mPCIe Smart Gateway Card
For Low-Power Long Range Networks

OCCAMSMART™

Available Now!

Bringing your gateway infrastructure into the future and enabling low-power long range networks has never been easier. OccamSmart's mPCIe Smart Gateway Card, for use in LoRa®-based and LoRaWAN™ networks, allows you to easily add low-power long range capabilities to your new gateway design or existing gateway infrastructure by simply installing the card into your device.

The mPCIe Smart Gateway Card delivers an easy-to-use solution for data communication in a long range, low power wireless LoRa®-based network. Each module provides eight LoRa®-based receive channels. In addition, two auxiliary receive channels are provided for LoRa® and FSK modulation. Beyond its receiver capability, the device offers a single flexible transmit channel. This transmit channel is capable of modulation at multiple bandwidths for a LoRa®-based network or FSK/GFSK.

Unlike other boards, OccamSmart's mPCIe Smart Gateway Card incorporates a dedicated microcontroller in its design. This offloads the low-level radio-specific operations from the host device to the gateway card, decreasing host overhead and simplifying processing.

GENERAL FEATURES

- Supports RF packets for a LoRa®-based network
- Eight receive and one transmit channel(s)
- Two auxiliary receive channels
- Full-sized mPCIe compliant form factor
- Available with either serial or mPCIe compliant USB interface
- Environmentally friendly RoHS compliant
- Compliance - **US Version:** certified to FCC modular transmitter standards (915 MHz certification pending)
  EU Version: certified to R&TTE RF standards (868 MHz certification pending)
- Firmware upgradeable

OPERATIONAL

- Single operating voltage: 3.3 VDC +/- 10%
- Available for industrial (SX1301) and commercial (SX1308) temperature ranges
- Supports LoRa®-based and FSK (EU only) modulations
- Integrated frequency matched RF front end, RF transceiver, baseband processor, and MCU for reduced host overhead

APPLICATIONS

Gateways for LoRa®-based networks have been deployed in many market segments, including:

- Agriculture
- Home and Building Automation
- Wireless Alarm and Security Systems
- Industrial Monitoring and Control
- Machine to Machine (M2M)
- Internet of Things (IoT)

LoRa® and LoRaWAN™ Marks are trademarks of Semtech Corporation.