

HUB

Smart Wide Area Surveillance

The HUB is designed for extensive areas and operates independently of GSM connectivity. When motion is detected, NODEs analyze images while SENSEs evaluate the signal. If a detection occurs, the data is sent to the HUB via LoRa. The HUB processes the incoming data using Edge AI and transmits it to CENTRAL via Satellite or GSM Network. This setup enables real-time threat response, making the HUB perfect for secure, autonomous surveillance. By filtering data on-device, only critical detection events are transmitted to CENTRAL, reducing data volume, latency, and communication costs.



TECHNICAL SPECIFICATIONS

| PARAMETERS | SPECIFICATIONS | PARAMETERS | SPECIFICATIONS |
|------------------------------|---|---------------------------|---|
| Weight ¹ | 3.5 kg | Image Analysis | Edge AI (Person, Animal, Vehicle etc.) |
| Dimension | 205x450x120 mm | Data Encryption | AES - 256 |
| Power Source | 12V Battery (External) | Device Support (via LoRa) | Unlimited NODEs and SENSEs |
| Operation Time ² | 180 Days | Data Transmission | Satellite (Iridium) + GSM Network |
| Wake-up Method | Triggered by NODEs and SENSEs via LoRa | Coverage ⁴ | NODE to HUB via LoRa (~1 km) SENSE to HUB via LoRa (~3 km) |
| Operating Temperature | -20 to +50 °C | Ingress Protection Class | IP67 |
| User Interfaces ³ | Web and Mobile Applications | Integration | API on request |

¹ May vary depending on configuration. ² Operation time depends on battery capacity and number. ³ Web and Mobile Applications via CENTRAL. ⁴ Coverage area varies according to the Line of Sight.

Use Cases

Border Security, Immigration Control, Wildlife Monitoring

Edge AI

HUB utilizes advanced Edge AI technology for on-device data processing, enhancing efficiency and reducing unnecessary data transmission and cost.

Unlimited LoRa Nodes and Senses

Designed to seamlessly integrate with LoRa NODEs and SENSEs, the HUB offers scalability without limitations, allowing for the expansion of surveillance coverage as needed.

Satellite Connectivity

With satellite communication capabilities, the HUB ensures reliable data transmission even in remote or disconnected areas, enabling continuous surveillance and real-time response.

ADDITIONAL REQUIREMENTS

POWER SOURCE 12V external power supply (battery) is required. 12V 48 Ah battery is suggested for up to 3 months of use. Additional connection cables provided for multiple batteries.

DATA PLAN HUB can be used via Satellite or GSM Network. For Satellite usage, Iridium Certus 100 Plan is required. Available from vendors (Ground Control) or directly from us at an additional monthly fee per device.

