

PD795 Ex

DMR handheld radio (ATEX)



Robust and safe

The PD795 Ex handheld radio from Hytera meets the open ETSI standard for DMR. Compliance with European ATEX directives, FM standards, IEC standards, and its outstanding robustness ensure reliable communication in hazardous potentially explosive atmospheres, such as those containing explosive gases and combustible dust.

Fail-safe design

The use of batteries or accessory components with a insufficient level of protection automatically triggers an alarm so that errors of this type cannot occur.

Innovative battery latch

The patented latch on the battery ensures that the battery cannot fall out should the radio be dropped on a hard surface.



Technical Data PD795 Ex

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 ▪ XPT Digital Trunking ▪ DMR Tier III (DMR trunked radio) ▪ Analog, MPT 1327 DMR Tier II: ETSI TS 102 361-1/2/3 DMR Tier III: ETSI TS 102 361-1/2/3/4
Number of channels	1024
Number of zones	16 (with up to 16 channels each)
Channel spacing	12.5 / 20 / 25 kHz (analog) 12.5 kHz (digital)
Operating voltage	7.4 V (nominal)
Standard battery	1800 mAh (lithium-ion battery)
Battery service life (5-5-90 duty cycle, high transmitting power, standard battery)	approx. 13 h (analog) approx. 15 h (digital)
Frequency stability	± 1.5 ppm
Antenna impedance	50 Ω
Dimensions (H × W × D, without antenna)	141 x 55 x 37 mm
Weight (with antenna and standard battery)	495 g
LCD display	1.8 inches, 160 x 128 pixels, 65,535 colors

Environmental conditions	
Operating temperature range	- 20 °C to + 50 °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	IP67
Shock and vibration resistance	MIL-STD-810 C / D / E / F / G
Relative humidity	MIL-STD-810 C / D / E / F / G
Explosion protection	Gas: II 2G Ex ib IIC T4 Dust: II 2D Ex ib IICT120°C IP5x Mine: I M2 Ex ib I

GPS	
Time to first fix (TTFF)	< 1 minute (cold start) < 10 seconds (warm start)
Horizontal accuracy	< 10 meter

Transmitter	
Transmitting power	1 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 response (TIA-603D)	+ 1 dB to - 3 dB
Audio distortion	≤ 3 %
Digital vocoder type	AMBE +2™

Receiver	
Sensitivity (analog)	0.3 μV (12 dB SINAD) 0.22 μV (typical) (12 dB SINAD) 0.4 μV (20 dB SINAD)
Sensitivity (digital)	0.3 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
Intermodulation TIA-603 ETSI	70 dB at 12.5 / 20 / 25 kHz 65 dB at 12.5 / 20 / 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
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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