

Business  
Critical  
Communications

Entel

# DX-IS Series

Intrinsically Safe, Commercial Land Portables



Entry & Advanced models



UL913 Intrinsically Safe Certified



DMR Digital & Analogue modes



Submersible IP68



Tough | CRYSTAL  
CLEAR  
AUDIO

Submersible  
Dependable



# DX-IS Series

## Intrinsically Safe, Commercial Land Portables

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The commercial grade DX-IS Series offers both analogue and digital modes of operation, high visibility OLED display, high torque ergonomic controls designed for gloved-hand use, and industry-leading IP68 2m 4 hours submersible rating, to provide excellent reliability and usability even in the most extreme conditions. Whether you need a basic entry level radio or advanced digital features our DX-IS Series models deliver smart solutions, helping you to increase productivity and keep your business connected.

### Loud and Clear Audio

Using the latest noise reduction technology, our DX-IS portables deliver best in class, loud and intelligible audio, essential when working in high ambient noise environments.

### IP68 2 Metres, 4 Hours Submersible

The DX-IS Series delivers a class leading IP68 2 metres for 4 hours submersible rating, the highest IP rating of any manufacturer. This ensures protection against corrosion and other physical hazards encountered, no matter the environment.

### Intrinsically Safe Approved

Approved and certified to UL913, for users who do not need to comply with the European ATEX directive.

### Commercial Grade Construction

Every aspect of the DX-IS radios commercial grade design has been meticulously considered, from the high contrast OLED display, readable in all light conditions to the high torque controls to the ultra-tactile front buttons that ensures reliable operation even when using gloved hands.

### Benefits of Digital

Aside from crystal clear intelligible audio, there is increased range and battery endurance. DX-IS also supports analogue mode ensuring backwards compatibility with any existing analogue radios.

### Migrate to Digital Your Way

DX-IS radios support both analogue and 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.

Informative, high readability, OLED displays:



Basic screen



Advanced screen



Non display model



Display model



## Intelligent Batteries

Entel's intelligent Lithium-Ion batteries are designed to deliver optimum performance and safety. In digital mode the DX-IS radio has a market leading duty cycle of 21 hours from a single charge.

## Versatile Range of Accessories

From headsets to speaker microphones and advanced bone conduction technology, Entel offer a complete portfolio of accessories to ensure you stay connected.

## Simple End-User Programmer App

With Entel's unique user-friendly app there is no longer any need for a dealer to visit on site (or have the radios returned) to re-program or update customers' radios. Using Entel's free PC app, anyone can simply transfer programming data, software updates or add new features to their DX radios:

**Step 1.** The dealer emails the app and a 'Fleet File' to his customer.

**Step 2.** The customer runs the app and then drags and drops the 'Fleet File' into the app.

**Step 3.** The customer connects the radios to the PC (via a standard Micro-USB lead) and the semi-automated wizard programmer app takes care of everything else. See video @ [entel.co.uk/dx-prog](http://entel.co.uk/dx-prog)

## 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 DX-IS accessories incorporate a robust locking connector to further safeguard the user.



## Model List - VHF

Model	Gas Group	Frequency	Display / Non display	Analogue / Digital	RF power
DX522-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	VHF	Non	Analogue & Digital	1 & 5 watts
DX525-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	VHF	Display	Analogue & Digital	1 & 5 watts

## Model List - UHF

Model	Gas Group	Frequency	Display / Non display	Analogue / Digital	RF power
DX582-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	UHF	Non	Analogue & Digital	1 & 4 watts
DX585-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	UHF	Display	Analogue & Digital	1 & 4 watts
DX582U-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	UHF upband	Non	Analogue & Digital	1 & 4 watts
DX585U-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	UHF upband	Display	Analogue & Digital	1 & 4 watts
DX585U/CB-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	UHF upband	Display	Analogue & Digital	1 & 4 watts
DX446E-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	PMR446	Non	Analogue & Digital	0.5 watts
DX446L-IS	Class I,II,III, Division 1, Group C-G, Class I, Division 2, Groups A-D. T3	PMR446	Display	Analogue & Digital	0.5 watts

## 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
- ✓ Audio accessory optimisation

# Technical Specification

General			
Frequency Range	VHF	136-174MHz	
	UHF	400-470MHz	
	UHF UP-BAND	450-520MHz	
	PMR446	446-446.2MHz	
Channel Spacing	12.5KHz & 25KHz		
Operating Voltage	7.6v		
Battery	CNB450E-IS 2200mAh Lithium-Ion		
Weight	Display model 269g		
	Non display model 259g		
Overall Dimensions (HxWxD)	97mm x 59.5mm x 37mm (with CNB450E-IS)		
Channels display version	99		
Channels non display version	16		
Battery Endurance (5/5/90)	<b>Model</b>	<b>Analogue mode</b>	<b>Digital mode</b>
	DX522/525	15 hours	21 hours
	DX582/585	15 hours	21 hours
	DX582U/DX585U	15 hours	21 hours

Transmitter	
Power Output VHF (HI/LOW)	5W/1W
Power Output UHF (HI/LOW)	4W/1W
Power Output PMR446/DMR446	0.5W
Audio Distortion	<5%
Unwanted Emission	-57dBm up to 1GHz, -47dBm from 1GHz to 4GHz
Adjacent Channel Power	-60dBc

Receiver	
Digital Sensitivity	Typically -121dBm (0.2uV) for 5% BER
Analogue Sensitivity	Typically -121dBm (0.2uV) for 12dB Sinad
Rated Audio Output	2 watts
Intermodulation Response	>65dB
Adjacent Channel Selectivity	>70dB / >60dB
Spurious Rejection	>70dB
Audio Response	300Hz to 3KHz -6dB/Octave
Audio Distortion	<5%
Conducted Spurious Emissions	-57dBm up to 1GHz, -47dBm from 1GHz to 4GHz

Environmental	
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Thermal Shock	MIL-STD810 C/D/E/F/G
Humidity	
Shock & Vibration	
Packing Test	
Drop Test	
Water Ingress	IP68 2 metres, 4 hours submersible

For sale outside of Europe only.

#### Intrinsically Safe Certified to UL913 by SGS:

- ANSI/UL913 5th Ed
- Class I,II,III, Division 1, Groups C-G, T3
- Class I, Division 2, Groups A-D

UL913	Atmosphere	Class I III III	Class I – Gas, vapors; Class II – Dust; Class III – Fibers, Flyings
	Area Classification (Flammable material present time)	DIV I	Division 1: Gas/Dust normally present in explosive amounts
	Gas Types by Group:	Group C	C – Ethylene and related products
	Dust Types by Group:	Group G	G – Grain and non-metallic dust
	Operating Temperature	-30 to 55	-22°F to 131°F
	Temperature Class (Maximum device surface temperature)	T3	200°C

## Accessories

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



**CSBHX**  
Intelligent six-pod rapid charger



**CMP/DXS-IS**  
– simple version  
**CMP/DXE-IS**  
– with earpiece socket  
Heavy duty speaker microphone



**CLCDX2** – non display  
**CLCDX5** – display  
A heavy duty leather carry case with swivel belt loop and strap



**CHP450HS/DX\***  
Single sided ear defender headset for hard hat use



**CHP450D/DX\***  
Double sided ear defender headset with headband



**CXR5/DX\***  
Bone conductive skull mic with heavy duty PTT



**CXR16/DX\***  
Throat mic / earpiece with heavy duty PTT

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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Designed in the United Kingdom

**roar**  
**radios**