

PD485

DMR handheld radio



A lot of radio for your money

Clear audio quality, full keypad, OLED display, integrated GPS and Bluetooth: The PD485 is value for money and offers numerous features at an attractive price.

Ultra-modern OLED display

The PD485 has a high contrast, energy-saving OLED display with a screen diagonal of 1.3 inches.

Bluetooth® 4.0

With the integrated Bluetooth® 4.0, the PD485 is ready for wireless audio accessories. It also supports simple data exchange and easy programming via Bluetooth®.

Integrated GPS positioning

Thanks to the integrated GPS module, the PD485 is ideally equipped for outdoor positioning. The position of a subscriber can be determined conveniently in real-time via various AVL applications.

Technical data PD485

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) ■ Simulcast ■ 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	2000 mAh (lithium-ion battery)
Battery service life (5-5-90 duty cycle, high transmitting power, standard battery)	approx. 16 hours (analog) (with 2000 mAh) approx. 22 hours (digital) (with 2000 mAh)
Frequency stability	± 0.5 ppm
Antenna impedance	50 Ω
Dimensions (H × B × T, without antenna)	117 x 55 x 37 mm
Weight (with antenna and standard battery)	approx. 308 g
Programmable keys	16
LCD display	3-line monochrome display (1.3" OLED display)

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	IP54
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 65 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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Encryption features are optional and have to be configured separately; they are also subject to German and European export regulations.

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