Hytera
Respond & Achieve



PD5 Series

DMR handheld radios



The PD5 Series is lightweight, compact, and packed with functionality. Cost effective, the PD5 series supports both digital and analogue communications, meaning they are the perfect companion for new digital mobile radio users.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

www.hytera.co.uk

Radios

PD5 Series

PD505
PD565
DMR handheld radios









Highlights

Compact, lightweight and easy to operate

The PD5 series radios are particularly ergonomic and easy to operate. With a weight of only 260g (PD505) or 280g (PD565), the PD5 series offers a high level of mobility and ideal for use on long shifts.

Cost-efficient with superlative voice quality

With the combined application of the narrow-band codec and digital technologies for error correction, the PD5 series ensures a superlative voice quality, even in loud environments or in peripheral areas of radio coverage.

Long battery life

The lithium-ion battery (1500 mAh) include as standard achieves an operating time of at least 16 hours (duty cycle 5-5-90). With the optionally available 1000-mAh battery, this could be inceased to up to 20 hours.

Supports analogue and digital technology

The PD5 series was developed in compliance with the ETSI mobile radio standard Digital Mobile Radio (DMR). The handheld radios support the conventional DMR mode and can also be operated in manual mode. On top of this, the radios support Hytera XPT radio systems (via chargeable licence). That makes the PD5 series terminals the ideal companion for the move to digital mobile radio.

Pseudo trunked radio

With patented Hytera pseudo trunking, the terminals dynamically utilize the timeslots of a frequency. As a result, the radios can utilize both timeslots in DMO and RMO mode in the conventional DMR operation. This guarantees efficient frequency utilization.

Additional Functions

- One-touch functions to quickly call up preprogrammed text messages, voice calls and supplementary functions
- Support of several expanded analogue signal modes, including HDC1200, 2-tone and 5-tone, for an improved integration in existing analogue radio fleets
- Hytera basic encryption (40 bit) in digital operation
- Scrambler function in analogue operation
- Leasing function
- Versatile voice calls: Individual call, group call, broadcast call, data call, emergency call
- Radio Registration Service (RRS) and Lone Worker feature
- Wireless radio activation/deactivation (enable/disable), Priority interrupt, and remote monitor function (optional)

Battery life of 16 hours (1500-mAh battery) and 20 hours (2000-mAh battery) digital operation

Ergonomic and lightweight chassis



Hardwearing, IP54 compliant and built to US Military Standard MIL-STD-810

Intuitive interface with programmable keys

In the box



Lithium-ion battery (1500 mAh) BL1504



Standard antenna UHF or VHF



MCU Rapid-Rate charger CH10A07



Hand strap RO03



Belt clip BC08



Switching power adapter for charger PS1044

Optional accessories



Vehicle power adapter CHV09



Remote speaker microphone SM26M1



Earbud with In-line PTT ESM12



Lithium-ion battery (2000 mAh) BL2010



6-unit charger MCA08



Carrying case (nylon) NCN011

The representations shown above are intended for reference purposes only. The products themselves may deviate from these representations.

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 • Simulcast • XPT Digital Trunking • Analogue
Channel capacity	256 (PD505) / 512 (PD565)
Number of zones	16 (PD505) / 32 (PD565)
Channel spacing	12.5 / 20 / 25 kHz (analogue) 12.5 kHz (digital)
Operating voltage	7.4 V (nominal)
Standard battery	1500 mAh (lithium-ion battery)
Battery life (5-5-90 duty cycle, high transmitting power, standard battery)	approx. 11 h (analogue) approx. 16 h (digital) with 1500 mAh approx. 20 h (digital) with 2000 mAh
Frequency stability	± 0.5 ppm
Antenna impedance	50 Ω
Dimensions (H × B × T) (without antenna)	115 × 54 × 27 mm (PD505) 115 × 54 × 27 mm (PD565)
Weight	approx. 260 g (PD505) approx. 280 g (PD565)
Programmable keys	1 (PD505) 6 (PD565)
LCD display (PD565)	monochrome LCD display, 3 lines

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	IP54
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 URF: 1 / 4 W
Modulation	11 K0F3E at 12.5 kHz 14 K0F3E at 20 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 ± 4.0 kHz at 20 kHz ± 5.0 kHz at 25 kHz
Hum and noise	40 dB at 12.5 kHz 43 dB at 20 kHz 45 dB at 25 kHz
Adjacent channel selectivity	60 dB at 12.5 kHz 70 dB at 20/25 kHz
Audio sensitivity	+ 1 dB at - 3 dB
Audio distortion	≤ 3 %
Digital vocoder type	AMBE +2™

Receiver	
Sensitivity (analogue)	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 20 / 25 kHz 60 dB at 12.5 kHz / 70 dB at 20 / 25 kHz
Intermodulation TIA-603 ETSI	 70 dB at 12.5 / 20 / 25 kHz 65 dB at 12.5 / 20 / 25 kHz
Spurious response rejection TIA-603 ETSI	 70 dB at 12.5 / 20 / 25 kHz 70 dB at 12.5 / 20 / 25 kHz
Signal-noise ratio (S/N)	40 dB at 12.5 kHz 43 dB at 20 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.co.uk

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All specifications are subject to change without notice.

Encryption features are optional and have to be configured separately. They are also subject to European export regulations.

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