

What is the Lora Alliance

The LoRa Alliance is an open, non-profit association of members that believes the Internet of Things (IoT) era is now. It was initiated by industry leaders with a mission to standardize Low Power Wide Area Networks (LPWAN) being deployed around the world to enable Internet of Things (IoT), machine-to-machine (M2M), smart city, and industrial applications. The Alliance members will collaborate to drive the global success of the LoRa protocol (LoRaWAN), by sharing knowledge and experience to guarantee interoperability between operators in one open global standard.

In the US, LORA operates in the 900 MHz ISM bands. It's a proven technology with AES 128 encrypted security from end to end. The user's data is embedded in the LORA stack and can be from 11 bytes to 242 bytes. Range is at its maximum when small data packets are used. Higher data packets shorten the range of transmission.

LORA radios are ideally suited for electric, gas and water meter reading. They are very low power, with long range, up to 20 miles, and economical. Using a LORA system opens the door to multiple possibilities because the radios and gateways are made by many manufacturers and all communicate together.

The Electric Utility Industry has wrestled with developing a standard protocol that allowed all manufacturers to play. Even today's systems lock a utility into solely controlled protocol operated by one vendor. LORA is truly open and anyone can play.

The LORA radios transmit at about 100 ma or roughly 20 to 22 dbm. Longer distances can be covered with slower data rates and small packets. The LORA network operates in a Star configuration (point to point). Ideally the network would be arranged where each end device can hit 2 or 3 Gateways for redundancy. There are many LORA network operators that can handle the flow of data from your head end to the end device. You can also create your own network with the open technology.



