof Antennas \*

- **Optional LoRa® antenna:**
  - Omnidirectional LoRa® Antenna
  - Gain: 5 dBi
  - Impedance: 50 Ohms
  - Type N male terminal
  - Polarization: vertical
  - Weight: 0.24 lb (111 g)
  - Dimensions: 21.9" x 0.8" (558x20 mm)
- **GSM Antenna optional:**
  - 1x omnidirectional antenna
  - Gain: 1.5 dBi; 2.5 dBi
  - Impedance: 50 Ohms
  - Type N male terminal
  - Polarization: vertical
  - Weight: 0.24 lb (113 g)
  - Dimensions: 8.6" x 1.0" (220x25 mm)

### 3G Module \*

- 3G operation bands: B5, B8, B2, B1, B4
- Frequency bands: 800/850, 900, AWS1700, 1900, 2100 MHz
- Transfer rate (DL/UL):
  - HSPA: 21/5.7 Mbps
  - WCDMA: 384/384 Kbps
  - EDGE: 296/236 Kbps
  - GPRS: 107/85.6 Kbps
- Supports 2 SIM cards of the Mini SIM (2FF) format
- Secure integration protocol via HTTPS or MQTT

### LoRa® Module \*

- LoRaWAN™ 1.0.3 Protocol
- Frequency bands: 868 MHz or 915 MHz
- Channels: 8
- Power:
  - Up to +25 dBm (868 MHz)
  - Up to +28 dBm (915 MHz)

### Optional items \*

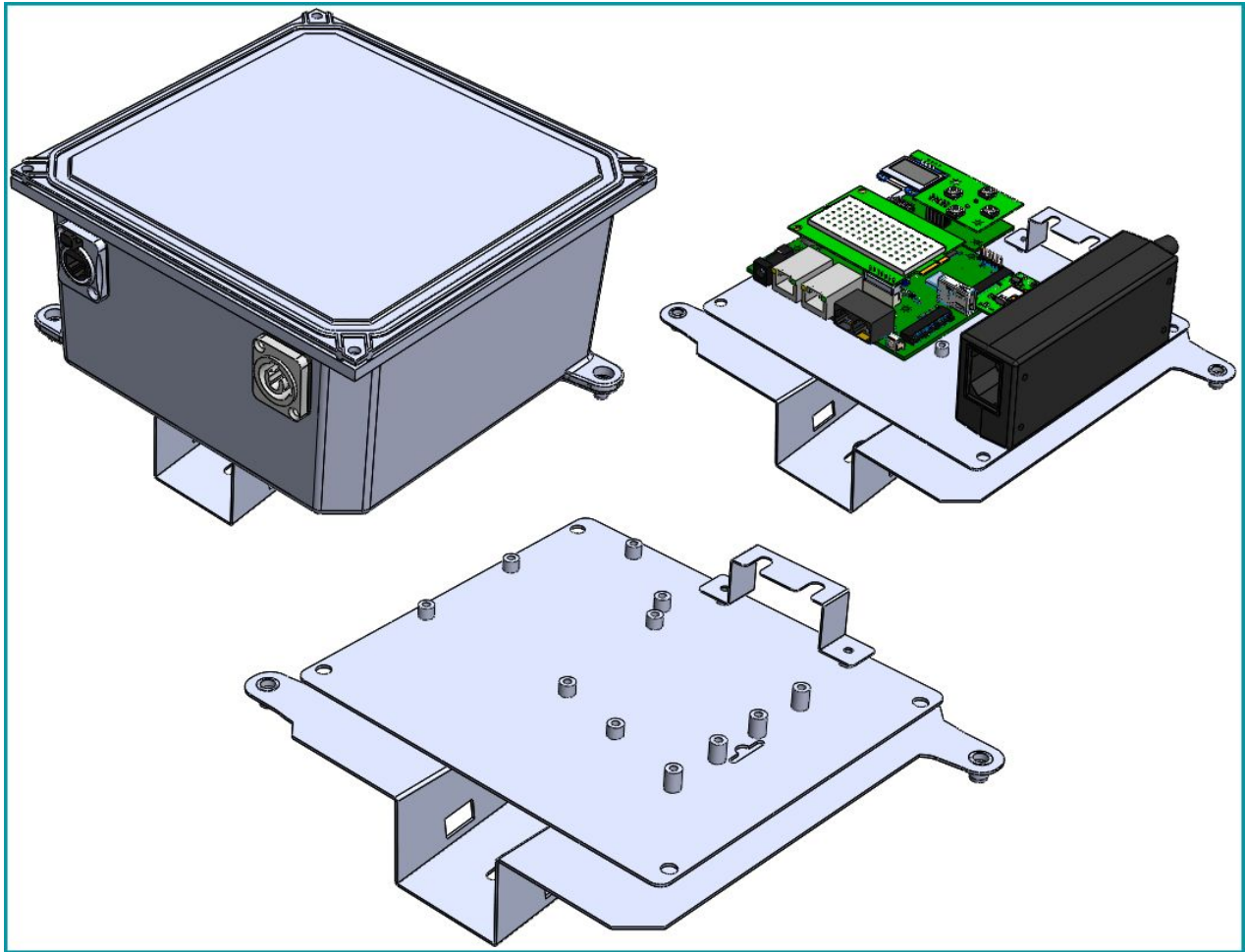
- 3G data module for up to two SIM cards
- LoRa® Waterproof Antenna
- GSM Waterproof Antenna

\* *Optional feature - available at an additional cost. The system requires that at least the "optional LoRa® Antenna" be installed in order for it to function.*

### Warranties and certifications

- Total warranty (legal + Khomp warranty): 1 year
  - Legal warranty: 90 days
  - Khomp warranty: 9 months
- Anatel (Brazilian National Telecommunications Agency) Certification
- ISO 9001 certified

# Product images



# Application model

