Hytera
Respond & Achieve

PD6 Series

DMR handheld radios

The PD6 series from Hytera brings a breath of fresh air into your radio communication. With its lightweight metal cases and the support of digital and analog mobile radio, the handheld radios of the PD6 series are the ideal companion for migrating to digital mobile radio.

DMR
DIGITAL MOBILE RADIO ASSOCIATION

www.hytera-mobilfunk.com

Radios

PD6 Series

PD605 / PD605G
PD665 / PD665G
PD685 / PD685G
DMR handheld radios

Highlights

Small, lightweight and thin
The handheld radios of the PD6 series are only 27 mm deep, making them particularly compact. They are encased in a high-quality aluminum metal frame and with a weight of only 290 g (PD605) or 310 g (PD655/PD685) comfortable and easy to carry for long operations.

Long battery service life
With the lithium-ion battery with 1500 mAh included in the delivery, the handheld radios of the PD6 series achieve an operating time in digital operation of at least 16 hours. With the optionally available 2000-mAh battery, it will even be 20 hours.

Improved utilization of the frequency spectrum
The PD6 series can be operated in TDMA Direct Mode and Pseudo Trunking. This assignment of the available bandwidth with double the number of channels leads to a significant easing of the increasing shortage of frequencies in the operation of DMR mobile radio systems compared to analog mobile radio systems.

Expanded frequency range
The frequency range in UHF stretches from 400 MHz to 527 MHz.

Support of analog and digital mobile radio
The PD6 series was developed in compliance with the ETSI mobile radio standard Digital Mobile Radio (DMR). The handheld radios support the conventional DMR operation and can also be operated in analog mode. That makes the radios of the PD6 series the ideal companion for the move to digital mobile radio.

Additional functions (selection)

- Every radio of the PD6 series is also available with GPS. Variants with GPS support GIS applications, such as AVL and telemetry.
- Encryption with the encryption algorithm ARC4 (40 bit) in accordance with DMRA or with optional algorithms AES128 and AES256 (128 and 256 bit)
- Expansion interface for applications
- Man-down function (optional)
- Leasing function
- Versatile voice calls: Individual call, group call, broadcast call, emergency call

Small and lightweight, robust case with metal frame

Multifaceted accessories available for every operation

Dust and water-proof radios in accordance with IP67

Correspond to US Military Standard MIL-STD-810 C/D/E/F/G

Standard scope of delivery


Lithium-ion battery (1500 mAh) BL1502


Standard antenna (UHF or VHF)


Quick charger CH10A07


Hand strap RO03


Belt clip BC19


Switching power adapter for charger PS1018

Additional accessories (selection)


Wireless headset ESW01


Loudspeaker microphone SM26N1


Earphone with C-clip EHN20


Lithium-ion battery (2000 mAh) BL2010


6-unit charger MCA08


Carrying case (nylon) NCN011

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

Technical Data

General data	
Frequency range	VHF: 136 – 174 MHz UHF: 400 – 527 MHz
Supported operating modes	• DMR Tier II in acc. with ETSI TS 102 361-1/2/3 • Simulcast • Analog
Channel capacity	1024
Zone capacity	3 (PD605), 64 (PD665 / PD685)
Channel spacing	12.5 / 20 / 25 kHz (analog) 12.5 kHz (digital)
Operating voltage	7.4 V (nominal)
Standard battery	1500 mAh (lithium-ion battery)
Battery service life (5-5-90 operating cycle, high transmitting power, standard battery)	approx. 11 hours (analog) approx. 16 hours (digital) with 1500 mAh approx. 20 hours (digital) with 2000 mAh
Frequency stability	± 0.5 ppm
Antenna impedance	50 Ω
Dimensions (H × B × T) (without antenna)	119 × 54 × 27 mm (PD605) 122 × 54 × 27 mm (PD665 / PD685)
Weight (with antenna and standard battery)	approx. 290 g (PD605) approx. 310 g (PD665 / PD685)
Programmable keys	1 (PD605) 6 (PD665) 3 (PD685)
LCD display (PD665 / PD685)	160 × 128 pixels, 65,536 colors, 1.8 inch, 4 lines

Ambient data	
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)
Dust and water protection	IP67
Shock and vibration resistance	MIL-STD-810 C/D/E/F/G
Relative humidity	MIL-STD-810 C/D/E/F/G

GPS	
Time to first position recognition (TTFF) cold start	< 1 minute
Time to first position recognition (TTFF) warm start	< 10 seconds
Horizontal accuracy	< 10 meter

Transmitter	
Transmitting power	VHF: 1 / 5 W UHF: 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
Nominal 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 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
Hum and noise	40 dB at 12.5 kHz 43 dB at 20 kHz 45 dB at 25 kHz
Audio power output	0.5 W
Nominal audio distortion	≤ 3%
Audio sensitivity	+ 1 dB at - 3 dB
Conducted spurious emission	< - 57 dBm

All technical specifications were tested according to the relevant 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:
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