

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.



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