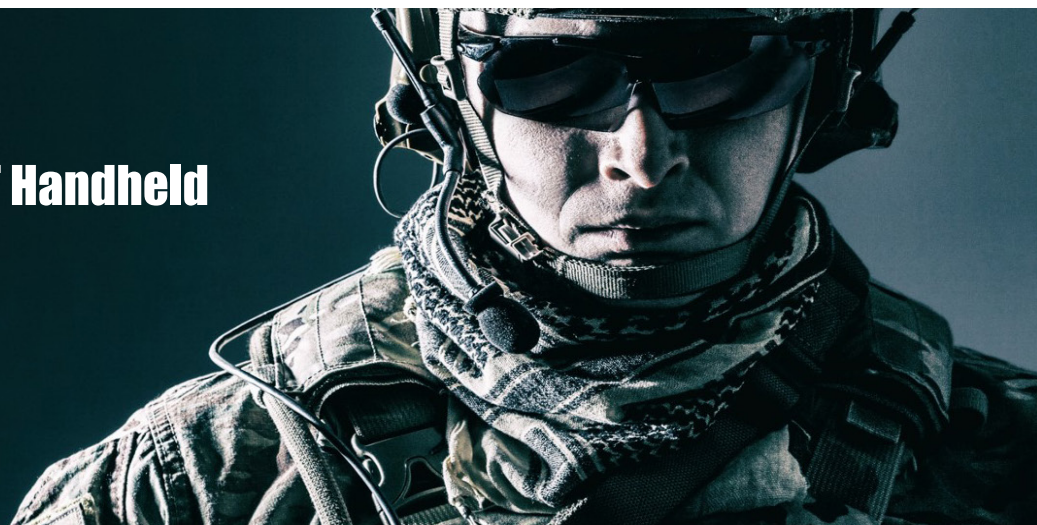


SHOUT pt

Multi-Source Assured PNT Handheld



Multi Layered PNT

M-Code, GNSS, Alternative-RF, VIO, & INS Fused Solution



Automated PNT Selection

Accuracy, Integrity, Power Management



User Equipment Integrated

Viewable on SHOUT pt ATAK app, Wearable, or Nett Warrior EUD

Multi-Source Assured PNT Handheld

The SHOUT pt is a global, multi-source Assured Position, Navigation and Timing (A-PNT) handheld device capable of providing layered, assured position and time in the presence of adversary and environmental threats to GPS signals. The SHOUT pt's hierarchal engine automatically selects the optimal PNT source based on accuracy, integrity, and power management. It is powered by a commercial 5G mobile platform and is designed to support future software defined radio (SDR) capabilities. The SHOUT pt's high resolution color touchscreen is day/night compatible and natively hosts the integrated ATAK app, including waypoint navigation. The SHOUT pt supports user wearable devices via secure Bluetooth and displays info on the Nett Warrior End User Device (EUD) through the USB connection. Replaceable, external 6.6 A-Hr rechargeable Li-Ion battery.

Additional Features

- AES-256 Encryption for Secure Messaging with Wearable
- Commercial 5G Mobile Platform
- SDR Enabled Future Waveform Integration
- High Resolution Touchscreen
- USB Interface
- Rechargeable, Replaceable Battery
- IP67 Rated, 1 meter @ 30 min
- OCXO Stabilized 1PPS Timing

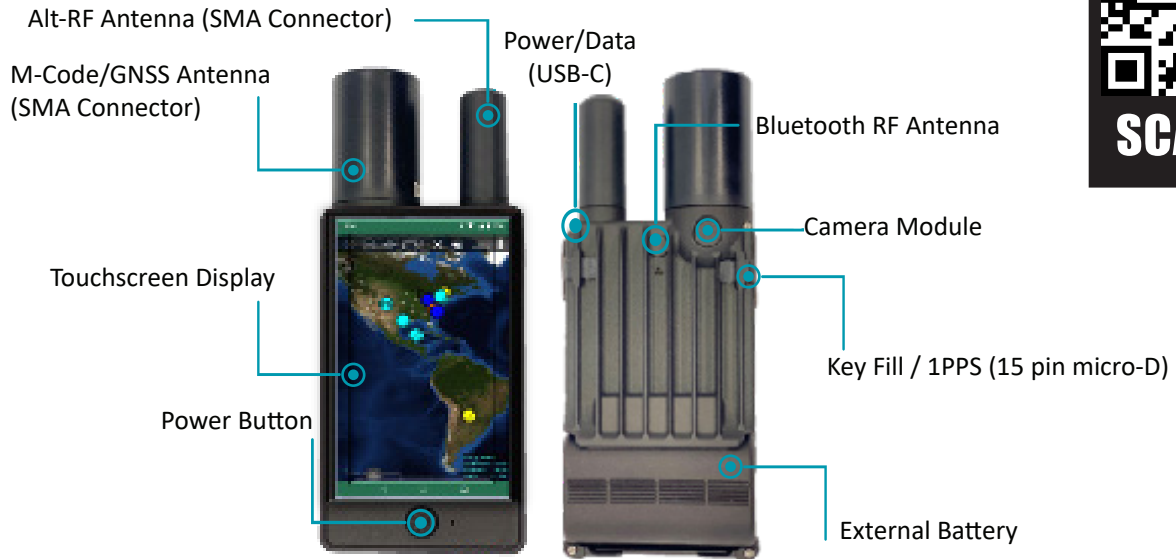
Use Cases

Capable of providing assured Position, Navigation and Timing in the presence of adversary and environmental threats to GPS signals. The SHOUT pt engine utilizes up to five separate PNT sources to provide assured navigation:

- M-code GPS receiver
- High-accuracy commercial GNSS receiver
- Alt-RF receiver
- Visual Inertial Odometry
- IMU Advanced Sensor Fusion

SHOUT pt Handheld





What's In the Box?

- SHOUT pt Handheld Device (pictured above)
- USB A/C Cable
- Power Adapter
- Rechargeable Batteries

Device Specifications

Weight:		16.9 oz (479 g)
Dimensions:		5.1" L (133 mm) x 2.9" W (74 mm) x 1.4" (36 mm)
I/O Interface:		USB-C, 15 pin micro-D
Input Voltage Range:		5V DC nominal, 3.6V DC to 12.6V DC
Battery:		6.6 A-Hr rechargeable, replaceable Lithium Ion, 2x 18650 cells
Antenna:	Alt-RF:	Ceramic helical decafilair
	GNSS:	Air core helical decafilair

Alt-RF Receiver

Static Position Accuracy:	<50 meters @ 1 sigma
Static Timing Accuracy:	< 1 microsecond @ 1 sigma
Static Convergence Time:	2 - 4 minutes to <200 meters

GNSS Commercial GPS Receiver

GNSS Receiver:	L1 (1575.42 MHz):	GPS, Galileo, GLONASS, BeiDou, SBAS, QZSS
	L5 (1176.45 MHz):	GPS, Galileo, NavIC, SBAS, QZSS
Accuracy / Update Rate:	< 5 m CEP / 1 Hz	
Startup Times:	< 1 sec hot start, 29 sec war, start, and 29 sec cold start	

M-Code Receiver

Receiver Type:	MPE-M L1/L2 Type II with C/A, P(Y), and M-Code / EKMS-308 compliant key fill
Accuracy:	< 5 m CEP

Environmental (MIL-STD-810G / MIL-STD-461G)

Operating / Storage Temp:	- 4° F to +122° F (-20°C to +50°C) / -22°F to +158°F (-30°C to +70°C)
Operating Humidity:	100% RH, non-condensing
Immersion / Sand & Dust:	IP67 Rated, 1 meter for 30 min / Blowing Dust & Blowing Sand
Vibration / Shock:	Category 24, Minimum Integrity / Transit Drop & Bench Handling
MIL-STD-461G:	CE 102, CE 106, CS114, CS115, CS116, CS118, RE102, RE103, RS103

Wearable



Nett Warrior EUD

