

**EX2000** Land Mobile/Data Repeater/Base Station

- Single or dual repeater, or repeater with link, in single rack frame
- Comprehensive metering to minimise maintenance costs
- Minimal/flat group delay for data and SCADA applications
- High reliability = Low maintenance costs = Low ownership costs
- Low power consumption for solar powered sites

**Key Features:**

- Available in a range of VHF and UHF bands
- Single or dual repeater configuration means economy of space and cost saving of two repeaters in one 19" 3U (5.25") high rack enclosure.
- 25 Watts RF output
- Low standby current drain makes the EX2000 the ideal choice for solar powered locations
- Single or multichannel CTCSS
- Fully modular plug-in construction allowing easy system configuration and maintenance
- Comprehensive metering monitors the health of the repeater terminal
- -30°C to +55°C operating temperature range, combined with rugged construction makes EX2000 the preferred product for harsh environments
- Extremely flat group delay performance makes the EX2000 ideal for Data/SCADA applications

**Options**

- Speaker/Microphone permits voice access to the repeater system
- Internal expansion for up to 4 CTCSS channels per RF channel
- Line balancing transformers allow increased line distance for base station operation

**EX2000 Specifications**

- **General**

Frequency ranges (MHz)			
VHF	68 – 78	72 – 82	78 – 88
	138 – 148	148 – 162	159 – 174
UHF	403 – 423	410 – 430	430 – 450
	450 – 470		
Channel Spacing	12.5 kHz, 15 kHz, 25 kHz, 30 kHz		
Channel Selection	Available in the following increments: 5.0 or 6.25 kHz. Channel selection is via externally accessible switches.		
Modulation Type	11K8F9, 12.5 kHz 16K8F9, 25kHz		
Max. System Deviation	± 5 kHz for 25kHz channel spacing ± 2.5 kHz for 12.5kHz channel spacing		
Spurious emissions	> 70 dB below Carrier Power		
Thermal protection	Integral. RF power reduces above 95+/-5°C power module base plate temperature		
Distortion	<1.5% at 3 kHz deviation		
Power Consumption (per repeater)	6.3A maximum for 25W 120mA standby		
Power Supply Voltage	10.8 to 15.5VDC, Nom 13.8V, negative ground		
4-wire line interface (Transmit level)	-20dBm to + 5 dBm		
(Receive level)	-20 dBm to + 10 dBm		
Frequency Response (at -10dB)	60-250 Hz +0/-6 dB (CTCSS) 300-3400 Hz +1/-3 dB rel to 6 dB/Oct		
Group Delay	Meets CCITT recommendation M1020		
M-wire characteristic	+12V nominal O/C idle, 2mA S/C active		

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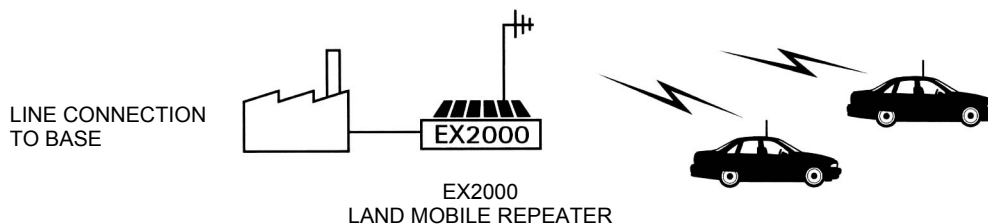
- **Transmitter**

Output impedance	50Ω
Transmit Power	1.0W to 25W adjustable
Duty cycle	1W – 10W continuous rating 10 W – 25W 50% duty cycle
Switching bandwidth	10 MHz for 68-88 MHz 10 MHz for 138-148 MHz 14 MHz for 148-162 MHz 15 MHz for 159-174 MHz 20 MHz for 403-470 MHz
Frequency Stability	+/- 2.5 ppm (option +/-1 ppm)
VSWR Protection	Withstands VSWR of 20:1 at any phase angle
Transmitter start time	<50mS (Hotkey <3mS)
- **Receiver**

Input impedance	50Ω
Sensitivity (12 dB SINAD)	> -116 dBm
Spurious Responses	UHF >70 dB VHF >80 dB
Intermodulation	>75 dB
Selectivity	>75 dB
Audio Distortion	< 3%
- **Mechanical**

Size	135(h) x 483(w) x 435(d) (5.3 x 19.0 x 17.1")
Weight	Single repeater 8 Kg (17.6 lbs) Dual repeater 12 Kg (26.4 lbs)
- **Environmental**

Ambient Operating Temp	-30°C - +55°C
Humidity	95% RH 0°C – 45°C (non-condensing)
- **Typical configuration**



**NOTE:** Exicom Technologies Limited is constantly seeking to improve quality and performance. Therefore specifications, configurations and process are subject to change without notice.

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