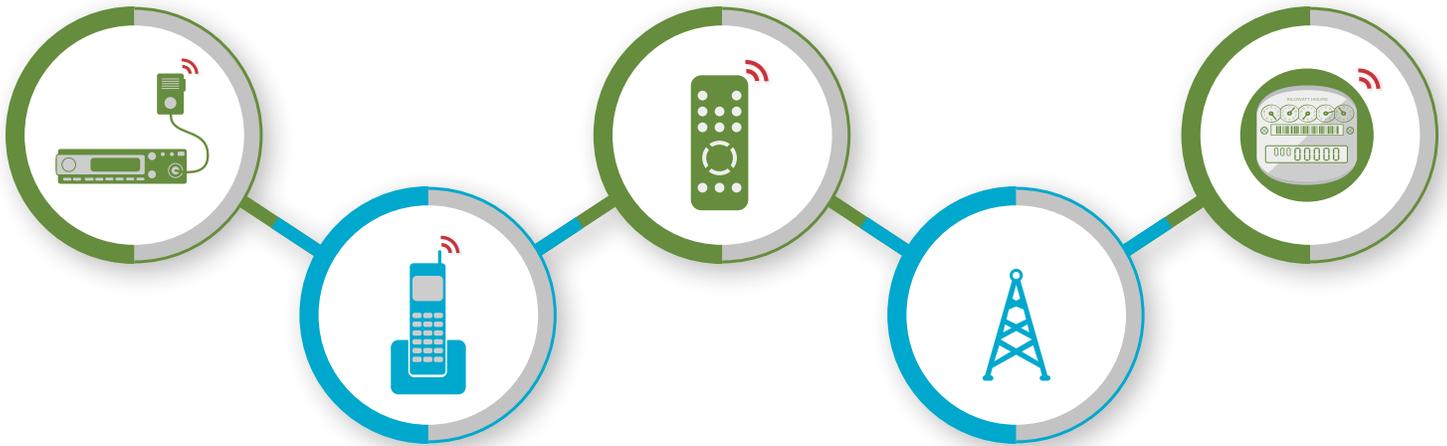




LoRaWAN TECHNOLOGY



LoRaWAN IS SAFE

LoRaWAN is certified by the FCC (Federal Communications Commission) to comply with health standards in the United States.

FCC

LoRaWAN DOES NOT EMIT HARMFUL RADIATION

Under its FCC certification, LoRaWAN follows the guidelines towards limiting ERP (Effective Radiated Power), ensuring that it does not pose health risks.

FCC

LoRaWAN DOES NOT INTERFERE WITH ELECTRONIC MEDICAL DEVICES

Studies show that LoRaWAN does not interfere with medical devices.

American Cancer Society

LoRaWAN DOES NOT CAUSE CANCER

LoRaWAN has never been linked to cancer in any studies.

American Cancer Society

OATI AMIOT™ USES LORA WIDE AREA NETWORK (WAN) TO COMMUNICATE METER INFORMATION QUICKLY.

By upgrading to a LoRaWAN-based meter, you can take a step towards better meeting the energy needs of your community.

Is LoRaWAN safe for residential use?

Yes.

What does LoRaWAN stand for?

LoRaWAN stands for Long Range Wide Area Network.

How does LoRaWAN work?

LoRaWAN operates on the 902MHz to 928MHz frequency space, much like cordless phones, remote controls, and other household appliances, to communicate meter data from homes to utilities.

OATI AMIoT™

and LoRaWAN

FREQUENTLY ASKED QUESTIONS

The technology behind OATI AMIoT™ uses LoRa Wide Area Network (WAN) for communication purposes. This protocol is an alternative to more expensive broadband and cellular connections that can be provided by many common carriers. LoRaWAN uses communication frequencies that do not require expensive licensing, thus reducing the communications cost associated with Advanced Metering Infrastructure (AMI) solutions. Additionally, these communication bandwidths are tried and true because they have passed FCC guidelines and requirements and have been used for many years in a variety of different products.

#1 What is LoRaWAN?

LoRaWAN is a type of communication that uses bandwidth designated by the FCC. In this way, it is similar to both commonly available internet bandwidths as well as cellular frequencies that are wireless. LoRa bandwidth has been used for many years in association with a variety of products.

#2 Is LoRa licensed to operate in the United States? If so, on what frequency?

Yes, LoRa is designated by the FCC to operate in the United States on the 902MHz to 928MHz space on certified devices.

#3 Has access and certification to use this space been given in the past?

The FCC originally allowed access and certification to use this space in 1989. Common consumer devices have used this frequency space for many years (See FAQ#5).

#4 Are there limitations on use of this bandwidth?

Yes, there are many limitations, with one of those being ERP (Effective Radiated Power). The FCC limits ERP to take into account experience with health and other related items.

#5 Do other devices use this frequency range? If so, what are they?

Devices have used this frequency range for many years. Examples include:

- HAM radios
- US Navy Radiolocation systems
- FM repeaters
- In-home cordless phones (beginning circa 1993)
- Remote controls
- Some varieties of Wi-Fi

#6 Why is this frequency range used?

One advantage to LoRa is that it uses existing bandwidth and techniques for new, innovative uses. This frequency range has been in use for many years and is quite safe.

#7 What information is transmitted from the meters?

Meter information includes meter number, meter reading, date and time, kilowatts (energy used), and voltage. This information is used for service billing, and system health and planning. This information also alerts your utility provider of system outages and helps with outage restoration, such as power loss during a storm. Meter data does not include any personal information about the property resident. The data is secured and encrypted using stringent cyber security best practices.

Radio-Frequency Levels from Various Sources (mW/cm²)

LoRaWAN Smart Meter RF levels are much lower than RF emissions from everyday common appliances. Here are a few examples:



LINKS TO ADDITIONAL INFORMATION

<https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety>

<https://www.cancer.org/cancer/cancer-causes/radiation-exposure/smart-meters.html>

<https://lora-alliance.org/about-lorawan>