# Specifications

| | | |
|---|---|---|
| General | Frequences | UHF1: 400-470MHz; UHF2: 450-520MHz<br>UHF3: 350-400MHz; VHF: 136-174MHz |
| | Channel Capacity | 1024 |
| | Zone Capacity | 64(each with a maximum of 16 channels) |
| | Channel Spacing | 12.5 KHz / 20 KHz / 25 KHz |
| | Operating Voltage | 7.4V (rated) |
| | Battery | 2000mAh (Li-Ion) |
| | Battery Life<br>(5-5-90 Duty Cycle, High TX Power)<br>High-capacity 2000mAh Li-Ion Battery | Analog: UHF1: 13.5 h 12 h (G) Digital: UHF1: 15.5 h 14 h (G)<br>UHF2: 12.5 h 11 h (G) UHF2: 14.5 h 12.5 h (G)<br>UHF3: 12.5 h 11 h (G) UHF3: 4.5 h 12.5 h (G)<br>VHF: 11 h 10 h (G) VHF: 13.5 h 12 h (G) |
| | Frequency Stability | ± 1.5ppm |
| | Antenna Impedance | 50Ω |
| | Dimensions (H x W x D)<br>(with standard battery, without antenna) | 125 X 55 X 37mm (4.9X2.2X1.5inch) |
| | Weight<br>(with antenna & standard battery) | 355g （12.5oz） |
| | LCD Display | 160 × 128 pixels, 65535 colors 1.8 inch, 4 rows |
| Receiver | Sensitivity — Analog | 0.3 μ V (12dB SINAD);0.22 μ V (Typical) (12dB SINAD)<br>0.4 μ V (20dB SINAD) |
| | Sensitivity — Digital | 0.3 μ V /BER5% |
| | Selectivity<br>TIA-603<br>ETSI | <br>60dB @ 12.5 kHz / 70dB @ 20/25 kHz<br>60dB @ 12.5 kHz / 70dB @ 20/25 kHz |
| | Intermodulation<br>TIA-603<br>ETSI | <br>70dB @ 12.5/20/25 kHz<br>65dB @ 12.5/20/25 kHz |
| | Spurious Response Rejection<br>TIA-603<br>ETSI | <br>70dB @ 12.5/20/25 kHz<br>70dB @ 12.5/20/25 kHz |
| | Blocking<br>TIA-603<br>ETSI | <br>80dB<br>84dB |
| | Hum and Noise | -40dB @ 12.5 kHz;-43dB @ 20KHz;<br>-45dB @ 25 kHz |
| | Rated Audio Power Output | 0.5W |
| | Rated Audio Distortion | ≤ 3% |
| | Audio Response | +1 ~ -3dB |
| | Conducted Spurious Emission | < -57 dBm |

| | | |
|---|---|---|
| Transmitter | RF Power Output | UHF1/UHF2/UHF3 High Power：4W<br>UHF1/UHF2/UHF3 Low Power：1W<br>VHF High Power：5W; VHF Low Power：1W |
| | FM Modulation | 11K0F3E @ 12.5 kHz; 14K0F3E @ 20 kHz<br>16K0F3E @ 25 kHz |
| | 4FSK Digital Modulation | 12.5kHz Data Only: 7K60FXD<br>12.5kHz Data & Voice: 7K60FXW |
| | Conducted/Radiated Emission | -36dBm<1GHz; -30dBm>1GHz |
| | Modulation Limiting | ± 2.5kHz @ 12.5 kHz; ± 4.0kHz @ 20 kHz;<br>± 5.0kHz @ 25 kHz |
| | FM Hum & Noise | -40dB @ 12.5 kHz; -43dB @ 20KHz;<br>-45dB @ 25 kHz |
| | Adjacent Channel Power | 60dB @ 12.5 kHz; 70dB @ 20/25 kHz |
| | Audio Response | +1 ~ -3dB |
| | Audio Distortion | ≤ 3% |
| | Digital Vocoder Type | AMBE++or SELP |
| | 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）<br>± 8kV (contact) ± 15kV (air) |
| | American Military Standard | MIL-STD-810 C/D/E/F/G |
| | Dust & Water Intrusion | 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 |

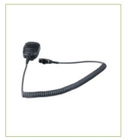
| | | |
|---|---|---|
| GPS (For PD788G only) | Accuracy specs are for long-term tracking(95th percentile values>5 satellites visible at a nominal -130dBm signal strength) | |
| | TTFF (Time To First Fix) Cold Start | <1 minute |
| | TTFF (Time To First Fix) Hot Start | <10 seconds |
| | Horizontal Accuracy | <10 meters |

All Specifications are tested according to applicable standards, and subject to change without notice due to continuous development.

# Standard Accessories

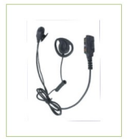
| | | |
|---|---|---|
| Li-Ion Battery | MCU Rapid-rate Charger | Leather Strap |
| Power Adapter | Belt Clip | Antenna |

# Optional Accessories

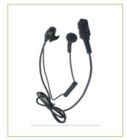


Remote Speaker Microphone (IP57) SM18N2

Earpiece with On-MIC PTT & Transparent Acoustic Tube EAN16



D-earset with In-Line Microphone EHN12



Earbud with On-MIC PTT ESN10

3-Wire Surveillance Earpiece with Transparent Acoustic Tube (beige) EAN17

Six-Unit Switching Powe PS7002

Carrying Case (for thick battery) (leather) (swivel) LCY003

Programming Cable (USB Port) PC38

2500mAh Li-Ion Battery BL2503

Pictures above are for reference only and may vary from actual products.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Hytera
Respond & Achieve

# PD788/788G

## Versatile Digital Portable Two-Way Radio


- Large-size HD Transflective Color Display
- Superior Digital Voice

DMR
DIGITAL MOBILE RADIO ASSOCIATION

www.hytera.com

**Hytera Communications Corporation Limited**

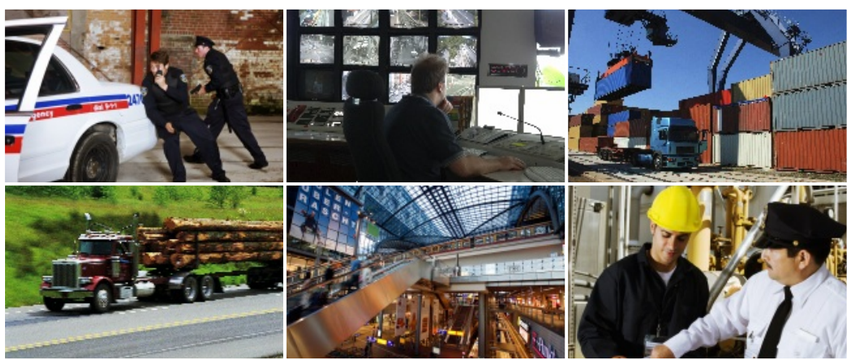
# PD788/788G

Higher Efficiency,
Richer Experience

As a product built to the DMR standard, PD788/788G (PD788G is the model with GPS) is endowed with ergonomic design, all-round digital functions and remarkable quality to increase your management efficiency and enable you to be responsive to emergent situations.

## Applications

**Public Safety**
**Forest Industry**
**Public Utilities**
**Business**
**Transportation (port, airport, railway, etc.)**
**Manufacturing**



## Product Features

- **Ergonomic Design**
  The large-size color display allows good visibility even under extremely strong light. The globally patented industrial design and antenna design ensure convenient operation and remarkable GPS performance.
- **Reliable Quality**
  PD788/788G is strictly compliant with MIL-STD-810 C/D/E/F/G and IP67 standards, ensuring outstanding performance even in harsh environments.
- **Superior Voice**
  With the combined application of narrowband codec and digital error-correction technologies, PD788/788G is capable of ensuring you superior voice in noisy environments or at the edge of the coverage area. In addition, the adoption of the AGC technology also optimizes your voice. With a built-in 1W speaker, PD788/788G ensures clear and crisp voice communication.
- **Durable Battery**
  Compared with an analog radio, PD788/788G can obtain an extra 40% operation time.
- **Higher Spectrum Efficiency, Higher Channel Capacity**
  Benefiting from the TDMA technology, PD788/788G allows twice the channels based on the same spectrum resource. This is a big help to relieve the stress of increasing shortage in spectrum resource.
- **Dual-slot Pseudo Trunk**
  With this feature, the free slot can be allocated to a member that needs to communicate, effectively enhancing frequency efficiency and allowing you to communicate timely under emergency situations.
- **Secure Communication**
  Besides the intrinsic encryption of the digital technology, PD788/788G provides enhanced encryption capability (such as 256-bit encryption algorithm) and the Scrambler feature (selectable).
- **Versatile Services**
  In addition to conventional communication services, PD788/788G features rich data services and selectable functions such as Text Message, Scan, Emergency, Man Down (optional), vibration Auto Registration, High-speed Data Transmission* and Lone Worker.
- **Further Development Port**
  The reserved side port in PD788/788G allows users or any third party partner to further develop other helpful applications to extend the radio functionalities!
- **Option Board Interface**
  PD788/788G supports option board interfaces to radio, allowing third party partner to develop various applications to interconnect with radios to control the radio to expand its functionalities! Among the supported features are voice recording, encryption* etc. Please refer to the API Partner Programmed for more information!

## Main Functions

- **Dual Modes (Analog+Digital)**
  PD788/788G 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**
  Intelligent signaling of PD788/788G supports various voice call types, including Private Call, Group Call , All Call and Emergency Call.
- **GPS**
  PD788G supports viewing of GPS positioning information and sending of GPS text message.
- **Data Services**
  PD788/788G supports data capabilities of sending Private, Group text message. It also supports Third Party to control the radio via Third party API (GPS, Radio Registration Services, Radio and Call Control, Telemetry*, DataTransfer*), via Telemetry control to radio.
- **Various Analog Signaling Types**
  PD788/788G supports various analog signaling types (HDC1200, DTMF*, 2-Tone and 5-Tone), various squelch control types (CTCSS/CDCSS), thus providing higher function expansion capacity to the analog world.
- **Supplementary Services**
  PD788/788G supports supplementary services of Radio Check, Remote Monitor, Call Alert, Radio Enable and Radio Disable.
- **Multiple Languages**
  PD788/788G supports 11 languages (English, Simplified Chinese, Traditional Chinese, German, Spanish, French, Italian, Polish, Russian, Turkish and Korean), allowing users to select it per their needs.
- **One Touch**
  PD788/788G supports One Touch features that comprise of Text Message, Voice Calls and Supplementary Services.
- **Scan**
  PD788/788G supports scanning of pure analog voice and signaling, pure Digital voice and data, and also mix mode scan that comprise of Analog and Digital activities.
- **Roaming**
  PD788/788G supports automatic roaming of all sites in a IP Multi-site Connect system.
- **Privacy of Voice and Data**
  PD788/788G supports Analog scrambling, and digital encryption using Advanced Encryption Standard (AES) and ARCFOUR (ARC4) encryption methodology to both voice and data.
- **Analog/Digital Telephone Interconnect (via DTMF signaling)**
  PD788/788G supports simplex voice communications between radio and telephone users. It allows a radio user to make a telephone call; or a telephone user to make either a Group or Private call to radio users. This feature utilizes the Commercial Off The Shelf (COTS) Analog Phone Patch boxes and a Plain Old Telephone Service (POTS) line to connect the radio users to the Corporate Office Phone System (PBX) or Public Switched Telephone Network (PSTN).
- **Software Upgradable**
  With this capability, you can enjoy firmware upgrade without purchasing a new piece of radio hardware!

* indicates functions available in later version.