

Business
Critical
Communications

Entel

DR482

Commercial Grade UHF Repeater



DMR Digital & Analogue Modes



100% Duty Cycle at Full Power



Desk, Wall & Rack Mountable



Integrated Battery Charger



Internal PSU & Duplexer



Tough | FUTURE
VERSATILE PROOF
DEPENDABLE

DR482

Commercial Grade DMR / Analogue UHF Repeater

DR482 is a compact, tough and versatile UHF repeater that delivers a 100% transmit duty-cycle for both Land and Maritime applications. Its available DMR / Analogue / Mixed Mode (DR482) or Analogue only (DR482/A).

Entel's simple, yet robust and powerful DR482 repeater, is ideal for demanding applications both on land or at sea.

Key Benefits

Exceptionally Robust

Entel's development team recognises that durability and reliability go hand-in-hand. Housed in an ultra-compact enclosure with a low thermal footprint, the DR482 is built to perform in the toughest environments. It has been tested for thermal shock, vibration, impact shock, solar radiation, and ingress. Combined with Entel's rigorous life-cycle testing programme, users can expect many years of trouble-free operation, even under the most demanding conditions.

Built in Power Supply

The repeater is supplied with a built in AC Mains power supply capable of charging a backup battery.

Built in Protection

The DR482 is protected against antenna faults, over temperature, interfering signal, AC mains and DC supply voltage fluctuations.

Three Mounting Options

DR482 can be desk, 19" rack (two repeaters fit side-by-side on a 3U rack tray) or wall mounted (using the optional wall mounting kit).

Simple End-User Programming

Our unique and simple-to-use Windows® app means there is no longer any need to return a repeater to your dealer to reprogram or update it. With the user-friendly app, you can simply transfer the programming data sent to you by your Entel dealer, apply software updates or add new features to your Entel DR482 repeater yourself.

Three Power Supply Modes

The DR482 repeater can be powered in three different modes:

- AC Mains only
- 12V DC only
- AC Mains with Battery Backup

Optional Internal Duplexer

The DR482 repeater can be supplied either with separate Tx and Rx connectors for 2-antenna working or an external duplexer, or with an internal duplexer for single antenna working.

Mixed Mode Operation

To support legacy analogue radios, the repeater can be configured to automatically switch between DMR Digital and Analogue modes.



Key Features

- ✓ Digital, Analogue & Mixed modes
- ✓ Simple end-user programmer app
- ✓ Built-in mains power supply
- ✓ Built-in mains-fail battery charger

- ✓ Software upgradable for extra features/updates
- ✓ 100% Transmit duty cycle at 25 Watts
- ✓ Optional built-in duplexer
- ✓ Versatile mounting options

Technical Specifications

Physical		Power Supply				
Size (H x W x D):		95 x 220 x 375 mm (main body only)				
Weight:		3.8 kg				
Temperature Range:	Operational:	-30°C to +60°C (fan unrestricted)	AC:	Switching		
	Storage:	-30°C to +55°C (fan dust filter fitted)		AC only		
Relative Humidity:		Up to 95% (non-condensing) at 50°C				
Antenna Connectors:	Two Antenna Working:	Tx: N-Type female Rx: BNC female	Input Power Modes:	AC with DC-revert upon AC-failure		
Power Connectors:	With Optional Duplexer:	Tx/Rx: N-Type female		DC only		
Power Connectors:	AC:	Fused IEC C14 (fits IEC C13 cable)	Input Voltage:	UK/Euro: 230 VAC ±10%, 47-53 Hz		
	DC:	Molex Mini-Fit Sr. 2-Circuit Plug		Americas: 110 VAC ±10%, 57-63 Hz		
RF General						
Mode of Operation:	Full-Duplex Repeater					
Number of Channels:	1					
Frequency Range:	400-470 MHz					
Channel Bandwidth:	12.5 kHz or 25 kHz					
Supported Modes of Operation: (Auto-switches between modes)	Analogue FM Conventional (DR482 & DR482/A) DMR Tier II (TS 102 361-1 and -2) (DR482/A only)					
Transmitter						
Rated Output Power:	1-25W (adjustable)					
Transmitter Duty Cycle:	Continuous Duty					
Frequency Stability:	<0.5 ppm					
Intermodulation Attenuation:	>40 dB					
Adjacent Channel Power: (ETSI & TIA603E)	12.5kHz	>60 dB	Sensitivity:	Analogue 12dB SINAD <0.2 μV		
	25kHz	>70 dB		DMR 5% BER <0.2 μV		
FSK Modulation Fidelity (DMR):	Frequency:	<3%	Adjacent Channel Selectivity:	ETSI 12.5kHz >60 dB		
	Magnitude:	<1%		25kHz >70 dB		
Max Freq Deviation / Modulation Limiting: (Analogue FM)	12.5kHz	±2.5 kHz	TIA603E	12.5kHz >65 dB		
	25kHz	±5.0 kHz		25kHz >75 dB		
Spurs & Harmonics (Conducted and Radiated):	<1GHz	<-36 dBm	Blocking / Desensitisation:	ETSI >84 dB		
	>1GHz	<-30 dBm		TIA603E >84 dB		
FM Hum & Noise:	12.5kHz	<-45 dB	Intermodulation Response Rejection:	ETSI >70 dB		
	25kHz	<-50 dB		TIA603E >75 dB		
Conformance						
	UK & Europe (Land)	UK & Europe (Marine)	USA (Land)*	USA (Maritime)*	Canada*	
Radio:	EN 300 086 EN 300 113	EN 300 720	CFR Title 47 Part 90*	CFR Title 47 Part 80*	RSS-119*	
Safety:	EN 62368-1				ICES-003*	
EMC:	EN 301 489-1 and -5	EN 60945	CFR Title 47 Part 15*			
Labelling:	UKCA marked CE marked		FCC ID: TBA*		ISED IC ID: TBA*	

* Regulatory Submission under review

Emission Designators				
Bandwidth	Modulation	Channelisation	Information Carried	Applicable Designator
12.5 kHz	Analogue FM	1x Analogue Channel	Voice	11K0F3E
25 kHz	Analogue FM	1x Analogue Channel	Voice	16K0F3E
12.5 kHz	Digital 4FSK	DMR 2-Timeslot TDMA	Data	7K60F7D
12.5 kHz	Digital 4FSK	DMR 2-Timeslot TDMA	Voice	7K60F7E
12.5 kHz	Digital 4FSK	DMR 2-Timeslot TDMA	Voice & Data	7K60F7W

All specifications shown are typical unless otherwise stated and are subject to change without notice to improve reliability, function, or design.

Image gallery



Rear view
(with optional dust cover fitted)



Front view



Front handles



Rear bumpers

Accessories

Supplied package include: AC Mains lead (Available plug options: UK, EURO or US), USB lead and User Guide.



DR/DCL
DC lead



DR/DUP/380-450MHz/5-7MHz
(380-450MHz, 5-7MHz Tx/Rx Separation)

DR/DUP/380-450MHz/7-12MHz
(380-450MHz, 7-12MHz Tx/Rx Separation)

DR/DUP/380-450MHz/12-20MHz
(380-450MHz, 12-20MHz Tx/Rx Separation)

DR/DUP/450-520MHz/5-7MHz
(450-520MHz, 5-7MHz Tx/Rx Separation)

DR/DUP/450-520MHz/7-12MHz
(450-520MHz, 7-12MHz Tx/Rx Separation)

DR/DUP/450-520MHz/12-20MHz
(450-520MHz, 12-20MHz Tx/Rx Separation)

Internal duplexer kit



DR/WMK
Wall mount kit



DR/DF
Dust Filter

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Contact

For more information about our products, please contact us:

Entel UK, 320 Centennial Avenue Centennial Park, Elstree, Borehamwood, Hertfordshire WD6 3TJ, United Kingdom

 **+44 (0)20 8236 0032**

 **info@entel.co.uk**

 **entel.co.uk**

Designed in the United Kingdom

Entel