

# Digital **Patrol** Radio PD41X

DMR standard radio, double channel capacity Analog & Digital Mixed Channel, embedded RFID





**Avter** 

www.hytera.com

## Features

#### **Abundant Voice Call**

Voice communication includes private, group and all call.



#### Embedded RFID

With an embedded RFID reader, PD41X can read the information of a RFID tag and automatically send it out by radio. These RFID and data auto transmission features make PD41X supporting Hytera Patrol system, which is a real-time tour guard solution. Hytera also offers the open API of PD41X for developing your own application.



#### **Rugged & Reliable**

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

#### Small, Sleek, Light

With dual-color injection, the size is 112×55×31mm and weight is 270g.

#### **Long Battery Life**

In digital mode, PD41X operates at least 16 hours under a duty cycle of 5-5-90 @1500mAh.

#### **Preprogrammed Text Messages**

#### **One Touch Call/Text**

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

#### Dual Mode (Analog & Digital)

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

#### VOX

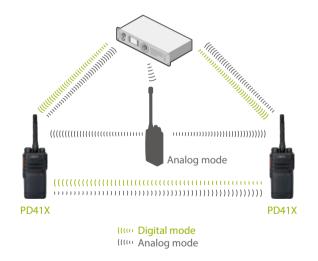
The VOX (Voice-operated Transmit) feature allows you to trigger the voice transmission by voice directly rather than PTT. This brings more convenience to you in radio use.

#### **Further Development Port for radio and RFID**

The API allows third party partner to further develop other helpful applications to extend the radio RFID functionalities.

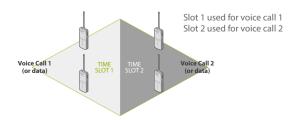
#### **Analog & Digital Mixed Channel**

PD41X can detect both analog and digital signal and automatically switch between analog and digital mode to receive it on a single channel. And it can reply to the received call, while the talk back timer remains. This feature makes a better migration from analog radio to digital radio and save 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.





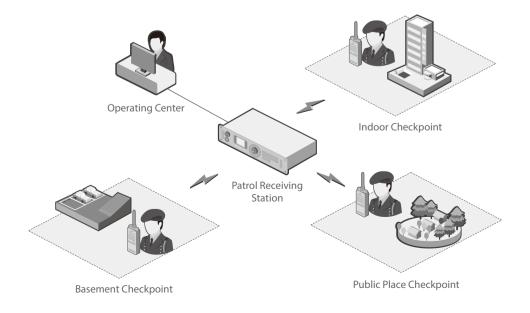
LIGHT & DURABLE DIGITAL VOICE, CLEARER AND LOUDER EMBEDDED RFID ANALOG & DIGITAL MIXED CHANNEL





## Hytera PD41X Patrol System

Hytera Patrol System is a tour guard solution to provide real-time tracking management. It's 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). And 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<br>VHF: 136-174MHz                                |
| Channel Capacity                  |         | 32  |
| Zone Capacity                     |         | 3   |
| Channel Spacing                   |         | 25/12.5KHz  |
| Operating Voltage                 |         | 7.4V  |
| Battery                           |         | 1500mAh (Li-lon)<br>2000mAh (Li-lon)  |
| Battery Life (5/5/90 )            |         | Analog/Digital:<br>12/16 hours (1500mAh)<br>16/22 hours (2000mAh)             |
| Weight                            |         | 270g  |
| Dimensions                        |         | 112×55×31mm   |
| 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)<br>0.4μV (20dB SIN AD)<br>0.22μV (12dB SIN AD) |
| Adjacent Selectivity              | TIA-603 | 60dB @ 12.5KHz/70dB @ 25KHz   |
|                                   | ETSI    | 60dB @ 12.5KHz/70dB @ 25KHz   |
| Spurious<br>Response<br>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<br>45dB @ 25KHz  |
| Rated Audio Power Output          |         | 0.5W  |
| Rated Audio Distortion            |         | ≤3%   |
| Audio Response                    |         | +1 ~ -3dB   |
| Audio Response                    |         | +1~-5ub   |

| Transmitter                 |  |  |
|-----------------------------|--|--|
| RF Power Output             | VHF High power: 5W<br>VHF Low power: 1W<br>UHF High power: 4W<br>UHF Low power: 1W |  |
| FM Modulation               | 11K0F3E @ 12.5KHz<br>16K0F3E @ 25KHz   |  |
| 4FSK Digital Modulation     | 12.5KHz Data Only: 7K60FXD<br>12.5KHz Data & Voice: 7K60FXW                        |  |
| Conducted/Radiated Emission | -36dBm <1GHz, -30dBm >1GHz   |  |
| Modulation Limiting         | ±2.5KHz @ 12.5KHz<br>±5.0KHz @ 25KHz   |  |
| FM Hum & Noise              | 40dB @ 12.5KHz<br>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)<br>±8kV (Contact)<br>±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.





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