

# Digital Patrol Radio PD415

DMR standard radio, double channel capacity  
Analogue & Digital Mixed Channel  
Embedded RFID



# Features

## Abundant Voice Call

Full range of Voice Calls



## Rugged & Reliable

The PD415 is compliant with MIL-STD-810 C/D/E/F/G standards & IP54.

## Small, Sleek, Light

With dual-color injection, the size is 112x55x31mm and weight is 270g.

## Long Battery Life

In digital mode, the PD415 operates for at least 16 hours under a duty cycle of 5-5-90 using the standard 1500mAh battery.

## Preprogrammed Text Messages

## One Touch Call/Text

Supports One Touch features that comprise of Voice Calls and Preprogrammed Text Messages.

## Dual Mode (Analogue & Digital)

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

## VOX

The VOX (Voice-operated Transmit) feature allows you to trigger the voice transmission with your voice directly rather than PTT button press. This means you can use the radio hands-free.

## Further Development Port for radio and RFID

The API allows third party partners to develop other useful applications to extend the radio's RFID functionality.

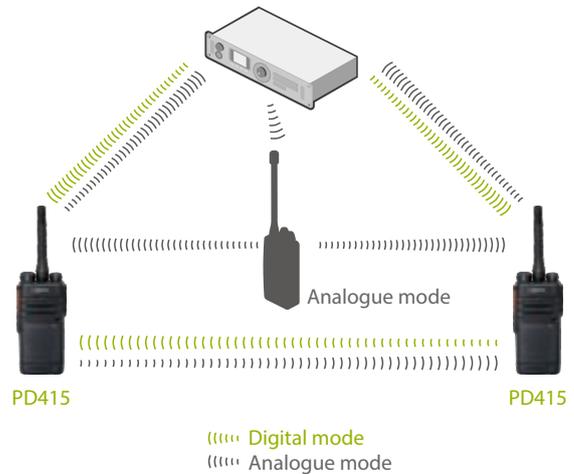
## Embedded RFID

With an embedded RFID reader, PD415 can read the information of an RFID tag and automatically send it out via the radio. These RFID and data auto-transmission features enable the PD415 to work with Hytera Patrol System ( a real-time tour guard solution). Hytera also offers the open API of the PD415 for development of further applications.



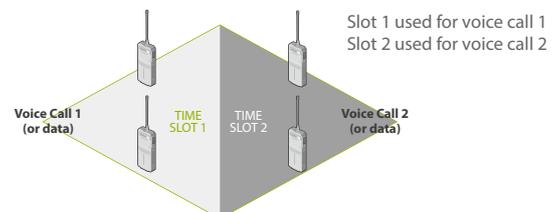
## Analogue & Digital Mixed Channel

PD415 can detect both analogue and digital signal and automatically switch between the two modes to receive it on a single channel. It can reply to the received call, while the talk back timer remains. This feature makes a better migration from analogue radio to digital radio and saves your existing investment.



## DMRA Direct Mode TDMA (True 2-slot)

In DMO Hytera can provide 2-slot communication, which allows for 2 talk paths on 1 frequency.





LIGHT & DURABLE  
DIGITAL VOICE, CLEARER AND LOUDER  
EMBEDDED RFID  
ANALOGUE & DIGITAL MIXED CHANNEL

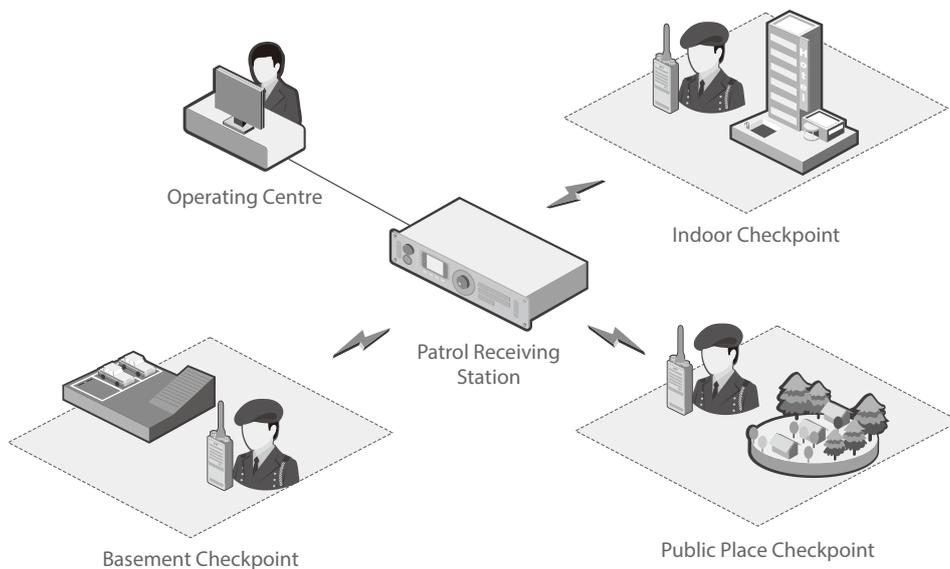


RFID board



## Hytera PD415 Patrol System

Hytera Patrol System is a tour guard solution to provide real-time tracking management. It is composed of Patrol Radio, Receiving Station, Patrol Checkpoint and Patrol Software. It allows an operator to monitor the real-time tour guard because the patrol data is sent to the receiving station connected to PC (Patrol Software). This system also supports some features including one-touch alarm on radio, patrol data resend, setting patrol plan, data query, data backup, etc.



# Target Markets



## Standard



## 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 (Analogue)	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

PD41X, 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.



## Hytera Communications Corporation Limited

**Address:** Hytera House, 939 Yeovil Road, Slough Berkshire, SL1 4NH, United Kingdom

**Tel:** +44 (0)1753 826 120 **Fax:** +44 (0) 01753 826 121

**Http:** //www.hytera.co.uk **Stock Code:** 002583.SZ

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