

## Standard Accessories

Li-Ion Battery	Power Adapter	MCU Rapid-rate Charger	Belt Clip	Leather Strap	Antenna
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## 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 Power PS7002	Carrying Case (for thick battery) (leather) (swivel) LCY003	Programming Cable (USB Port) PC38

Pictures above are for reference only and may vary from actual products.

## Specifications

General		Transmitter	
Frequency Range	VHF: 136-174MHz UHF1: 400-470MHz UHF3: 350-400MHz	RF Power Output	VHF High Power: 5W VHF Low Power: 1W UHF1/UHF3 High Power: 4W UHF1/UHF3 Low Power: 1W
Channel Capacity	1024	FM Modulation	11K @ F3E @ 12.5 kHz 14K @ F3E @ 20 kHz 16K @ F3E @ 25 kHz
Zone Capacity	64 (each with a maximum of 16 channels)	4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXW
Channel Spacing	25 / 20 / 12.5 KHz	Conducted/Radiated Emission	-36dBm < 1GHz -30dBm > 1GHz
Operating Voltage	7.4V (rated)	Modulation Limiting	±2.5kHz @ 12.5 kHz ±4.0kHz @ 20 kHz ±5.0kHz @ 25 kHz
Battery	2000mAh (Li-Ion)	FM Noise	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz
attery Life (5-5-90 Duty Cycle, High TX Power) High-capacity 2000mAh Li-Ion Battery	Analog: Above 10.5 Hours Digital: Above 14 Hours	Adjacent Channel Power	60dB @ 12.5 kHz 70dB @ 20/25kHz
Frequency Stability	± 1.5ppm	Audio Response	+1 ~ -3dB
Antenna Impedance	50Ω	Audio Distortion	≤ 3%
Dimensions (H*W*D) (with standard battery, without antenna)	125*55*37 mm / 4.921*2.165*1.458 inch	Digital Vocoder Type	AMBE++ or SELP
Weight (with antenna & standard battery)	355g / 0.78lb	Digital Protocol	ETSI-TS102 361-1, 2&3
Front Case	PC		
LCD Display	160*128 pixels, 65536 colors 1.8 inch, 4 rows		
Receiver		Environmental Specifications	
Sensitivity (Analog)	0.3 μV (12dB SINAD) 0.221V (Typical) (12dB SINAD) 0.4 μV (20dB SINAD)	Operating Temperature	-30°C ~ +60°C
Sensitivity (Digital)	0.3 μV / BER5%	Operating Temperature	-40°C ~ +85°C
Selectivity TIA-603 ETSI	60dB @ 12.5 kHz / 70dB @ 20/25 kHz 60dB @ 12.5 kHz / 70dB @ 20/25 kHz	ESD	IEC 61000-4-2 (level 4) 8kV (contact) 15kV (air)
Intermodulation TIA-603 ETSI	70dB @ 12.5/20/25 kHz 65dB @ 12.5/20/25 kHz	American Military Standard	MIL-STD-810 C/D/E/F
Spurious Response Rejection TIA-603 ETSI	70dB @ 12.5/20/25 kHz 70dB @ 12.5/20/25 kHz	Dust & Water Intrusion	IP57 Standard
S/N	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz	Humidity	Per MIL-STD-810 C/D/E/F Standard
Rated Audio Power Output	0.5W	Shock & Vibration	Per MIL-STD-810 C/D/E/F Standard
Rated Audio Distortion	≤ 3%		
Audio Response	+1 ~ -3dB		
Conducted Spurious Emission	< -57 dBm		
GPS (For PD786G Only)			
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.

### Applicable Military Standards

Method	810C		810D		810E		810F	
	Method	Procedure	Method	Procedure	Method	Procedure	Method	Procedure
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	II
High Temperature	501.1	I, II	501.2	I, II	501.3	I, II	501.4	I, II
Low Temperature	502.1	I	502.2	I, II	502.3	I, II	502.4	I, II
Temperature Shock	503.1	I	503.2	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Rain	506.1	II	506.2	II	506.3	I, II	506.4	I, II
Humidity	507.1	II	507.2	II, III	507.3	II, III	507.4	
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	I
Sand & Dust	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.5	I/24
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV



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# PD786/PD786G

Versatile Digital Portable Two-Way Radio



As a product built to the DMR standard, PD786/786G (PD786G is the model with GPS) is endowed with ergonomic design, all-round digital functions and remarkable quality to refresh your experience and enable you to be responsive to emergent situations.



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

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## Higher Efficiency Richer Experience



## 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

PD786/786G is strictly compliant with MIL-STD-810 C/D/E/F and IP57 standards, ensuring outstanding performance even under harsh environments.

### Superior Voice

With the combined application of narrowband codec and digital error-correction technologies, PD786/786G is capable of ensuring you superior voice under 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, PD786/786G ensures clear and crisp voice communication.



### Durable Battery

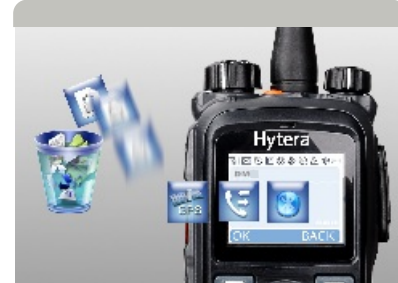
Compared with an analog radio, PD786/786G can obtain an extra 40% operation time.

### Higher Spectrum Efficiency, Higher Channel Capacity

Benefiting from the TDMA technology, PD786/786G 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 Trunking

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 emergent situations.



### Secure Communication

Besides the intrinsic encryption of the digital technology, PD786/786G provides enhanced encryption capability (such as 256-bit encryption algorithm) and the Scrambler feature (selectable).

### Versatile Services

In addition to conventional communication services, PD786/786G features rich data services and selectable functions such as Message, Scan, Emergency, Man Down (optional), Auto Registration\*, High-speed Data Transmission\* and Lone Worker\*.

### Further Development Port

The reserved port in PD786/786G allows users or any third party to further develop other helpful functions (Message, GPS, Call Control and Telemetry).

\* Indicates functions available in later version.

## Main Functions

- ▶ **Dual Modes (Analog+Digital)**  
PD786/786G 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 PD786/786G supports various voice call types, including Private Call, Group Call and All Call.
- ▶ **Vibrate**  
This feature is helpful in alerting you to reception of any voice or message under noisy or low-volume conditions.
- ▶ **GPS**  
PD786/786G supports viewing of GPS positioning information and sending of GPS text message.
- ▶ **IP Service\***  
PD786/786G allows multiple IP functions if connected with a PC via IP address.
- ▶ **Various Analog Signaling Types**  
PD786/786G supports various analog signaling types (HDC1200, DTMF\*, 2-Tone\* and 5-Tone\*), providing higher function expansion capacity.
- ▶ **Multiple Languages**  
PD786/786G supports 10 languages (English, Simplified Chinese, Traditional Chinese, German, Spanish, French, Italian, Polish, Russian and Turkish), allowing you to select as per your needs.
- ▶ **Software Upgradable**  
With this capability, you can enjoy further features without buying a new machine.

\* Indicates functions available in later version.

## Industrial Design Features

