

“Lora - A Revolutionary Technology for IoT LPWAN”



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Presentation summary:

1. Key features of LoRa[®] and LoRaWAN[™]
2. Semtech LoRa[®] solutions and use case

1. Key features of LoRa[®] and LoRaWAN[™]

LoRa[®] supports a long range of 15 to 30 miles outdoor to deep indoor coverage as well as multi-usage with scalable capacity that is available to public and private tenants. Its low power consumption also allows battery lifetime of 10 to 20 years. Besides, the requirement of minimal infrastructure and open source software makes it a low-cost network. Users of LoRa[®] can enjoy the benefits of true outdoor location without battery impact and bidirectional updates over the air. The LoRaWAN[™] also offers interoperability, global support, and roaming availability with enhanced security from end-to-end encrypted data.

Looking closer into the geolocation with LoRaWAN[™], as all base stations share a common timebase, while a sensor transmits a package, the backend algorithms compare the arrival time and other signal parameters to provide GPS free location data and operate with optimised performance and lower power.

As for LoRaWAN[™] network, the multi-channel gateways allows simultaneous reception of messages with scalable capacity that supports both indoor and outdoor operation.

2. Semtech LoRa[®] solutions and use cases

Semtech provides LoRa[®] Sensor Radio IC and Gateway ICs products with a range of end node reference designs and gateway reference designs that are certified with North America FCC Part 15.247 and LoRaWAN[™] Compliance Test Houses. The solution has been widely adopted in agricultural operation, asset management, smart home/ building development, etc.

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