Business
Critical
Communications

Entel

DTEx Series

Intrinsically Safe Land Portables

- Commercial grade construction
- ATEX II 2G Ex ib IIA T4 Gb
  ATEX II 2G Ex ib IIC T4 Gb
- Ex ib IIA T4 Gb
- DMR Digital & Analogue mode
- Submersible IP68

Tough | CRYSTAL CLEAR AUDIO

Submersible

Dependable

www.entel.co.uk/dtex

DTEx Series

Intrinsically Safe Land Portables

The ultra durable DTEx series is the latest addition to our range of Intrinsically Safe radios. The rugged DTEx delivers exceptionally loud audio coupled with outstanding audio clarity, plus the ergonomic controls are specifically designed for gloved hand use.

By combining the latest DMR digital technology and highest ATEX gas group ratings*, the DTEx series delivers best in class range, safety and reliability. Exceeding MIL-STD-810 and a market leading IP68 rating (2-meters 4-hours) the fully submersible DTEx can be depended on to withstand the most extreme and hostile of environments.

Customisable Configuration

The fully featured and versatile DTEx radios can be configured for basic push-to-talk (PTT) operation or the more advanced features that you would expect of a high tier two-way radio. The high-contrast OLED screen can be customised to display either simple large-character or more detailed information.

Basic screen

Advanced screen

Superior Audio

Using the latest noise reduction technology, our DTEx portables deliver loud and crisp audio no matter what operational environment you are in. The full DTEx accessory range incorporates a robust locking plug and high-grade cable, whilst intelligent speech tailoring technology automatically detects the type of accessory connected and optimizes the audio accordingly to deliver the very best performance.

Safety Features You Can Rely On

DTEx radios support optional digital mode Lone-Worker, Man-Down and Emergency Button with call interrupt as dealer programmable features. These three levels of safety ensure an alarm is raised, even if the channel is already busy.

IP68 2 Metres, 4 Hours Submersible

The DTEx Series offers the highest submersibility rating of any manufacturer - IP68. Ensuring protection against corrosion and likely hazards encountered in wet environments, these radios are constructed to withstand total immersion in water to a depth of 2 metres for 4 hours.

*Intrinsically Safe

ATEX Approved IIC - The DT900 series of ATEX certified portables meet IIC T4 - the most stringent ATEX ratings as per EU Directive 94/9/EC.

ATEX Approved IIA - For users not restricted to the IIC 1 watt regulatory classification, the DT800 series of ATEX certified portables meet IIA T4 with 4 watts of transmitter power.

IECEx Approval - The DT500 series of Intrinsically Safe certified portables are suitable for users outside Europe who do not need to comply with the European ATEX standard.

Non display model

Display model

Simple End User Programming

With our unique and simple-to-use PC app included free of charge with the purchase of your DTEx radio, there is no longer any need to return a handset to your dealer to reprogram or update. With the user-friendly app you can simply transfer programming data, future-proofing software updates or add new features to your DTEx radios.

High Grade Accessory Interface

The rugged, multi-pin interface and Micro-USB socket are both submersible and gold-plated to minimise any risk of damage and protect against corrosion.

To ensure the integrity of IS protection levels and safeguard against non-compliant accessories being used, any accessory connected to the handset automatically undergoes a validation process.

All DTEx accessories incorporate a robust locking connector to further safeguard the user.

Migrate to Digital Your Way

DTEx radios utilise both analogue and DMR digital technologies. Supporting both technologies ensures backwards compatibility with existing analogue radio systems and a simple migration path to the many benefits of digital communications.

Intelligent Batteries, Audio Accessories & BA Support

Entel's intelligent batteries and accessories are designed to deliver optimum performance and safety. In digital mode the Lithium-ion battery endurance on DT900 radios is more than 18.5 hours from a single charge!

From simple earpiece to bone conductive options for extremely high noise environments, we offer a vast range of Entel-original audio accessories. In addition, third party Breathing Apparatus comms kits are also supported.

Entel's intelligent speech tailoring technology optimises audio to match the connected accessory; ensuring the very best clarity, volume and natural sounding audio.

Model List

Model	Approval	Channels	EU/Non EU	Screen	RFPower	Frequency	Tier
DT522	IECEx IIA	16	Non EU	None	4W	VHF	II
DT525	IECEx IIA	99	Non EU	OLED	4W	VHF	II
DT582	IECEx IIA	16	Non EU	None	4W	UHF	II
DT585	IECEx IIA	99	Non EU	OLED	4W	UHF	II
DT822	ATEX IIA	16	EU	None	4W	VHF	II
DT825	ATEX IIA	99	EU	OLED	4W	VHF	II
DT882	ATEX IIA	16	EU	None	4W	UHF	II
DT885	ATEX IIA	99	EU	OLED	4W	UHF	II
DT922	ATEX IIC	16	EU	None	1W	VHF	II
DT925	ATEX IIC	99	EU	OLED	1W	VHF	II
DT982	ATEX IIC	16	EU	None	1W	UHF	II
DT985	ATEX IIC	99	EU	OLED	1W	UHF	II
DT952	ATEX IIC	16	EU	None	0.5W	PMR/DMR446	I
DT953	ATEX IIC	99	EU	OLED	0.5W	PMR/DMR446	I

Key Features

- ✓Commercial grade construction
- ✓IP68 submersible
- ✓Digital and analogue modes
- ✓Outstanding range and performance
- ✓Crystal clear audio
- ✓High contrast white on black OLED
- ✓Simple end user programming app
- ✓Extensive range of approved accessories
- ✓Supports 3rd party BA kit
- ✓Audio accessory optimisation

Technical Specification

General		
Vocoder	AMBE+2™	
Battery	DT800/DT900 CNB950EV2 1800mAh Lithium-Ion DT500 CNB550EV2 1800mAh Lithium-Ion	
Weight	435g	
Overall Dimensions (HxWxD)	138mm x 60mm x 38mm (with CNB950EV2)	
Frequency Stability	± 1.5ppm	
Frequency Range	VHF UHF UHF UP-BAND PMR446	136-174 MHz 400-470 MHz 450-520 MHz 446-446.2 MHz
Number of Channels	16 (non-display) / 99 (display)	
Number of Zones	8 (display)	
Analogue Channel Spacing	12.5/20/25KHz	
Digital Channel Spacing	12.5KHz	
Operating Voltage	7.4v	
Programmable Buttons	3 (non-display) / 5 (display)	
Battery Endurance (5/5/90 Duty Cycle @ 1W)	Analogue Digital	14.5 hours 18.5 hours

Transmitter		
Output Power	ATEX IIC ATEX/IECEx IIA	1 Watt (100mW versions available) 4 Watts (high) / 1 Watt (low)
Modulation Limiting	±2.5kHz @ 12.5kHz ±4.0kHz @ 20kHz ±5.0kHz @ 25kHz	
Conducted / Radiated Spurious Emissions	Better than -36dBm	
Adjacent Channel Power	Better than 60dB	
Audio Distortion (Typical)	3%	

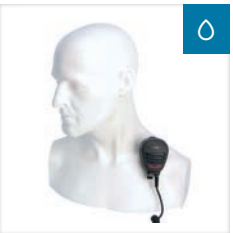
Receiver	
Sensitivity (Typical)	Analogue -121dBm (0.2uV) for 12dB SINAD Digital -121dBm (0.2uV) for 5% BER
Intermodulation Response Rejection (ETSI)	> 70dB
Adjacent Channel Selectivity (ETSI)	> 70dB(12.5KHz) 60dB(25KHz)
Spurious Response Rejection (ETSI)	> 70dB
Audio Output Power	2-Watts
Audio Distortion (Typical)	3%
Conducted Spurious Emission (ETSI)	> -57dBm

Environmental	
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Thermal Shock	MIL-STD-810 C/D/E/F/G
Humidity	
Shock & Vibration	
Packing Test	
Drop Test	
Dust & Liquid Ingress	IP68 (2m 4h Submersible)
Approvals	Analogue mode RF EN 300 086 v2.1.2 Digital mode RF EN 300 113 v2.2.1 EMC EN 301 489-1 v2.2.0 & EN 301 489-5 v2.2.0 Safety (LVD) EN 60950-1:2006/ A11:2009/A1:2010/A12:2011/A2:2013 SAR EN 50566:2017, EN62311:2008 & EN 62209-2:2010 EN 300 296 v2.1.1
Ex Protection	ATEX II 2G Ex ib IIA T4 Gb ATEX II 2G Ex ib IIC T4 Gb Ex ib IIA T4 Gb

Accessories

Supplied package includes: Li-Ion battery pack, rapid drop-in charger, belt clip, high-efficiency antenna and quick-start user guide.

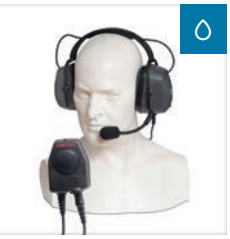
CSBHT
Intelligent six-pod rapid charger



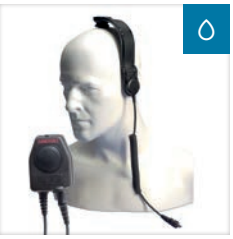
CMP/DT9 Heavy duty speaker microphone for DT900 and DT800 series
CMP/DT5 for DT500 series

CLCDT2 – non display
CLCDT5 – display
A heavy duty leather carry case with swivel belt loop and strap

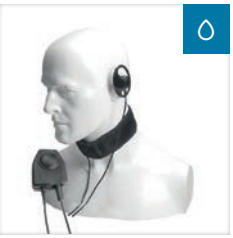
CHP950HS/DT9*
Single sided ear defender headset for hard hat use



CHP950D/DT9*
Double sided ear defender headset with headband



CXR5/DT9
Bone conductive skull mic with in-line PTT



CXR16/DT9
Throat mic / headset with heavy duty PTT

3rd Party BA
Supports 3rd party BA comms kits

Submersible products are represented with a water droplet.

For the complete range of accessories please visit our website. All specifications are subject to change without notice.

* Submersible - PTT only

Full list of accessories available online.

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Contact

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