PD795IS

DMR handheld radio (ATEX)

Maximum safety

Thanks to its „ia" certification, the PD795IS ATEX handheld radio from Hytera ensures work safety in explosive areas which could contain explosive gases or combustible dust, for example. It fulfills the European ATEX directives, FM standards and IEC standards and guarantees reliable communication due to its outstanding robustness.

Failsafe design and battery latch

The PD795IS is protected from misuse by its physical design. Using batteries or accessory components with an insufficient level of protection automatically triggers an alarm. The patented latch on the battery ensures that the battery cannot fall out should the radio be dropped.

Innovative plastic encapsulation

Both the radio itself and the battery are encapsulated in plastic. This prevents any liquid, dust or harmful gas from entering and coming into contact with the internal circuits.

Technical Data PD795IS

General data

Frequency range	VHF 136 – 174 MHz / UHF 400 – 470 MHz
Supported operating modes	▪ DMR Tier II (ETSI TS 102 361-1/2/3) ▪ Simulcast ▪ 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 (with up to 256 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. 14.5 hours / 13 hours (GPS) (analog) approx. 17 hours / 15 hours (digital)
Frequency stability	± 1.5 ppm
Antenna impedance	50 Ω
Dimensions (H × W × D, without antenna)	141 x 55 x 39 mm
Weight (with antenna and standard battery)	495 g
Display	160 x 128 pixels, 65536 colors, 1.8 inches, 6 rows

Environmental conditions

Operating temperature range	▪ -30 °C to +60 °C (safe environment) ▪ -20°C to 50°C (hazardous environment) ▪ -20 °C to +55 °C (hazardous environment, T3 gas only)
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 (non-explosion-proof)
Shock and vibration resistance	MIL-STD-810 C / D / E / F / G
Relative humidity	MIL-STD-810 C / D / E / F / G
ATEX explosion protection	ATEX: ▪ I M1 Ex ia I ▪ II 1 G Ex ia IIC T3 ▪ II 1 D Ex ia IIIC T160°C ▪ II 2 G Ex ib IIC T4 ▪ II 2 D Ex ib IIIC T120°C IECEx: ▪ Ex ia I Ma ▪ Ex ia I Mb ▪ Ex ia IIC T3 Ga ▪ Ex ia IIIC T160°C Da ▪ Ex ib IIC T4 Gb ▪ Ex ib IIIC T120°C Db FM/CSA: ▪ Class I, Division 1, Groups A,B,C,D T3B ▪ Class I,II, III, Division 1, Groups A,B,C,D,E,F,G T3 C ▪ Class I, Division 2, Groups A,B,C,D T4 ▪ Class II,III Division 2, Groups E,F,G T4A ▪ Class I, Zone 0, AEx ia IIC T3 ▪ Class II, Zone 0, AEx ia IIIC T160°C ▪ Class I, Zone 1, AEx ib IIC T4 ▪ Class II, Zone 1, Ex ib IIIC T120°C

Transmitter

Transmitting power	1 W (nominal)
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
Nominal 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
Nominal audio distortion	≤ 3 %
Audio response (TIA-603D)	+ 1 dB to - 3 dB
Conducted spurious emission	< - 57 dBm

GPS

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

All technical information was determined at the factory and in accordance with the corresponding standards. Subject to change on the basis of continuous development.

Distributore Autorizzato per l'Italia:

Advantec Srl
Via Caduti per la Libertà, 13
10060 Pinasca TO - Italy
Tel. +39 0121326770
info@advantec.it - www.advantec.it

SGS Certificate DE11/81829313

Hytera Mobilfunk GmbH reserves the right to modify the product design and the specifications. In case of a printing error, Hytera Mobilfunk GmbH does not accept any liability. All specifications are subject to change without notice.

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

Hytera Mobilfunk GmbH

Address: Fritz-Hahne-Straße 7, 31848 Bad Münder, Germany
Tel.: + 49 (0)5042 / 998-0 Fax: + 49 (0)5042 / 998-105
E-mail: info@hytera.de | www.hytera-mobilfunk.com

Ref. Nr.: 90PD795IS_TD_ENG_v02