

# PD5 Series

Digital Portable Radio



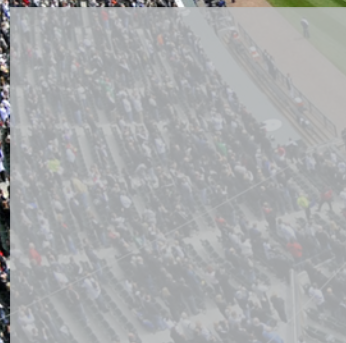
- Analog / Digital Dual Mode Operation for Easy Transition to Digital
- Pseudo Trunk Enhances System Access Without Additional Infrastructure



PD562

PD502





## PD5 Series

The PD5 Series is an open-standard DMR radio capable of providing quality voice communication in a design approved to IP54 and MIL-STD 810 testing. The Hytera-patented pseudo-trunking maximizes channel usage and the long lasting battery life yields approximately 16 hours under a 5-5-90 duty cycle in digital mode. The PD5 Series is the ideal solution for organizations looking for a cost-effective way to migrate to clear digital communication.

## Applications

Hotel

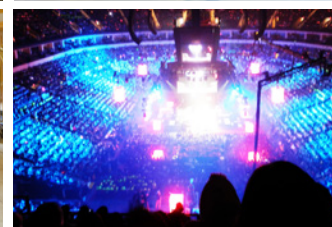
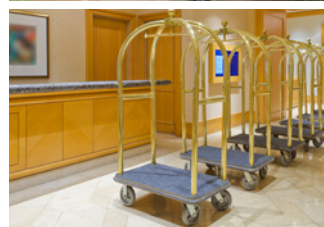
Education

Security

Warehouse

Retail

Events

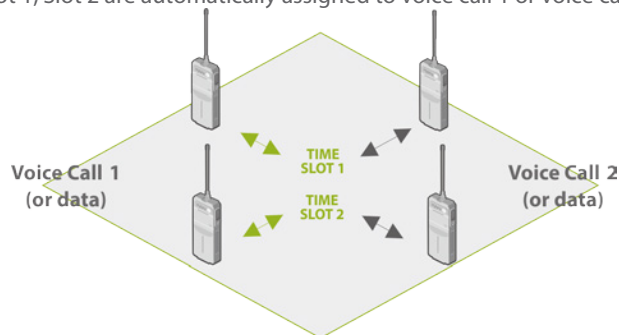


# Product Features

- Smaller, Sleeker, Lighter**  
 The PD502 is 4.53 x 2.13 x 1.06 inches, weighing 9.7oz. The PD562 is 4.53 x 2.13 x 1.18 inches, weighing 9.9oz. The PD5 Series has dual-color injection molding.
- Long Battery Life**  
 In digital mode, the PD502 can operate for approximately 16 hours under a duty cycle of 5-5-90.
- Rugged & Reliable**  
 Complies with MIL-STD-810 C/D/E/F/G standards and is IP54 (5: Generally protected against dust; 4: Protected against the effects of light rain or minor water splashes) ensuring outstanding performance.
- Advanced Signaling**  
 Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.
- Secure Communication**  
 Provides basic digital encryption and Scrambler feature in analog mode.
- DMRA Data Service**  
 The data protocol is fully compliant to the DMRA standard.
- One Touch Call/Text**  
 Supports One Touch features that include Preprogrammed Text Messages, Voice Calls and Supplementary Features.
- Supplementary Features (optional)**  
 The PD502 can decode radio enable, radio disable, and remoter monitor, as well as Priority Interrupt.
- Dual Mode (Analog & Digital)**  
 Dual modes operation allows the programming of both analog to digital migration.

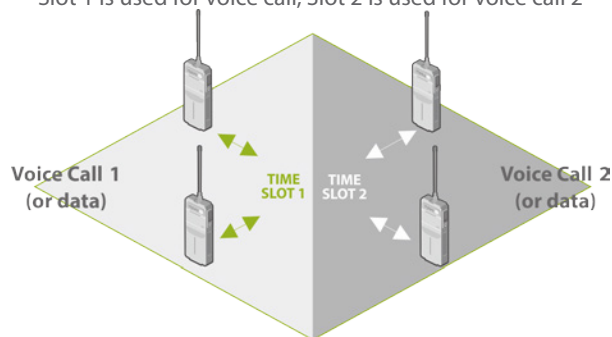
- Pseudo Trunk**  
 This virtual trunking feature allocates a free timeslot for urgent communications. This effectively enhances frequency efficiency and allows you to communicate in a timely manner in emergency situations. See example below.

Slot 1, Slot 2 are automatically assigned to voice call 1 or voice call 2



- DMO True 2-Slot**  
 In direct mode Hytera can provide 2-slot communication, which allows for 2 talk paths on 1 frequency. See example below.

Slot 1 is used for voice call, Slot 2 is used for voice call 2



## Accessories

### Included

- Li-Ion Battery
- MCU Rapid-rate Charger
- Power Adapter
- Antenna
- Belt Clip
- Leather Strap

### Optional



Remote Speaker  
Microphone (IP55)  
SM13M1



MCU Multi Unit Charger  
(for Thick Batteries)  
MCA08



Programming Cable  
(USB Port)  
PC63



Battery 2000mAh  
(Li-Ion)  
BL2010

See website for full list

# Specifications

General	Frequency Range	VHF: 136 - 174MHz UHF: 400 - 470MHz	
	Channel Capacity	PD502	32
		PD562	512
	Zone Capacity	PD502	3
		PD562	32
	Channel Spacing	25 / 20 / 12.5KHz	
	Operating Voltage	7.4V	
	Battery	1500mAh (Li-Ion)	
	Battery Life (5/5/90)	Analog	Approx. 11hrs
		Digital	Approx. 16hrs
	Frequency Stability	± 0.5ppm	
	Antenna Impedance	50 Ω	
	Dimensions (HxWxD)	PD502	4.53 x 2.13 x 1.06 inches
		PD562	4.6 x 2.17 x 1.18 inches

Environmental Specifications	Operating Temperature	-22° F ~ +140° F
	Storage Temperature	-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/G
	Dust & Water Intrusion	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

GPS	TTFF (Time To First Fix) Cold Start	<1 minute
	TTFF (Time To First Fix) Hot Start	<10 seconds
	Horizontal Accuracy	<10 meters

Transmitter	RF Power Output	VHF: High 5W - Low 1W UHF: High 4W - Low: 1W
	FM Modulation (Analog Emissions Designator)	11K φF3E @ 12.5KHz; 14K φF3E @ 20KHz; 16K φF3E @ 25KHz
	4FSK Digital Modulation (Digital Emissions Designator)	12.5KHz Data Only: 7K6 φFXD 12.5KHz Data & Voice: 7K6 φFXW
	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	0.22 μ V (12dB SINAD) ; 0.22 μ V (Typical) (12dB SINAD); 0.4 μ V (20dB SINAD)
		Digital	0.22 μ V/BER5%
	Selectivity TIA-603 ETSI	60dB @ 12.5KHz / 70dB @ 20/25KHz 60dB @ 12.5KHz / 70dB @ 20/25KHz	
	Intermodulation TIA-603 ETSI	70dB @ 12.5/20/25KHz 65dB @ 12.5/20/25KHz	
	Spurious Response Rejection TIA-603 ETSI	70dB @ 12.5/20/25KHz 70dB @ 12.5/20/25KHz	
	S/N	40dB @ 12.5KHz; 43dB @ 20KHz; 45dB @ 25KHz	
	Rated Audio Power Output	0.5W	
	Rated Audio Distortion	≤ 3%	

## Your Local Dealer

20KHz / 25KHz will not be available on new equipment in the U.S. after January 1<sup>st</sup>, 2011

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