Hytera
Respond & Achieve

PD4 Series

DMR handheld radios

With long battery service life, low weight and the integrated RFID reader in the PD415, the radios in the PD4 series are your optimal companion for everyday work. The radio series supports analog and digital operation and in this way eases the smooth transition to digital radio.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

www.hytera-mobilfunk.com

Radios

PD4 Series

PD405
PD415
DMR handheld radios

Highlights

Integrated RFID reader (PD415)
With the integrated RFID reader, the PD415 can read information from an RFID tag and transmit this information automatically by radio. In this way the radio supports the Hytera Patrol System.

Patrol System with the PD415
The Hytera Patrol System is a patrol system for the management of patrol information. With the aid of this solution the positions of the security personnel can be monitored in real-time on a digital map in a control room. The patrol system is ideally suited to security solutions for large department stores, industrial facilities, warehouses or hotels.

Impressive voice quality
With their embedded digital technology the radios in the PD4 series produce outstanding voice quality even in noisy environments and at the outer perimeter of radio coverage.

Improved utilization of the frequency spectrum
Thanks to the TDMA method, the DMR radios make it possible to configure the available bandwidth with double the channel capacity of conventional analog radio. This has a clear mitigating effect on increasing spectrum scarcity.

Mixed analog and digital channel
This function ensures that the PD4 radios can detect analog and digital signals and change automatically to the relevant operating mode.

Robust
Both radios are dust and water-resistant according to IP55 (PD405) or IP54 (PD415) and meet the US military standard MIL-STD-810 C/D/E/F/G.

Additional Functions (selection)

- Different operating modes: analog, DMR Tier II or mixed
- Digital or analog channel search
- Supports pre-programmed text message transmission
- TDMA direct mode allows up to two simultaneous calls, even without repeater
- VOX (voice-controlled send keying)
- Small, slim, light
- Individual call, group call and all call

Programmable keys

Different operating modes:
analog, DMR Tier II or mixed

Integrated RFID reader for Patrol System (PD415)

Small, slim and light, only 270 g

Standard scope of delivery


Lithium-ion battery (1500 mAh) BL1504


Hand strap RO03


Belt clip BC08


Switching power adapter for charger PS1018


Charger CH10A07


Antenna (UHF or VHF)

Additional accessories (selection)

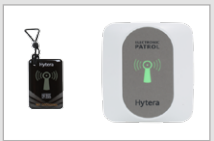

Remote speaker microphone SM26M1


Remote speaker microphone (IP55) SM13M1


Carrying case (nylon) NCN011


Battery optimizing system MCA08


Lithium-ion battery (2000 mAh) BL2010


RFID accessories for the Patrol System (PD415)

The illustrations above are for reference purposes only. The products might differ from these illustrations.

Technical Data

General data	
Frequency range	VHF: 136 - 174 MHz UHF: 400 – 470 MHz
Supported operating modes	• DMR Tier II in acc. with ETSI TS 102 361-1/2/3 • Analog
Channel capacity	256 (128 analog + 128 digital)
Number of zones	3
Channel spacing	12.5 / 25 kHz
Operating voltage	7.4 V (nominal)
Standard battery	1500 mAh (lithium-ion battery)
Battery service life (5-5-90 duty cycle)	analog / digital: approx. 12 / 16 hours (with 1500 mAh) approx. 16 / 22 hours (with 2000 mAh)
Frequency stability	± 0.5 ppm
Antenna impedance	50 Ω
Dimensions (H × B × T) (without antenna)	112 x 54 x 28 mm (PD405) 112 x 54 x 31 mm (PD415)
Weight (with antenna and standard battery)	approx. 270 g
Programmable keys	2
Range of the RFID reader	up to 4 cm

Environmental conditions	
Operating temperature range	- 30 °C to + 60 °C
Storage temperature range	- 40 °C to + 85 °C
ESD	IEC 61000-4-2 (Level 4), ± 8 kV (contact), ± 15 kV (air)
Protection against dust and moisture	IP55 (PD405) IP54 (PD415)
Shock and vibration resistance	MIL-STD-810 C/D/E/F/G
Relative humidity	MIL-STD-810 C/D/E/F/G

Transmitter	
Transmitting power	VHF: 1 / 5 W UHF: 1 / 4 W
Modulation	11 K0F3E at 12.5 kHz 16 K0F3E at 25 kHz
4FSK digital modulation	12.5 kHz (data only): 7K60FXD 12.5 kHz (data and voice): 7K60FXW
Interfering signals and harmonics	- 36 dBm (< 1 GHz) - 30 dBm (> 1 GHz)
Modulation limiting	± 2.5 kHz at 12.5 kHz ± 5.0 kHz at 25 kHz
Hum and noise	40 dB at 12.5 kHz 45 dB at 25 kHz
Adjacent channel selectivity	60 dB at 12.5 kHz 70 dB at 25 kHz
Audio sensitivity	+ 1 dB at - 3 dB
Audio distortion	≤ 3 %
Digital vocoder type	AMBE+2™

Receiver	
Sensitivity (analog)	0.22 µV (12 dB SINAD) 0.22 µV (typical) (12 dB SINAD) 0.4 µV (20 dB SINAD)
Sensitivity (digital)	0.22 µV / BER 5 %
Adjacent channel selectivity TIA-603 ETSI	 60 dB at 12.5 kHz / 70 dB at 25 kHz 60 dB at 12.5 kHz / 70 dB at 25 kHz
Intermodulation TIA-603 ETSI	 70 dB at 12.5 / 25 kHz 65 dB at 12.5 / 25 kHz
Spurious response rejection TIA-603 ETSI	 70 dB at 12.5 / 25 kHz 70 dB at 12.5 / 25 kHz
Signal-noise ratio (S/N)	40 dB at 12.5 kHz 45 dB at 25 kHz
Audio power output	0.5 W
Audio distortion	≤ 3 %
Audio sensitivity	+ 1 dB at - 3 dB
Conducted spurious emission	< - 57 dBm

All technical information was determined at the factory and in accordance with the corresponding standards. Subject to change on the basis of continuous development.

Your Hytera partner:

Further information can be found at:
www.hytera-mobilfunk.com

Contact us if you are interested in sales, distribution or application partnership:
info@hytera.de

SGS certificate DE11/81829313

Hytera Mobilfunk GmbH

Address: Fritz-Hahne-Straße 7, 31848 Bad Münder, Germany
Tel.: + 49 (0)5042 / 998-0 **Fax:** + 49 (0)5042 / 998-105
E-mail: info@hytera.de | **www.hytera-mobilfunk.com**

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