

PD985

DMR handheld radio



The DMR flagship

The PD985 is Hytera's high-end DMR radio that boasts a multitude of new features in addition to its various different functions. This includes, for example, Bluetooth 4.0 for transmitting audio and data, a micro SD card slot for saving communications and the new single-frequency repeater function.

Micro SD card

The PD985 has a micro SD card slot, which can be used to save both radio communications and local audio signals from the surroundings. The card slot is located safely in the battery compartment behind the battery.

Single frequency repeater (SFR)

SFR enables the range of a direct link between conventional DMR devices to be extended without having to use a base station or a repeater. This gives users in the field greater freedom of movement.

Technical Data PD985

General data	
Frequency range	VHF: 136 – 174 MHz UHF: 350 – 527 MHz
Supported operating modes	<ul style="list-style-type: none"> DMR Tier II (ETSI TS 102 361-1/2/3) DMR Simulcast (Gleichwelle) XPT Digital Trunking DMR Tier III (ETSI TS 102 361-1/2/3/4) Analog MPT 1327
Number of channels	1024
Number of zones	64 (maximum 256 channels per zone)
Channel spacing	12.5 / 20 / 25 kHz (analog) 12.5 kHz (digital)
Operating voltage	7.4 V (nominal)
Standard battery	7.4 V (nominal)
Battery service life (5-5-90 duty cycle, high transmitting power, standard battery)	approx. 14.5 hours (analog) approx. 19.5 hours (digital)
Frequency stability	± 0.5 ppm
Antenna impedance	50 Ω
Dimensions (H × W × D, without antenna)	131 × 54.5 × 36 mm
Weight (with antenna and standard battery)	approx. 305 g
LCD display	160 × 128 pixels, 65,536 colors, 1,8 inches, 6 rows
Programmable keys	5 + numerical keys
Micro SD card	Up to 32 GB supported

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	IP68
Shock and vibration resistance	MIL-STD-810 C / D / E / F / G
Relative humidity	MIL-STD-810 C / D / E / F / G

GPS	
Time to first fix (TTFF)	< 1 min (cold start) < 10 s (warm start)
Horizontal accuracy	< 10 m

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 cancellation	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 +2™

Receiver	
Sensitivity (analog)	0.22 µV
Sensitivity (digital)	0.22 µV / BER 5 %
Adjacent channel selectivity TIA-603 ETSI	60 dB at 12.5 kHz / 70 dB at 20 and 25 kHz 60 dB at 12.5 kHz / 70 dB at 20 and 25 kHz
Spurious response rejection TIA-603 ETSI	70 dB at 12.5 / 20 / 25 kHz 70 dB at 12.5 / 20 / 25 kHz
Signal-noise ratio (S/N)	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 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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