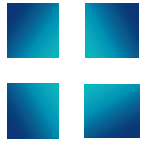


plus



# GATEWAY FE

## NarrowBand IoT Gateway

Gateway fe plus is a device that allows the integration of IoT controller and sensor networks into the existing infrastructure. The controllers and sensors are managed by Gateway and can operate autonomously. Data is sent to the Internet using ethernet, Wi-Fi, 3G/4G or NB-IoT. The Gateway synchronizes IoT devices with our Web Cloud platform or other third-party applications.



## Benefits

## for your City

- ✓ Energy savings
- ✓ Maintenance cost reduction
- ✓ Remote management and monitoring
- ✓ Wireless platform for Smart Cities

## Main applications



### Smart metering

Telemetry for water, gas and energy



### Smart cities

Streetlights controllers and parking management



### Smart building

Alarm systems, HVAC, access control



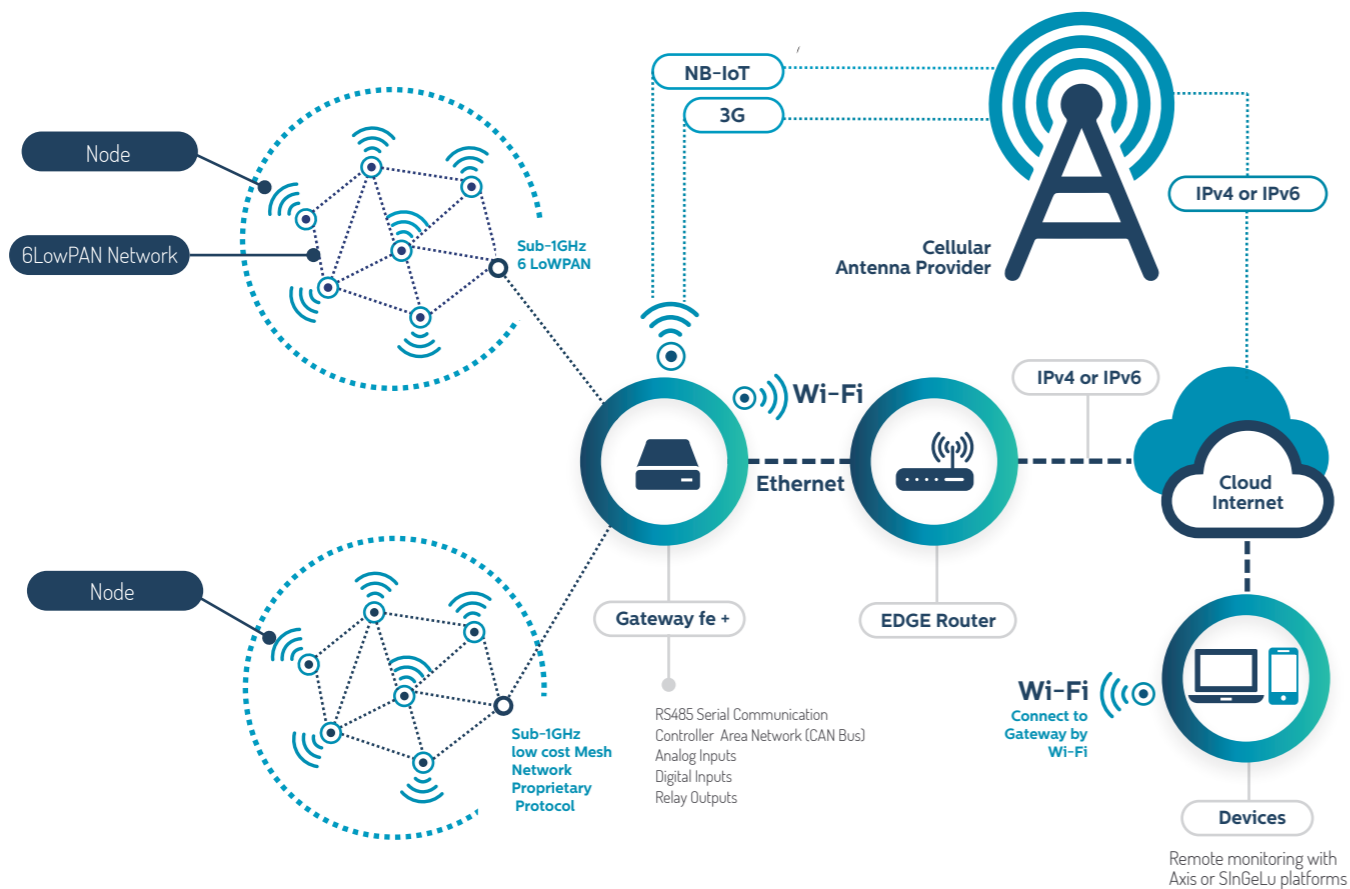
### Agriculture and environment

Land and environment monitoring



# To interconnect the dots

The Gateway provides full-duplex NB-IoT connectivity, 6LoWPAN connectivity with mesh routing capability and Sub-1Ghz proprietary mesh protocols connectivity. Users can also connect to the Gateway through Wi-Fi with their device and get access to the Internet (Access Point).



## key features

- ✓ Remote control and real-time monitoring of the key parameters: data management, data aggregation and data analysis.
- ✓ Plug and play installation, just by plugging new end-devices to our network.
- ✓ Flexible solution and easy interaction with different networks topologies : Star, Ring and Mesh.
- ✓ IoT interfaces: Sub-1Ghz , 6LoWPAN, NarrowBand IoT (NB-IoT).
- ✓ Secure communication is provided by compatible implementations with the standard Internet Protocol Security (IPSec) protocol suite and the Internet Key Exchange Protocol version 2 (IKEv2), which enable highly secure end-to-end communication.
- ✓ Open Interfaces for third-party compatibility (API) and customization.
- ✓ Huawei Lite OS integration with NB-IoT and Huawei IoT platform.

CPU Unit	
Processor	Quad Core 1.2GHz
CPU architecture	64-Bit
RAM Memory	1GB RAM DDR3
Storage Memory	MicroSD card slot
RTCC	Real Time Clock Calendar with battery backup
System	Linux Debian based and Huawei Lite OS, allowing an plug and play integration with NB-IoT and Huawei IOT platform.
USB 2.0	2 USB host ports to additional devices
Interfaces	
Ethernet	RJ45 Ethernet 10/100/1000 Mbps
Bluetooth	Bluetooth V4.0 with integrated Class 1.5 PA
Wi-Fi	IEEE 802.11 b/g/n standard (up to 72.2Mbps)
3G Cellular Networks Interface	Others: FOTA ( Firmware Over-The-Air ) Firmware update via USB/UART Embedded TCP/IP stack Support AT commands 3GPP TS 27.007 and 27.005 Huawei extended AT command
IoT Interface Communication	
Narrowband IoT ( NB-IoT )	<b>Data rate:</b> LTE category NB1: Single-tone uplink (up to 27.2 kbps DL, 62.5 kbps, up to 62.5 Kbps UL - up to 27.2 kbps DLUL) 3GPP Release 13 FDD Band 8, 20 Europe SIM card slot
6LoWPAN communication	868 MHz frequency band ( 4 channels in EU mode; 10 channels in US mode ) <b>Others:</b> 6LoWPAN stack with mesh routing capability Plug-and-play integration into local and widearea networks Unique EU164 address Over-The-Air Update (OTAU) functionality IPSec and IKEv2 security Encryption: AES128
Sub-1Ghz ISM Communication	<b>Frequency range:</b> 868 / 915 MHz ISM bands <b>Sensitivity:</b> -121 dBm <b>Output power range:</b> 20 dBm Max <b>Data rate:</b> 0.123 to 256 kbps <b>Modulation:</b> FSK, GFSK, and OOK Digital RSSI Mesh proprietary protocol 1Km max. open field range
Sub-1Ghz ISM Communication (optional additional RF module)	<b>Frequency Range:</b> 868 / 915 MHz ISM bands <b>Sensitivity:</b> -121 dBm <b>Power output range:</b> 20 dBm output power at 868 MHz max. 27 dBm output power at 915 MHz <b>Data Rate:</b> 0.6 to 600 kbps <b>Modulation:</b> 2-FSK, 4-FSK, GFSK, and MSK supported as well as OOK and flexible ASK shaping Digital RSSI Mesh proprietary protocol 1 Half-Duplex RS-485 ( 2500 VRMS Isolation per UL 1577 ) 2 port CAN bus ( 5000-VRMS Isolation ) 1 port serial TTL 2 port CAN Bus ( 5000-VRMS Isolation )
Serial Interface	
I/O Interface	
Outputs Interface	2 Relay Outputs
Inputs Interface	4 Analog Inputs 10 bits (max. 3.3 VDC) 4 Isolated Digital Inputs (max. 12 VDC)
Environmental Specification	
Operating Temperature	-20°C to 60°C
Storage Temperature	-40°C to 85°C
Humidity non-condensing	10% to 90%, RH non-condensing
Electrical specification	
Power Consumption	5 Watts Typical , 10W máx
Input Voltage	110 - 230 VAC 50 - 60Hz.
Electric Protection	Class II: overload, short-circuit and over-temperature protection
Electric Safety	Galvanic isolation between high-voltage and low-voltage terminals
Physical Specs	
Dimension	154 x 179,50 x 52 mm
Weight	640 g
Product Mounting	Wall or cabinet mounting

Cofinanciado por:

**COMPETE  
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