

LoRa FlexGate™ FGWAT3LR-14432

Industrial LoRa Gateway

The LoRa FlexGate™ FGWAT3LR-14432 is an industrial Gateway based on Intel Atom processor designed for Industrial Internet of Thing applications. Offering a wide range of options, it is the ideal Gateway to match different use cases on the field including Edge and Fog computing.

Modular and industrial gateway

The FlexGate™ FGWAT3LR-14432 is an industrial multiservice upgradable LoRa Gateway part of the FlexGate™ product line. This product line has been designed to bring hardware and software flexibility to meet the IoT technical challenges.

Beyond LoRa support, FlexGate™ FGWAT3LR-14432 offers a flexible Cloud and field connectivity within a unique platform ready to adapt to local configuration and facilitate deployment, maintenance, and installation.

Flexible processing power

The FlexGate™ FGWAT3LR-14432 integrates the last generation of Intel Atom multicores Low Power CPU. This flexible architecture offers a processing power that can easily be adapted to different use cases including Edge Computing and Fog Computing applications.

LoRa Concentrator “full power” inside

The FlexGate™ FGWAT3LR-14432 includes a real LoRa concentrator structured around the dedicated Semtech SX1301 chip having the capability to simultaneously listen to 8 LoRa channels in order to communicate with several thousand connected objects.

Multi-connectivity towards the Cloud

The FlexGate™ FGWAT3LR-14432 offers a rich connectivity with 1 Gbit Ethernet link, Wi-Fi, 3G/4G, and Bluetooth. All links are simultaneously available on the Gateway and fall back can be set according to different scripts. This approach ensures communication whatever the local topology is.

Field I/O's in option

Aside the serial port, it is possible to have in option local connectivity such as USB ports or GPIO's. The FlexGate™ FGWAT3LR-14432 is capable, beyond LoRa support, of interfacing with other local devices with wired communication such as Modbus devices.

Management services dedicated to IoT

The FlexGate™ FGWAT3LR-14432 is supplied with a Framework dedicated to IoT that takes advantage of the flexible CPU power to make software services available for the IoT world. This open architecture allows easy integration of any new services.

Modular Linux Framework provides integrated services such as remote firmware upgrade (FOTA) or highly secured layers.

A highly reliable system

Powered in DC or by PoE+ module, the FlexGate™ FGWAT3LR-14432 is designed to work round the clock, 7 days a week. Integrating industrial components with no part in movement, the FlexGate™ FGWAT3LR-14432 is a high reliable rugged platform designed for industrial applications.

Operating in commercial temperature, it can be optionally equipped to support extended temperature range.



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Key features

- Full compatibility with all FlexGate
- Compact size
- Intel Atom powered
- Ethernet POE+
- Option WiFi or 3G
- LoRa 868MHz or 915MHz version

Applications

- IIoT
- Smart Cities
- Automated Meter Reading
- Wireless Networks
- Energy
- Smart Building
- Industrial automation
- ...

PN

FG3815L8-12110-0204-14432

Atom Bay Trail 3815
2GB RAM – 4GB SSD
LoRa 868 MHz version

FG3815L9-12110-0204-14432

Atom Bay Trail 3815
2GB RAM – 4GB SSD
LoRa 915 MHz version

x86 platform

Processor : Intel® Atom™ Bay Trail E3800 product family, 1-4 cores
RAM : 2GB to 8 GB DDR3L
eMMC : 4GB to 16 GB on board

LoRa Connectivity

Chip : Semtech SX1301 / SX1257 based concentrator

ISM bands : 868 MHz or 915MHz
Channels : 8 simultaneous channels
Compatibility : LoRaWAN

Field connectivity

USB : N/A
Serial : 1x RS232/422/485 DB9
GPIO : N/A

LAN/WAN

Ethernet : 1x Gigabit Ethernet Intel® I210 RJ45
Wifi : 1x 802.11 a/b/g/n Mini PCIe module [Option]
3G/4G : 1x Mini PCIe module, SIM slot [Option]
Bluetooth : 1x 4.0 BLE [Option]

System

Dimensions : 144mm x 121mm x 40mm
Package : IP32
Weight : 940 gr
Operating : 0°C/+55°C ■ -30°C/+70°C [Option]
Power : PoE+

Operating System

Linux : Kernel 3.14
Build system : Yocto Project 2.0 Jethro

Management Services

Web Interface : Connectivity and packet forwarder settings
Supervision : Hardware and RF Monitoring
Security : TLS, IPSec
Others : FOTA

LORAWAN Network Server

Compatibility : Actility's Thingpark Approved
Loriot Approved
Internal Network Server

IoT Middleware

Wind River Helix Device Cloud

Various

Watchdog : Hardware & software