

# Digital Migration Radio PD60X

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



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# 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.

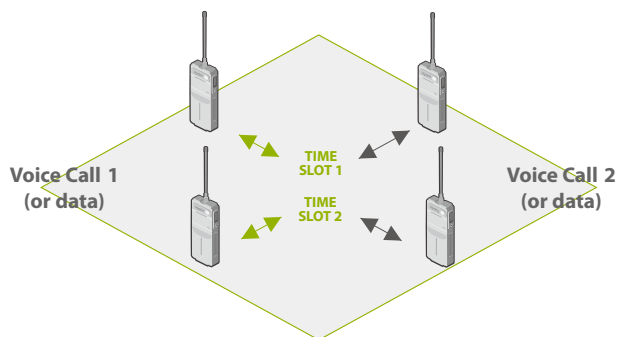


## Rugged & Reliable

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

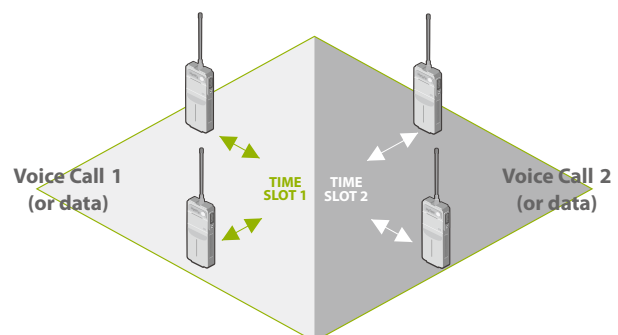
PD60X provides radio enable/disable (only decode), remoter monitor (only decode) and Priority Interrupt.

## 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 the 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.



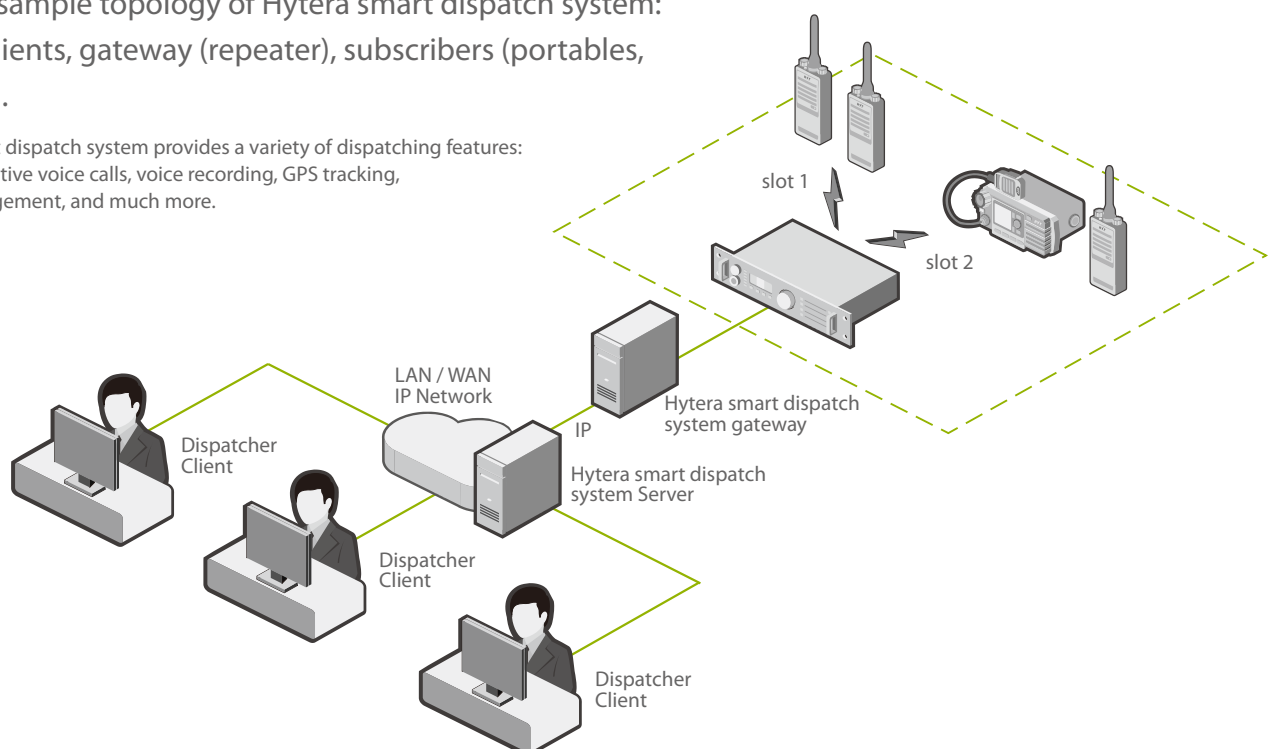
### Factory

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>BL1502</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>BC19</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:

BL1502 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	VHF: 136-174MHz* UHF1: 400-527MHz
Channel Capacity	32
Zone Capacity	3
Channel Spacing	25/20/12.5KHz
Operating Voltage	7.4 V
Battery	1500mAh (Li-Ion)
Battery Life (5/5/90)	Analog: about 11 Hours Digital: about 16 Hours
Weight	290g
Dimensions	119 X 54 X 27mm
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

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

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℃ ~ +60℃
Storage Temperature	-40℃ ~ +85℃
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
Horizontal Accuracy	<10 seconds
TTFF (Time To First Fix) Hot Start	<10 meters

\*Coming soon.

All specifications are subject to change without notice due to continuous development.

Your local distributor/dealer:



Contact ALCOM to discuss your communication needs.

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