

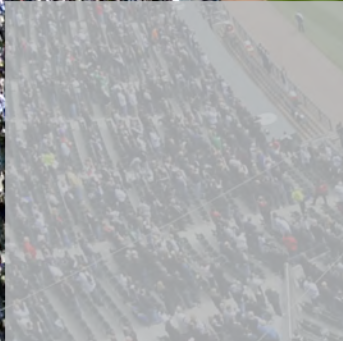
PD502

Digital Portable Radio



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





The PD502 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. PD502 is the ideal solution for organizations looking for a cost-effective way to migrate to clear digital communication.

Applications

Hotel

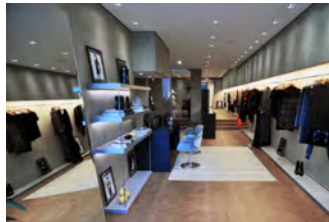
Education

Security

Warehouse

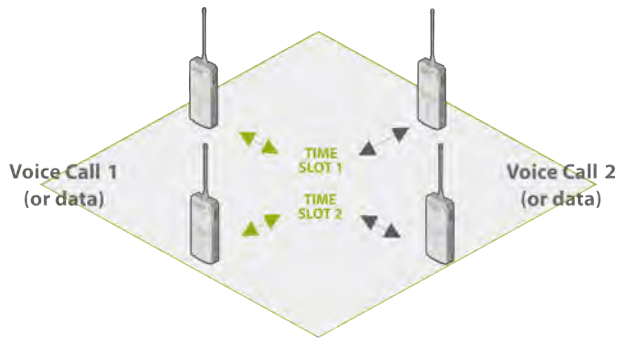
Retail

Events

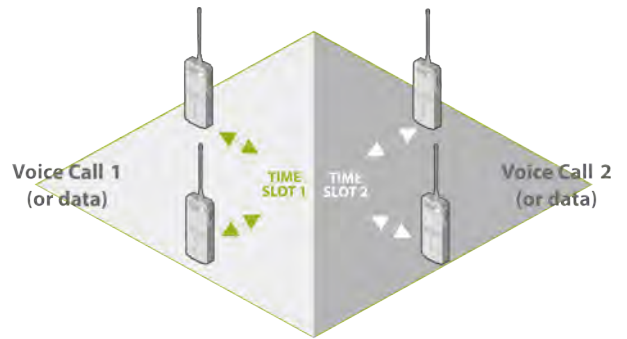


Product Features

- Smaller, Sleeker, Lighter**
 The size is 4.6 X 2.17 X 1.1 inches, dual-color injection, weight is 9.7oz.
- Long Battery Life**
 In digital mode, the PD502 works 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.
- Advanced Signaling**
 Supports multiple advanced analog signaling modes, including HDC1200, 2-Tone and 5-Tone, providing better integration into existing analog radio fleets.
- 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.
- 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.
- 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.



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



Solt 1 used for voice call , Solt 2 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



Ex earset with in-Line Microphone EHM18

See website for full list

Specifications

General	Frequency Range	VHF: 136 - 174MHz UHF: 400 - 470MHz		
	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	Approx. 11hrs	
		Digital	Approx. 16hrs	
	Frequency Stability	± 0.5ppm		
	Antenna Impedance	50 Ω		
	Dimensions (HxWxD)	4.53 x 2.13 x 1.06 inches		
	Weight	9.17oz		
	FCC ID	136-174MHz: Pending 400 - 512MHz: YAMPD50XU1		
	Industry Canada ID	138-174MHz: Pending 406.1 - 470MHz: 8913A-PD502U1		

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

Transmitter	RF Power Output	VHF: High 5W - Low 1W UHF: High 4W - Low: 1W
	FM Modulation (Analog Emissions Designator)	11K φF3E @ 12.5KHz; 14KφF3E @ 20KHz; 16KφF3E @ 25KHz
	4FSK Digital Modulation (Digital Emissions Designator)	12.5KHz Data Only: 7K6φFXD 12.5KHz Data & Voice: 7K6φFXW
	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 70dB @ 12.5/20/25KHz	
	Spurious Response Rejection 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	

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