Business Critical Communications



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



O Submersible IP68







Tough CRYSTAL CLEAR AUDIO Submersible Dependable



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'd 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.

Superior Audio

Using the latest noise reduction technology, our DTEx portables deliver loud and crisp audio no matter what operational environment you are in. All of the DTEx range of accessories incorporate a robust locking plug and high-grade cable and benefit from Entel's proprietary Entel Sure Speech technology. This 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 as soon as is possible, 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.



Basic screen



Advanced screen



Display model



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 - Sure Speech - 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 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.



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



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.

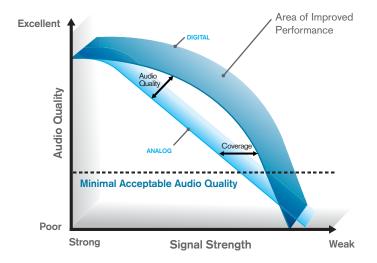
Tier 3 - For medium to large size licensed systems. 'Trunked' repeaters are used giving automatic access to multiple Channels which may be extended and networked to support very large numbers of radios or coverage areas.

Model List

Model	Approval	Channels	EU/Non EU	Screen	RFPower	Frequency	Tier
DT522	IECEx IIA	16	Non EU	None	4W	VHF	1 & 2
DT525	IECEx IIA	64	Non EU	OLED	4W	VHF	1 & 2
DT582	IECEx IIA	16	Non EU	None	4W	UHF	1 & 2
DT585	IECEx IIA	64	Non EU	OLED	4W	UHF	1 & 2
DT822	ATEX IIA	16	EU	None	4W	VHF	1 & 2
DT825	ATEX IIA	64	EU	OLED	4W	VHF	1 & 2
DT882	ATEX IIA	16	EU	None	4W	UHF	1 & 2
DT885	ATEX IIA	64	EU	OLED	4W	UHF	1 & 2
DT922	ATEX IIC	16	EU	None	1W	VHF	1 & 2
DT925	ATEX IIC	64	EU	OLED	1W	VHF	1 & 2
DT982	ATEX IIC	16	EU	None	1W	UHF	1 & 2
DT985	ATEX IIC	64	EU	OLED	1W	UHF	1 & 2
DT952	ATEX IIC	16	EU	None	0.5W	PMR/DMR446	1 & 2
DT953	ATEX IIC	64	EU	OLED	0.5W	PMR/DMR446	1 & 2

Double the Channels

Using two slot simplex, DTEx 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 CNB950E 1800mAh Lithium-lor DT500 CNB550E 1800mAh Lithium-lon				
Weight	435g				
Overall Dimensions (HxWxD)	138mm x 60mm x 38mm (with CNB950E)				
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 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 Digital	14.5 hours 18.5 hours			
Transmitter					
Output Power	ATEX IIC ATEX/IECEx IIA	1 Watt 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 Reje	> 70dB			
Adjacent Channel Selectivity (> 70dB(12.5KHz) 60dB(25KHz)			
Spurious Response Rejection	> 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	MIL-STD-810 C/D/E/F/G			
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			
Ex Protection	ATEX II 2G	TEX II 2G Ex ib IIA T4 Gb TEX II 2G Ex ib IIC T4 Gb x 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



CMP950/DT Heavy duty speaker microphone for DT900 and DT800 series CMP550/DT for DT500 series



CLC952/DT A heavy duty leather carry case with belt loop and strap



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



CHP950D/DT* Double sided ear defender headset with headband



CXR5/950/DT* Bone conductive skull mic with in-line PTT



CXR16/950/DT* Throat mic / headset with heavy duty PTT



3rd Party BA Supports 3rd party BA comms kits



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

* Submersible - PTT only

V1.1 All Rights Reserved. Copyright Entel UK Ltd.

Contact

For more information about our products, please contact us: Entel UK, 320 Centennial Avenue Centennial Park, Elstree, Borehamwood, Hertfordshire WD6 3TJ, United Kingdom





info@entel.co.uk



