

EMB-GW1301 LoRaWAN™ Gateway Series



The LoRaWAN™ EMB-GW1301-x gateway is a multi service upgradable platform designed to meet IoT and M2M scenarios. It enables LoRaWAN™ connectivity to the cloud, providing a cost effective solution for IoT wireless infrastructure.

The EMB-GW1301-x is based on the Semtech SX1301 chipset, allowing to operate on multiple channels at the same time. Thanks to the Semtech SX1301 performances and the efficient Embit RF design, the possible radio ranges are up to 15 km in the countryside and 3 km in urban areas. Network connectivity is provided by the ethernet interface; optional radio communication interfaces can be included.

The EMB-GW1301-x can be preloaded with a specific customer's application and configuration or with the most well known LoRaWAN™ network server packet forwarder.

Any Embit standard module can be integrated into the gateway, exploiting the range of the Embit OEM modules portfolio and allowing to collect data or to control end-devices.

The EMB-GW1301-x can be branded with the customer's logo, or in case preloaded with specific applications.

Main features:

- Full compliance with LoRaWAN™ network protocol on 868MHz band.
- Rapid deployment with existing LoRaWAN™ compliant Network Server or your own LoRa™ Network Server.
- Supports LoRaWAN™ version 1.0.1 and proprietary LoRa.
- Powerful Semtech SX1301 8 channels, handle thousands of end-devices.
- Optional wireless interfaces compliant to IEEE 802.15.4™, ZigBee®, Wireless M-Bus, WiFi IEEE 802.11 b/g/n, LoRaWAN™ or proprietary protocols.
- Easy, proactive monitoring of processes.

TECHNICAL SPECIFICATIONS

EMB-GW1301-O (OUTDOOR)

Processor	Quad-Core ARM Cortex™ - A7 (1.2GHz)
RAM Memory	1GB, DDR3
Flash Memory	4GB, EMMC
LAN Connection	Ethernet RJ45 10/100 Base-T
LoRaWAN™ Connectivity	Semtech SX1301 +20 / +27 dBm @ 868 MHz
Connectivity	GPS 3G/LTE
Optional Connectivity	IEEE 802.15.4™ / ZigBee® Wireless M-Bus
OS	Embedded Linux
Power Consumption	< 20W
Power Source	POE IEEE 802.3at
Ports	Ethernet 10/100 RJ45 N-Type antenna connector
Dimensions	L: 276 mm W: 272 mm H: 96 mm
Weight	1.9 kg

EMB-GW1301-I (INDOOR)

Processor	ARM Cortex™ - A5 (536MHz)
RAM Memory	256MB, DDR2
Flash Memory	8GB
LAN Connection	Ethernet RJ45 10/100 Base-T
LoRaWAN™ Connectivity	Semtech SX1301 +20 / +27 dBm @ 868 MHz
Optional Connectivity	IEEE 802.15.4™ / ZigBee® Wireless M-Bus WiFi IEEE 802.11 b/g/n
OS	Embedded Linux
Power Consumption	< 6W
Power Source	External 5 VDC (12W)
Ports	Ethernet 10/100 RJ45 RP-SMA
Dimensions	L: 166mm W: 128mm H: 55 mm
Weight	400g

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