LoRa Topology Overview

Cloud – IoT - LoRa LPWAN LoRaWAN

Users

Cellular M2M

TTN
The Things Network

Helium

Servers

Database

LoRaWAN is ideal for large-scale coverage and wide-area applications

Monitor

Data Logging

Optional

ChirpStack
MQTT

Servers

Private LoRa
Network
(ChirpStack)

Database

LoRaWAN
Gateway

Meshtastic has no compatibility with LoRaWAN
Off-Grid Meshtastic Nodes

Gateways
Packet Forwarded Only
Basic Station

LoRaWAN
Gateways

Satellite to
Device

Satellite to Device
862-870 MHz

LoRa provides a Long Range efficient wireless communication technology. Its features include low power and low data rate.

Various Sensors / Nodes

Flow | Alarm

Example ports used 22, 123, 443, 1680, 1700, 1881-1888, 8881-8889 and 8987

LoRaWAN Bands
(ISM Spread Spectrum)

433 MHz
EU433 (EU433-434)
470 MHz
CN470 (CN470-510)
779 MHz
CN779 (CN779-787)
868 MHz
EU868 (EU863-870)
IN865 (IN865-867)
915 MHz
AU915 (AU915-928)
US915 (US902-928)
923 MHz
KR920 (KR920-923)
AS923 (AS920-925)
2.4 GHz
LoRaWAN 2.4 GHz

Bands

LoRa Feature Overview	Architecture / Protocols	Semtech SX130x	SX1250 Series	Semtech SX126x	LR11xx series	
		LoRa Gateway Examples	**LoRa/Meshtastic Examples**	**LoRa Topology Overview**
Low Power	LoRaWAN protocol gateway	Heltec HT-M2802	Heltec Dev Boards	
Low Data Rate	LoRa physical layer	MikroTik Knot LR8	Mesh Node T114	*Energy Monitoring Boards and IoT Projects*
Long Range	LoRa protocol stack	The Things Indoor Gateway Pro	Nano G2 Ultra	
Resilience		RAK7268V2	Lora T3S3	**DitroniX.net**
ISM Band. Low Cost.	ChirpStack MQTT Forwarder	SenseCAP M2	RAK4631	**IoT Smart Home**
Smart IoT	ChirpStack Gateway Bridge	Heltec HT-M7603	ESPRanger	**Energy Automation**
Open Standard		UG65 Semi-Industrial	ESPKnack	
		LPS8N Indoor		(c)2025 DitroniX	Dave Williams	G8PUO

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