

GATEWAY

BASE AND REPEATER UNIT



INTELLIGENT MESH
NETWORK BASE
AND REPEATER UNIT





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

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

Performance

	Additional information	Short-range radio	Long-range radio
Radio frequency	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
Radio output power		500mW	2W or 10W
Antenna type	Vehicle & fixed antennas upon request	Half-wave & quarter-wave whip antenna	Half-wave & quarter-wave sling or tripod antenna
Cable connection	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