S-GATEWAY EU

Ordering info: RE.45.SGEU
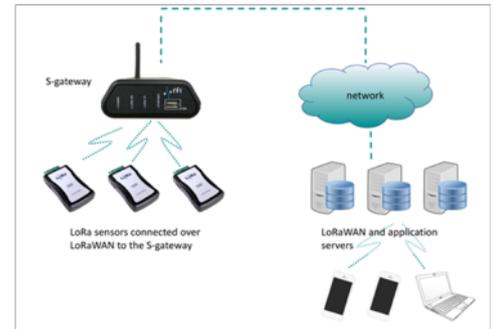
Network Infrastructure

Picocell indoor gateway including a GPS receiver for advance timekeeping

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The S-gateway is a Picocell, indoor LoRa gateway for enterprise and lightweight industrial applications that require Always On connectivity for Internet of Things (IoT) applications. It is very low cost and it is very easy to setup making it ideal for zero-touch high volume deployments. LoRa provides a low-cost way to connect battery operated devices to the network infrastructure.

LoRa RF technology has been pioneered by Semtech and is a 2-way wireless solution, operating in the license exempt ISM bands, that complements M2M cellular infrastructure. The function of the S-gateway is to forward received LoRa RF packets to an external server through a IP/UDP link. It also transmits LoRa RF packets that are sent by the external server. The S-gateway is standard equipped with one LoRa transceiver (8 channels) and a uBlox MAX-M8W GPS receiver for advance timekeeping; enabling class-B operation. The S-gateway comes standard with RFI Linux (4.9.40) and LoRa packet forwarder 4.0.1. pre-installed on the micro SD card. Advanced users can easily replace the pre-installed image their own version(s) of the open source software.

Network Infrastructure

Connectors

Ethernet	RJ45
USB Host	USB-A female
LoRa	SMA connector
GPS	SMA connector

Power Requirements

Power Adapter	100-240V/AC to 5V/DC
Unit ships standard with an universal power 5V adapter	

Environmental

Operating Temperature	-0º to +70ºC with no derating
Storage Temperature	-40º to +90ºC
Relative Humidity	5% to 95% non-condensing
Altitude	0-10,000 feet
Cooling	Convectional - non vented case

Mechanical

Case Dimensions	127.00L x 96.52W x 38.10H (mm)
Weight	300 grams, 10.6 Ounces

Features

LoRa 868MHz (EU) long range operation, up to 15 km range in line-of-sight and < 2 km in urban environment

8-channel design using SX1308 and 2x SX1257 chipset
Microchip AT91SAM9G25 MPU (ARM9@400Mhz)
DDR2 RAM 128 MB @ 16 bit
MicroSD holder push-pull, 16GB micro SD card included

Powered by 5V DC, power supply included
10/100Mbps Ethernet interface
1 full-speed USB host connector
Onboard GPS uBlox Max8W receiver allowing for GPS time-sync for class-B operation

Command line interface
Web interface for local & remote configuration
Works with all major LoRaWAN Network Servers

Remote configurable and remote software upgrades
Black, flame retardant ABS plastic enclosure
2 Year Warranty

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