

# Edge Lite

Indoor LoRaWAN<sup>®</sup> Gateway



## Product Overview

**Edge Lite** is an ideal indoor LoRaWAN product for IoT commercial deployment. With its industrial-grade components, it achieves a high standard of reliability.

Supports up to 8 LoRa channels, multi-backhaul with Ethernet, Wi-Fi, and Cellular connectivity. Optionally there is a dedicated port for different power options, solar panels, and batteries. With its new enclosure design, it allows the LTE and Wi-Fi antennas to be inside the enclosure.

The gateway provides a solid out-of-the-box experience for quick deployment. Additionally, since its software and UI sit on top of OpenWRT it is perfect for the development of custom applications (via the open SDK).

Thus, the EDGE lite is suited for any use case scenario, be it rapid deployment or customization with regard to UI and functionality.

## Product Features

Hardware	Software
Supports DC 12 V	Built-in Network Server
<b>oE (802.3af)</b> + Surge Protection	OpenVPN
Dual LoRa Concentrators for up to <b>8 channels</b>	Software and UI sit on top of <b>OpenWRT</b>
<b>Backhaul:</b> Wi-Fi, LTE, and Ethernet	LoRaWAN 1.0.3
<b>IP67/NEMA-6</b> industrial-grade enclosure with cable glands	<b>LoRa Frame filtering</b> (node whitelisting)
Internal antenna for Wi-Fi, GPS, and LTE, External antenna for LoRa	<b>MQTT v3.1</b> Bridging with <b>TLS</b> encryption
Dying-Gasp (optional)	<b>Buffering of LoRa frames in Packet Forwarder mode</b> in case of NS outage (no data loss)

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# Technical Specification

## Wi-Fi Radio Specifications

<b>Wireless Standard</b>	IEEE 802.11 b/g/n
<b>Operating Frequency</b>	ISM band: 2.412~2.472 (GHz)
<b>Operation Channels</b>	2.4 GHz: 1-13
<b>Transmit Power</b>  (The max power may differ depending on local regulations) - per chain	802.11b 19dBm @1Mbps / 11Mbps
	802.11g 18dBm @6Mbps / 16dBm @54Mbps
	802.11n (2.4G) 18 dBm @MCS0 (HT20) / 16 dBm @MCS7 (HT20) / 17 dBm @MCS0 (HT40) / 15 dBm @MCS7 (HT40)

## LoRa Radio Specifications

<b>Operating Frequency</b>	EU433 / CN470 / EU868 / US915 / AS923 / AU915 / IN865 / KR920
<b>Transmit Power</b>	27 dBm (Max)
<b>Receiver Sensitivity</b>	-139 dBm (Min)

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## Interfaces

The function of the Reset key is as follows:

- ✓ **Short press:** Restart the gateway.
- ✓ **Long press (5s and above):** Restore factory settings.

### LEDs status description:

<b>LED 1 (PWR)</b>		<b>Power indicator</b> - The LED is on when the device power is on
<b>LED 2 (ETH)</b>		<b>ON</b> - Linkup
		<b>OFF</b> - Linkdown
		Flicker - Data transmitting and receiving
<b>LED 3 (LoRa 1)</b>		<b>ON</b> - LoRa 1 is working
		<b>OFF</b> - LoRa 1 is not working
		<b>Flicker</b> - Indicate LoRa 1 Packet receiving and sending
<b>LED 4 (WLAN)</b>	<b>AP Mode:</b>	<b>ON</b> - The AP is up
		<b>Flicker</b> - Data receiving and sending
	<b>STA Mode:</b>	<b>ON</b> - Connected
		<b>Slow flicker (1 Hz)</b> - Disconnected
		<b>Flicker</b> - Data receiving and sending

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<b>LED 5 (LTE)</b>	<b>ON</b> - Voice is working
	<b>Slow Flicker (1800 ms High / 200 ms Low)</b> - Network searching
	<b>Slow flicker (200 ms High / 1800 ms Low)</b> - Idle
	<b>Fast flicker (125 ms High / 125 ms Low)</b> - Ongoing data transfer
<b>LED 6 (LoRa 2 for 16 channel)</b>	<b>ON</b> - LoRa 2 is working
	<b>OFF</b> - LoRa 2 is not working
	<b>Flicker</b> - Indicate LoRa 2 Packet receiving and sending

## Certification



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