KHOMP

LoRa® IoT Endpoint transmitter

Features

- 2x 1-Wire ports for connection with temperature and dry contact sensors

- Connects up to 4x 1-Wire sensors in a chain

- Transmission of data to the gateway via LoRaWAN™ protocol

- Onboard temperature and humidity sensor*****

  * *Available only on the NIT 21LI model. Model with a different price.*

Applications

- Health Care

- Agribusiness

- Industries

- Corporate

Overview

The LoRa® Endpoint from Khomp is an IoT Endpoint transmitter for integration with IoT projects that use the LoRa® wireless communication network. It has two ports for connection with 1-Wire temperature sensors and/or a dry contact, making it possible to read the surrounding environment. The LoRa® Endpoint is installed in locations where there is a telemetry gateway, such as the Khomp ITG 200, for example. Using the LoRaWAN™ protocol, the Endpoint sends the data it reads to the gateway it is connected to through a wireless network. The gateway, for its part, is responsible for transmitting the information received to a server, which may be in a local network or a cloud.

The LoRa® Endpoint is recommended for projects that need to cover an extensive area, where it is possible to install a number of Endpoints across a certain area, such as in a clinical analysis laboratory or industries that have several refrigerated storage units, for example.

Models

The LoRa® Endpoint has two models to make it easier to integrate with your design.

Model	Description
NIT 20LI	Indoor node transmitter, base version
NIT 21LI	Indoor node transmitter with temperature and humidity sensor integrated in its board (onboard)

Integrated humidity and temperature sensor

The NIT 21LI has an integrated temperature and humidity sensor onboard, which allows it to read information in the environment in which the NIT is installed. This makes it possible to monitor both the environment in which the NIT is installed, as well as the environment in which connected sensors are located.

ⓘ **Nota**	• The values related to the on board sensor of ambient temperature and humidity "*can present significant differences*" (> 3%) in relation to the external environment of the case. • For greater accuracy, it is recommended to use the extension module "[EM THW 100](#)".

Technical specifications

LoRa®
- LoRaWAN™ 1.0.3 Protocol
- Authentication mode: ABP and OTAA
- Class LoRaWAN™: A and C
- Frequency range: 860 to 930 MHz*****
- Channels: 8 (configurable)
- Power: up to +20 dBm
- Antenna gain: 5 dBi and V.S.W.R: ≤1.5
- Sensitivity: starting at -137 dBm
- Communication distance: A few Km according to the installation area
- Compatible with Public ATC LoRaWAN™ Network or Private Networks

* *868 MHz band for sale in the European Union. 915 MHz for the USA and Brazil.*

Optional items******
- USB power adapter
- Output: 5 VDC

** *Optional items at additional cost.*

Electrical characteristics
- Power supply: 2 Alkaline or Lithium batteries, model AA (batteries are not included with the product)
- Voltage level operable with batteries: 2.0–3.0 V
- Power when using external source: < 2 Watts
- Battery life (approximate):
  - 390 days (transmissions every 5 minutes)
  - 350 days (transmissions every 5 minutes, +48 transmissions per day with Binary Sensors)
  - 310 days (with transmissions every 5 minutes with EM THW 100 extension)
- Sleep Mode Current: 6.3 µA
- Transmitting current (maximum): 172 mA
- Receiving current (maximum): 24 mA

Physical/Environmental
- Internal installation
- External antenna
- Support for wall mounting
- 2x RJ11 1-Wire
- 1x USB Micro-B (for power)
- Power source:
  - Battery: 2 Alkaline or Lithium, model AA (not included with the product)
  - USB: 5–12 VDC input
- Button with various operations*******
- Dimensions: 4"x3"x1.5"
- Approximate weight: 0.3 lb (without packaging)
- Operating temperature: 14 °F to 257 °F
- Operating humidity: 0–100% (relative humidity and non-condensing)

*** *Consult the [User Manual](#).*

Onboard Sensor
- Temperature:
  - Operating range: 14 °F to 257 °F.
  - 12 bits of resolution.
  - Accuracy: Approximately 0.4 °C, in the range of 14 °F to 185 °F
- Humidity (86 °F):
  - Operating range: 0% to 100% (relative humidity and non-condensing)
  - 10 bits of resolution
  - Accuracy: Approximately 3%, in the range of 0% to 80%

* *Only available on the NIT 21LI model. Differentiated cost model.*
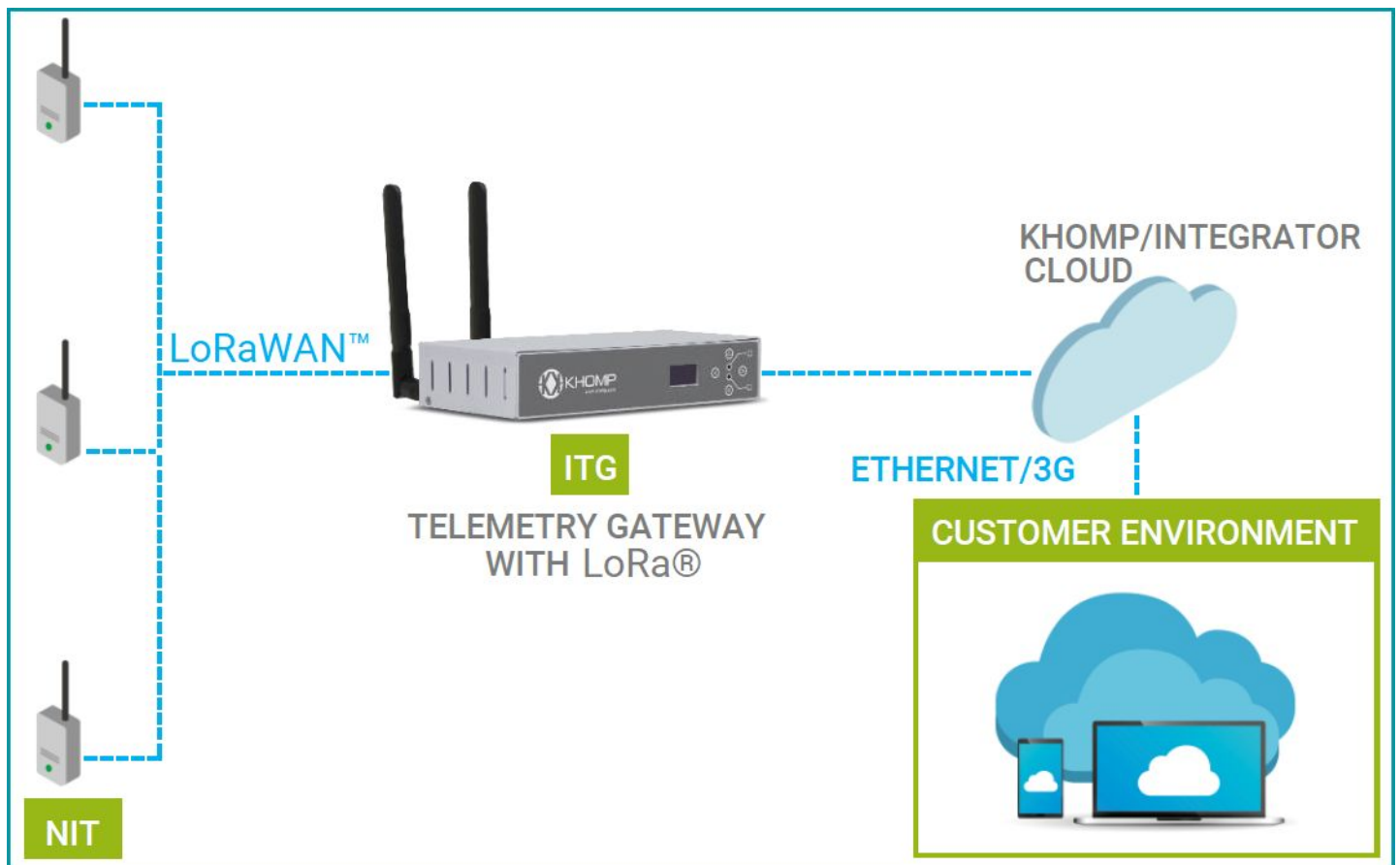
Warranties and certifications
- Total warranty (legal + Khomp warranty): 1 year
  - Legal warranty: 90 days
  - Khomp warranty: 9 months
- ISO 9001 certified

Product images

Subtitle: *Image of the front view and the LoRa® connections.*

Application model

Everynet interoperability seal

COMPATIBLE WITH

LoRaWAN

&+thingz
Interoperability Lab

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