Technical Specification

General Specification

- Model number: HT786-MaxMesh
- Frequency range: 225-470MHz
- Channel spacing: All WF included in the radio selection via the MMI
- Net preset: 40 selectable channels
- Data interface: USB, RS232
- Integrated GPS: 410 m CEP (circular error probability)
- Frequency stability: ±3.5 ppm
- Frequency tuning: 1 KHz, 5 KHz, 10 KHz, 100 KHz
- Synchronization method: dynamically self-organizing TDMA synchronization method (no need for GPS)

Physical Specifications

- Weight: 280g, excluding battery and antenna
- Dimensions: 130 mm (h) x 59 mm (w) x 37 mm (d)

Modes and waveforms (WF)

- Narrowband: WF 25 KHz QPSK, voice broadcast only network
- Voice and data mode: WF GMSK 384 KHz, up to 32 units with 3 hops and up to 72 Kbps data rate
- Voice and high rate data mode: WF GMSK 1.5 MHz, up to 64 units 6 hops and up to 720 Kbps OR up to 32 units 8 hops and up to 720 Kbps data rate
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Security

- Encryption: AES 128 bit. Key programming through keypad or PC host.
- Unit Elimination: Remote radio elimination

Power

- Battery: 2 cell Li-Ion rechargeable battery @ 7.4VDC nominal
- Power consumption: Average battery life > 5 hours @ 1.17:8 ratio (transmit: standby: receive ratio)
- Battery capacity: High capacity: 2400 mAh

Environmental

- Shock/vibration: MIL STD 810 C/D/E/F
- IP rating: IP68
- Temperature: -20°C ~ +55°C

Transmitter

- Power output: Programmable 100mW/500mW/1W/2W
- Antenna: 500ΩOmni antenna – 265mm length Frequency: 225 MHz – 512 MHz Type: Whip antenna

Receiver

- Narrowband sensitivity: < -109dBm @0.1% BER
- Middleband sensitivity: < -100dBm @ 0.1 BER
- Wideband sensitivity: < -95dBm@ 0.1% BER

Accessories

Supplied package includes: Li-Ion battery pack, rapid charger, spring clip & high efficiency antenna

- CSBH7: Six-way charger
- CMP750E: Heavy duty speaker mic submersible
- EA12/750: Earpiece microphone
- EA15/750: Covert earpiece / microphone
- CXR16/750: Throat mic. Bone conductive
- CX85/750: Skull mic. Bone conductive
- CXE19/750: Bone conductive both transmit & receive
- CHP750S: Hard hat eardefender, submersible PTT
- CHP750HS: Headband eardefender, submersible PTT

Contact

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MaxMesh Tactical UHF
Digital Portable Radios

MaxMesh Tactical UHF portables employ cutting edge Mesh Radio technology ensuring robust, clear and efficient voice and data communications even in the most challenging of mission-critical environments.

When teams work together in critical, tactical, and emergency situations, they need to instantly deploy reliable, quickly and easily communications – without interruption and regardless of their physical surroundings. The maxtech networks MaxMesh Tactical UHF portables enable them to do just this.

Why MaxMesh Tactical UHF?

- Superior voice quality
- Can be deployed instantly anywhere, anytime
- No need for repeater base stations to increase range
- Does not require a GPS signal for network synchronization
- Proprietary over-air protocol and AES 128 for enhanced security
- Overcomes physical obstacles by applying an advanced dynamic mesh network with no user intervention

The MaxMesh Tactical UHF Portable is a unique software upgradeable radio that creates a dynamic, self-forming, and self-healing network to enable long-range voice and data transmission whilst on the move.

A patented algorithm is used to ensure superior voice quality and high data throughput for indoor and outdoor operations, without the need for GPS synchronization, to enable units to join and leave the network dynamically without any user intervention.

The MaxMesh Tactical UHF ensures multi-hop voice and data relaying to create a reliable and robust network over large distances.

Covering the 225-470 MHz frequency range, this multiband radio provides a variety of waveforms:

- Narrowband, 25 KHz (QPSK) – Voice Broadcast mode
- Middleband, 384 KHz (GMSK) – Up to 32 units with 3 hops & up to 72 Kbps data rate
- Wideband, 1.5 MHz (GMSK) – Up to 64 units 6 hops & up to 720 kbps data rate OR up to 32 units 8 hops and up to 720 kbps data rate

The MaxMesh Tactical UHF portable also includes a built-in GPS which provides situational awareness information to command and control applications, or other management systems.

Transmitted voice and data is highly secure due to a multi-layer security method that includes a proprietary air protocol and AES 128 encryption.

The combination of MaxMesh technology with advanced SDR capabilities ensures quick and efficient transmission of mission-critical voice and data in a wide range of applications and in the most challenging environments.

Main Features

- Creates a robust, long-range, dynamic, self-forming and self-healing voice and data network
- Instantaneous deployment of mission-critical voice and data services without the need for any infrastructure
- Supports a wide range of applications in the most challenging environments
- 40 selectable net preset channels within the 225-470 MHz frequency range
- Provides three waveforms: Narrowband 25 KHz (QPSK), Middleband 384 KHz (GMSK) and Wideband 1.5 MHz (GMSK)
- Uses a multi-layer security method that includes a proprietary over-air protocol and AES 128
- Includes a built-in GPS for situational awareness information
- Supports multiple languages
- Robust, IP68 (5m 1h) Submersible & MIL STD 810 compliant
- Provides high speed data communications (up-to 720Kbs)

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