

ICOM

144 MHz FM TRANSCEIVER

UHF FM TRANSCEIVER

**IC-T22A**

(144 MHz U.S.A. version)

**IC-T42A**

(440 MHz U.S.A. version)

**IC-T22E**

(144 MHz Europe version)

**IC-T42E**

(430 MHz Europe version)

Meets  
**MIL-STD 810**



IC-T42E

IC-T22A

The IC-T22A/E and IC-T42A/E are mono band handhelds packed with features you would expect to find in a handheld twice the size. From alphanumeric display to the new microphone simple remote control function these handhelds utilize the latest in Icom technology. And they look great!

#### High performance that easily fits in your hand

With slim dimensions of 57(W) x 110(H) x 27(D) mm\*, including BP-171, these handhelds fit comfortably in the palm of your hand—carry them around in your shirt pocket or a small bag. However, there is nothing small about their performance.

\*U.S.A. version with BP-180: 2<sup>1</sup>/<sub>4</sub>(W) x 4<sup>13</sup>/<sub>16</sub>(H) x 1<sup>1</sup>/<sub>8</sub>(D) in.

#### Alphanumeric memory channels

Available memory channels are expandable from 40 to 80\* (not including scan edges and call channel) and channels can be tagged with a 6-character alphanumeric name such as a call sign, repeater name, etc. for operating convenience. Nothing is more frustrating than losing all your channel information when your battery goes dead. EE-PROM memory backup ensures that this won't happen. Now you have memory to memory transfer for convenient memory management.

\*Memory names cannot be used when memories are expanded to 80.

#### Alphanumeric message pager

5 transmit and 5 receive message memories are available independently from regular memory channels allowing you to use the transceiver as a simple message pager (up to six characters per message). This paging function is compatible with the paging functions for other Icom handhelds and mobiles.

#### Microphone simple remote control function

This new function allows you to change the default functions of the optional HM-75A's switches: squelch monitor, call channel, memory channel 1 and memory channel 2. Doing so makes operation via the HM-75A simple for driving, hiking—especially convenient for group operation.

#### And more...

- MOS-FET power module
- Accepts 4.5 to 16 V external DC power supply
- log memory and repeater memory for auto storage of the last-transmitted frequencies
- 50 frequency CTCSS tone encoder (optional for Europe and Italy versions)
- 5 DTMF (30 digits each) memories for auto dialing
- Numerous scans available
- LCD backlighting for easy night operation
- An antenna, battery pack\* and battery charger\* are included with the transceiver.

\*Some versions include a battery case instead of these.

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## SPECIFICATIONS

## GENERAL

- Frequency coverage : (Unit: MHz)

Version	IC-T22A/E	IC-T42A/E
U.S.A.	Tx: 144-148 Rx: 136-174**	Tx: 440-450 Rx: 400-470**
Europe	144-148	430-440
Asia	Tx: 144-148 Rx: 140-150**	430-440
Italy	Tx: 144-148 Rx: 136-174**	Tx: 430-440 Rx: 400-470**

Guaranteed range (MHz): \*\*144-148, \*\*440-450, \*\*430-440

- Mode : FM
- Acceptable power supply : 4.5 to 16 V DC
- Number of memory channels: 87 (max.)
- Tuning steps (kHz) : 5, 10, 12.5, 15, 20, 25, 30 or 50
- Dial select steps : 100 kHz or 1 MHz
- Usable temperature range : -10°C to +60°C (+14°F to +140°F)

- Current drain (at 13.5 V, typical):

Transmit	High	1.4 A
	Low	500 mA
Receive	Rated audio	150 mA
	Power saved	15 mA (average)

- Dimensions (with BP-171) : 57(W) x 110(H) x 27(D)  
(with BP-180) : 2½(W) x 4½(H) x 1¼(D)

- Weight (w/BP-171 and antenna) :  
IC-T22A/E : 310 g (10.9 oz)  
IC-T42A/E : 300 g (10.6 oz)

## TRANSMITTER

- Output power (at 13.5 or 9.6 V) : 5 W or 500 mW (approx.) (at 7.2 V) : 3.5 W or 500 mW
- Modulation system : Variable reactance frequency modulation
- Max. frequency deviation : ±5.0 kHz
- Spurious emissions : Less than -60 dB
- Microphone impedance : 2 kΩ

## RECEIVER

- Receive system : Double conversion superheterodyne
- Intermediate frequencies : 1st : 30.85 MHz  
2nd : 450 kHz
- Sensitivity (typical) : Less than 0.16 µV
- Squelch sensitivity (at threshold) : Less than 0.16 µV
- Spurious and image rejection:  
IC-T22A/E : Less than -60 dB  
IC-T42A/E : Less than -50 dB  
(Except ½ of image freq.)
- Audio output power : More than 200 mW (10% at 13.5 V) ; distortion with an 8 Ω load
- Audio output impedance : 8 Ω

The IC-T22A/E meet MIL-STD requirements and strict environmental standards for shock (MIL 810C, D, E) and vibration (MIL 810 C, D, E).

All stated specifications are subject to change without notice or obligation.

## OPTIONS

## BATTERY PACKS AND CASE

## BP-171

4.5 V, 700 mAh  
BP-172  
4.8 V, 950 mAh



## BP-173

9.6 V, 850 mAh  
BP-180  
7.2 V, 600 mAh



## BP-170

18 (AA)  
batteries x 4



Approx. output powers and operating times at 25°C. Tx: 100% power. Rx: Standby x 1 : 100%

	BP-171	BP-172	BP-173	BP-180
IC-T22A/E	1.5 W/6h	1.5 W/8h	5 W/3h 20m	3.5 W/4h
IC-T42A/E	1.3 W/4h 30m	1.3 W/6h 10m	5 W/2h 20m	3.5 W/3h 30m

## BC-119 DESKTOP CHARGER + AD-56 DESKTOP CHARGER ADAPTER



Rapidly charges battery packs BP-171, BP-172, BP-173 or BP-180. Both AC and DC can be used to power the charger. Some BC-119 versions require the AD-56 add-on kit.

## CP-12L CIGARETTE LIGHTER CABLE WITH NOISE FILTER OPC-254L DC POWER CABLE



Allows you to operate the transceiver through a 12 V cigarette lighter socket or 4.5 to 16 V external DC power supply with the CP-12L or OPC-254L, respectively. The connected battery pack is charged simultaneously (12 to 16 V DC necessary).

## MB-30 MOBILE MOUNTING BRACKET



For mounting the transceiver on the inside door panel of a vehicle.

## SPEAKER-MICROPHONES



HM-46: Compact/light weight. Equipped with an earphone jack.  
HM-54: Durable full-sized speaker-microphone.  
HM-75A: Allows you to remotely select memory channels, operating frequency, etc.

## HS-85 HEADSET



Allows you hands-free operation. Includes VOX, PTT, tone touch, PTT (TOT). Low voltage type.

## SP-13 EARPHONE



Provides clear audio in noisy environments.

## UT-94 TONE SQUELCH UNIT



Provides tone squelch, pocket beep and tone scan functions.

## WALL CHARGER

## BC-110A/C/D/V

Regularly charge battery packs. The same as supplied with some versions.

## CARRYING CASES

## LC-125

For use with the BP-170, BP-171 or BP-172.

## LC-126

For use with the BP-173 or BP-180.

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Certificate Number Q14190

Icom Inc. (Japan), is an ISO9001 certification acquired company.

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