

# Digital Migration Radio PD505

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

**DMR**  
DIGITAL MOBILE RADIO ASSOCIATION





## Features

### Small, Sleek, Light

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

### Long Battery Life

In digital mode, PD505 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)

PD505 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

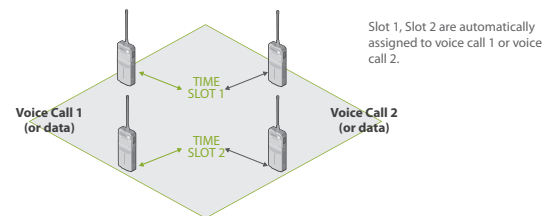
Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.

### DMRA Data Service

The data protocol is fully compliant to DMRA standard.

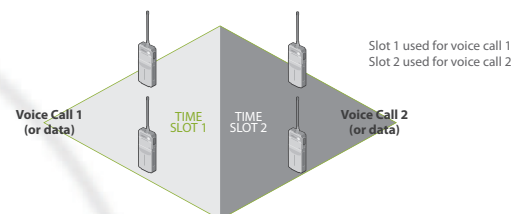
### Pseudo Trunk

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

PD505 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 PD505 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.



### Events

Sleek and light, PD505 is ideal for events. Easy to use in analogue and digital modes, PD505 is particularly suitable for a cost effective migration to digital.

## Accessories





# 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.



## Hytera Communications (UK) Co. Ltd

**Address:** Hytera House,939 Yeovil Road, Slough,  
Berkshire, SL1 4NH, United Kingdom  
**Tel:**+44 1753 826 120   **Fax:** +44 1753 826 121  
**Email:** info@hytera.co.uk   **Web:** www.hytera.co.uk

Hytera retains right to change the product design and specification. Should any printing mistake occur, Hytera doesn't bear relevant responsibility. Little difference between real product and product indicated by printing materials will occur by printing reason.

HYT, Hytera are registered trademarks of Hytera Co., Ltd. © 2013 Hytera Co., Ltd. All Rights Reserved.