PD715 Ex

DMR handheld radio (ATEX)

Ergonomic product design

The DMR handheld radio PD715 Ex from Hytera guarantees reliable communication in these kinds of explosive areas thanks to its outstanding robustness and intrinsic safety. In addition, it meets the European ATEX directives, FM standards and IEC standards.

Fail-safe design

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

Plastic encapsulation

Both the radio itself and the battery are encapsulated in plastic in order to connect the internal circuits and to prevent the penetration of liquids, dust and harmful gases.

Technical Data PD715 Ex

General data

Frequency range	VHF: 136 – 174 MHz UHF: 400 – 470 MHz
Supported operating modes	▪ 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 transmit-ting power, standard battery)	approx. 14 hours (analog) approx. 17 hours (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)	485 g

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 IIIC T120°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 sensitivity	+ 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 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.

Hytera

SGS Certificate DE11/81829313

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