

# Gateway



## Intelligent mesh network base and repeater unit

- Collection and storage of all information generated by the system
- Can be configured in three different modes: Base station, Repeater (acting as a relay), and Mobile base





# GATEWAY

## PART OF THE FLEXNET PLATFORM

The Gateway is a hub that collects and stores all information generated by the system. It can work either as a base station or a repeater. It is equipped with two radios for short-range and long-range communications between sensors and gateways respectively, and has the capability to connect to other networks, allowing enhanced system flexibility.

The short-range radio enables communications with deployed sensors within a 1km LoS range through the mesh network. The long-range radio relays sensor data and imagery at a distance of up to 15km LoS between Gateways.

An extended communication range can be achieved by deploying several Gateways in repeater mode. The Gateways can be connected to 3G/4G modems, Satcom or any other backhaul network via

TCP/IP, to enable remote BLOS (Beyond Line Of Sight) communication and control.

The Gateway can be configured in three different modes: Base station, Repeater (acting as a relay), and Mobile base (acting as an additional mobile base). It can be deployed as an autonomous base without requiring a computer to be connected to the network.

As an autonomous device, it stores data from deployed sensors and cameras for later retrieval. The Gateway can operate unattended for 30 days on the internal battery. The operational endurance time can be extended to several months when the Gateway is connected to external batteries or alternative power sources.

### Technical specifications

<b>Size</b>	115mm x 105mm x 177mm
<b>Weight</b>	3,2 kg
<b>Operational endurance</b>	30 days with integrated rechargeable battery. An external battery can be connected for extended operational endurance time.
<b>Temperature</b>	-32 to +71° Celsius in operation
<b>Environmental</b>	MIL-STD-810
<b>EMC</b>	MIL-STD-461
<b>Tamper alarm</b>	Built-in anti-tamper function with GPS
<b>Position</b>	GPS for self-location

### Performance

	<b>Additional information</b>	<b>Short-range radio</b>	<b>Long-range radio</b>
<b>Radio frequency</b>	Other frequencies available upon request	315-350 MHz 868-870 MHz 906-925 MHz	230-270 MHz, 245-280 MHz, 437.5-453.5 MHz
<b>Radio output power</b>		500mW	2W or 10W
<b>Antenna type</b>	Vehicle & fixed antennas upon request	Half-wave & quarter-wave whip antenna	Half-wave & quarter-wave sling or tripod antenna
<b>Cable connection</b>	Ethernet, Serial, USB		

### Capabilities

- Base, Repeater or Mobile base functionality
- IP 3G/4G/LAN/Satcom backhaul communication
- Data storage and silent mode capacity
- Rapid deployment
- Advanced Encryption Standard AES256
- Anti-tamper functionality
- Integral GPS for self-locating functionality
- Internal, rechargeable battery for 30 days of operation

Bertin Exensor - August 2022 - Copyrights: Exensor / T.Léaud