

Hytera

20<sup>th</sup>  
1993~2013

# Digital Migration Radio PD50X

DMR standard radio, light design,  
2 timeslots in DMO, cost effective.

**DMR**  
DIGITAL MOBILE RADIO ASSOCIATION



[www.hytera.com](http://www.hytera.com)

# Features

## Small, Sleek, Light

The size is 115 X 54 X 27mm, dual-color injection, weight is 260g.

## Long Battery Life

In digital mode, PD50X operates at least 16 hours under a duty cycle of 5-5-90.

## Rugged & Reliable

It is compliant with MIL-STD-810 C/D/E/F/G standards.

## One Touch Call/Text

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

## Supplementary Features (optional)

PD50X can decode radio enable, radio disable, and remote monitor, as well as Priority Interrupt.

## Dual Mode (Analog & Digital)

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

## Secure Communication

Provides basic digital encryption and Scrambler feature in analog mode.

## Advanced Signaling

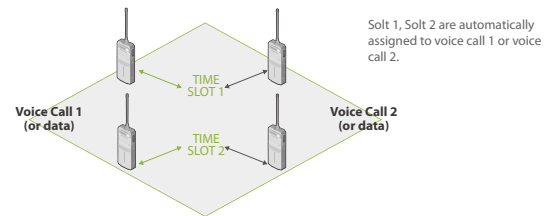
Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.

## DMRA Data Service

The data protocol is fully compliant to DMRA standard.

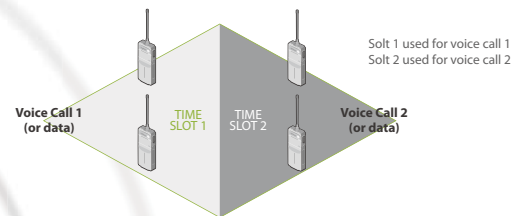
## Pseudo Trunk

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.



## DMO True 2-Slot

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



## Highlights

- Ergonomic User-Friendly Design
- Light & Durable
- Compact Size & Clear Voice
- Affordable



## Target Markets



### Retail

Shopping Malls with high noise level require radios with good noise reduction.



### Education

PD50X has compact size for easy use that is capable of reaching long communication distance of a school or university campus.



### Security

Enriched with several encryption types PD50X will make your communication more private.



### Warehouse

A durable battery allows for full shifts without the need to recharge.



### Hotel

Heavy communication traffic require more effective use of frequency resources.



### Rent

The rent function is necessary for rent industry.

## Accessories

# Versatile Accessories for Specific Tasks



Adapter PS1026

Strap RO03

BL2010 Li-ion battery(2000mAh)

MCA05 Battery optimizing system

EHM15 D-earset with In-line Microphone

SM08M3 Remote Speaker Microphone

PC63 Data Cable (USB Port)

NCN011 Nylon Carrying Case (half-folded) (non-swivel) (black)

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

# Specifications

General	
Frequency Range	UHF: 400-470MHz, VHF: 136-174MHz*
Channel Capacity	32
Zone Capacity	3
Channel Spacing	25/20/12.5KHz
Operating Voltage	7.4V
Battery	1500mAh (Li-Ion)
Battery Life (5/5/90)	Analog: about 11 Hours Digital: about 16 Hours
Weight	260g
Dimensions	115 x 54 x 27mm
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Receiver	
Sensitivity (Digital)	0.22μV / BER 5%
Sensitivity (Analog)	0.22μV (Typical) (12dB SIN AD) 0.4μV (20dB SIN AD) 0.22μV (12dB SIN AD)
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
Hum & Noise	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

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
Environmental	
Operating Temperature	-30°C~ +60°C
Storage Temperature	-40°C~ +85°C
ESD	IEC 61000-4-2 (Level 4) ±8kV (Contact) ±15kV (Air)
Dustproof & Waterproof	IP54 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock & Vibration	Per MIL-STD-810 C/D/E/F/G Standard

\*Coming soon.

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

PD50X, 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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