Network Infrastructure

S-GATEWAY EU Ordering info: RE.45.SGEU

Picocell indoor gateway including a GPS receiver for advance timekeeping

Doc.nr.: SA2018SGATEWAY v1.0

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

USB Host

LoRa

GPS

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



Power Requirements Power Adapter 100-240V/AC to 5V/DC Unit ships standard with an universal power 5V adapter Environmental **Operating Temperature** -0° to +70°C with no derating Storage Temperature -40° to +90°C **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

RJ45

USB-A female

SMA connector

SMA connector

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