



PD605

DMR handheld radio

The new Hytera PD605 series impresses with its light-weight design, its functionality and high cost effectiveness. With the compact metal housing, the excellent voice quality and support of both digital and analogue radio, the PD605 gives your radio communication a breeze of fresh air. The PD605 handheld radios are designed according to the DMR standard and meet all requirements of the open DMR standard.



Radio

PD605

DMR handheld radio



Highlights

Improved use of the radio spectrum

Thanks to the TDMA process the PD605 allows an assignment of the available bandwidth with double channel capacity. This results in a clear relief of the increasing spectrum scarcity with the use of DMR radio systems.

Extended frequency range

The frequency range in UHF is from 400 MHz to 527 MHz.

Support of GPS, GIS and AVL (optional)

The optionally available GPS module supports GIS / AVL applications to optimize your workflows and operations.

Man Down function (option)

The optional available Man Down function automatically alerts your other wireless devices and / or the control center if the user falls and remains lying.

Further Development Port

The further development port provides users and application developers the possibility to add more useful features to your PD605.

Ergonomic design

The handheld radio PD605 offers you a high degree of user-friendliness and reliability which cannot be foregone in critical situations.

Individual button design

The two rotary buttons of the radio are separated by the antenna. This design prevents incorrect operations.

Reliability

The PD605 meets all the requirements of the open ETSI DMR standards (ETSI TS102 361-1, -2, -3) and the MIL810-C/D/E/F/G and IP67 (waterproof up to one meter depth for at least 30 minutes dive time).

Powerful battery

Compared to the analog technology using FDMA, the battery life can be improved by approx. 40 % by using TDMA.

Excellent voice quality

With the combined application of the narrow band codex and technologies for error correction the PD605 ensures an excellent voice quality even in loud environment and in peripheral areas of radio coverage.



Functions (excerpt)

- Small, sleek, light
119 x 54 x 27 mm, only 290g.
- Lithium-ion battery with long lifespan
In digital mode, the PD605 reaches a readiness time of at least 16 hours, at an operating cycle of 5-5-90.
- Robust and reliable
PD605 meets all the requirements of the MIL-STD-810 C / D / E / F / G standards. The IP67 rating ensures maximum resistance against environmental influences.
- Secure communications
Provides DMRA encryption in digital mode and a scrambler feature in analog mode.
- Advanced signalling
Supports different analog dialling methods, including HDC1200, 2-tone and 5-tone, lightens integration into existing analog radio fleets.
- DMR Data Service
The data protocol used is fully compatible with the DMR standard.
- One Touch Call / Text
Supports one-touch features like pre-programmed text messages, voice calls and supplementary features.
- Supplementary features (optional)
PD605 can decode radio enable/disable, remote monitor, as well as priority interrupt.
- Dual Mode (analog & digital)
Providing digital and analog operation modes, the PD605 ensures a smooth migration from analog to digital.



Technical Data

General data	
Frequency range	UHF: 400 - 527 MHz* VHF: 136 - 174 MHz
Channel capacity	32
Zone capacity	3
Channel spacing	25/20/12,5 kHz
Operating voltage	7,4 V
Battery	1500 mAh (Lithium-Ion battery)
Battery life span (5/5/90)	Analogue: approx. 11 h Digital: approx. 16 h
Weight	290 g
Dimensions (H x W x D) (with standard battery, without antenna)	119 x 54 x 27 mm
Frequency stability	± 0,5 ppm
Antenna impedance	50 Ω

Receiver	
Sensitivity (analogue)	0,22 µV (typical) (12 dB SINAD) 0,4 µV (20 dB SINAD) 0,22 µV (12 dB SINAD)
Sensitivity (digital)	0,22 µV / BER 5%
Adjacent channel selectivity TIA-603, ETSI	60 dB at 12,5 kHz / 70dB at 20 / 25 kHz
Spurious response rejection TIA-603, ETSI	70 dB at 12,5 / 20 / 25 kHz
Intermodulation 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
Nominal audio power output	0,5 W
Nominal audio distortion	≤ 3 %
Audio sensitivity	+1 to -3 dB
Conducted spurious emission	< -57 dBm

Transmitter	
Transmitting power	VHF: 1 / 5 W UHF: 1 / 4 W*
Modulation	11 KΦF3E at 12,5 kHz 14 KΦF3E at 20 kHz 16 KΦF3E at 25 kHz
4FSK digital modulation	12,5 kHz (data only): 7K6ΦFXD 12,5 kHz (voice & data): 7K6ΦFXW
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
Noise suppression	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 to -3 dB
Nominal audio distortion	≤ 3 %
Digital vocoder type	AMBE + + or SELP
ETSI standard	ETSI-TS102 361-1, -2, -3

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 discharge), ± 15 kV (air discharge)
Protection against dust and moisture	IP67
Shock and vibration resistance	MIL-STD-810 C/D/E/F/G
Relative humidity	MIL-STD-810 C/D/E/F/G

GPS (optionally)	
TTFF (cold start)	< 1 minute
TTFF (warm start)	< 10 seconds
Horizontal Accuracy	< 10 meter

Features marked with * are available in later versions.

All technical indications were tested according to the corresponding standards. Subject to change on the basis of continuous development.

Your Hytera partner:



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Encryption features are optional and require a separate configuration, subject to German and European export regulations.

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