Hytera

PD702

Digital Portable Two-Way Radio with Water / Dust Protection and GPS (Optional)

GPS OPTION

IP57 WATER PROOF

NARROW BAND

As a product built to the DMR standard, the PD702 has a compact, yet durable design which has been tested to IP57 water/dust protection and military spec standards. State-of-the-art digital DMR technology allows it to provide versatile digital functions such as secure communication and spectral efficiency. The Hytera PD702 Series brings you a NEW cutting edge technology at an exceptional value.

DMR

STANDARD 3 YEAR WARRANTY

GPS Model (PD702G) Available

IP57-Rated: Submersible for up to 30 Min in 1M of Water

Narrow-Band Compliant with the FCC 2013 Mandate

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Hytera
Digital Value is Here

Product Highlights

Ergonomic Design
A compact and light weight structural design makes the PD702 easy to carry and operate. The globally patented antenna design ensures convenient operation and remarkable GPS performance.

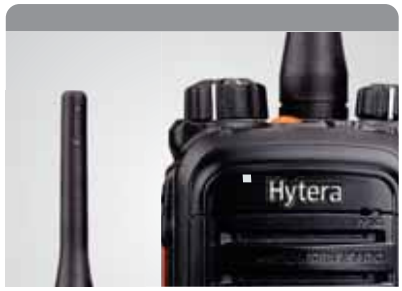
Rugged and Submersible
PD702 is strictly compliant with MIL-STD-810 C/D/E/F and IP57 standards, ensuring outstanding performance even in extreme environments.

Superior Audio
With the combined application of narrowband codec and digital error-correction technologies, PD702 is capable of ensuring you superior audio under noisy environments or at the edge of the coverage area. In addition, the adoption of the AGC technology also optimizes clarity and with the built-in 1W speaker, PD702 ensures clear and crisp voice communication.

Durable Battery
Compared with an analog radio, PD702 can obtain an extra 40% operation time between charges at the same output power.**

Spectrum Efficiency
Benefitting from the TDMA technology, PD702 allows twice the channels based on the same spectrum resource. This is a huge relief due to the increasing shortages in spectrum resources.

Dual-Slot Pseudo Trunking
With this feature, the free slot can be allocated to a member that needs to communicate. This enhances the frequency efficiency and allows you to communicate timely in emergency situations.



Secure Communication
Besides the intrinsic encryption of the digital technology, PD702 provides enhanced encryption capability (such as 256-bit encryption algorithm) and the Scrambler feature (selectable).

Versatile Functionalities
In addition to conventional communication, the PD702 features versatile digital and optional functions such as Message, Scan, Emergency, Man Down (optional), High-speed Data Transmission* and Lone Worker*.

Expansion Port
The reserved port in the PD702 allows users or a third party to further develop other helpful functions (GPS, Call Control and Telemetry).

* Indicates functions available in later version.
**Using 5:5:90, 1:1Battery Saving, Tx High Power, & no GPS.

Additional Features

Dual Modes (Analog+Digital)
PD702 can operate in either analog or digital mode. It is compatible with the prevalent analog systems, allowing for a smooth analog-to-digital transition.

Versatile Voice Calls
Intelligent signaling options of PD702 supports various 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
PD702G supports viewing of GPS positioning information by a dispatch center utilizing third party GPS software.

IP Service*
PD702 allows multiple IP functions if connected with a PC via IP address.

Various Analog Signaling Types
PD702 supports various analog signaling types (HDC1200, DTMF*, 2-Tone* and 5-Tone*).

Emergency
The PD702 is equipped with multiple emergency alarm methods such as Man Down (optional) and Silent Emergency, enabling you to get instant help in the case of a critical event.

Scan
Allows you to listen/communication activities on other channels to you can keep a close track of your team members.

Software Upgradable
With this capability, you can enjoy further features available in later versions without buying a new radio.

*** Indicates functions available in later version.**

Mechanical Design Features

Standard Accessories

Li-Ion Battery	Power Adapter	MCU Rapid-rate Charger	Belt Clip	Leather Strap	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 w/ 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
Channel Capacity	32
Zone Capacity	3 (each with a max of 16 channels)
Channel Spacing	25 /20/12.5 KHz
Operating Voltage	7.4V (rated)
Battery	2000mAh(Li-Ion)
Battery Life (5-5-90 Duty Cycle, High TX Power, No GPS, & 1:1 Battery Saving)	Analog: Above 14 Hours Digital: Above 16 Hours
Frequency Stability	±1.5ppm
Antenna Impedance	50Ω
Dimensions (H×W×D) (with standard battery, without antenna)	125×55×35 mm / 4.921×2.165×1.378 inches
Weight (with antenna & standard battery)	355g /0.74lb
Front Case	PC

Receiver	
Sensitivity (Analog)	0.3μV (12dB SINAD) 0.22μV (Typical) (12dB SINAD) 0.4μV (20dB SINAD)
Sensitivity (Digital)	0.3μV/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

GPS (for PD782G only)	
TTFF (Time To First Fix) Cold Start	<1 minute
TTFF (Time To First Fix) Hot Start	<10 seconds
Horizontal Accuracy	<10 meters (32.8 feet)

Transmitter	
RF Power Output	VHF High Power: 5W VHF Low Power: 1W UHF High Power: 4W UHF Low Power: 1W
FM Modulation	11KϕF3E @ 12.5 kHz 14KϕF3E @ 20 kHz 16KϕF3E @ 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

Environmental Specifications		
Operating Temperature	-30°C ~ +60°C	-22°F ~ +140°F
Storage Temperature	-40°C ~ +85°C	-40°F ~ +185°F
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

American Military Standard / Test Items	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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