



Iridium Tracker Beacon



510-1

Iridium Tracker Beacon - 510-1

FEATURES

- Rugged and reliable, designed for military users
- Compact and lightweight
- Global operation with Iridium Satellite Network
- Easy mounting and GPS-enabled tracking
- Real-time tracking via Iridium SBD
- Secure data transmission with AES256 encryption
- Long-lasting battery with USB-C charging
- User-friendly design with LED indicators and haptic feedback
- Covert 'Dark Mode' for discreet operation



Embrace the pinnacle of tactical location and distress tracking with the 510-1 Tracker Beacon, a compact, lightweight device which takes advantage of the Iridium Satellite Network. This versatile hand-held beacon deploys and operates globally, featuring built-in GPS for accurate location tracking and distress signalling to your emergency response team.

Powered by the Iridium SBD service, our Tracker Beacon delivers real-time or user-configured interval tracking information from any anywhere in the world. Security is paramount, incorporating robust AES256 encryption for secure communication.

Configure prior to deployment easily with the Techtest supplied application, enabling the user to adapt the beacon's functionality to meet specific operational requirements. Connect to a PC via USB or utilise over-the-air remote control and configuration options for enhanced versatility.

The internal rechargeable battery supports up to 1800 SBD messages on a single charge, with convenient USB-C charging. Designed for durability and easy use in demanding environments, our beacon incorporates LED indicators for operational status and haptic feedback for tactile confirmation. 'Dark Mode' is available for discreet operations by deactivating LED indicators.

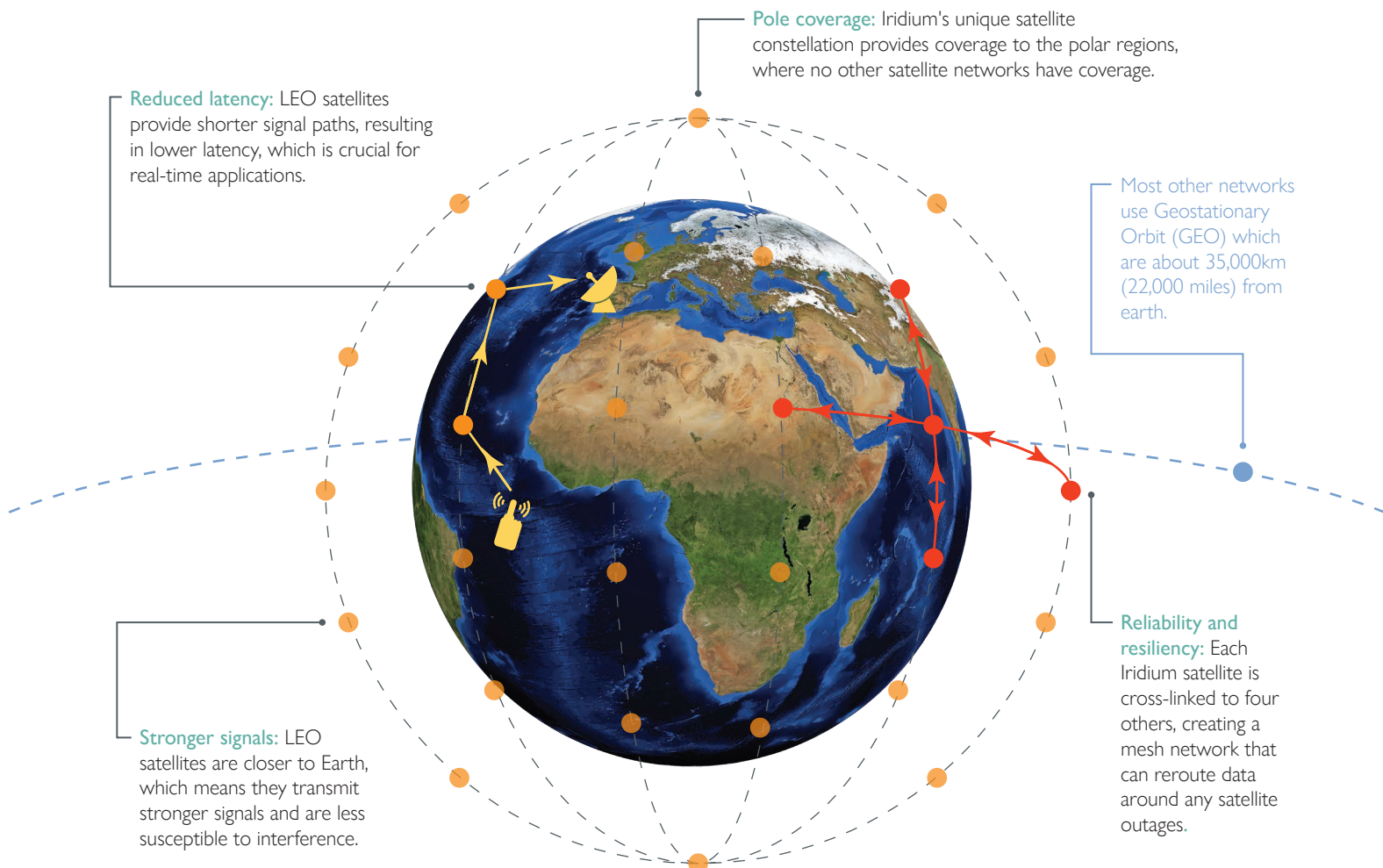


What Is Iridium?

The Iridium satellite network is a global constellation of low-Earth orbit (LEO) satellites that provide communication services to users around the world. The network is unique in that it offers truly global coverage, including the Arctic and Antarctic regions. This makes it an ideal platform for search and rescue (SAR) operations.

How does the Iridium satellite network work?

The Iridium satellite network uses a mesh network architecture, which means that each satellite is connected to multiple other satellites. This allows for seamless communication between satellites, even if one satellite is out of service. The network also uses a technique called inter-satellite cross linking, which allows satellites to directly relay signals to each other, rather than routing them through ground stations. This further improves network performance and reliability.



Operation Modes

| | |
|--------------|--|
| OFF | No power and inactive |
| ON (Standby) | Low power state, connected to the satellite system but not transmitting. Ready to start Tracking; Able to be interrogated, configured or activated over-the-air. |
| Transmitting | Transmits location at regular intervals defined by user |
| SOS | Transmits Distress message and location at regular intervals |

Controls & Indicators

| | |
|----------------|---|
| Push Buttons | ON/OFF, Start, SOS |
| LED Indicators | Battery status GPS position status Connection to Iridium Satellite network SOS Mode active |

Physical

| | |
|-------------|--|
| Dimensions | 120 x 60 x 31mm (L x W x D); 170mm including Iridium antenna |
| Weight | ~275g |
| Connections | Iridium RF SMA(F) USB-C (5 Volts) |

Power

| | |
|------------------|---|
| Battery | Rechargeable Li-Ion; Capacity 3.35 Ah @ 3.6V (12 Wh) |
| Battery Charging | Connection to USB-C power socket: DC charger or any suitable USB power source |

Functional

| | |
|-------------------|--|
| Iridium Network | Iridium 9603 SBD Modem <ul style="list-style-type: none">• Global Coverage• Latency < 1 minute |
| Iridium Frequency | 1616-1626 MHz |
| GPS Receiver | Up to 3 GNSS constellations (configurable) -167dBm sensitivity, Internal Antenna, Typical Time to First Fix (TFF) <30s. |
| Data Transmitted | Time, Position, and Status |
| Data Encryption | 256-bit AES Encryption using a 64-alphanumeric character Password |

Environmental

| | |
|-------------------------|--|
| Storage Temperature | -55°C to +85°C |
| Operational Temperature | -20°C to +60°C |
| Qualification | MIL-STD-810, Vibration, Waterproofness (Rainfall rate: 4 in/hr), Immersion (Shallow, 1m for 2 hours), Immersion (Deep, 7.6m for 5 mins), Humidity, Salt Fog, Shock, Fungus, Sand, Dust |
| EMC Certification | CA/CE Marking is in accordance with Iridium 9603 Modem |



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