



## PD412i DMR Patrol Radio with RFID

Hytera PD412i UHF and VHF conventional two-way DMR radios provide reliable and easy-to-use radio communications and RFID for security patrols and resource management.

- Built-in RFID reader for security patrols
- Compliant with the DMR standard
- Functions in digital and analog modes
- IP54 rated and compliant with MIL-STD-810 G



The PD412i can read and transmit RFID tag data. Used with the Hytera Patrol System, this radio provides real-time tracking and management of security personnel and resources.



## PD412i Key Features



### ERGONOMIC AND EASY TO USE

- Tactile buttons for no-look PTT and emergency calling



### HIGH-QUALITY AUDIO

- Audio equalizer adjusts low, mid, and high frequency gain
- Provides high-quality digital audio performance with loud and clear private calling, group calling, and all call



### LONG-LIFE BATTERY

- Powerful Li-Ion 1500mAh battery
- Delivers up to 16 hours of operation in digital mode and 12 hours in analog mode



### RELIABLE AND DURABLE

- IP54 rated for water and dust ingress, and compliant with MIL-STD-810-G for impact strength and durability
- -22°F to +140°F (-30°C to +60°C) operating temperature



### EMERGENCY ALARM

- Emergency Alarms can be sent to other radios via the one touch programmable button



### ANALOG & DIGITAL AUTO DETECT

- Simultaneously monitors analog and digital modes and automatically responds in each mode
- Enables simple and cost-effective migration to digital



### PRE-PROGRAMMED TEXT MESSAGING

- One-touch sending of pre-programmed text messages
- Stores up to ten pre-defined text messages



### VOX

- Voice activated communications (VOX) activates the microphone by speaking to enable hands-free operation
- Also supported on external earpiece and microphone accessories

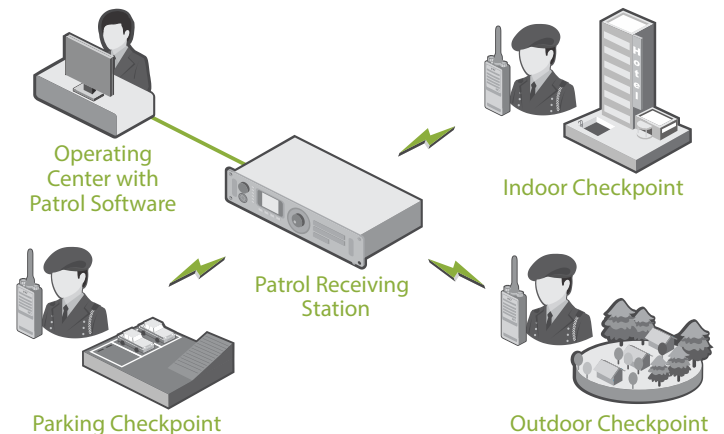


### UPGRADE FEATURES (Optional)

- Encryption for secure audio and data
- Priority Interrupt allows dispatcher to interrupt existing calls with important emergency information
- Remote Monitor allows dispatcher to key the PTT button and listen in an emergency situation
- Stun/Revive enables dispatch and other users to disable/enable a radio if it is stolen, lost, or used maliciously

## The Hytera Patrol System with RFID

The Hytera Patrol System is a security guard or route management solution providing real-time resource tracking and management. The system includes PD412i Patrol Radios, Receiving Stations, Patrol Checkpoints, and Patrol Application Software. When the PD412i is close to the Patrol Checkpoint, it automatically reads the Checkpoint RFID data, and transmits it in real-time to the Receiving Station. The Receiving Station is connected to a PC running the Patrol application that records the incoming data, time and date stamps it, and highlights the relevant Patrol Checkpoint on screen.



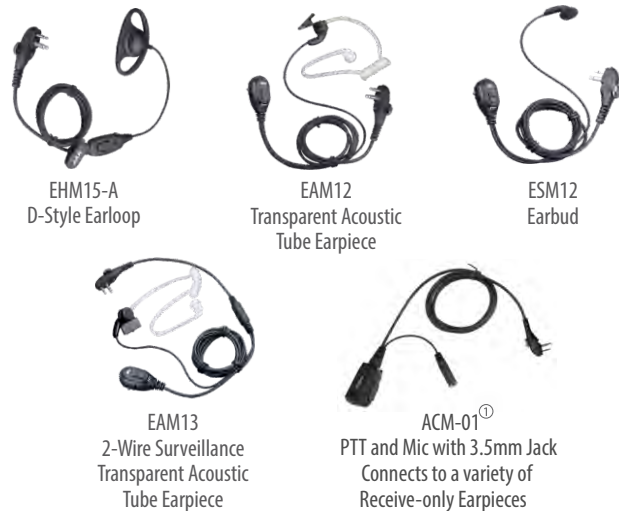
## Standard Accessories



## Optional Accessories

### EARPIECES

External earpieces with in-line PTT Mic and VOX (hands free) switch.



### RFID ACCESSORIES

For patrol location point tracking.



### OTHER ACCESSORIES



## Systems and Network Features

### ROAMING

- Allows radios to seamlessly move between connected repeaters with uninterrupted voice transmission

### PSEUDO TRUNK

- This virtual trunking feature automatically uses whichever digital timeslot is free to improve call connectivity and frequency efficiency

### DMR TIER II

- The PD412i can be deployed on DMR Tier II systems

### RADIO REGISTRATION SERVICE

- RRS allows the PD412i to communicate with dispatch and unified communications applications

### REMOTE SPEAKER MICROPHONES

Remote Speaker Mics provide easy access to audio, are IP rated for water resistance, and have audio jacks for receive only earpieces.



### POWER AND CHARGING



<sup>①</sup> Features 3.5mm jack for receive-only ES01 Earbud, ES02 Acoustic Tube Surveillance Earpiece, EH01 C-Style Earpiece, and EH02 Swivel C-Style Earpiece

<sup>②</sup> Features 2.5mm jack for receive-only EAS03 Acoustic Tube Earpiece, EHS18 Earloop Earpiece, and ESS10 Earbud

# Specifications

General	
Frequency Range	UHF 400-470MHz, 450-520MHz VHF 136-174MHz
Channel Capacity	256 Channels (128 Analog, 128 Digital)
Zone Capacity	3 Zones with 16 Channels per Zone
Channel Spacing	25/12.5kHz
Operational Voltage	7.4W
Battery	1500mAh (Li-Ion) Standard, 2000mAh Optional
Battery Life (5/5/90)	1500mAh: 16 hours Digital, 12 hours Analog 2000mAh: 22 hours Digital, 16 hours Analog
Weight	9.8oz (280g)
Dimensions	4 13/32" x 2 11/16" x 1 7/32" (112 x 55 x 31mm)
Frequency Stability	± 0.5ppm
Antenna Impedance	50Ω

Receiver	
Digital Sensitivity	0.22μV (BER 5%)
Analog Sensitivity	0.22μV (Typical) (12dB SINAD) 0.4μV (20dB SINAD) 0.22μV (12dB SINAD)
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
Intermodulation	TIA-603: 70dB @ 12.5/25kHz ETSI: 65dB @ 12.5/25kHz
Hum and Noise	40dB @ 12.5kHz, 45dB @ 25kHz
Rated Audio Power Output	0.5W
Rated Audio Distortion	≤3%
Audio Response	+1 to -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 and Voice: 7K60FXW
Conducted/Radiated Emission	-36dBm <1GHz, -30dBm >1GHz
Modulation Limiting	±2.5kHz @ 12.5kHz ±5.0kHz @ 25kHz
FM Hum and Noise	40dB @ 12.5kHz, 45dB @ 25kHz
Adjacent Channel Power	60dB @ 12.5kHz, 70dB @ 25kHz
Audio Response	+1 to -3dB
Audio Distortion	≤3%
Digital Vocoder Type	AMBE++
Digital Protocol	ETSI-TS102 361-1,-2,-3

Environmental	
Operating Temperature	-22°F to +140°F (-30°C to +60°C)
Storage Temperature	-40°F to +185°F (-40°C to +85°C)
ESD	IEC 61000-4-2 (Level 4) ±8kV Contact, ±15kV Air
Dust and Water Ingress	IP54 Standard
Humidity	Per MIL-STD-810 C/D/E/F/G Standard
Shock and Vibration	Per MIL-STD-810 C/D/E/F/G Standard

## Ordering Information

Part Number	Description
PD412i-V1	VHF 136-174MHz, 1-5W Power, RFID
PD412i-U1	UHF 400-470MHz, 1-4W Power, RFID
PD412i-U2	UHF 450-520MHz, 1-4W Power, RFID

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



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