

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



# DTE<sub>x</sub> Series

## Intrinsically Safe Land Portables

The ultra durable DTE<sub>x</sub> series is the latest addition to our range of Intrinsically Safe radios. The rugged DTE<sub>x</sub> 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 DTE<sub>x</sub> 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 DTE<sub>x</sub> can be depended on to withstand the most extreme and hostile of environments.

### Customisable Configuration

The fully featured and versatile DTE<sub>x</sub> 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

### Superior Audio

Using the latest noise reduction technology, our DTE<sub>x</sub> portables deliver loud and crisp audio no matter what operational environment you are in. The full DTE<sub>x</sub> 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.



Advanced screen

### Safety Features You Can Rely On

DTE<sub>x</sub> 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 DTE<sub>x</sub> 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

# DTE<sub>x</sub> Series

## Intrinsically Safe Land Portables



### Migrate to Digital Your Way

DTE<sub>x</sub> 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.

### Simple End User Programming

With our unique and simple-to-use PC app included free of charge with the purchase of your DTE<sub>x</sub> 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 DTE<sub>x</sub> 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 DTE<sub>x</sub> accessories incorporate a robust locking connector to further safeguard the user.



## 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





## 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	64	Non EU	OLED	4W	VHF	II
DT582	IECEX IIA	16	Non EU	None	4W	UHF	II
DT585	IECEX IIA	64	Non EU	OLED	4W	UHF	II
DT822	ATEX IIA	16	EU	None	4W	VHF	II
DT825	ATEX IIA	64	EU	OLED	4W	VHF	II
DT882	ATEX IIA	16	EU	None	4W	UHF	II
DT885	ATEX IIA	64	EU	OLED	4W	UHF	II
DT922	ATEX IIC	16	EU	None	1W	VHF	II
DT925	ATEX IIC	64	EU	OLED	1W	VHF	II
DT982	ATEX IIC	16	EU	None	1W	UHF	II
DT985	ATEX IIC	64	EU	OLED	1W	UHF	II
DT952	ATEX IIC	16	EU	None	0.5W	PMR/DMR446	I
DT953	ATEX IIC	64	EU	OLED	0.5W	PMR/DMR446	I

## Why digital?

- Better coverage
- Significantly louder and clearer audio
- Longer battery life, longer duty cycles
- Far superior privacy

DMR supports different tiers of service - from short-range license-free to larger, more sophisticated networks:

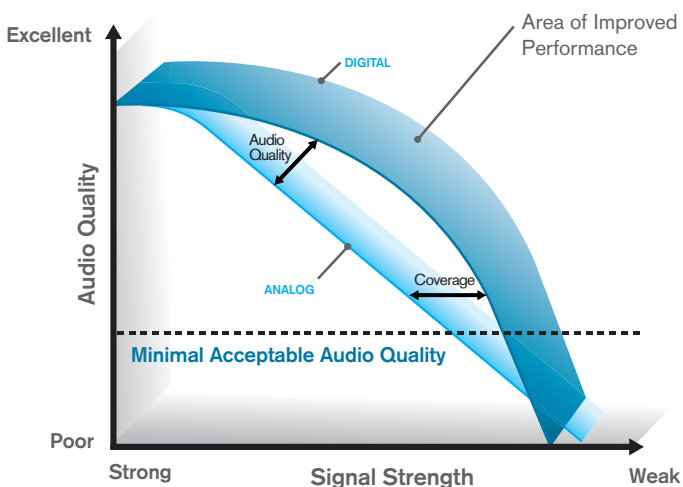
**Tier 1** - For commercial and leisure use with direct mode operation (no repeaters allowed), fully approved for use within Europe and no license is required.

**Tier 2** - For small to medium size licensed systems. Radios can be used in direct mode or with a repeater if significantly extended range is required. Tier 2 repeaters can be networked to increase the coverage area even further.

**Tier 3** - For medium to large size licensed systems. 'Trunked' repeaters are used giving automatic access to multiple Channels which may be extended and networked to support very large numbers of radios or coverage areas.

## Double the Channels

Using two slot simplex, DTEEx radios split each channel in two to deliver double the number of digital channels at no extra cost. For example, if you are using a single analogue channel, the same channel in digital mode will yield two channels.



# 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 136-174 MHz UHF 400-470 MHz UHF UP-BAND 450-520 MHz PMR446 446-446.2 MHz
Number of Zones	8
Number of Channels	16 (non-display) / 64
Analogue Channel Spacing	12.5/20/25KHz
Digital Channel Spacing	12.5KHz
Operating Voltage	7.4v
Programmable Buttons	3 (non-display) / 5
Battery Endurance (5/5/90 Duty Cycle @ 1W)	Analogue 14.5 hours Digital 18.5 hours
Transmitter	
Output Power	ATEX IIC 1 Watt ATEX/IECEx IIA 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%

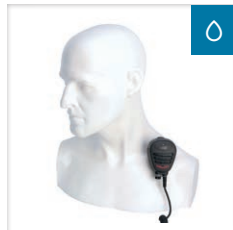
Receiver	
Sensitivity (Typical)	Analogue -121dBm (0.2uV) for 12dB SINAD Digital -121dBm (0.2uV) for 5% BER
Intermodulation Response Rejection (ETSI)	> 70dB
Adjacent Channel Selectivity (ETSI)	> 70dB(12.5KHz) 60dB(25KHz)
Spurious Response Rejection (ETSI)	> 70dB
Audio Output Power	2-Watts
Audio Distortion (Typical)	3%
Conducted Spurious Emission (ETSI)	> -57dBm
Environmental	
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Thermal Shock	
Humidity	
Shock & Vibration	MIL-STD-810 C/D/E/F/G
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 charger, belt clip, high-efficiency antenna and quick-start user guide.



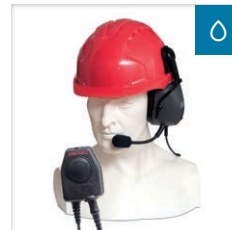
**CSBHT**  
Intelligent six-pod rapid charger



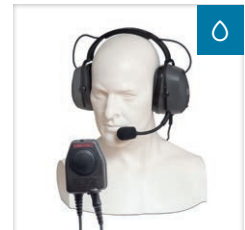
**CMP/DT9** Heavy duty speaker microphone for DT900 and DT800 series  
**CMP/DT5** for DT500 series



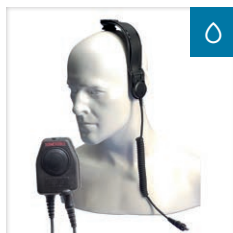
**CLCDT5**  
A heavy duty leather carry case with belt loop and strap



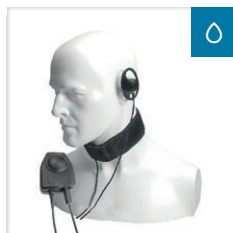
**CHP950HS\***  
Single sided ear defender headset for hard hat use



**CHP950D\***  
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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