



# Technology Advancement Group

## *TAG Waypoint Family of Systems*

### Joint Modernized Handheld Increment 1 (JMHH Inc 1)

#### ASSURED PNT FOR TODAY'S BATTLEFIELD

- Based on the JMHH Joint Program of Record, JMHH Inc 1 is an affordable M-Code GPS-enabled handheld providing assured position, navigation, and timing (A-PNT) for the dismounted warfighter.
- JMHH Inc 1 integrates M-Code GPS with commercial technologies such as ruggedized touchscreens, inertial measurement units (IMUs), software fusion engines, and an innovative antenna design for a defense-ready product.
- JMHH Inc 1 is smaller, more efficient, and more secure than current solutions in military inventory as well as more intuitive, modular, and cost-effective than industry alternatives.
- JMHH Inc 1 fits seamlessly in the broader ATAK-enabled family of products. Transfer data to/from WinTAK for maps, mission planning, intelligence, and other data.
- TAG is the prime contractor of the JMHH for the U.S. Space Force, Space Systems Command, under the Military GPS User Equipment (MGUE) Increment 2 program.

#### FEATURES

- Touchscreen and button-interface
- Auxiliary ultra-low power, quick-access display
- Small form factor (134mm x 81mm x 29mm)
- Lightweight (320 grams)
- Enhanced User Interface User Experience (UI/UX)
- Hot Swappable Batteries (4x AA Batteries)
- Battery life: 19+ hours @ -20°C
- Backward compatible with Defense Advanced GPS Receiver (DAGR)



#### KEY ATTRIBUTES

- Any Sky, Any Time: JMHH Inc 1 is configured to receive CA, Y, & M Code, L1/L2 GPS; Galileo & QZSS.
- Power Savings: Running off four AA batteries, the JMHH Inc 1 has over 19 hours of continuous navigation time under the most adverse of temperature conditions. Hot-swappable batteries extends the operational capability indefinitely.
- JMHH Inc 1 includes a 6-Axis IMU, 3-Axis magnetometer, barometer, and data fusion to navigate in GPS-denied environments.
- **JMHH Inc 1 is a critical enabler for today's military operational architecture for anti-access/ area denial (A2AD) environments.**





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Physical Characteristics	
Power	4x AA batteries (19+hrs @ -20°C)
Weight	320 grams
Size/Volume	134mm x 81mm x 29mm;
Display Size	3.5" transfective color (NVC) 1.1" Ultra-low power (NVC)
Temperature Range	-32°C to +70°C, Operating -57°C to +70°C, Storage
Humidity	Up to 100% +/- 5%.
Water Resistance	Survive 12 hours at depths up to 1.6m, 21m (Objective)
Altitude	-400 to +10,000 m MSL
Antenna	High gain, multi-band helical antenna

Minimum System Performance	
Dynamics (velocity)	Man-portable 10 m/s maximum Surface vehicle 25 m/s maximum
Time accuracy	100 nanoseconds
Position accuracy	GPS: <5 meters CEP IMU: <0.5% EPE
Acquisition time	TTF: (95%): < 15 sec hot start <70 sec warm start TTTF: (95%): < 20 sec (Off or Standby <15 min) TTTF: (95%): <38 sec (Off or Standby <60 min)
Velocity accuracy	Man-portable 0.3 m/s steady rate (3D 95%)
MTBF	10,000 hours
Spectrum Range	GPS (L1/L2) CA, Y, M; Galileo, QZSS
Timing Input/Output	1 PPS input 3x 1 PPS
Interfaces	One PPS I/O and HQ-TOD Out (DAGR Compatible) One (1) standard USB-2 FS protocol DS101 crypto key interface

Specifications subject to change



Cleared for Public Release under PA-788, dated 6/10/2024