

PD405

DMR handheld radio



For entering the world of DMR radio

The PD405 DMR handheld radio gives you conventional DMR radio at a starter price. It is particularly enduring and achieves with the rechargeable battery supplied operation times of up to remarkable 16 hours in digital mode.

Impressive voice quality

With its embedded digital technology the PD405 produces outstanding voice quality even in noisy environments and at the outer perimeter of radio coverage.

Mixed analog & digital channel

Due to this function the PD405 can differentiate between analog and digital signals received and changes automatically to the corresponding operating mode.

Technical Data PD405

General data	
Frequency range	VHF: 136 – 174 MHz UHF: 400 – 470 MHz
Supported operating modes	<ul style="list-style-type: none"> ▪ DMR Tier II (conventional DMR) ▪ Analog DMR Tier II according to ETSI TS 102 361-1/2/3
Number of channels	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, high transmitting power, standard battery)	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
Weight (with antenna and standard battery)	approx. 270 g
Programmable keys	2

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
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
Noise cancellation	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 response (TIA-603D)	+ 1 dB to - 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 25 kHz 60 dB at 12.5 kHz / 70 dB at 25 kHz
Intermodulation TIA-603 ETSI	70 dB at 12.5 / 25 kHz 70 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
Nominal audio power output	0.5 W
Nominal audio distortion	≤ 3 %
Audio response (TIA-603D)	+ 1 dB to - 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.



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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