NETWORK INNOVATIONS

SHOUT ts Handheld Tracker

Field-proven Handhelds Mountable Trackers & Satellite Modems

Overview

The SHOUT ts is a handheld, global, two-way satellite messaging and personal tracking device It utilizes Iridium's short burst data (service to provide location information determined by a GPS receiver, two way inbound and outbound status, text messaging, and emergency/alert notifications.

The SHOUT ts is designed with ultra-low power consumption electronics drawing less than 35µA during sleep. With an internal 1.95 A-Hr rechargeable Li-Ion battery it can send a position report every hour for up to two months (about 1,600 reports). The SHOUT ts is equipped with a resistive high resolution color touchscreen supporting transmission of free text, canned messages and a combination of free text and canned messages Similar to a "smart" phone, the menu options are displayed as icons for quick access The device can periodically wake up from sleep to send its position report to a command center. A 911 button is used for immediate emergency/alert notifications. Data is packaged in either standard or 256-bit AES encrypted format. Data can also be sent in encrypted PECOS formats to include Brevity codes.

The SHOUT nano offers a variety of services including:

- **Normal Tracking** – programmed to automatically wake up and send a position report at a set interval ranging from once a minute to once a day.

- **Emergency Alert** – sends alerts to a designated monitoring center using a 911 button The monitoring center and the user can then communicate to define further specifics of the emergency.

- **Free Text Messaging** –sends free text via four different sets of on-screen keyboards.

- **Canned Text Messaging** – sends canned messages in short codes to save bandwidth instead of the entire message body.

- **Waypoint Tracking** – sends and/or saves waypoints for later retrieval.

- **Check-In** – allows a quick check in message to be sent using a single soft key.

Key Features

- Low cost, body worn tracker and messaging device

- Programmed for either DoD or Commercial Iridium Gateway

- Ultra-low power consumption

- Automatic location reports (>1500 reports)

- Guarded 911 alert switch

- High resolution touchscreen

- Free text, canned messages, or combined free text and canned messages

- Data logging (waypoints and tracking reports)

- 256-bit AES encryption

- Real time, pole to pole coverage.

- Weighs ~7.2 ounces

- Volume of 4.1″ x 2.3″ x 0.9″

- USB interface

- Internal rechargeable battery using AC adapter, USB port, or solar charger

- Integrated motion sensor

- 50 channel GPS receiver with -160 dBm sensitivity

- Compatible Airtime Service(s): SBD

SHOUT ts Handheld Tracker

Iridium Antenna

GPS Antenna

Touchscreen

USB Port

Tracking & Emergency LEDs

Switch Guard

Emergency Button

Power/Back Button

Specifcations

Mechanical

Weight	~7.2 ounces (204 grams)
Dimensions	4.1" L x 2.3" W x 0.9" D (104 mm x 58 mm x 23 mm)
I/O Interface	Mini USB
Cooling	Convection
Enclosure	Hard Anodized Aluminum (EMI shielded)

Electrical

Input Voltage Range	2.7VDC to 5.5VDC
Battery	1.95 A-Hr rechargeable Lithium-Ion
Sleep Mode	< 35µA between reports
Transmission Mode	1.12mA-Hr per report

Iridium RF Board

Operating Frequency	1616 to 1626.5 MHz
Link Margin Downlink	13 dB average
Link Margin Uplink	7 dB average
Average Power Transmission	1.0 W

GPS Receiver

Receiver Type	1575.42 MHz (L1), 50-channel, C/A code
Accuracy	2.5 m CEP
Update Rate	4 Hz
Start-up Times	< 1 sec hot start, 29 sec warm start, 29 sec cold start
Sensitivity	-160 dBm

Environmental

Operating Temperature	-4°F to +140°F (-20°C to +60°C)
Operating Humidity	< 75% RH
MIL-STD	MIL-STD-810G, MIL-STD-461G, Rapid Decompression and Explosive Atmosphere