

# Digital Migration Radio PD60X

DMR Standard Radio, Feature-Rich, Innovative Design,  
Compact Size, Integrates with Hytera Applications



# Features

## Small, Sleek, Light

The size is 119 X 54 X 27mm, PC & Metal frame, weight is 290g.



## IP67 Compliance

IP67 rated withstanding up to 1m submersion for 30 minutes or more.

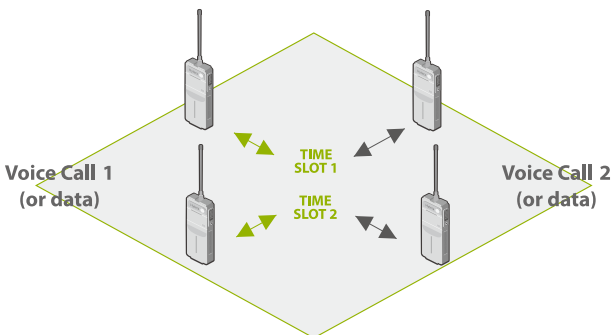


## Rugged & Reliable

Compliant with MIL-STD-810 C/D/E/F/G standards.

## Pseudo Trunk

This virtual trunking feature allocates a free timeslot for urgent communications. This effectively enhances frequency efficiency and allows you to communicate in a timely manner in emergency situations.



Solt 1, Solt 2 are automatically assigned to voice call 1 or voice call 2.

## Full Band

Expanded frequency range of 400-527MHz.

## Dual Mode (Analog & Digital)

Dual mode (analog & digital) operation ensures a smooth analog to digital migration.

## Secure Communication

Provides basic/advanced digital encryption and Scrambler feature in analog mode.

## Advanced Signaling

Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.

## DMRA Data Service

The data protocol is fully compliant to DMRA standard.

## GPS Positioning (Factory Option)

The built-in GPS module supports GIS applications.

## Man Down (Factory Option)

When a user falls down, the radio can automatically alert others.

## Further Development Port

The reserved side port in PD60X allows users or any third party partner to further develop other helpful applications to extend radio functionalities.

## One Touch Call/Text

Supports One Touch features that comprise of Preprogrammed Text Messages, Voice Calls and Supplementary Features.

## Supplementary Features

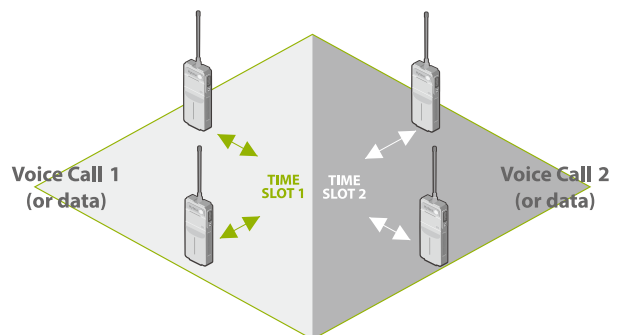
PD60X provides radio enable/disable (only decode), remoter monitor (only decode) and Priority Interrupt.

## Radio Priority-Based Interruption

Enable an administration or manager radio to interrupt calls for emergency or urgent communication.

## DMO True 2-Slot

In DMO Hytera can provide 2-slot communication, which allows for 2 talk paths on 1 frequency.



Solt 1 used for voice call , Solt 2 used for voice call 2

## Small, Sleek, Light

The size is 119 X 54 X 27mm, weight is 290g.

## Metal Frame

Metal frame design,  
smooth texture,  
comfortable to hold and use.



## Target Markets



### Construction

At a noisy construction site a good voice quality radio can make all the difference.



### Forestry

Safety functions (man down, lone worker, emergency alarm) give you peace of mind when working alone or on remote locations.



### Bank

Complete dispatch system can provide security recording and monitoring.



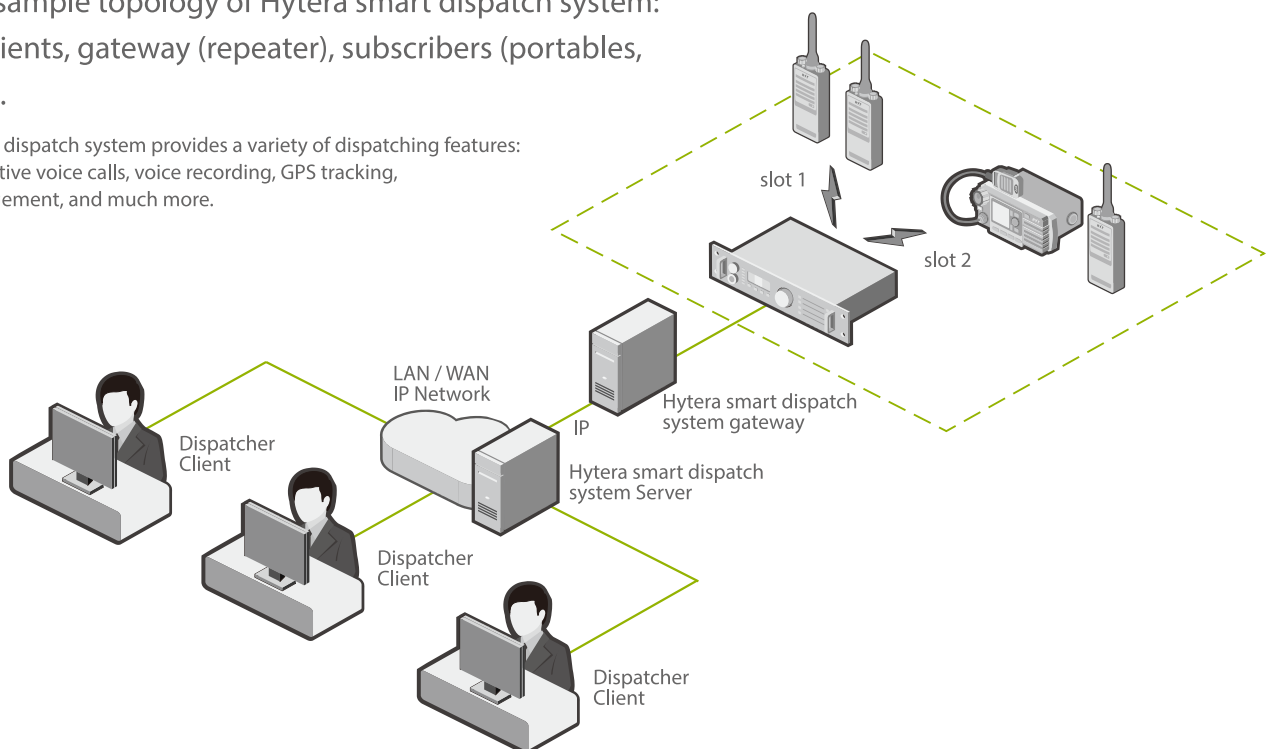
### Factory

Highest dust and water rating (IP67) to withstand dust and liquid impact on the factory floor.

## Applications

This is a sample topology of Hytera smart dispatch system: server, clients, gateway (repeater), subscribers (portables, mobiles).

Hytera smart dispatch system provides a variety of dispatching features: such as selective voice calls, voice recording, GPS tracking, alarm management, and much more.



## Accessories



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

<b>BL1504</b>	Li-ion Battery (1500mAh)	<b>EHN21</b>	Remote C-Earset
<b>BL2010</b>	Li-ion Battery (2000mAh)	<b>ESN14</b>	Remote Earbud
<b>RO03</b>	Strap	<b>EHN20</b>	Remote Swivel Earset
<b>MCA08</b>	MCU Multi-Unit Charger (for Thick Battery)	<b>EAN22</b>	Detachable Earpiece with Transparent Acoustic Tube
<b>MCA05</b>	Battery Optimizing System	<b>PC45</b>	Programming Cable (USB Port)
<b>BC08</b>	Belt Clip	<b>NCN011</b>	Nylon Carrying Case (half-folded, non-swivel, black)
<b>Antenna</b>		<b>CH10A07</b>	General MCU Rapid-rate Charger (for Li-Ion/Ni-MH Batteries)
		<b>Adapter</b>	

### High-Capacity Battery & Battery Charger:

BL1504 Li-ion Battery 1500mAh; BL2010 Li-ion Battery 2000mAh, MCA05 Battery Optimizing System & MCA08 MCU Multi-Unit Charger (for Thick Battery). For users requiring long-time operation, a high-capacity battery with battery optimizing system is undoubtedly the best match. The 2000mAh Li-ion battery for PD60X ensures up to 16 hours of work.

### Audio Accessories:

EHN21 Remote C-Earset, ESN14 Remote Earbud, EHN20 2-wire Surveillance Earpiece with Transparent Acoustic Tube (Black), EAN22 Detachable Earpiece with Transparent Acoustic Tube. PD60X has a variety of audio accessories for flexible use in different environments.

# Specifications

General	
Frequency Range	VHF1: 136-174MHz UHF1: 400-527MHz
Channel Capacity	1024
Zone Capacity	16 (each with a maximum of 16 channels)
Channel Spacing	25/20/12.5kHz
Operating Voltage	7.4V
Battery	1500mAh (Li-Ion) 2000mAh (Li-Ion)
Battery Life (5/5/90)	Digital: 16 Hours @1500mAh 21 Hours @2000mAh Analog: 11 Hours @1500mAh 14.5 Hours @2000mAh
Weight	290g (1500mAh) 309g (2000mAh)
Dimensions	119 x 54 x 27 mm (1500mAh) 119 x 54 x 31 mm (2000mAh)
Frequency Stability	±0.5 ppm
Antenna Impedance	50Ω
Transmitter	
RF Power Output	VHF High power 5W VHF Low power 1W UHF High power 4W UHF Low power 1W
FM Modulation	11K0F3E @ 12.5kHz 14K0F3E @ 20kHz 16K0F3E @ 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 ±4.0kHz @ 20kHz ±5.0kHz @ 25kHz
FM Hum & Noise	40dB @ 12.5kHz 43dB @ 20kHz 45dB @ 25kHz
Adjacent Channel Power	60dB @ 12.5kHz 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)	0.22μV (12dB SIN AD) 0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD)
Sensitivity (Digital)	0.22μV/BER 5%
Adjacent Selectivity TIA-603 ETSI	60dB @ 12.5kHz/70dB @ 20 & 25kHz 60dB @ 12.5kHz/70dB @ 20 & 25kHz
Spurious Response Rejection TIA-603 ETSI	70dB @ 12.5/20/25kHz 70dB @ 12.5/20/25kHz
Inter-Modulation TIA-603 ETSI	70dB @ 12.5/20/25kHz 65dB @ 12.5/20/25kHz
S/N	40dB @ 12.5kHz 43dB @ 20kHz 45dB @ 25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 ~ -3dB
Conducted Spurious Emission	<-57dBm
Environmental	
Operating Temperature	-30°C ~ +60°C
Storage 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/G
Dustproof & Waterproof	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	
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 subject to change without notice due to continuous development.

PD60X, X=0, 2, 5, 6 or 8, model number varies geographically. For details, please contact our regional sales representatives.



## Hytera Communications Corporation Limited

Address: Hytera Tower, Hi-Tech Industrial Park North, Beihuan Rd.,  
Nanshan District, Shenzhen, China

Tel: +86-755-2697 2999 Fax: +86-755-8613 7139 Post: 518057

Http://www.hytera.com Stock Code: 002583.SZ



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