



PD605 / PD605G

DMR handheld radios

The new PD605/PD605G impresses with its lightweight design, range of functions and excellent value for money. Its compact metal housing, outstanding voice quality and support for both digital and analog radio will bring a breath of fresh air to your radio communication. The PD605 and PD605G (variant with GPS) handheld radios are designed in accordance with the DMR standard and meet all the open standard's requirements.



Radio

PD605 PD605G

DMR handheld radios



Highlights

Improved use of the audio frequency spectrum

Thanks to the TDMA process, the PD605/PD605G enables you to assign the available bandwidth with double the channel capacity. This has a clear mitigating effect on the increasing spectrum scarcity encountered when using DMR radio systems.

Expanded frequency range

The UHF frequency range covers 400 MHz to 527 MHz.

GPS support (optional)

The variant with a GPS module, the PD605G, supports applications such as Automated Vehicle Location (AVL) to optimize your workflow.

Man Down function (optional)

The optional Man Down alarm function automatically alerts other radio users and/or the control room, if the operator falls over and stays down.

Expansion interface

The expansion interface gives users and application developers the option to expand the PD605/PD605G's range of functions to include other useful features.

Intelligent antenna design

The two control buttons on the PD605/PD605G are separated from each other by the antenna to reduce the risk of an operating error when the user is wearing gloves or when light conditions are poor.

Reliability

The PD605/PD605G meets all the requirements of the open DMR ETSI standard (ETSI-TS 102 361-1, -2, -3), the MIL810-C/D/E/F/G standard and degree of protection IP67 (waterproof up to one meter deep for at least 30 minutes of immersion). These handheld radios therefore offer outstanding features even under harsh operating conditions.

Powerful battery

Compared to the FDMA process in analog operation, with TDMA the battery service life can be improved by approximately 40% when using DMR.

Upgradeable software

The upgradeable software makes the use of new features possible. By altering the firmware-software, other digital and analog operating modes can be enabled, without the need for purchasing a new radio device.



Functions (excerpt)

- Small, slim, light
119 x 54 x 27 290 mm, weighs a mere 290 g.
- Battery with long service life
In digital mode the PD605 operates for at least 16 hours with a 5-5-90 operating cycle.
- Robust and reliable
PD605 is compatible with MIL-STD-810 C/D/E/F/G standards. The degree of protection IP67 guarantees maximum resistance to environmental influences.
- Secure communication
Provided by encryption in accordance with DMRA in digital mode and a scrambler function in analog mode.
- DMR Data Service
The data protocol used is fully compliant with the DMR standard.
- One Touch Call / Text
Supports one touch-functions, including preprogrammed text messages, voice calls and supplementary functions.
- Expanded signaling
Supports various expanded analog signal modes, including HDC1200, 2-tone and 5-tone for improved integration into existing analog radio fleets.
- Dual modes (analog & digital)
Dual modes (analog & digital) ensure the radio operates smoothly when migrating from analog to digital.

Crystal clear voice transmission

Sturdy housing with metal frame and non-slip surface



Ergonomic and user-friendly design

Light yet durable

Available accessories (excerpt)

Lithium-ion battery (1500 mAh) BL1502	Lithium-ion battery (2000 mAh) BL2010	Switching power adapter for charger PS1018	Antenna	Hand strap (Nylon) RO03	Belt clip BC19	Carrying case (nylon) NCN011
Remote speaker mic (IP67) SM26N1	Headset (PTT, microphone & ear-piece) EAN22	Wireless headset ESW01	6-unit charger MCA08	Programming cable (USB/serial) PC45		

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

Technical Data

General	
Frequency range	VHF: 136 - 174 MHz UHF: 400 - 527 MHz
Supported operating modes	<ul style="list-style-type: none"> DMR Tier II in acc. with ETSI TS 102 361-1/2/3 Simulcast Analog
Channel capacity	1024
Zone capacity	3
Channel spacing	12.5 / 20 / 25 kHz (analog) 12.5 kHz (digital)
Operating voltage	7.4V (nominal)
Standard battery	1500mAh (lithium-ion battery)
Battery service life (5-5-90 duty cycle)	ca. 11 hours (analog) ca. 16 hours (digital)
Frequency stability	± 0,5 ppm
Antenna impedance	50 Ω
Dimensions (H×W×D) (with standard battery, without antenna)	119 x 54 x 27 mm
Weight	290 g

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 (PD605G only)	
Time to first fix (TTFF) cold start	< 1 minute
Time to first fix (TTFF) warm start	< 10 seconds
Horizontal accuracy	< 10 meters

Your Hytera partner:



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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
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 + +

Receiver	
Sensitivity (analog)	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 / 70 dB 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
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

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

Further information can be found at:

www.hytera-mobilfunk.com

Contact us if you are interested in purchasing, sales or application partnerships:

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SGS certificate DE11/81829313

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

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