

## HAM RADIO PRODUCTS

**HF** Transceivers

**Mobile Transceivers** 









**All Mode Transceivers** 

Handheld Transceivers

Icom Inc.



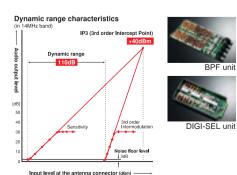


## HF/50MHz TRANSCEIVER IC-7800

### +40dBm IP3

#### (3rd order Intercept Point)

Icom's considerable analog RF circuit experience combined with cutting-edge digital technology results in an astonishing 110dB receiver dynamic range and a +40dBm IP3 in the HF bands – the first in ham radio! To achieve this superior receiver performance, Icom's engineering team completely re-engineered all of the analog circuitry to match the DSP system.



### Three hi-spec 1st IF filters (Roofing Filter)\*1

In addition to selectable 6kHz and 15kHz roofing filters, the IC-7800 has a 3kHz roofing filter before the 1st IF amplifier. It provides 134dB\*2 (approx.) of blocking dynamic range and allows you to pull out a weak signal while blocking strong adjacent signals. (The FM mode filter is fixed at 15kHz.)

\*¹ Icom calls the roofing filters "hi-spec 1st IF filters", because their performance is much better than regular IF filters. \*² At 14.1MHz receive, with 5kHz separation of interference signal.

# Blocking dynamic range characteristics MODE:CW P.AMP.OFF Rs BW-500Hz Blocking signal freq=14.100MHz fix Blocking signal source=xtal osc RX freq=variable

Hi-spec 1st IF filters (Roofing filters)

### Two completely independent receiver circuits

Dual receivers allow you to receive on two different bands simultaneously in different modes, without the receivers affecting each other.

### **Quad processing**

The IC-7800 incorporates four independent, 32-bit DSP units and 24-bit AD/DA converters. By having four independent DSP units, the radio responds to operator changes in an instant, as each DSP unit is dedicated to a single function. While each receiver has its own dedicated DSP unit, there is a DSP unit for transmit as well as a DSP unit for the spectrum scope.

#### **Digital IF filter**

Icom's digital IF filters give you performance that is not possible with crystal or mechanical filters. They allow the operator to adjust filter shape (sharp or soft), filter bandwidth, and center frequency characteristics, without missing the action. Multiple filter memories store the most-recently used filter settings for each operating mode.



Filter preset screen

### Ultra high stability OCXO unit

The IC-7800 uses the OCXO (Oven Control Crystal Oscillator) unit which is stable to within  $\pm 0.05$ ppm from 0°C to 50°C. This specification means that even on the 50MHz band, frequency error is less than 2.5Hz!



### 200W output power, built-in

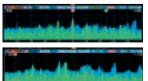
The power amplifier uses push-pull power MOS-FETs with a 48V DC supply. They provide a powerful 200W of output at 100 percent duty cycle. An effective cooling system maintains internal temperatures within a safe range and prevents thermal runaway.



PA Unit and heat sink

### Real-time spectrum scope

With its own dedicated DSP unit, the IC-7800's spectrum scope provides excellent sensitivity and 80dB of dynamic range. This scope rivals many of today's commercial test instruments. The display spans ±2.5kHz to ±250kHz in 7 steps, covering up to 500kHz of spectrum!



Example of spectrum scope centered on the receiving frequency.

Example of fixed spectrum scope range.

### 7-inch wide color TFT LCD

An active matrix 7-inch (800×400 pixel) TFT color display was selected for the IC-7800. This large display shows main and sub-band frequencies, settings, and operating parameters, as well as the spectrum scope, S-meter, and RTTY/PSK31 decoded messages. The "virtual" S-meter needle swings smoothly and accurately, just like an analog meter.

### Other outstanding features

[Antenna and receiver] • 4 antenna connectors with automatic antenna selector • Automatic antenna tuner • Special preamp and mixer circuit optimized for 50MHz band • 3-step manual notch filter • Digital twin PBT eliminates interference from adjacent signals • 16-step noise reduction

[CW mode] • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • APF selection (soft/sharp)

[Operation] • High-quality digital voice memory • Triple band stacking register • Built-in RTTY and PSK31 modulator and demodulator • Message memory for CW, RTTY and PSK31 operations • Twin peak audio filter for RTTY operation • CF memory card for storing customized personal settings • 101 memory channels • AGC control for fine tuning of the AGC time constant • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Screen saver function



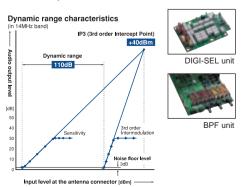




## HF/50MHz TRANSCEIVER

### +40dBm IP3 (3rd order Intercept Point) and 110dB dynamic range

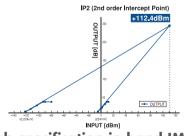
The IC-7700 employs mechanical relay BPF switching, a digitally tuned pre-selector, and three hi-spec 1st IF filters (roofing filters) in a clean and simple double conversion superheterodyne design. By balancing the analog and DSP functions, the IC-7700 provides superior sensitivity simultaneously with a superb dynamic range of 110dB, and +40 dBm IP3 (even in USB mode with 2.4 kHz filter bandwidth).



### More than +110dBm IP2 (2nd order intercept point)

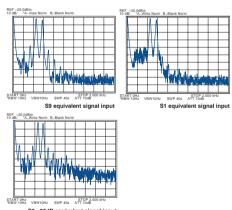
An IP2 point of more than +110 dBm\* means 2nd order distortion from strong broadcast stations will be completely eliminated. The continuous pursuit of leading analog circuit engineering makes it possible to achieve this leading edge level of performance.

- \* The IP2 figure is a typical value.
- \*\* Measurements were made using custom equipment, due to the limits of normal signal generators (SG) and duplexers to +85 dBm.



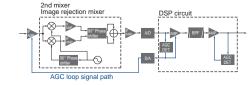
### High specification in-band IMD

In-band IMD (Intermodulation Distortion) creates undesired spurious signals as a consequence of non-linear processing of multiple signals. All (2nd, 3rd or even higher) orders of IMD performance are superior in the IC-7700. The improvement will be especially evident in CW mode. You'll notice the difference as you copy weak signals without internal distortion or noise.



#### **Two AGC Loops**

The IC-7700 has two AGC loops. The AGC voltages are derived both before and after the digital IF filter in the DSP unit. The first AGC loop prevents the saturation of the 1st IF amplifier from strong signals outside the passband filter. The second AGC loop detects the AGC voltage at the digital IF filter output which contains only the desired signal, obtaining full performance from the digital IF filter.





### Three hi-spec 1st IF filters (Roofing filter)

Now a proven formula, the IC-7700 employs custom three hi-spec 1st IF filters (roofing filters) to achieve approximately 134dB\*1 of blocking dynamic range.

\*1 At 14.1MHz receive, with 5kHz separation of interference signal.



Hi-spec 1st IF filters (Roofing filters)

#### 7-inch wide color TFT LCD

An active matrix 7-inch (800×400 pixel) TFT color display shows main and sub-band frequencies, settings, and operating parameters, as well as the spectrum scope, S-meter, and RTTY/PSK31 decoded messages in vivid color. The "virtual" S-meter needle swings smoothly and accurately, like an analog meter.

### Real-time spectrum scope

With its own dedicated DSP unit, the IC-7700's spectrum scope provides excellent sensitivity and 80dB of dynamic range. The display spans ±2.5kHz to ±250kHz in 7 steps, covering up to 500kHz of spectrum!

### **USB** connectors on the front panel

Two USB connectors on the front panel allows you to easily connect a USB keyboard

or USB flash drive to save transceiver settings, update firmware, or transfer settings to another IC-7700.



Two USB connectors

### Other outstanding features

[Antenna and receiver] • 4 antenna connectors with automatic antenna selector • BNC type RX IN/OUT connectors • Automatic antenna tuner • Preamp for 50MHz band • 3-step manual notch filter • Digital twin PBT

eliminates interference from adjacent signals • 16-step noise reduction

[CW mode] • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • APF selection (soft/sharp) • Double key jack system

[Operation] • Built-in power supply • High quality digital voice memory • Message memory for CW, RTTY and PSK31 • Built-in RTTY and PSK31 modulator and demodulator • Twin peak audio filter for RTTY operation • Triple band stacking register • 101 memory channels • AGC control for fine tuning of the AGC time constant • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Screen saver function





## HF/50MHz TRANSCEIVER



### Dual DSP for transmitter/receiver and spectrum scope

Two separate 32-bit DSP units power the transmitter/receiver and spectrum scope. These processors give the IC-7600 high performance comparable to our top-of-the-line

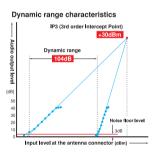
IC-7800 and IC-7700, thanks to the combination of dual DSP and our analog RF design expertise.



Dual DSP

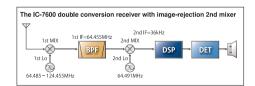
### 104dB dynamic range and +30dBm IP3 (3rd order Intercept Point)

An astonishing 104dB receiver dynamic range and +30dBm IP3 in the HF bands without sacrificing receiver sensitivity is a standard specification be fitting the IC-7600. Even a weak signal adjacent to strong signals is clearly received by the IC-7600.



### Double conversion superheterodyne improves inband IMD

The IC-7600 employs a double conversion superheterodyne system which has an image rejection mixer for the 2nd mixer stage. When compared to a typical triple conversion system, the double conversion system is more difficult to implement but it dramatically reduces signal distortion and provides a high-linearity RF signal to the DSP processor.



### **Dual AGC loops controlled by DSP**

The IC-7600 has dual AGC loops, one analog and one digital, both under DSP control. This architecture prevents strong adjacent signals from "pumping" the AGC and allows maximum dynamic range in the DSP.

### Three built-in 1st IF (roofing) filters, including 3kHz

The IC-7600 has three built-in 1st IF (roofing) filters ahead of the 1st IF amplifier stage. The 3kHz filter is especially effective in CW and SSB modes, eliminating overloading caused by strong signals just outside the passband.

### 5.8 inch ultra-wide viewing angle TFT display

The IC-7600's ultra-wide viewing angle display has excellent color rendering and high contrast ratio with fast response time. These features allow the spectrum scope and simulated

analog meters to move smoothly and naturally. White LED backlighting offers fast start-up, stable brightness and long life.



Ultra-wide viewing angle display

#### Spectrum scope

The dedicated spectrum scope DSP with built-in digital filtering greatly improves dynamic range, response time, and frequency accuracy of the spectrum scope. The scope automatically selects the optimum resolution based on the sweep bandwidth. In addition, the spectrum scope range can be set independently from the receiving frequency. You can monitor band conditions between the selected sweep edges (Max. 500kHz) in the fixed mode, as well as sweep a selected band width centered on the receiving frequency in center mode.

### **USB** connectors on the front and rear panel

The IC-7600 has a type A USB receptacle on the front panel and a type B receptacle on the rear panel. Connect a USB keyboard or flash drive on the front panel and a PC on the rear panel. With appropriate third-party software, use the USB port for PC remote control operation.

### RTTY/PSK31 operation with a USB keyboard

The digital twin peak filter greatly reduces interference and a tuning indicator helps you zero beat the signals. Eight RTTY and PSK transmit memories store up to 62 characters per channel.



### Other features

[Antenna and receiver] • 2 TX/RX antenna connectors and RX antenna connector • Automatic antenna tuner • Auto notch filter and manual notch filter • Digital twin PBT • 16-step noise reduction • Dual watch

[Transmitter] • Tx monitor function • Tone encoder • VOX operation • All mode power control

[CW mode] • CW Waveform controlled by the DSP • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • APF selection (soft/sharp) • Double key jack system

[Operation] • Dual AGC loops controlled by DSP • 2 clocks show local and UTC time • High quality digital voice memory • Triple band stacking register • Message memory for CW, RTTY and PSK31 operations • 101 memory channels • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Programmable band edge beep • Screen saver function





## HF/50MHz TRANSCEIVER IC-7200



### **IF DSP**

The latest IF DSP technology is employed in the IC-7200. While the IC-7200 is an entry-class transceiver, advanced digital features such as flexible filter width and shape setting, digital noise reduction and auto notch filter are comparable to higher class models.

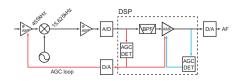
### Rugged design for outdoor use

The rugged design of the IC-7200 means your enjoyment of this rig is not limited only to your shack. Waterproof protection technologies used in Icom's marine radios are applied to the buttons and knobs on the front panel to provide a basic measure of protection against water intrusion\*.

\* IC-7200 is NOT waterproof.

### **AGC loop management**

Distortion and blocking from strong nearby signals are prevented by placing DSP functions inside the AGC loop. The AGC time constants are selectable from fast, slow and off for each operating mode.



### High stability transmitter

The DDS (Direct digital synthesizer) creates a clear, clean transmit signal and improves the carrier-to-noise ratio. A dual-fan cooling system provides stable high quality output even during high duty cycle operation.

#### **USB** connector for PC control

The IC-7200 can be controlled via the USB by a PC using the data format of the Icom CI-V interface. In addition, modulator and received audio can also transferred over the USB interface. By using appropriate external software, you can record incoming audio and/or transmit preprogrammed messages from your PC.

### **Digital Twin PBT**

Only Icom brings you Twin Passband tuning! Tailor your IF passband with the Twin PBT by electronically shifting the upper and lower edges of the IF filter. By using the concentric front-panel knobs, you can either narrow the IF passband, or shift the entire passband to eliminate interfering signals.

### Manual notch filter

The manual notch filter delivers more than 70dB of attenuation. Strong interfering tones will be eliminated without adversely affecting the AGC loop performance. On the bottom right of the front panel, a dedicated control knob adjusts the notch filter frequency.

### Other features

- RIT VOX ±0.5ppm frequency stability
- LCD backlight (Hi/Lo/Off) CI-V interface
- 201 memory channels Built-in 20dB attenuator Preamplifier Dial lock Auto tuning step function 1Hz step tuning Band stacking register Built-in voice synthesizer
- · Quick split · Front facing speaker



## HF TRANSCEIVER



General coverage receive with superior performance

**Optional DSP capability** 



### Simple operation

The IC-718 is equipped with a minimum number of buttons and controls for simple feature selection. The 10-key pad on the front panel allows direct entry of an operating frequency or a memory channel number. The auto tuning step function is activated when turning the dial quickly and helps speed up tuning. The band stacking register is convenient when changing operating bands.

### Front mounted loud speaker

The IC-718 has the speaker mounted on the front panel. With the speaker facing the operator, audio will be heard clearly and directly while operating.

### Optional DSP capability, UT-106

The optional DSP unit\* gives you noise reduction and auto notch filter functions for extra receiver performance.



\* Already built-in to USA version.

Optional UT-106

### General coverage receiver

The IC-718 has 0.03–29.999999MHz\* general coverage receive capability.

\* Guaranteed range: 0.5-29.999999 MHz

#### Other features

- Built-in electronic keyer Built-in microphone compressor • Combined squelch and RF gain control • Preamplifier and attenuator
- 101 memory channels CW full break-in
- IF shift interference rejection 1Hz tuning
- VOX function for hands-free operation
- Optional automatic antenna tuner 
   Digital S/RF meter



## HE/VHE/UHE TRANSCEIVER IC-7000

IF DSP — First in its class

2-point Manual Notch Filter more than 70dB attenuation

2.5-inch color TFT display

### IF DSP — First in its class

Digital IF filter, manual notch filter, digital twin PBT, AGC loop management, digital noise reduction and more. The latest digital features are incorporated in this compact radio by two DSP chips that deliver superior processing performance. Of course, those digital features work on all ham bands — HF, 50, 144MHz to the 430/440MHz band.

### 2-point MNF (Manual notch filter)

Pull out the weak signals in crowded band conditions with Icom's new two-point MNF (manual notch filter). Apply 70 dB of rejection to two signals at once! Notch width is adjustable – wide, middle and narrow – and an auto-tuning notch filter is available, too.

### 2.5-inch color TFT display

The 2.5-inch color TFT display presents numbers and indicators in bright, concentrated colors for easy recognition. You can choose from 3 background colors and 2 font styles to suit your preference. The video output jack allows you to view a magnified display on a TV or external monitor\*.

\* 3.5(d) mm monaural cable is required.

### Other outstanding features

• 35W output on 430/440MHz band •  $\pm 0.5$  ppm high stability crystal unit • 8 direct access buttons for user-friendly operation • Digital voice recorder for transmit and receive • Builtin RTTY demodulator • Remote control microphone, HM-151 • Fixed-mode and centermode band scope • Multi-function meter and SWR graphic displays • Front panel separation with optional separation cable • Built-in voice synthesizer

### **All Mode** Transceivers



## VHF/UHF ALL MODE TRANSCEIVER 1C-910H

100W output on 2m band & 75W output on 70cm band

Operates on two bands simultaneously

Excellent support for satellite mode and Packet operation

### 100W of stable output power

A powerful 100W\* of output is provided by the power amplifier circuit. The aluminum diecast chassis ensures cool operation during extended use.

\* 75W on 430/440MHz and 10W on 1200MHz band

### Simultaneously works two bands

The IC-910H can receive two bands simultaneously in different modes. The sub-band is

equipped with equivalent receive features as the main band such as AF volume and RFgain/squelch control knobs.

### **Satellite communication**

The V/U and L/U (optional UX-910 required) mode satellite operation is ready for use with the IC-910H. In the satellite mode, the down/up link frequencies are displayed on the MAIN and SUB band respectively. Reverse/normal tracking and doppler shift compensation are standard, and 10 satellite memory channels store down/up link frequencies and operating mode.

#### Other features

- Up to 2 optional DSP units can be installed
- Continuously adjustable Tx output power
- Optional UX-910 for 1200MHz band operation
- Sweep function IF shift function CTCSS tone encoder/decoder Optional CW narrow filter Memory pad function 9600bps Packet capability Receives narrow band FM
- \* No longer available in the USA.





## VHF/UHF DUAL BAND TRANSCEIVER IC-2820H

D-STAR DV mode plus GPS receiver with optional UT-123

Wideband receiver\*1 with diversity receive capability

50W output power on 144 and 430(440)MHz band

### D-STAR DV mode + GPS receiver with optional UT-123

The optional UT-123 module provides D-STAR DV mode operation plus GPS receiver capability. Simultaneously send your current position, own callsign and up to a 20-character message along with your digital voice transmission. When location is provided by a calling station, the transceiver displays the distance and direction to the station.

### Wideband receiver with simultaneous receive capability

The transceiver receives 118–549.995 and 810–999.990MHz\*¹ with dualwatch receiver capability that allows you to receive two bands simultaneously (including within a single band).

\*1 Receiver range differs depending on version.

### **User-friendly operation**

The large 93×28 mm (3<sup>21</sup>/<sub>32</sub>×1<sup>3</sup>/<sub>32</sub> in) full dotmatrix display presents an easy-to-read graphical interface. In addition, tuning knobs and buttons for each band are arranged sideby-side, providing intuitive operation.

#### Other features

• Separate controller from main unit • 50W output on both VHF/UHF bands • Total of 522 memory channels • 16 DTMF memory channels • 50 CTCSS and 104×2 DTCS encoder/decoder\*2 • Diversity receive capability • ±2.5ppm high frequency stability with TCXO unit • Green to amber variable display background • 9600 bps packet terminal, mini-DIN (6-pin) connector • Max 45 channel/ sec. high speed scan capability in programmed scanning mode • Band scope function \*2 FM mode only.



## 1200MHz DIGITAL TRANSCEIVER

128kbps data and 4.8kbps digital voice communication

PC remote control software

**Wireless Internet access** 

### 4.8kbps DV (digital voice) mode and 128kbps\* DD (data) mode

The ID-1 has three modes — analog FM, digital voice and data mode operation. The built-in AMBE® vocoder chip provides digitally modulated, clear audio as well as 128kbps wireless data transmission. In DD mode operation, you can use various Internet applications wirelessly by connecting to a PC with Ethernet and USB cables.

\* Maximum speed.

### PC remote controller supplied

The PC controller software\* is supplied with the ID-1. When the ID-1 is connected to a PC, most functions of the ID-1 can be controlled from the PC screen. The controller software is convenient for editing memory channels, writing short data messages, and checking received call records, etc.

\* Windows 7 compatible.

### Wireless Internet access

D-STAR's DD mode supports the Ethernet protocol for Internet connectivity. When the ID-1 is connected to a PC, you can access Web sites or check e-mail in DD mode from a remote location\*.

\* Within a D-STAR repeater service area.

#### Other features

- Digital callsign squelch (DSQL) and digital code squelch (CSQL)
   Short data message in DV mode
   Automatic Frequency Control (AFC) function for FM and DV mode
   S-meter squelch
   Programmed, memory and select mode scan
   Break-in communication
   Enhanced Monitor Request (EMR) function
   Auto repeater function for FM mode\*
   Stand-by beep
- \* Depending on version.

## D-STAR



## VHF/UHF DIGITAL TRANSCEIVER IC-80AD

**D-STAR DV mode capability** 

DR (D-STAR repeater) mode for easy setup

CS-80/880 free download software

## VHF/UHF DIGITAL TRANSCEIVER ID-880H

### D-STAR repeater list and DR mode operation

The D-STAR repeater list stores up to 300 channels of repeater call signs, frequencies, gateway call signs, duplex direction and offset frequency with channel names of up to 8 characters. The D-STAR repeater (DR) mode operation makes it easier to use a D-STAR repeater.

### CS-80/880 free download software

Used with the CS-80/880 cloning software, various settings can be made from a PC. Share your memory channels and radio settings between ID-880Hs, IC-80ADs or both. Available for free downloadable from: http://www.icom.co.jp/world/support/index.html \* Fither OPC-1781PC

\* Either OPC-1529R, OPC-478 or OPC-478UC optional cable is required.

### **GPS** position reporting functions

Your position data is shown on the display and can be sent to other station\*2. In addition, the GPS A mode assists in D-PRS mode operation to send your position information to an APRS server.

#### Other features

- Total of 1052 memory channels 16 DTMF memories 50 CTCSS and 104×2 DTCS encoder/decoder\*3 Wideband receiver\*4
- External DC power jack for IC-80AD (10–16V DC)
   IC-80AD is compact body with water resistance (Equivalent to IPX4)
   ID-880H has detachable controller
   Backlit LCD
- Auto power off and on Power save
- \*¹ Optional GPS speaker-microphone, HM-189GPS required. 3rd party GPS receiver is required for ID-880H.
- \*2 Tx:Rx:Stand-by=1:1:8 (min.) Power save on. \*3 FM mode
- \*4 Receiver range differs depending on version.



\*4 FM mode

VHF/UHF DUAL BAND TRANSCEIVER

IC-92AD

sion. \*3 VHF/UHF single mode Tx:Rx:Stand-by=1:1:8

With optional UT-121"

Plugged

MIL-STD 810

Other

Total

-5 houtery pareness of the pareness

D-STAR DV mode capability with optional UT-121\*1

Wideband receiver\*2 with dualwatch capability

5W (typ.) output power on 144 and 430(440)MHz band

### Other features

- Total of 1304 memory channels
   Up to 4.5
   5 hours\*3 of operating time with BP-217 battery pack
   Large dot-matrix LCD
   10 DTMF memories
   50 CTCSS and 104x2 DTCS encoder/decoder\*4
   External DC power jack (10-16V DC acceptable)
   Simple band scope
- Optional PC remote control capability
- Built-in DV voice memory Compact body with water resistance (Equivalent to IPX4)
- Backlit LCD
- \*1 Already installed in the IC-91AD. Only available in the IC-91A configuration in the USA
- \*2 Receiver range differs depending on version. \*3 VHF/UHF single mode Tx:Rx:Stand-by=1:1:8
- \*4 FM mode only

VHF/UHF DUAL BAND TRANSCEIVERS

IC-91AD/A

IC-91AD

### **Mobile** Transceivers

Detachable front panel





**VHF/UHF FM TRANSCEIVER** C-208H Powerful 55W/50W output (VHF/UHF)

> Wideband receiver (Depending on version)

Compact, detachable front panel with separation cable

### Wideband receiver

The IC-208H receiver covers 118-173. 230-549 and 810-999 MHz\* as standard. Listen to amateur bands, as well as aviation, marine, weather and other utility communications in a compact mobile package. \* Receiver range differs depending on version.

The 3.5m (11.5ft) separation cable, OPC-600/R, is supplied with the radio allowing the compact remote control head\* to be installed almost anywhere.

\* 111(W)×40(H)×26.3(D) mm; 43/8×19/16×11/32 in.

#### Other features

- 55W/50W (VHF/UHF) output power 512 memory channels with 10 memory banks • 16 DTMF memory channels • 50 CTCSS, 104×2 DTCS encoder/decoder • Pocket beep and tone scan . Squelch attenuator
- · Weather channel with weather alert\*
- 9600bps packet data terminal Easy to manage bank link scan system
- Microphone sensitivity setting Amber, green and yellow, triple color LCD
- \* U.S.A. version only.





144MHz FM TRANSCEIVER C-V8000 **Unbeatable 75W output power** with efficient cooling fan

**Total 200 memory channels** with 10 memory banks

Remote control microphone, HM-133V

### 75W of output power

The combination of Icom's one piece, die-cast aluminum chassis and MOS-FET power amplifier delivers a powerful 75W output power. Your communications will get through.

### **Dynamic Memory Scan (DMS)**

With 200 alphanumeric memory channels, Icom's exclusive DMS system gives you flexibility over your scanning lists never offered before in a 2m mobile, fully customizable into 10 memory banks.

#### Other features

- Front mounted speaker 10 DTMF memory channels • DTMF pager/code squelch function with optional UT-108 • 50 CTCSS and 104×2 DTCS encoder/decoder • Pocket beep and tone scan • Squelch attenuator • Weather channel with weather alert\* • Narrow band FM mode\* • Cooling fan control • Squelch delay • Amber and green, dual color LCD
- \* U.S.A. version only.







144MHz FM TRANSCEIVER C-2200H Stable 65W output power

Optional digital unit, UT-118

User-friendly interface and durable construction

### 65W\* of output power

A MOS-FET power amplifier provides 65W\* of stable output power. A one piece, aluminum chassis helps to keep the transceiver cool and provides durable long-lasting construction.

\* Depending on version.

### Optional digital unit, UT-118

The optional UT-118 provides D-STAR DV mode operation compatible with other D-STAR radios.

#### And more...

• 207 memory channels with 10 memory banks • 16 DTMF memory channels • DTMF pager/code squelch function with optional UT-108 • 50 CTCSS and 104×2 DTCS encoder/decoder • Pocket beep and tone scan • Squelch attenuator • Weather channel with weather alert function\* • FM narrow mode . Data jack for connecting with PC or GPS • ALC (Automatic Level Control) • Squelch delay • Easy to manage bank link scan system • Amber and green, dual color LCD

\* U.S.A. version only.

### Handheld Transceivers



5W powerful output for both 144 and 430(440) MHz bands

> 700mW loud audio with a BTL amplifier

IP54 and MIL-STD-810 rugged construction

#### Other Features

- · A total of 302 memory channels with 26 memory banks • Up to 13.5 hours\*1 of operating time with BP-265 battery pack • 16 DTMF autodial memories • CTCSS and DTCS encoder/ decoder • Pocket beep and tone scan • Automatic repeater function\*2
- · Weather channel receive and WX alert function\*2 • External DC power jack • Internal VOX function • Backlit LCD • Auto power off
- Auto power save FM narrow mode
- \*1 5:5:90 duty cycle with auto power save ON.
- \*2 USA version only



750mW (tvp.) loud audio with a BTL amplifier

5.5W output power

IP54 and MIL-STD-810 rugged construction

### Other features

- A total of 207 memory channels Up to 19 hours\*1 of operating time with BP-265 battery pack. Up to 13 hours\*1 of operating time with BP-264 • 16 DTMF autodial memories
- CTCSS and DTCS encoder/ decoder
- Pocket beep and tone scan Automatic repeater function\*2 • Program, memory, priority and tone scans • Weather channel receive and WX alert function\*2 • Internal VOX function • Backlit LCD • Auto power off • Auto power save • FM narrow mode
- \*1 5:5:90 duty cycle with auto power save ON.
- \*2 USA version only

VHF/UHF FM TRANSCEIVER C-T70A



7W output power on 144MHz 5W on 430(440) MHz

**Optional UT-118 provides D-STAR** format digital voice and data

200 alphanumeric memories with 10 memory banks

#### Other features

• Up to 7 hours\*1 of operating time with optional BP-210N battery pack • 16 DTMF memories • DTMF pager/code squelch function with optional UT-108 • 50 CTCSS and 104×2 DTCS encoder/decoder • Pocket beep and tone scan • Automatic repeater function\*2 • Weather channel receive with weather alert\*3 • Reversible control knob and up/down buttons assignment • Backlit LCD

• Mic simple mode with optional HM-75A \*1 IC-U82 Typical operation with Tx:Rx:Stand-by=1:1:8 Up to 6 hours for IC-V82. \*2 USA/CSA versions only

\*3 IC-V82 USA/CSA versions only

-V82 •IC-U82 144MHz 430(440)MHz

VHF AND UHF TRANSCEIVERS

5.5W (typ.) of output power with supplied battery pack

Military-grade tough construction

Reversible up/down buttons and rotary selector

#### Other features

- Up to 11 hours\*1 of operating time with optional BP-210N battery pack • 5 DTMF memories • DTMF pager/code squelch function with optional UT-108 • 50 CTCSS and 104×2 DTCS encoder/decoder • Pocket beep and tone scan • Reversible control knob and up/down buttons assignment • Mic simple mode with optional HM-75A • Backlit LCD • Fast scanning speed 40 channel per second (Program scan mode).
- \*1 Typical operation with Tx:Rx:Stand-by=1:1:8
- \*2 No longer available in the USA.

144MHz FM TRANSCEIVER



**IC-V80** 

### OPTIONS FOR HF/50MHz/VHF/UHF ALL MODE TRANSCEIVERS

	HAND MICI	ROPHONES	DESKTOP MI	CROPHONES		EXTERNAL	SPEAKERS		DC POWER SUPPLIES
MODEL NAME	HM-36	HM-151	SM-50	5M-20	SP-10	SP-20	SP-21	SP-23	PS-125 13.8V/25A 6-pin type
IC-7800	V		<b>V</b>	V		<b>V</b>			
IC-7700	V		V	~		~			
IC-7600	V		<b>V</b>	V				V	
IC-7200	V		<b>/</b>	V	<b>✓</b>	<b>✓</b>	<b>'</b>		
IC-718	V		<b>V</b>	V		V	V	V	<b>/</b>
IC-7000		<b>'</b>	(Use with OPC-589)	(Use with OPC-589)	<b>~</b>				
IC-910H	V		<b>V</b>	<b>V</b>		<b>V</b>	<b>/</b>	V	<b>/</b>

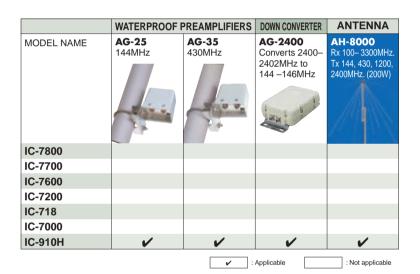
	DC POWER SUPPLIES	ANTENNA ELEMENT	ANTENNA	TUNERS	FOLDED DIPOLE ANTENNA	FILT	ERS	HIGH STABILITY	CRYSTAL UNITS
MODEL NAME	PS-126 13.8V/25A 4-pin type	AH-2b Covers 7–54MHz	AH-4 Matches 3.5–54 MHz bands	AT-180	AH-710 Covers 1.9–30 MHz bands. 30 m; 98.4 ft	FL-52A 500Hz/-6dB FL-53A 250Hz/-6dB FL-222 1.8kHz/-6dB FL-257 3.3kHz/-6dB	FL-132 500Hz/–6dB (for Main band) FL-133 500Hz/–6dB (for Sub band)	CR-293 Frequency stability: ±0.5ppm	CR-338 Frequency stability: ±0.5ppm
IC-7800									
IC-7700									
IC-7600	V	<b>/</b>	~						
IC-7200	V	<b>/</b>	~	~	<b>✓</b>				
IC-718		<b>V</b>	V	V	V	(Accepts only one filter)			<b>/</b>
IC-7000	V	<b>/</b>	~	V					
IC-910H							<b>/</b>	<b>V</b>	

	VOICE SYNTHESIZER	DSP UNIT	CI-V CONVERTER	LINEAR AMPLIFIER	CARRYING HANDLES	HANDLES	MOBILE	MOUNTING BE	RACKETS
MODEL NAME	UT-102	UT-106	CT-17	IC-PW1	MB-23 MB-106 MB-117 MB-121	MB-116	IC-MB5	MB-62	MB-118
IC-7800			~	V					
IC-7700			~	V					
IC-7600			~	V	(Use MB-121)				
IC-7200			<b>✓</b>	(Use with OPC-599)	(Use MB-117)	✓			~
IC-718	V	(Installed depending on version)	V	(Use with OPC-599)	(Use MB-23)		V		
IC-7000			~	(Use with OPC-599)	(Use MB-106)			V	
IC-910H	V	(Up to two units)	~		(Use MB-23)		V		

: Applicable : Not applicable

### OPTIONS FOR HF/50MHz/VHF/UHF ALL MODE TRANSCEIVERS

	MOUNTING BASE	CONTROLLER BRACKET	SEPARATION CABLE	MIC ADAPTER CABLE	ACC CABLE	ADAPTER CABLE	ACC 13-PIN CABLE	DC POWER CABLES	1200MHz BAND UNIT
MODEL NAME	MB-120	MB-105	OPC-1443 3.5m;11.5ft OPC-1444 5.0m;16.4ft	8-pin connector microphone to 8-pin modular	OPC-598 13-pin ACC long cable for AT-180 7.0m;22ft	OPC-599 13-pin ACC socket to 7-, 8- pin ACC sockets	OPC-742 Connection cable between transceiver and AT-180 with 2m/70cm linear amplifier	OPC-025A 20A cable OPC-025D 30A cable OPC-1229 4A cable OPC-1457 30A cable	UX-910
IC-7800									
IC-7700									
IC-7600								(Use OPC-1457)	
IC-7200					~	<b>✓</b>		(Use OPC-1457)	
IC-718						V		(Use OPC-025A)	
IC-7000	(Use with MB-105)	~	~	~	~	~	~	(Use OPC-1457)	
IC-910H								(Use OPC-025D)	<b>V</b>





### OPTIONS FOR MOBILE TRANSCEIVERS

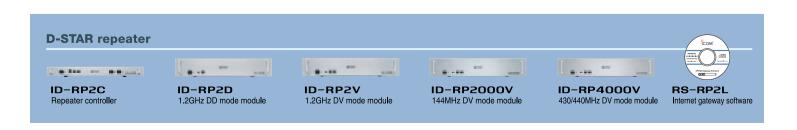
		HAND MICE	ROPHONES		CONTROLLER BRACKET	MOUNTING BASE	DC POWER CABLES	CONTR	OLLER
MODEL NAME	HM-154	HM-154T w/DTMF keypad	HM-133/V w/DTMF keypad	HM-103	MB-58	MB-120	OPC-347 7.0m: 23ft OPC-1132A 3.0m: 9.8ft	RC-24	
ID-1	V							<b>/</b>	
IC-2820H	<b>V</b>		(Use HM-133)				<b>✓</b>		
ID-880H	V		(Use HM-133)	<b>/</b>		<b>/</b>	<b>/</b>		
IC-208H	<b>✓</b>	<b>V</b>	(Use HM-133)		<b>/</b>	(Use with MB-58)	<b>✓</b>		
IC-V8000	V	V	(Use HM-133V)				<b>/</b>		
IC-2200H	<b>✓</b>	<b>V</b>	(Use HM-133V)				<b>✓</b>		

	SEPARATIO	N CABLES	SPEAKER CABLE	MICROPHONE CABLES	MIC ADAPTER CABLE	DATA CABLE	CI	ONING CABL	ES
MODEL NAME	OPC-600/R 3.5m: 11.5ft OPC-601/R 7.0m: 23ft	<b>OPC-1663</b> 3.4m: 11.2ft <b>OPC-1712</b> 10cm: 3.9in	<b>OPC-441</b> 5.0m: 16.4ft	<b>OPC-440</b> 5.0m: 16.4ft <b>OPC-647</b> 2.5m: 8.2ft	8-pin connector microphone to 8-pin modular	OPC-1529R For data communication and PC cloning	OPC-474 Between transceivers	OPC-478 Transceiver to PC RS-232C cable	OPC-478UC Transceiver to PC USB cable
	2	<b>B</b>	<b>Q</b>	0		-			90
ID-1				~					
IC-2820H		~	~	~	~	~	~	~	<b>✓</b>
ID-880H			<b>/</b>	~	V	<b>✓</b>	~	V	<b>/</b>
IC-208H	V		~	~	~		~	V	
IC-V8000			V	V	V		V	V	
IC-2200H			<b>✓</b>	<b>✓</b>	<b>✓</b>		<b>✓</b>	<b>✓</b>	

	CLONING SOFTWARE	EXTERNAL	SPEAKERS	DTMF DECODER UNIT	DIGITAI	UNITS
MODEL NAME	CS-208 CS-2200H CS-2820*2 CS-80/880*1*2 CS-V8000 Optional OPC-478, OPC-478UC or OPC-1529R cable required for pro- gramming.	SP-10	SP-22	UT-108	UT-118	UT-123 With GPS receiver
ID-1		V	V			
IC-2820H	(Use CS-2820)	<b>V</b>				<b>✓</b>
ID-880H	(Use CS-80/880)	V				
IC-208H	(Use CS-208)	<b>/</b>				
IC-V8000	(Use CS-V8000)	V		~		
IC-2200H	(Use CS-2200H)	~		~	~	

<sup>\*1</sup> CS-80/880 is available for free download from: http://www.icom.co.jp/world/support/index.html

\*2 Windows® 7 compatible.



: Applicable

: Not applicable

### OPTIONS FOR HANDHELD TRANSCEIVERS

		BATTER	Y CASES			В	ATTERY PACK	S	
MODEL NAME	BP-208N AA(LR6)×6 cells	BP-216 AA(LR6)×2 cells	BP-257 AA(LR6)×2 cells	BP-263 AA(LR6)×6 cells	BP-209N (Ni-Cd) 7.2V/ 1100mAh	BP-210N (Ni-MH) 7.2V/ 1650mAh	<b>BP-217</b> (Li-lon) 7.4V/1500mAh (min.) 1580mAh (typ.)	(Ni-Cd)	<b>BP-256</b> (Li-lon) 7.4V/1620mAh (min.) 1700mAh (typ.)
IC-92AD			~						<b>/</b>
IC-80AD		~					<b>✓</b>		
IC-91AD/A		~					V		
IC-T70A				~					
IC-V80				~					
IC-V82, IC-U82	V				V	<b>✓</b>		<b>✓</b>	
IC-V8	V				V	<b>✓</b>		<b>/</b>	

	BATTER	Y PACKS			DES	KTOP CHARG	ERS		
MODEL NAME	<b>BP-264</b> (Ni-MH) 7.2V/1400mAh	<b>BP-265</b> (Li-lon) 7.4V/1900mAh (min.) 2000mAh (typ.)		BC-121N Rapid multi-charger	BC-139 Rapid charger Includes AC adapter	BC-144N Rapid charger	BC-146 Regular charger	BC-177 Rapid charger Includes AC adapter	BC-191 Rapid charger (For BP-264)
IC-92AD								V	
IC-80AD					<b>/</b>				
IC-91AD/A					V				
IC-T70A	V	V							(Use with BC-123)
IC-V80	V	V							(Use with BC-123)
IC-V82, IC-U82			(Use with AD-101+BC-145)	(Use with AD-101+BC-157)		(Use with BC-145)	(Use with BC-147)		
IC-V8			(Use with AD-101+BC-145)	(Use with AD-101+BC-157)		(Use with BC-145)	(Use with BC-147)		

	DESKTOP (	CHARGERS		AC ADA	PTERS		WALL CHARGER	CHARGER ADAPTER	CIGARETTE CABLE
MODEL NAME	BC-192 Regular charger (For BP-264)	BC-193 Rapid charger (For BP-265)	BC-123*1 12V/1A	BC-145*2 16V/1A	BC-147*3 12V/200mA	BC-157*4 12V/6.6A	BC-167*5 12V/500mA	AD-101	CP-12L with noise filter
IC-92AD							V		~
IC-80AD							V		<b>✓</b>
IC-91AD/A							V		
IC-T70A	(Use with BC-147)	(Use with BC-123)	(Use with BC-191 or BC-193)		(Use with BC-192)		<b>✓</b> *6		<b>✓</b> *6
IC-V80	(Use with BC-147)	(Use with BC-123)	(Use with BC-191 or BC-193)		(Use with BC-192)				
IC-V82, IC-U82				(Use with BC-144N or BC-119N)	(Use with BC-146)	(Use with BC-121N)		(Use with BC-119N or BC-121N)	
IC-V8				(Use with BC-144N or BC-119N)	(Use with BC-146)	(Use with BC-121N)		(Use with BC-119N or BC-121N)	

<sup>\*1</sup> BC-123SA for USA, SE for Europe and SV for Australia version available.

: Applicable : Not applicable

<sup>\*2</sup> BC-145SA for USA, SE for Europe, SV for Australia and SUK for UK version available.

 $<sup>^{\</sup>star_3}$  BC-147SA for USA, SE for Europe and SV for Australia version available.

<sup>\*\*</sup> BC-167 SA for USA, SE for Europe and Sv for Australia Versions available.

\*\* BC-167 For USA, Europe, UK and Australia versions available.

\*\* BC-167 SA for USA, SD for Europe and SV for Australia version available.

\*\* BP-265 cannot be charged using the external DC power jack.

### OPTIONS FOR HANDHELD TRANSCEIVERS

	CIGARETTE LIC	GHTER CABLES	DC	POWER CABI	_ES		SPEAKER-MI	CROPHONES	
MODEL NAME	CP-19R with DC-DC converter	CP-23L	8 S	OPC-515L	OPC-656 12-20V DC CABLE	HM-46/L	HM-54	HM-75A	HM-131
IC-92AD	V	(Use with BC-177)	V					(Use with OPC-1797)	(Use with OPC-1797)
IC-80AD	~	(Use with BC-139)	~					~	V
IC-91AD/A	V	(Use with BC-139)	V					V	V
IC-T70A	<b>✓</b> *6	(Use with BC-191 or BC-193)	<b>✓</b> *6	(Use with BC-191, BC-192 or BC-193)					<b>'</b>
IC-V80		(Use with BC-191 or BC-193)		(Use with BC-191, BC-192 or BC-193)					
IC-V82, IC-U82		(Use with BC-144N or BC-119N)			(Use with BC-121N)			~	
IC-V8		(Use with BC-144N or BC-119N)			(Use with BC-121N)	(Use HM-46L)	<b>V</b>	<b>V</b>	

<sup>\*6</sup> BP-265 cannot be charged using the external DC power jack.

		SPEA	KER-MICROPH	IONES		EARPHONE-N	ICROPHONES	HEAD	SETS
MODEL NAME	HM-158L	HM-159L	HM-174	HM-175GPS	HM-189GPS GPS	HM-153/L	HM-166/L	HS-94 Earhook type with boom microphone	HS-95 Behind-the-head type
IC-92AD			V	V	1	(Use HM-153 with OPC-1797)	(Use HM-166 with OPC-1797)	0	
IC-80AD					<b>✓</b>	(Use HM-153)	(Use HM-166)		
IC-91AD/A						(Use HM-153)	(Use HM-166)		
IC-T70A						(Use HM-153)		(Use with OPC-2006)	(Use with OPC-2006)
IC-V80	V	V				(Use HM-153L)		(Use with OPC-2004)	(Use with OPC-2004)
IC-V82, IC-U82	~	~				(Use HM-153L)	(Use HM-166L)	(Use with VS-1L)	(Use with VS-1L)
IC-V8	V	V				(Use HM-153L)	(Use HM-166L)		

	HEADSETS	VOX/PTT CASE	EARP	HONES	PLUG	ADAPTER CA	BLES	BELT	CLIPS
MODEL NAME	HS-97 Throat microphone type	VS-1L	SP-13	SP-27	OPC-1797	OPC-2004	OPC-2006	MB-86 Swivel type	MB-103 Alligator type
IC-92AD			(Use with OPC-1797)		~				
IC-80AD			V	~				<b>✓</b>	
IC-91AD/A			<b>✓</b>	~					
IC-T70A	(Use with OPC-2006)			~			~		
IC-V80	(Use with OPC-2004)			~		V			
IC-V82, IC-U82	(Use with VS-1L)	V	<b>✓</b>	V				<b>✓</b>	<b>✓</b>
IC-V8			~	~				~	<b>/</b>

: Applicable : Not applicable

### OPTIONS FOR HANDHELD TRANSCEIVERS

	BELT	CLIPS	LEATHER BE	LT HANGERS	CA	ARRYING CASI	ES	DIGITA	L UNITS
MODEL NAME	MB-111 Alligator type	MB-124 Alligator type	MB-96N Swivel type. MB-86 swivel joint supplied	MB-96F Fixed type	LC-163	LC-168	LC-174	UT-118	UT-121
IC-92AD	V					<b>V</b>			
IC-80AD					<b>✓</b>				
IC-91AD/A					<b>/</b>				(Already installed in IC-91AD)
IC-T70A		<b>/</b>					<b>✓</b>		
IC-V80		V							
IC-V82, IC-U82			~	~				~	
IC-V8			V	V					

	DTMF DECODER UNIT	CL	ONING CABL	ES	DATA C	ABLES	CLONING SOFTWARE	REMOTE CONT	ROL SOFTWARE
MODEL NAME	UT-108	OPC-474 Between transceivers	OPC-478 Transceiver to PC RS-232C cable	OPC-478UC Transceiver to PC USB cable	OPC-1529R Transceiver to PC RS-232C cable	OPC-1799 Transceiver to PC RS-232C cable	CS-80/880*1*2 CS-T70*2 CS-V8 CS-V80*2 CS-V80*2 Optional OPC-478, OPC-478UC or OPC-1529R cable required for pro- gramming.	RS-91*2 OPC-1529R cable included	RS-92*2 OPC-1799 cable included
IC-92AD		(Use with two OPC-1797s)				V			<b>✓</b>
IC-80AD		~	~	<b>✓</b>	~		(Use CS-80/880)		
IC-91AD/A		<b>/</b>			~			<b>V</b>	
IC-T70A		~	~	<b>✓</b>			(Use CS-T70)		
IC-V80		~	<b>V</b>	V			(Use CS-V80)		
IC-V82, IC-U82	V	<b>✓</b>	<b>✓</b>				(Use CS-V82)		
IC-V8	V	<b>/</b>	<b>/</b>				(Use CS-V8)		

<sup>\*1</sup> CS-80/880 is available for free download from: http://www.icom.co.jp/world/support/index.html
\*2 Windows® 7 compatible.

	ANTENNA ADAPTER	ANTENNAS
MODEL NAME	AD-92SMA BNC type antenna connector	FA-B2E FA-B70C FA-S270C
	38	
IC-92AD	~	(Use FA-S270C)
IC-80AD	~	(Use FA-S270C)
IC-91AD/A	<b>/</b>	(Use FA-S270C)
IC-T70A	~	(Use FA-S270C)
IC-V80		(Use FA-B2E)
IC-V82, IC-U82		(Use FA-B2E/B70C)
IC-V8		(Use FA-B2E)

### **SPECIFICATIONS FOR HF/50MHz TRANSCEIVERS**

		IC-7800	IC-7700	IC-7600	IC-7200	
	Frequency coverage (Differs according to version)	Tx: 1.8, 3.5, 5*1, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz–60MHz*2  *1 Depending on version.  *2 Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 5*1, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz=60MHz*2  *1 Depending on version.  *2 Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 5*1, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz–60MHz*2*  *1 Depending on version.  *2 Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 5*1, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz=60.000MHz*2 *1 Depending on version. *2 Some frequency ranges are not guaranteed.	
	Modes	USB, LSB, CW, RTTY, PSK31, AM, FM	USB, LSB, CW, RTTY, PSK31, AM, FM	USB, LSB, CW, RTTY, PSK31, AM, FM	USB, LSB, CW, RTTY, AM	
	Frequency stability ±0.05ppm (0°C to +50°C +32°F to +122°F, after warm		±0.05ppm (0°C to +50°C; +32°F to +122°F, after warm up)	±0.5ppm (0°C to +50°C; +32°F to +122°F, after warm up)	±0.5ppm (-10°C to +60°C; +14°F to +140°F)	
eral	Maximum current drain	800VA	800VA	23A at 13.8V DC	22A at 13.8V DC	
Gen	Power supply requirement	85–265V AC (Autosensing)	85–265V AC (Autosensing)	13.8V DC ±15%	13.8V DC ±15%	
	Antenna connector	SO-239 $\times$ 4 + BNC $\times$ 2 (50 $\Omega$ )	SO-239 × 4 + BNC (50Ω)	SO-239 × 2 + phono [(RCA) 50Ω]	SO-239 (50Ω)	
	Number of memory channels	101 (99 regular, 2 scan edges)	101 (99 regular, 2 scan edges)	101 (99 regular, 2 scan edges)	201 (199 regular, 2 scan edges)	
	Dimensions (WxHxD; Projections are not included)	424×149×435 mm; 16 <sup>11</sup> /16×5 <sup>7</sup> /8×17 <sup>1</sup> /8 in	425×149×437 mm; 16 <sup>23</sup> / <sub>32</sub> ×5 <sup>7</sup> / <sub>8</sub> ×17 <sup>7</sup> / <sub>32</sub> in	340×116×279.3 mm; 13%×4%₅×11 in	241×84×281 mm; 9½x3 <sup>5</sup> / <sub>16</sub> ×11½6 in	
	Weight (approx.) 25kg; 55lb		22.5kg; 49.6lb	10.0kg; 22lb	5.5kg; 12.1lb	
	Output power	SSB, CW, RTTY, PSK31, FM: 5–200W AM: 5–50W	SSB, CW, RTTY, PSK31, FM: 5–200W AM: 5–50W	SSB, CW, RTTY, PSK31, FM: 2–100W AM: 1–30W	SSB, CW, RTTY: 2–100W AM: 1–25W	
Transmitter	Spurious emissions  Less than -60dB (HF) Less than -70dB (50MHz)		Less than –60dB (HF) Less than –70dB (50MHz)	Less than –50dB (HF) Less than –63dB (50MHz)	Less than –50dB (HF) Less than –63dB (50MHz)	
Trans	Carrier suppression	More than 63dB	More than 63dB	More than 40dB	More than 50dB	
	Unwanted sideband	More than 80dB	More than 80dB	More than 55dB	More than 50dB	
	Microphone connector	8-pin connector (600Ω)	8-pin connector (600Ω)	8-pin connector (600Ω)	8-pin connector (600Ω)	
	Sensitivity (typical) Preamp ON SSB, CW, RTTY, AM: at 10dB S/N FM, WFM: at 12dB SINAD	SSB, CW, RTTY, PSK31 (2.4kHz):  0.1–1.799MHz 0.5μV  1.8–29.999MHz 0.16μV  50–54MHz 0.13μV  AM (6kHz):  0.1–1.799MHz 6.3μV  1.8–29.999MHz 2.0μV  50–54MHz 1.0μV  FM (15kHz):  28–29.999MHz 0.5μV  50–54MHz 0.32μV	SSB, CW, RTTY, PSK31 (2.4kHz):  0.1–1.799MHz 0.5µV  1.8–29.999MHz 0.16µV  50–54MHz 0.13µV  AM (6kHz):  0.1–1.799MHz 6.3µV  1.8–29.999MHz 2.0µV  50–54MHz 1.0µV  FM (15kHz):  28–29.999MHz 0.5µV  50–54MHz 0.32µV	SSB, CW, RTTY (2.4kHz):  1.8–29.995MHz 0.15μV 50–54MHz 0.12μV AM (6kHz): 0.5–1.799MHz 6.3μV 1.8–29.995Hz 2.0μV 50–54MHz 1.6μV FM (15kHz): 28–29.7MHz 0.5μV 50–54MHz 0.3μV	SSB, CW: 1.8–29.999MHz 0.16μV 50–54MHz 0.13μV AM: 0.5–1.8MHz 13μV 1.8–29.995MHz 2.0μV 50–54MHz 1.0μV	
Receiver	SSB: 2.4kHz/-3dB (2.4kHz) 3.6kHz/-60dB CW: 500Hz/-3dB (500Hz) 700Hz/-60dB RTTY, PSK31: 360Hz/-60dB (350Hz) 650Hz/-60dB AM: 6.0kHz/-3dB (6kHz) 15kHz/-60dB FM: 12kHz/-6dB (15kHz) 20kHz/-6ddB (15kHz) 20kHz/-60dB * Variable between 50Hz and 3.6kHz		SSB, RTTY: 2.4kHz/–3dB (2.4kHz) 3.6kHz/–60dB CW: 500Hz/–3dB (500Hz) 700Hz/–60dB AM: 6.0kHz/–3dB (6kHz) 15kHz/–60dB FM: 12kHz/–6dB (15kHz) 20kHz/–6dB (15kHz) 20kHz/–60dB * Variable between 50Hz and 3.6kHz	SSB: 2.4kHz/–6dB (2.4kHz) 3.8kHz/–60dB CW: 500Hz/–6dB (500Hz) 900Hz/–60dB RTTY: 350Hz/–6dB (350Hz) 650Hz/–6dB (350Hz) 650Hz/–6dB (6kHz) 15kHz/–6dB [6kHz) 15kHz/–6dB [15kHz) 20kHz/–6dB (15kHz) 20kHz/–6dB	SSB: 2.4kHz/–6dB (2.4kHz) 3.6kHz/–60dB CW: 500Hz/–6dB (500Hz) 900Hz/–60dB RTTY: 360Hz/–6dB (350Hz) 650Hz/–6dB AM: 6.0kHz/–6dB (6kHz) 15.0kHz/–60dB * Variable between 50Hz and 3.6kHz.	
	Spurious and image rejection	More than 70dB	More than 70dB	More than 70dB* (* Except IF point on 50MHz band)	More than 70dB* (* Except ½ IF point on 50MHz band)	
	AF power (at 10% distortion with an 8Ω load)	More than 2.6W	More than 2.6W	More than 2.0W	More than 2.0W	
	External speaker connector	2-conductor 3.5 (d) mm (½")/8 $\Omega$ ×2 (for main and sub bands)	2-conductor 3.5 (d) mm (1/8")/8Ω	2-conductor 3.5 (d) mm (¹/s")/8Ω	2-conductor 3.5 (d) mm (1/8")/8Ω	

The LCD display may have cosmetic imperfections that appear as small or dark spots. This is not a malfunction or defect, but a normal characteristic of LCD displays.

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

### SPECIFICATIONS FOR HF/50MHz/VHF/UHF ALL MODE TRANSCEIVERS

		IC-718	IC-7000	IC-910H
	Frequency coverage (Differs according to version)	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28MHz bands Rx: 30kHz–29.999MHz*  *1 Guaranteed range 0.5–29.999MHz.	Tx: 1.8, 3.5, 5*, 7, 10, 14, 18, 21, 24, 28, 50, 144, 430(440)MHz bands Rx: 30kHz–199.999, 400–470MHz* <sup>2</sup> * Depending on version. * Some frequency ranges are not guaranteed.	U.S.A. version: Tx: 144–148, 430–450, 1240–1300*1 MHz Rx:136–174*2, 420–480*2, 1240–1320*1 MHz
	Modes	USB, LSB, CW, RTTY, AM	USB, LSB, CW, RTTY, AM, FM, WFM* (*Rx only)	USB, LSB, CW, FM, FM-N (FM-N is not available in 1200MHz band)
<u>=</u>	Frequency stability	Less than ±200Hz (From 1 min. to 60 min. after power ON)	±0.5ppm (0°C to +50°C; +32°F to +122°F)	±3ppm (-10°C to +60°C; +14°F to +140°F)
General	Maximum current drain	20A at 13.8V DC	22A at 13.8V DC	23A at 13.8V DC
9	Power supply requirement	13.8V DC ±15%	13.8V DC ±15%	13.8V DC ±15%
	Antenna connector	SO-239 (50Ω)	SO-239 × 2 (for HF/50MHz and 144/430(440)MHz bands: 50Ω)	144MHz SO-239 (50Ω) 440MHz Type-N (50Ω) 1200*1MHz Type-N (50Ω)
	Number of memory channels	101 (99 regular, 2 scan edges)	503 (495 regular, 6 scan edges and 2 call)	328*1 (99 regular, 6 scan edges and 1 call for each band plus 10 satellite memories)
	<b>Dimensions</b> (WxHxD; Projections are not included)	240×95×239 mm; 9 <sup>7</sup> / <sub>16</sub> ×3 <sup>3</sup> / <sub>4</sub> ×9 <sup>13</sup> / <sub>32</sub> in	167×58×180 mm; 6 <sup>9</sup> /16×2 <sup>9</sup> /32×7 <sup>3</sup> /32 in	241×94×239 mm; 9½×3 <sup>11</sup> / <sub>16</sub> ×9 <sup>13</sup> ⁄ <sub>32</sub> in
	Weight (approx.)	3.8kg; 8.4lb	2.3kg; 5.1lb	4.5kg; 9.9lb (IC-910H) 850g; 1.9lb (UX-910)
tter	Output power	SSB, CW, RTTY: 2–100W AM: 2–35W	SSB, CW, RTTY, FM:  1.8–50MHz 2–100W  144MHz 2–50W  430(440)MHz 2–35W  AM: 1.8–50MHz 1–40W  144MHz 2–20W  430(440)MHz 2–14W	144MHz 5–100W 440MHz 5–75W 1200MHz* <sup>1</sup> 1–10W
Transmitter	Spurious emissions	Less than -50dB	Less than -50dB (HF) Less than -60dB (other bands)	Less than -60dB (144/430MHz) Less than -50dB (1200MHz*1)
	Carrier suppression	More than 40dB	More than 50dB	More than 40dB
	Unwanted sideband	More than 50dB	More than 50dB	More than 40dB
	Microphone connector	8-pin connector (600Ω)	8-pin modular (600Ω)	8-pin connector (600Ω)
	Sensitivity (typical) Preamp ON SSB, CW, RTTY, AM: at 10dB S/N FM, WFM: at 12dB SINAD	SSB, CW, RTTY: 1.8–29.999MHz 0.16μV AM: 0.5–1.799MHz 13μV 1.8–29.999MHz 2.0μV	SSB, CW:  1.8–29.999MHz 0.15µV  50–54MHz 0.12µV  144/430(440)MHz 0.11µV  AM: 0.5–1.8MHz 13µV  1.8–29.999MHz 2.0µV  50–54MHz 1.0µV  144/430(440)MHz 1.0µV  FM: 28–29.7MHz 0.5µV  50–54MHz 0.25µV  144/430(440)MHz 0.18µV  WFM: 76–108MHz 10µV	SSB, CW: 0.11μV FM: 0.18μV
Receiver	Selectivity	SSB, CW, RTTY: 2.1kHz/-6dB 4.5kHz/-60dB AM: 6.0kHz/-6dB 20kHz/-40dB	SSB: 2.4kHz/-6dB (2.4kHz) 3.6kHz/-6dB CW: 500Hz/-6dB (500Hz) 900Hz/-6dB RTTY: 360Hz/-6dB (350Hz) 650Hz/-60dB AM: 6.0kHz/-6dB (6kHz) 15kHz/-6dB FM: 12kHz/-6dB (15kHz) 20kHz/-6dB	SSB, CW: 2.3kHz/–6dB 4.2kHz/–60dB FM: 15kHz/–6dB 30kHz/–60dB FM-N: 6.0kHz/–6dB 18kHz/–60dB
	Spurious and image rejection (except IF)	More than 70dB (1.8–29.999MHz)	More than 70dB (HF) More than 65dB (other bands; except ½ IF point on 50MHz, IF point 144MHz band)	More than 60dB (144/440MHz band) More than 50dB (1200MHz band*1)
	AF power (at 10% distortion with an $8\Omega$ load)	More than 2.0W	More than 2.0W	More than 2.0W
	External speaker connector	2-conductor 3.5 (d) mm (1/8")/8Ω	2-conductor 3.5 (d) mm (1/8")/8Ω	2-conductor 3.5 (d) mm (1/s")/8 $\Omega$ × 2 (for Main and Sub bands)

 $<sup>^{\</sup>star 1}$  An optional UX-910, 1200MHz band unit is required for 1200MHz operation.  $^{\star 2}$  Guaranteed range 144–148, 430–450MHz

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

### SPECIFICATIONS FOR MOBILE TRANSCEIVERS

	ID-1	IC-2820H	ID-880H	
Frequency coverage (Differs according to version)	1240–1300MHz	U.S.A. version:  Tx 144–148, 430–450MHz*1  Rx (L) 118–549.995MHz*1  (R) 118–173.995, 375–549.995,  810–999.990MHz*1*2  EXP version:  Tx 137–173.995, 400–470MHz*3  Rx (L) 118–549.995MHz*3  (R) 118–173.995, 375–549.995,  810–999.990MHz*3	U.S.A. version: Tx 144-148, 430-450MHz Rx 118-173.995, 230-549.995, 810-999.990MHz*2*4  EXP version: Tx 136-173.995, 400-469.995MHz*3 Rx 118-173.995, 230-549.995, 810-999.990MHz*3	
Max. current drain	7A	13A	VHF 11.5A UHF 12.5A	
Dimensions (W×H×D; Proj. not included)	Main unit: 141×40×165.8 mm; 59/46×19/46×617/32 in Controller: 150×50×49.5 mm; 529/32×131/32×115/46 in	Main unit: 150×40×187.7 mm; 52%32×1%6×7% in Controller: 150×58×31.5 mm; 52%32×2%32×11/4 in	$\begin{array}{llllllllllllllllllllllllllllllllllll$	
Weight (approx.)	Main unit: 1.2kg; 2.6lb Controller: 220g; 7.7oz	Main unit: 1.5kg; 3.3lb Controller: 210g; 7.4oz (With OPC-1712)	1.3kg; 2.9lb (without microphone, cable and bracket)	
Output power (at 13.8V DC; Differs according to version)	High: 10W Low: 1W (approx.)	High: 50W Mid.: 15W (approx.) Low: 5W (approx.)	High: 50W Mid.: 15W (approx.) Low: 5W (approx.)	
Sensitivity (FM: at 12dB SINAD DV, DD: at BER 1% Guaranteed range)	DV Less than 0.35μV DD Less than 1.58μV FM Less than 0.18μV	DV Less than 0.35μV (with UT-123) FM Less than 0.18μV (144, 430 (440) MHz bands)	DV Less than 0.35μV FM Less than 0.18μV (144, 430 (440) MHz bands)	

<sup>\*1</sup> Guaranteed range 144–148 and 440–450MHz. \*2 Cellular blocked. \*3 Guaranteed range 144–148 and 430–440MHz.

<sup>\*4</sup> Guaranteed range 144–148 and 430–450MHz. (L) means left side receiver, (R) means right side receiver.

	IC-208H	IC-V8000	IC-2200H
Frequency coverage (Differs according to version)	U.S.A. version: Tx 144–148, 420–450MHz* <sup>1</sup> Rx 118–173.995, 230–549.995, 810–999.990MHz* <sup>1*2</sup> EXP version: Tx 136–173.995, 400–478.995MHz* <sup>3</sup> Rx 118–173.995, 230–549.995, 810–999.990MHz* <sup>3</sup>	U.S.A. version  Tx 144–148  Rx 136–174* <sup>4</sup> CSA version  Tx/Rx 136–174* <sup>4</sup>	U.S.A. version:  Tx 144–148  Rx 118–174*5  EXP version:  Tx 136–174*5  Rx 118–174*5
Max. current drain	VHF 12A UHF 11.5A	15A	15A
Dimensions (W×H×D; Proj. not included)	141×40×185.4 mm; 5 <sup>9</sup> /16×1 <sup>9</sup> /16×7 <sup>5</sup> /16 in	150×50×150 mm; 5 <sup>29</sup> / <sub>32</sub> ×1 <sup>31</sup> / <sub>32</sub> ×5 <sup>29</sup> / <sub>32</sub> in	140×40×196 mm; 5½×19/16×7²3/32 in
Weight (approx.)	1.2kg; 2.6lb	1.09kg; 2.4lb	1.25kg; 2.75lb
Output power (at 13.8V DC; Differs according to version)	144MHz High: 55W Mid.: 15W (approx.) Low: 5W (approx.) 430 (440) MHz High: 50W Mid.: 15W (approx.) Low: 5W (approx.)	High: 75W Mid-Hi: 25W (approx.) Mid-Lo: 10W (approx.) Low: 5W (approx.)	High: 65W Mid-Hi: 25W (approx.) Mid-Lo: 10W (approx.) Low: 5W (approx.)
Sensitivity (at 12dB SINAD Guaranteed range)	Less than 0.18μV (144, 430 (440) MHz bands)	0.15μV <sub>typ.</sub>	0.133μV typ.

<sup>\*</sup>¹ Guaranteed range 144–148 and 440–450MHz. \*² Cellular blocked. \*³ Guaranteed range 144–148 and 430–440MHz. \*⁵ Guaranteed range 144–148MHz. All stated specifications are subject to change without notice or obligation.

### SPECIFICATIONS FOR HANDHELD TRANSCEIVERS

	IC-92AD	IC-80AD	IC-91AD IC-91A	IC-T70A
Frequency coverage (Differs according to version, Unit: MHz)	U.S.A. version:  Tx 144-148, 420-450*1  Rx (A) 0.495-999.990*1*2  (B) 118-174, 350-470*1  EXP version:  Tx 137-174, 400-470*3  Rx (A) 0.495-999.990*3  (B) 118-174, 350-470*3	U.S.A. version:  Tx 144-148, 420-450*1  Rx 0.495-999.990*1*2  EXP version:  Tx 137-174, 400-470*3  Rx 0.495-999.990*3	U.S.A. version:  Tx 144-148, 420-450*1  Rx (A) 0.495-999.990*1*2  (B) 118-174, 350-470*1  EXP version:  Tx 137-174, 400-470*3  Rx (A) 0.495-999.990*3  (B) 118-174, 350-470*3	U.S.A. version  Tx 144–148, 420–450* <sup>1</sup> Rx 136–174, 400–479* <sup>1</sup> EXP version:  Tx/Rx 136–174,  400–479* <sup>3</sup>
<b>Dimensions</b>	59×112×34.2 mm;	58.4×103×34.2 mm;	58.4×103×34.2 mm;	58×111×30 mm;
(W×H×D; Proj. not included)	25/16×4 <sup>13</sup> /32×1 <sup>11</sup> /32 in	2 <sup>5</sup> / <sub>16</sub> ×4 <sup>1</sup> / <sub>16</sub> ×1 <sup>11</sup> / <sub>32</sub> in	2 <sup>5</sup> / <sub>16</sub> ×4 <sup>1</sup> / <sub>16</sub> ×1 <sup>11</sup> / <sub>32</sub> in	29⁄32×43⁄8×13⁄16 in
Weight	325g; 11.5oz	290g; 10.3oz	300g; 10.6oz	380g; 13.4oz
(approx.)	with antenna and BP-256	with antenna and BP-217	with antenna and BP-217	with antenna and BP-264
Output power	5W, 2.5W, 0.5W, 0.1W	5W, 2.5W, 0.5W, 0.1W	5W, 0.5W	5W, 2.5W, 0.5W
(typical values)	at 7.4V DC	at 7.4V DC	at 7.4V DC	at 7.2V DC
Sensitivity (FM: at 12dB SINAD DV: at BER 1% Guaranteed range)	DV 0.22μV typ. FM 0.14μV/0.16μV typ. (144/440 MHz bands)	DV 0.22μV typ. FM 0.14μV/0.16μV typ. (144/440 MHz bands)	DV 0.22μV typ. (with UT-121) FM 0.14μV/0.16μV typ. (144/440 MHz bands)	0.18μV <sub>typ</sub> .

<sup>\*1</sup> Guaranteed range 144–148MHz and 440–450MHz. \*2 Cellular blocked. \*3 Guaranteed range 144–148MHz and 430–440MHz. (A) means VFO A receiver, (B) means VFO B receiver.

	IC-V80	IC-V82 IC-U82	IC-V8
Frequency coverage (Differs according to version, Unit: MHz)	U.S.A. version: Tx 144–148 Rx 136–174* <sup>4</sup> EXP version: Tx/Rx 136–174* <sup>4</sup>	IC-V82 (U.S.A. version):  Tx 144–148  Rx 136–174*4  IC-V82 (EXP version):  Tx/Rx 136–174*4  IC-U82 (U.S.A. version):  Tx 420–450*5  Rx 400–479*5  IC-U82 (EXP version):  Tx/RX 400–479*6	U.S.A. version:  Tx 144–148  Rx 136–174*4  GEN version:  Tx/Rx 136–174*4
Dimensions (W×H×D; Proj. not included)	58×112×30 mm; 2%2×4 <sup>13</sup> ⁄32×1 <sup>3</sup> ⁄16 in	54×139×36.7 mm; 2½×5¹5⁄32×1¾16 in	54×132×35 mm; 2½×5¾6×1¾ in
Weight (approx.)	360g; 12.7oz with antenna and BP-264	390g; 13.8oz with antenna and BP-222N	350g; 12.3oz with antenna and BP-222N
Output power (typical values)	5.5W, 2.5W, 0.5W at 7.2V DC	IC-V82 (at 7.2V DC) 7W, 4W, 0.5W IC-U82 (at 7.2V DC) 5W, 2W, 0.5W	5.5W, 0.5W at 7.2V DC
Sensitivity (FM: at 12dB SINAD DV: at BER 1% Guaranteed range)	0.14μV <sub>typ</sub> .	0.16μV <sub>typ.</sub>	0.16μV <sub>typ.</sub>

 $<sup>^{*4}</sup>$  Guaranteed range 144–148MHz.  $^{*5}$  Guaranteed range 440–450MHz.  $^{*6}$  Guaranteed range 430–440MHz. All stated specifications are subject to change without notice or obligation.



### Applicable U.S. Military Specifications

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