

TRP Transportable Repeater Series

ICOM-UK presents a new series of portable dual-digital/analogue repeaters, to link vehicle-mobile and handheld radio units in the field. These new, rack-cased repeaters take the knocks thanks to an tough aluminum frame.



Simple to Operate and Quick to Set Up

TRP Transportable repeater is simple to operate and quick to set up. It is supplied in a robust ABS portable carry case and is fully self contained with duplexer, mains power supply and battery backup facility. The repeater measures only 56(w) x 26(h) x 58(d) cm and weighs only 20kg, so it can literally be picked up and deployed anywhere, anytime.

Compatible with Analogue and IDAS Digital Modes

The TRP Transportable Repeater receives both analogue and digital mode signals on a single channel, allowing the use of IDAS digital radios, while still maintaining existing analogue radios within the system.

Double Your Channel Capacity in IDAS Digital Mode

6.25kHz narrow channel spacing allows you to create 2 offset channels within a single 12.5kHz channel. This doubles the channel efficiency and capacity while saving 50% on licensing.

Improved Audio Quality and Coverage

In IDAS digital mode gives noise-free audio over a greater comparable area than analogue FM. The IDAS repeater uses the AMBE+2™ codec, the latest evolution in vocoding technology.

Ideal for a wide range of Organisations

- Rapid deployment/response for emergency services.
- Charity Agencies requiring temporary repeater coverage.
- The events industry - simply move the unit from one location to the next.
- Motorway maintenance who want to maintain communications.
- Rail companies that want to ensure radio communication when conducting track repairs.

Two UK Versions Available

Two 25 Watt versions are now available in the UK; the TRP-U11 (UHF) and TRP-V11 (VHF). 50 Watt versions are also available for export.



TRP Repeater Specifications:



Rear view

General

Frequency coverage:

UC-FR5100: 136~174MHz

UC-FR6100: 400~470MHz

Number of channels: Max. 32 channels

Channel spacing: 6.25/12.5kHz

PLL channel step: 2.5, 3.125kHz

Antenna impedance: 50ohm (Type-Nx2)

AC Power supply: 230V. 50Hz

Output power 100% duty cycle: 25W (adjustable to 2.5W)

DC Output voltage: 13.8V +/- 1%

DC Output current: 23A

DC Output current peak: 25A

Battery charge module:

Float charge: 13.6

Float charge current max: 2.1A

Backup source:

2* 12V. 7.0Ah

Total capacity: 14Ah

Recharge time from fully discharged approximately 30hrs

Calculated approximate backup runtime fully charged source at 25Watt RF output

Repeat mode: 90:5:5 equivalent duty cycle - 14hrs

Repeat mode: 80:10:10 equivalent duty cycle - 9hrs

Dimensions (WxHxD): 56 x 26 x 58 cm

Weight: 20kg (approx.)

* Repeater will reduce RF output power to the LI setting as the battery voltage approaches the threshold set in software. Alert tone can be applied to the transmitter at interval timer setting.

Transmitter

Max. frequency deviation: $\pm 5.0/4.0/2.5$ kHz (W/M/N)

Frequency stability: $\pm 0.2/\pm 0.5$ kHz (VHF/UHF)

Spurious emissions: 0.25 μ W (≤ 1 GHz)
1.0 μ W (> 1 GHz)

Adjacent channel power: 73/73/65dB min. (W/M/N)

Audio harmonic distortion: 1% typ. (40% deviation)

Intermodulation: 40dB min.

Receiver

Sensitivity, FM (W/M/N): -4dB μ V typ. (emf, at 20dB SINAD)

Digital: -6dB μ V typ. (emf, at 5% BER)

Squelch sensitivity: -4dB μ V typ. (emf, threshold)

Adjacent channel VHF: 86/83/77dB typ. (W/M/N)

Selectivity UHF: 80/78/70dB typ. (W/M/N)

Spurious response: 70dB min. (W/M/N)

Intermodulation rejection: 70dB min. (W/M/N)



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