

Digital Patrol Radio PD412

Compliant with DMR standard
Dual Mode Analog & Digital. Embedded RFID reader



Features

Voice Call

Voice call capability includes private, group and all call.



Rugged & Reliable

Compliant with MIL-STD-810 C/D/E/F/G standards. IP54 rated.

Small, Sleek, Light

Size: 112×55×31mm. Weight: 270g.

Long Battery Life

In digital mode, the 1500mAh battery provides 16 hours on a 5-5-90 duty cycle. (5% transmit; 5% receive, 90% standby)

Preprogrammed Text Messages

One Touch Call/Text

One Touch Voice Calls and Preprogrammed Text Messages.

Dual Mode (Analog & Digital)

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

VOX

The VOX (Voice-operated Transmit) feature allows you to trigger the voice transmission by speaking into the radio rather than initiating a voice call by pressing the PTT (Push To Talk) switch for convenient use at high pace working environment.

Development Port for radio and RFID

The HYTERA API facilitates third party applications development in support of customized solutions.

Features

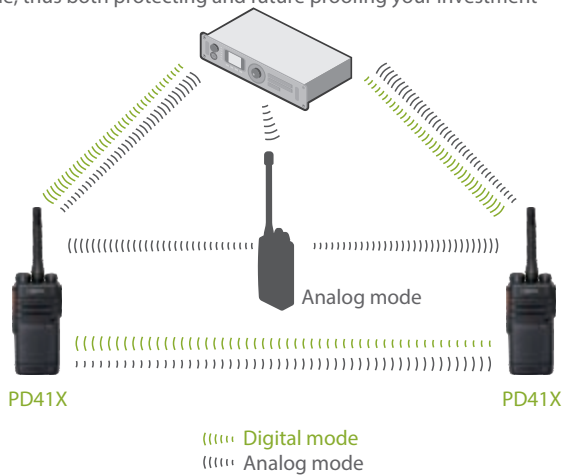
Embedded RFID

The PD412 radio reads RFID tag data and automatically transmits the data via the defined timeslot. An ideal application for patrol monitoring and resource management.



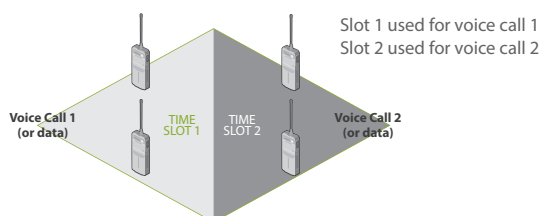
Analog & Digital Mixed Channel

The PD412 radio is dual mode capable, it automatically detects whether the received signal is analog or digital. If a digital signal is received the radio will transmit its response in digital mode, if an analogue signal is received, the radio will respond in analogue mode. The PD412 will function with existing analogue FM infrastructure. When the infrastructure is updated to digital, it will operate in digital mode, thus both protecting and future proofing your investment



DMRA Direct Mode TDMA (True 2-slot)

In DMO (Direct Mode Operation) The PD412 supports two talk paths on one frequency.





LIGHT & DURABLE. DIGITAL VOICE, CLEARER AND LOUDER
EMBEDDED RFID READER
ANALOG & DIGITAL MIXED MODE

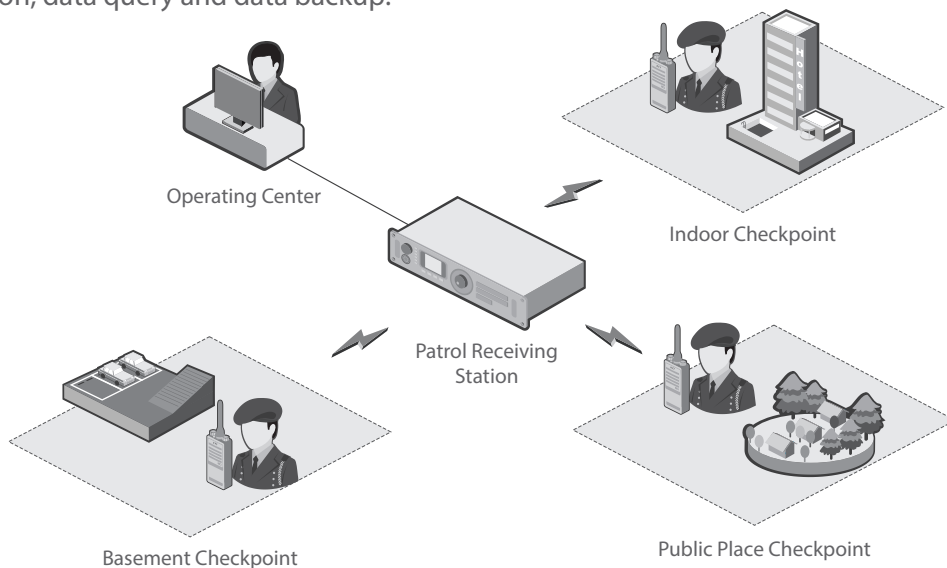


RFID board

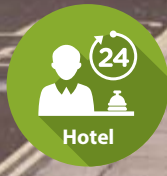


Hytera PD412 Patrol System

The Hytera PATROL System is a tour guard or route management solution providing real-time resource tracking and management. The system comprises PATROL Radios, Receiving Stations, PATROL Checkpoints and PATROL Application Software. When the PD412 PATROL Radio is close to the PATROL Checkpoint, the PATROL Radio automatically reads the Checkpoint RFID data, transmits RFID data in real-time to the Receiving Station. The Receiving Station which is connected to a PC running the PATROL application, records the incoming data, time and date stamps it and highlights the relevant PATROL Checkpoint in the application on screen. Additional features include, one-touch radio alarm, PATROL data resend, simple or advanced PATROL plan configuration, data query and data backup.



Target Markets



Standard



Li-ion battery (1500mAh) BL1504



Belt clip BC08



General MCU Rapid-rate Charger (for Li-Ion/Ni-MH batteries) CH10A07



Short antenna



Switching Power Adapter



Hand strap

Options



Specifications

General		
Frequency Range	UHF: 400-470MHz, 450-520MHz VHF: 136-174MHz	
Channel Capacity	32	
Zone Capacity	3	
Channel Spacing	25/12.5KHz	
Operating Voltage	7.4V	
Battery	1500mAh (Li-Ion) 2000mAh (Li-Ion)	
Battery Life (5/5/90)	Analog/Digital: 12/16 hours (1500mAh) 16/22 hours (2000mAh)	
Weight	270g	
Dimensions	112x55x31mm	
Frequency Stability	±0.5ppm	
Antenna Impedance	50Ω	
RFID Reading Range	up to 4cm	
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	60dB @ 12.5KHz/70dB @ 25KHz
	ETSI	60dB @ 12.5KHz/70dB @ 25KHz
Spurious Response Rejection	TIA-603	70dB @ 12.5/25KHz
	ETSI	70dB @ 12.5/25KHz
Inter-modulation	TIA-603	70dB @ 12.5/25KHz
	ETSI	65dB @ 12.5/25KHz
Hum & Noise	40dB @ 12.5KHz 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 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 ±5.0KHz @ 25KHz
FM Hum & Noise	40dB @ 12.5KHz 45dB @ 25KHz
Adjacent Channel Power	60dB @ 12.5KHz, 70dB @ 25KHz
Audio Response	+1 ~ -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++
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

PD412, X=0, 2, 5, 6 or 8, model number varies geographically. For details, please contact our regional sales representatives.

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



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