



PD785/PD785G

Versatile Digital Portable Two-Way Radio

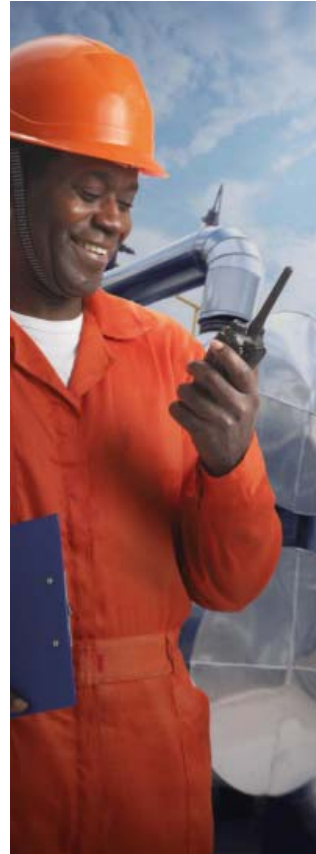
As a product built to the DMR standard, PD785/785G (PD785G is the model with GPS) is endowed with ergonomic design, all-round digital functions and remarkable quality to refresh your experience and enable you to be responsive to emergent situations.



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



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

PD785/785G 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, PD785/785G 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, PD785/785G ensures clear and crisp voice communication.



Durable Battery

Compared with an analog radio, PD785/785G can obtain an extra 40% operation time.

Higher Spectrum Efficiency, Higher Channel Capacity

Benefiting from the TDMA technology, PD785/785G 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, PD785/785G provides enhanced encryption capability (such as 256-bit encryption algorithm) and the Scrambler feature (selectable).

Versatile Services

In addition to conventional communication services, PD785/785G 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 PD785/785G allows users or any third party to further develop other helpful functions (Message, GPS, Call Control and Telemetry).

* indicates functions available in later version.

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	
Frequency Range	VHF: 136-174MHz UHF1: 400-470MHz UHF3: 350-400MHz
Channel Capacity	1024
Zone Capacity	64 (each with a maximum of 16 channels)
Channel Spacing	25 /20/12.5 KHz
Operating Voltage	7.4V (rated)
Battery	2000mAh (Li-Ion)
attery Life (5-5-90 Duty Cycle, HighTX Power) High-capacity 2000mAh Li-Ion Battery	Analog: Above 10.5 Hours Digital: Above 14 Hours
Frequency Stability	± 1.5ppm
Antenna Impedance	50Ω
Dimensions (H×W×D) (with standard battery, without antenna)	125×55×37 mm / 4.921×2.165×1.458 inch
Weight (with antenna & standard battery)	355g / 0.78lb
Front Case	PC
LCD Display	160×28 pixels, 65536 colors 1.8 inch, 4 rows

Transmitter	
RF Power Output	VHF High Power: 5W VHF Low Power: 1W UHF1/UHF3 High Power: 4W UHF1/UHF3 Low Power: 1W
FM Modulation	11K @ F3E @ 12.5 kHz 14K @ F3E @ 20 kHz 16K @ F3E @ 25 kHz
4FSK Digital Modulation	12.5kHz Data Only: 7K60FXD 12.5kHz Data & Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm < 1GHz -30dBm > 1GHz
Modulation Limiting	± 2.5kHz @ 12.5 kHz ± 4.0kHz @ 20 kHz ± 5.0kHz @ 25 kHz
FM Noise	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz
Adjacent Channel Power	60dB @ 12.5 kHz 70dB @ 20/25kHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤ 3%
Digital Vocoder Type	AMBE++ or SELP
Digital Protocol	ETSI-TS102 361-1, 2&3

Receiver	
Sensitivity (Analog)	0.3 μV (12dB SINAD) 0.22μV (Typical) (12dB SINAD) 0.4 μV (20dB SINAD)
Sensitivity (Digital)	0.3 μV / BER5%
Selectivity TIA-603 ETSI	60dB @ 12.5 kHz / 70dB @ 20/25 kHz 60dB @ 12.5 kHz / 70dB @ 20/25 kHz
Intermodulation TIA-603 ETSI	70dB @ 12.5/20/25 kHz 65dB @ 12.5/20/25 kHz
Spurious Response Rejection TIA-603 ETSI	70dB @ 12.5/20/25 kHz 70dB @ 12.5/20/25 kHz
S/N	40dB @ 12.5 kHz 43dB @ 20 kHz 45dB @ 25 kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤ 3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	< -57 dBm

Environmental Specifications	
Operating Temperature	-30°C ~ +60°C
Operating Temperature	-40°C ~ +85°C
ESD	IEC 61000-4-2 (level 4) 8kV (contact) 15kV (air)
American Military Standard	MIL-STD-810 C/D/E/F
Dust & Water Intrusion	IP57 Standard
Humidity	Per MIL-STD-810 C/D/E/F Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F Standard

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

Applicable Military Standards

Test Item	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	I
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

GPS (For PD785Gonly)	
TTFF (Time To FirstFix) Cold Start	< 1 minute
TTFF (Time To FirstFix) Hot Start	< 10 seconds
Horizontal Accuracy	< 10 meters



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Main Functions >>

▶ Dual Modes (Analog+Digital)

PD785/785G 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 PD785/785G 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

PD785G supports viewing of GPS positioning information and sending of GPS text message.

▶ IP Service*

PD785/785G allows multiple IP functions if connected with a PC via IP address.

▶ Various Analog Signaling Types

PD785/785G supports various analog signaling types (HDC1200, DTMF*, 2-Tone* and 5-Tone*), providing higher function expansion capacity.

▶ Multiple Languages

PD785/785G 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 >>

