

Applicable MIL-STD-810C/D/E/F

Applicable MIL-STD	810C		810D		810E		810F	
	Methods	Procedures	Methods	Procedures	Methods	Procedures	Methods	Procedures
Low Pressure	500.1	1	500.2	1,2	500.3	1,2	500.4	1
High Temperature	501.1	1,2	501.2	1,2	501.3	1,2	501.4	1,2
Low Temperature	502.1	1	502.2	1,2	502.3	1,2	502.4	1,2
Temp. Shock	503.1	1	503.2	1	503.3	1	503.4	1
Solar Radiation	505.1	1	505.2	1	505.3	1	505.4	1,2
Rain	506.1	2	506.2	2	506.3	1,2	506.4	1,2
Humidity	507.1	2	507.2	2,3	507.3	2,3	507.4	1
Salt Fog	509.1	1	509.2	1	509.3	1	509.4	1
Dust	510.1	1	510.2	1	510.3	1	510.4	1
Vibration	514.2	8,10	514.3	1	514.4	1	514.5	1
Shock	516.2	1,2,5	516.3	1,4	516.4	1,4	516.5	1,4

General

Frequency Range(MHz)	VHF: 146-174 UHF: 440-470	
Channel Capacity	1	
Channel Spacing(kHz)	25 /12.5	
Operating Voltage(v)	AC 100-240 / DC 10.2-14.6	
Current Drain	Standby	0.2A or less
	Receive	0.8A or less
	Transmit	2.2A or less
Frequency Stability(ppm)	± 2.5	
Operating Temperature(℃)	-30~+60	
Antenna Impedance(Ω)	50	
Dimensions (L×W×H)(in.)	8.58*3.54*8.74	
Weight (oz.)	102.29	

Transmitter

RF Power Output	4.5 ± 0.5W
Modulation	16k φ F3E / 8k5 φ F3E
Spurious and Harmonics	70dB
FM Noise	40/35dB
Audio Distortion	≤5%

All specifications are tested according to TIA/EIA-603, and subject to change without notice due to continuous development.

Receiver

Sensitivity	≤ 0.35 μV
Selectivity	70/60dB
Intermodulation	65/60dB
Spurious Response Rejection	70/65dB
S/N	45/40dB
Rated Audio Power Output	500mW
Rated Audio Distortion	≤ 5%

FCC Approved Bands: (136-174MHz)
FCC ID Number: R74TR-50U

FCC Approved Bands: (440-470MHz)
FCC ID Number: R74TR-50V



ISO9001:2000 Certificate NO:FM 61540



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TR-50

Portable Repeater



- CTCSS/CDCSS Function
- Floating Charge
- LED Indicators
- PC Programming & Tuning

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The smallest portable repeater;
 Exquisite industrial design, the preferred choice of business consumers and amateur hobbyists;
 Durable die-cast chassis, easily assembled & disassembled;
 Diverse applications for residence security management, hotel & restaurant, entertainment spot, agriculture & farming industry etc.

TR-50

Portable Repeater

Super Features

- CTCSS/CDCSS encode & decode function, providing high flexibility for network application;
- AC/DC power supply selectable, with optional DC auto-revert feature & external jack for floating charge function;
- Switchable PTT Controlled/Continuous/Temperature Controlled fan;
- PC programmable with external RJ45 I/O port;
- Compact portable design, internal installation available for duplexer.



Main Features

CTCSS/CDCSS Encoder & Decoder

Set up talkgroups/users with unique CDCSS/CTCSS to prevent unwanted conversations on the same frequency.

Floating Charge

The TR-50 provides selectable AC(100~240V 50/60Hz)/DC(10.2~14.6V) power supply. Normally users can equip battery back-up system connected to the external DC jack with floating charge function in the mean time. This supports auto-switching to DC battery once the AC power supply fails.

Multi-control For Onset Of The Fan

The powerful DC brushless fan inside the cabinet is to effectively ensure the transmitter's durability and stability while working in tough situations. Three options for the jumpers are PTT controlled, Continuous and Temperature controlled respectively.

LED Indicators

The LED indicators on the front panel highlight system status at a glance, including power-up, receive and transmit.

Programmable Channel Spacing

Users can set either a 25KHz or a 12.5KHz channel spacing to accommodate present and future channel allocations according to local radio regulations.

PC Programming & Tuning

The repeater provides tuning in the field from a desktop or portable PC. Radio parameters for programming are TX/RX frequency, CTCSS/CDCSS, squelch level, etc.

Base Station Capabilities & Local Speaker

The TR-50 can be operated as a full-duplex base station with the optional SM-08R Microphone connected. In addition, a built-in speaker on the front panel allows the channel conversation to be monitored.

Compact Desktop Design & Duplexer Installation

This portable repeater can be placed in office environments or dispatch centers with minimal space required. Installation for the duplexer is available inside the cabinet.

Recommended Applications

- Hospitality
- Farming Industry
- Construction
- Entertainment Spot
- Property Management

Accessories

Standard Accessories

AC power cable (UL plug) PWC03 DC power cable PWC07 Palm microphone SM08R1

Optional Accessories



BRK06
External duplexer
installation kit



PC15
Receiver programming cable



PC14
Transmitter programming cable



External Duplexer
DT01
(Freq. Range: 137-172MHz,
Tx/Rx Split: 4-15MHz)

DT06
(Freq. Range: 130-176MHz,
Tx/Rx Split: 4.5-13MHz)

DT02
(Freq. Range: 336-370MHz,
Tx/Rx Split: 5-20MHz)

DT08
(Freq. Range: 350-390MHz,
Tx/Rx Split: 5-10MHz)

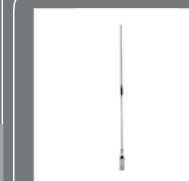
DT03
(Freq. Range: 380-470MHz,
Tx/Rx Split: 5-20MHz)

DT07
(Freq. Range: 400-480MHz,
Tx/Rx Split: 5-10MHz)

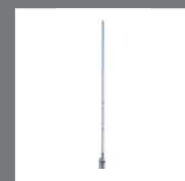


External Duplexer
DT05
(Freq. Range: 450-470MHz
Tx/Rx Split: 8-15MHz)

DT09
(Freq. Range: 400-480MHz
Tx/Rx Split: 8-15MHz)



Mobile Antenna



Omni-directional
Antenna

