

# Specifications

## General

|  |  |
|--|--|
| Frequency Range                                    | VHF: 136~174MHz<br>UHF: 350~400MHz; 400~470MHz; 450~520MHz |
| Channel Capacity                                   | 1024(64 Zones×16 Channels)                                 |
| Zone Capacity                                      | 64   |
| Channel Spacing                                    | 12.5kHz(Digital) 25/20/12.5kHz(Analog)                     |
| Operating Voltage                                  | 7.4V   |
| Battery  | 2000mAh / 2500mAh(Optional)                                |
| Battery Life<br>(5-5-90 Duty Cycle, High TX Power) | Analog: Above 11 Hours<br>Digital: Above 15 Hours          |
| Frequency Stability                                | ± 1.0ppm   |
| Antenna Impedance                                  | 50Ω  |
| Dimensions (H × W × D)                             | 130 × 55 × 35mm  |
| Weight   | 333g   |
| LCD Display  | 1.8 Inch TFT   |

## Receiver

|                             |  |
|-----------------------------|--|
| Sensitivity (Analog)        | 0.22μV(12dB SINAD)/0.25μV(Typical)(12dB SINAD) |
| Sensitivity (Digital)       | 0.22μV/BER 5%                                  |
| Selectivity                 | ≥60dB @ 12.5kHz/70dB @ 20&25 kHz               |
| Intermodulation             | ≥65dB  |
| S/N                         | 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz   |
| Rated Audio Power Output    | 1.5W   |
| Rated Audio Distortion      | < 3%   |
| Audio Response              | +1~-3dB  |
| Conducted Spurious Emission | < -57dBm                                       |

## Transmitter

|                             |  |
|-----------------------------|--|
| RF Power Output             | UHF High Power:4W/Low Power:1W<br>VHF High Power:5W/Low Power:1W |
| FM Modulation               | 11KΦF3E @12.5kHz/14KΦF3E@20kHz/16KΦF3E@25kHz                     |
| 4FSK Digital Modulation     | 12.5kHz Data Only: 7K60FXD /12.5kHz Data & Voice:7K60FXW         |
| Conducted/Radiated Emission | ≤-36dBm(<1GHz)/-30dBm(>1GHz)                                     |
| Modulation Limiting         | ≤2.5kHz@12.5kHz/≤4kHz@20kHz/≤5kHz@25kHz                          |
| FM Noise                    | 40dB @ 12.5kHz / 43dB @ 20kHz / 45dB @ 25kHz                     |
| Adjacent Channel Power      | 60dB@12.5kHz/70dB@20/25kHz                                       |
| Audio Distortion            | < 3%   |
| Digital Vocoder Type        | AMBE3000++   |
| Digital Protocol            | ETSI-TS102 361-1.-2.-3   |

## Environmental Specifications

|                         |  |
|-------------------------|--|
| Operating Temperature   | -30℃ ~+60℃   |
| Storage Temperature     | -40℃ ~+85℃   |
| ESD                     | IEC 61000-4-2 (Level 4) / ±8kV (Contact) / ±15kV (Air) |
| U.S.Military Standard   | MIL-STD-810 C/D/E/F/G                                  |
| Dust & Water Protection | IP67 Standard  |
| Humidity                | Per MIL-STD-810 C/D/E/F/G Standard                     |
| Shock & Vibration       | Per MIL-STD-810 C/D/E/F/G Standard                     |

All specifications are tested according to applicable standards and subject to changes without notice due to continuous development.



**HQT TI OMAP**  
SERIES PRODUCTS

**0089-40**



HQT TI OMAP SERIES PRODUCTS

# DH-9800



**Dual Modes**  
With analog and digital modes.



**Message**  
supports IP Data/Defined Data messages.



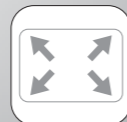
**Secure communication**  
with analog/digital voice encryption.



**GPS**  
positioning information and sending of GPS text message.



**Roaming**  
Supports smooth Roaming within IP Multi-site Connect System.



**Further Development Port**  
allows users to further develop functions.

## Main Functions

- **Dual Modes (Analog + Digital)**  
DH-9800 can operate in either analog or digital mode. It is compatible with the prevalent analog system, ensuring a smooth analog-to-digital transition.
- **Versatile Voice Calls**  
DH-9800 supports various voice call types, including Private Call, Group Call, All Call and Emergency Call.
- **Text Message**  
DH-9800 supports IP Data/Defined Data messages, including Private Message and Group Message.
- **Digital Signaling**  
DH-9800 supports various signaling, including Call Alert, Radio Check, Remote Monitor, Radio Disable and Radio Enable.
- **Vibrate (Optional)**  
This feature is helpful in reminding you of the reception of any Private Call, Call Alert or Text Message under noisy or low-volume conditions.
- **Various Analog Signaling Types**  
DH-9800 supports various analog signaling (DTMF, 2-Tone, 5-Tone, QDC-1200 and CDCSS/CTCSS), providing higher function expansion capacity.
- **Scan**  
DH-9800 supports scanning of analog voice and signaling, digital voice and data. It can also support mixed modes scanning.
- **IP Multi-site Connect and Roaming**  
DH-9800 supports communication with any other terminals as well as smooth Roaming within IP Multi-site Connect System.
- **Advanced Features (Optional)**  
DH-9800 supports various optional advanced features including Man Down, GPS and Voice Recording.
- **Privacy of Voice and Data**  
DH-9800 supports analog scrambling, and digital encryption using Advanced Encryption Standard (AES) and ARCFOUR (ARC4) encryption algorithm to voice with 256-bit encryption.
- **Upgrade to Tier-III**  
Customer can upgrade DH-9800's software to Tier-III without buying new devices.

## Accessory List

| Standard Accessories |                   |                 |                   |              |            |
|----------------------|-------------------|-----------------|-------------------|--------------|------------|
| Antenna              | Li-ion Battery    | Charge Adapter  | Desktop Charger   | Belt Clip    | Hand Strap |
| Optional Accessories |                   |                 |                   |              |            |
| Earphone             | Remote Microphone | 2500mAh Battery | Programming Cable | Leather Case |            |

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