ICOM

HAM RADIO PRODUCTS

HF Transceivers

Mobile Transceivers

All Mode Transceivers

Handheld Transceivers

Icom Inc.

HF/50MHz TRANSCEIVER
IC−7800

Icom's flagship model

+40dBm 3rd order intercept point (in the HF bands)

Two completely independent receiver circuits

Four 32-bit DSP units and 24-bit AD/DA converters

Digital IF filter

200W output power and highly stable transmitter

+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. A first in Ham radio! To achieve this superior receiver performance, Icom's engineering team completely re-engineered the whole analog circuit and matched it to the DSP units.

Dynamic range characteristics
(in 14MHz band)

BPF unit

DIGI-SEL unit

Two roofing filters
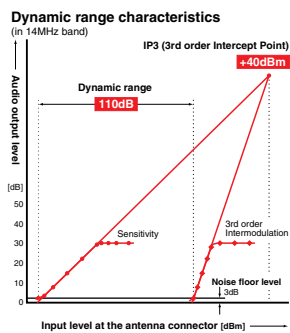
Two completely independent receiver circuits

The dual receiver allows you to receive two different bands simultaneously in different modes, with each receiver not causing any adverse affect to the other one.

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 will respond to operator changes in an instant, as each DSP unit has a dedicated function. While there is one for each receiver, 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. This allows the operator to adjust filter shaping (sharp or soft), filter bandwidth, and center frequency characteristics, without missing the action. Multiple filter memories store the last used filter settings by using operation 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 ±0.05ppm at 0˚C to 50˚C. This specification means that even on the 50MHz band, frequency error is less than 2.5Hz!

200W output power

The newly designed push-pull power amplifiers using power MOS-FETs work on 48V DC. They provide a powerful 200W output power at full 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

Due to the DSP unit for the scope, the IC-7800's spectrum scope provides excellent sensitivity, with 80dB of dynamic range. While the scope rivals many of today's commercial test sets, there are 7 steps, ranging from ±2.5kHz to ±250kHz. This is 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, sub-band frequencies, including various settings, and operating conditions, as well as the spectrum scope, S-meter, and RTTY/PSK31 decoded messages. The "virtual" S-meter shows high quality, analog-looking needle swings that are smooth and accurate.

Other outstanding features

• DSP controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • AGC volume knob for fine tuning of the AGC time constant • 3-step manual notch filter • Microphone equalizer and adjustable transmit bandwidth • Built-in RTTY and PSK31 modulator and demodulator • Pre-amplifier and mixer circuit dedicated for 50MHz band • High quality digital voice memory • 64MB CF memory card for storing various personal settings • Digital twin PBT eliminates interference from adjacent signals • 16-step noise reduction • 4 antenna connectors with automatic antenna selector • Triple band stacking register • Automatic antenna tuner • Twin peak audio filter for RTTY operation • Message memory for CW, RTTY and PSK31 operations • 101 memory channels

AGC loop management

The digital IF filter, manual notch filter etc. are adopted in the AGC loop, and controlled by the DSP. This system removes blocking by extremely strong adjacent signals in out of filter passbands, even very weak signals between crowded strong signals can be clearly extracted from the noise.

HF/50MHz ALL MODE TRANSCEIVER

IC–756PROⅢ

+30dBm IP3

Two newly designed preamplifiers
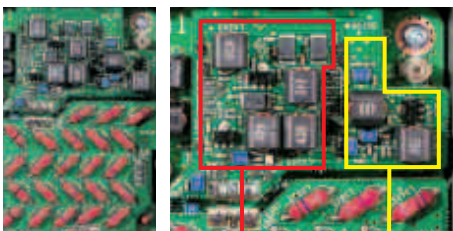
Real time spectrum scope with mini scope function

+30dBm IP3*

Using receiver design techniques introduced in the IC-7800, Icom's engineering team focused on producing a distortion-free, high-dynamic-range. To achieve this goal, Icom used higher-grade components in vital receiver sections of the '756PROIII.

* Under the condition of receive frequency 14.2MHz, input frequencies 14.3MHz and 14.4MHz, Pre-amp OFF, mode USB BW: 2.4kHz

Two newly designed preamplifiers

To minimize distortion and maximize dynamic range, the '756PROIII preamplifiers use the same basic circuit design as the IC-7800 preamplifiers. Preamp-1 is a noiseless feedback design, with push-pull amplifiers. Preamp-2 uses bipolar transistors for higher gain. It is ideal for using separate low-efficiency receiving antennas such as small loops or Beverages.

RF stage & Preamplifiers   Preamp-1   Preamp-2

Real time spectrum scope with mini scope function

The real time spectrum scope is now an indispensable tool for top performing HF radios. The '756PROIII's spectrum scope adds a mini scope function. The mini scope allows you to monitor the scope screen while you use other function menus. For example, you can monitor the scope screen even while you are changing the IF filter shape and passband width.
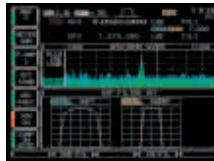
Mini scope screen

Adjustable SSB transmit BW

With the flexible DSP-based waveform shaping, you can tailor your transmit audio quality to suit your operating style. The SSB transmit bandwidth is selectable from 100, 300 and 500Hz at the high-pass edge, and 2500, 2700 and 2900Hz at the low-pass edge respectively. 3 types of high and low combinations can be stored in the memory.

### 32-bit floating point DSP & 24-bit AD/DA converters

The heart of the '756PROIII is the proven combination of the 32-bit floating point DSP and 24-bit AD/DA converters. This powerful combination supports the many digital processing features of the '756PROIII.

Sharp and soft filter shapes

Select an appropriate filter shape, depending on your operating style or band conditions. Independent SSB and CW filters give you the flexibility you want while listening to the signal.
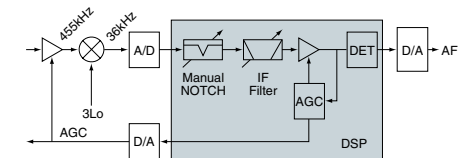
Eight-channel RTTY TX memory

The built-in RTTY demodulator and decoder allow you to check the callsign of the station on the air instantly. The '756PROIII has 8 channels of RTTY transmit memory. You can edit and send up to a 62 character message for each memory channel without a PC or other external unit.

Other features

[Antenna and receiver] • Built-in auto antenna tuner • 2 TX/RX antenna connectors and RX antenna connector • 30kHz–60MHz general coverage* (* Some frequency ranges are not guaranteed) • Built-in RX attenuator (6/12/18dB) • Twin peak audio filter • Dual watch • Digital twin PBT • Manual notch • Auto notch filter
[Transmitter] • Tx monitor function • Tone encoder • VOX operation • All mode power control • External Control for Voice Memory and Memory Keyer
[CW mode] • CW Wave form controlled by the DSP • Multi-function electronic keyer includes adjustable keying speed and dot/dash ratio, polarity, bug keyer • Continuously adjustable CW pitch control from 300–900Hz • Double key jacks (Front and rear) • Full break-in (QSK) • CW reverse
[Operation] • 2 clocks shows local and UTC time • Screen saver • Set mode menu for speedy setting • Analog and digital meter indicates relative output power, SWR, ALC level and compression level • Memory pad stores up to 5 or 10 operating frequencies and modes • Quick split function • RF gain and squelch control • ±9.999kHz Adjustable RIT and ΔTX • 1Hz step tuning and display • 101 memory channels with 10-character channel name • Optional Voice synthesizer announces the operating frequency, mode and signal strength in English • Program, memory, select memory, Δf scans • Auto tuning step function • Dial lock

IF filter shapes

You will never have to purchase optional filters, with over 51 different filter widths, just dial in the width you want. Then select whether you want a sharp or soft filter shape for SSB and CW modes.

RTTY demodulator and decoder

The built-in RTTY demodulator and decoder reads baudot RTTY signals on the screen without turning on your PC or other gear. The RTTY tuning indicator helps critical tuning. The Twin Peak filter removes interfering QRM giving you a more accurate decoded message.

RTTY decode screen

HF/50MHz/144MHz ALL MODE TRANSCEIVERS

IC-746PRO • IC-7400

32-bit DSP with 24-bit AD/DA converter

51 types of passband width, soft and sharp filter shapes

100W output on all HF, 50MHz and 144MHz bands

32-bit DSP technology

The IC-746PRO/7400 covers HF, 50MHz and 144MHz bands with full IF DSP capability. The combination of the 32-bit DSP and 24-bit AD/DA converter is comparable to the IC-756PROIII, providing flexible signal enhancing, superior interference reduction and other advanced digital features in all bands. Clear signals without distortion are realized in any signal conditions.
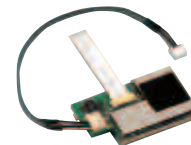
Other features

• Large, multi-function LCD • Digital twin PBT • DSP controlled AGC loop • 108 DTCS and 50 CTCSS codes standard • Built-in Automatic antenna tuner • Memopad • 4-channel memory keyer with 50 characters • FM narrow capability • Triple band stacking register • Quick split • VSC function • Optional voice synthesizer

Front mounted loud speaker

The IC-718 has the speaker mounted on the front panel. With the speaker facing the operator, audio sounds can be clearly heard without impediment during operation.

Optional DSP capability, UT-106

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

▲ 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

HF ALL BAND TRANSCEIVER

IC-718

Simple, straight forward operation with keypad

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 selectability. 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 quick tuning. The band stacking register is convenient when changing operating bands.

Other features

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

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.

HF/VHF/UHF ALL MODE TRANSCEIVER
IC-7000

IF DSP — First in the class
Two-point MNF attenuates more than 70dB
2.5 inch color TFT display

IF DSP — first in this 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 from two DSP chips that deliver superior processing performance. Of course, those digital features work on all ham bands, from HF, 50, 144MHz to the 430/440MHz band.

Other outstanding features

• 35W output in 70cm band • ±0.5 ppm high stability crystal unit • 8 direct access buttons for user friendly operation • Digital voice recorder for transmit and receive • Built-in RTTY demodulator • Remote control microphone, HM-151 • Fixed mode and center mode band scope • Multi function meter and SWR graphic display • Front panel separation with optional separation cable • Built-in voice synthesizer

DSP features with UT-106

DSP capabilities are available*. These include noise reduction and auto notch functions. Superior receive quality in your shack, vehicle or during DX'peditions.
* UT-106 DSP unit required for some versions.

Compact with detachable panel

With an optional separation cable, OPC-581/OPC-587, the detachable front panel allows easy installation in your shack or in a wide variety of mobile applications.

High stability transmitter

MOS-FET power amplifiers in the PA unit provide stable, high quality output with low IMD and low spurious emissions even during full duty cycle and extended operation.

Rugged
MIL-STD 810

HF/VHF/UHF ALL MODE TRANSCEIVER
IC-706MKIIG

Covers all HF, 6m, 2m and 70cm bands
Clean, stable and powerful output power
Built-in DSP capability (Optional depending on version)

HF to 70cm band coverage with 100W* output

The IC-706MKIIG covers from HF band to 430/440MHz band. Of course, all mode operation (SSB, CW, RTTY, AM and FM) is possible and a full 100W of output power is available for HF and 6m operation; 50W for 144MHz and 20W for 430/440MHz operation.
(* HF, 50MHz band only)

Other features

• Built-in tone squelch functions • Automatic repeater function • Simple band scope function • Narrow FM capability • Up to 3 selectable passband widths with optional filters • Built-in electronic keyer • IF shift interference rejection • Continuously adjustable RF output • Adjustable SSB carrier point • Optional automatic antenna tuner

Rugged MIL-STD 810

HF/50MHz ALL MODE TRANSCEIVER
IC-703

- **Built-in automatic antenna tuner for portable operation**
- **Optional multi-bag, battery pack for field use**
- **Built-in DSP Capabilities (Optional depending on version)**

▲ Optional LC-156

Maximum portable convenience
The IC-703 is designed for outdoor, portable operation. The optional battery pack, BP-228 provides 5W output power* and 7 hours* operating time. All the necessary equipment including an antenna, can be packed in the optional multi-bag LC-156.

* 2W in AM mode. Tx:Rx:Stand-by=0.5:0.5:9 in SSB mode.

Built-in automatic antenna tuner
The built-in antenna tuner covers from 1.8MHz to 54MHz. Ideal for moving about during portable operation. Latch relays used in the antenna tuner greatly reduce the power consumption.
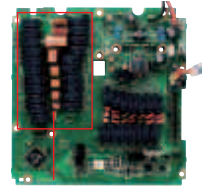
Built-in antenna tuner

DSP capabilities
The built-in DSP unit provides noise reduction and auto notch functions.
* UT-106 DSP unit required for some versions.

Other features
• Standard ±0.5ppm high stability TCXO • Detachable controller with optional separation cables, OPC-581/OPC-587 • Front and rear microphone jacks • RIT, VOX, noise blanker and speech compressor standard • 9600bps data terminal • 3-channel memory keyer • RTTY (FSK) mode available • Key backlighting

VHF/UHF ALL MODE TRANSCEIVER
IC-910H

- **100W output on 2m band & 75W output on 70cm band**
- **Simultaneously works two bands**
- **Excellent support for satellite mode and PACKET operation**

100W of stable output power
A powerful 100W* of output power is provided by the power amplifier circuit. The combination of the aluminum die-cast chassis ensures stable output.

* 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 features for receiving as the main band such as AF volume and RF-gain/squelch control knobs.

Satellite communication
The optional AG-2400 converts a 2.4GHz satellite downlink signal to a 144MHz signal. Coupled with the satellite mode of the IC-910H, the US mode and LS (UX-910 required) mode satellite operation is ready for use.

▲ Optional AG-2400

Other features
• Continuously adjustable Tx output power • Optional UX-910 for 1200MHz band operation • Sweep function • IF shift function • Up to 2 optional DSP units can be installed • FM-narrow mode receivable • CTCSS tone encoder/decoder • 9600bps PACKET capability • Memory pad function • Optional CW narrow filter

DIGITAL | Rugged MIL-STD 810

1200MHz DIGITAL TRANSCEIVER
ID–1

128kbps data and 4.8kbps digital voice communication
PC remote control software
Useful callsign functions

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 sound 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.

* Theoretical value.

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.

Useful callsign functions

The ID-1 embeds your own and the called station's callsign in your digital mode transmission. The calling station's callsign is displayed on the receiving station and a newly received callsign can be automatically stored in the memory. Of course, CQ call is also possible.

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.

DIGITAL | Rugged MIL-STD 810

VHF/UHF DIGITAL TRANSCEIVER
ID–800H

Digital Voice + 950bps data capability
GPS coordination
Calling by callsign

Digital Voice + 950 bps data*

The ID-800H can transmit and receive D-STAR format digital voice and 950 bps data communication, simultaneously. The Digital features of the ID-800H are compatible with IC-2200H, IC-V82 and IC-U82 radios with the optional UT-118 installed. In addition, analog FM mode is also available.
* Theoretical value.

GPS Coordination data

When an external GPS receiver (NMEA 0183 format) is connected to the ID-800H, yours and other station's position information can be exchanged and shown on the display. When the receiving side is connected to a PC*, map plotting is possible. Supported data formats are GLL, GGA, RMC, GSA and VTG sentences.
* Map plotting software required (Not supplied by Icom).

Calling by callsign

In the digital voice mode, your callsign and the calling station's callsign (or CQ message) are included in each transmission. The callsign squelch allows you to choose an incoming call selected by the callsign. Also, received callsigns are automatically stored in the memory.

Other Features

• Powerful 55W/50W (VHF/UHF) output power • Total 512 alphanumeric memory channels • Wideband receiver • Amber, green and yellow, triple color LCD illumination • CTCSS, DTCS tone • 16 DTMF memory channels • Detachable front panel

Rugged MIL-STD 810

DUAL BAND FM TRANSCEIVERS
IC−2720H•IC−2725E

V/V, U/U simultaneous receive capability
Wideband receiver (Depending on version)
Flexible installation with compact remote controller

V/V, U/U simultaneous receive capability

The IC-2720H/2725E is a unique dual band mobile, providing VHF/VHF, UHF/UHF simultaneous receive capability. Simple touch of a button changes the transmit band. In addition, its wideband receiver covers from 118–549 and 810–999MHz*, you will be able to listen to almost any communications!
* Receiver range differs depending on version.

Independent controls for each band

The IC-2720H/2725E provides separate tuning, volume, squelch knobs and function buttons for the left and right side bands. A wide LCD display shows both band settings in an easy to read side by side format. Also, listen to both bands independently through separate left and right band audio jacks.

Compact, remote controller

The combination bracket, MB-85 or the controller bracket, MB-84 is supplied as standard, depending on version. The MB-85 allows mounting of the controller on the main unit. The MB-84 offers the flexibility of mounting the controller, while placing the main unit in an out-of-the-way location.

Other Features

• 50W/35W (VHF/UHF) output power • Total 212 memory channels • Built-in 50 CTCSS, 104×2 DTCS tones • 9600bps packet data terminal • Sub band auto mute function • 14 DTMF memory channels • Microphone jacks are located on both the controller and the main unit • Weather alert* • Auto repeater function*
* Depending on version.

Rugged MIL-STD 810

VHF/UHF FM TRANSCEIVERS
IC−208H•IC−E208

Powerful output power 55W/50W (VHF/UHF)
Wideband receiver (Depending on version)
Compact, detachable front panel with separation cable

55W/50W (VHF/UHF) output power

Individual MOS-FET power amplifier modules supply the power for Icom's most powerful analog dual band mobile with 55W/50W (VHF/UHF). Stable power for long distance communications.

Wideband receiver

The IC-208H/E208 wideband receiver covers 118–173, 230–549 and 810–999 MHz* as standard. Listen to your Amateur VHF/UHF bands, as well as aviation, marine, weather and other utility communications in a compact mobile package.
* Receiver range differs depending on version.

Detachable front panel

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; $4\frac{3}{8}$×$1\frac{9}{16}$×$1\frac{1}{32}$ in.

500 alphanumeric memory channels

With this much memory, you can fill your IC-208H/E208 with your favorite frequencies and operation settings such as output power, tone, and more! Then name each memory channel with up to 6 characters for quick channel identification.

Other Features

• Easy to manage bank link scan system • Amber, green and yellow, triple color LCD illumination • 50 CTCSS, 104×2 DTCS encoder/ decoder • Pocket beep and tone scan • 16 DTMF memory channels • 9600bps packet data terminal

Rugged
MIL-STD 810

144MHz FM TRANSCEIVER

IC-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 gives you 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 banks.

HM-133V, remote control microphone
The backlit HM-133V*, gives you control of your IC-V8000 in the palm of your hand. The Icom exclusive "Hot keys" (F1/F2) memorize the transceiver full settings. As if switching between two separate radios, all operating frequencies, tone settings as well as the display color, fan speed, and set mode settings are memorized.
* Optional for some versions.

Other Features
• Front mounted speaker • Amber and green backlit LCD • Built-in 50 CTCSS and 104×2 DTCS tones • Pocket beep and tone scan • Rugged construction • Standard DTMF encoder • Optional DTMF decoder, UT-108 • 10dB squelch attenuator • Weather channel with weather alert* • FM narrow switchable capability* • Cloning capability from PC or between radios
 (* Depending on version)

Rugged
MIL-STD 810

DIGITAL
With optional UT-118

144MHz FM TRANSCEIVER

IC-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 format digital voice and data communication at 4.8kbps, compatible with ID-800H and UT-118 installed IC-V82. When connected to an external GPS receiver*, position information can be exchanged with other stations. (* NMEA 0183 output and RS-232C interface are required.)

Simple operation
The large tuning dial provides easy access to active channels even without looking at the front panel. Secondary functions are easily recalled by holding the buttons.

CTCSS and DTCS operation
The IC-2200H contains 50 CTCSS and 104×2 DTCS encode/decode plus tone scan functions. The "pocket beep" feature gives you an audible and visual indicator of an incoming call.

And more...
• Total 207 alphanumeric memory channel • 24 DTMF autodial memories • DTMF code squelch and pager function with optional DTMF decoder, UT-108 • 10dB squelch attenuator • Weather channel with weather alert function (U.S.A. version only) • FM narrow mode (Depending on version)

Rugged MIL-STD 810

5W output power on 50, 144, and 430(440)MHz band

Wideband receiver — 495kHz to 999.990MHz*[1] —

555 alphanumeric memory with 18 memory banks

Other features

• Up to 5–6 hours*[2] of operating time with supplied Lithium-Ion battery pack • 104×2 DTCS or 50 CTCSS codes • Compact body with splash resistance (Equivalent to IPX4) • 10 DTMF memories • Morse code synthesizer • High speed scanning • 13 scanning modes • Antenna tip replaceable for 50MHz band • PC Programmable • Backlit LCD • Green, orange and yellow selectable backlit keypad color

*[1] Receiver range differs from depending on version.
*[2] Tx:Rx:Stand-by=1:1:8

VHF/UHF MULTIBAND FM TRANSCEIVERS
IC−T90A•IC−E90

6W powerful output for both 144 and 430(440) MHz bands*[1]

MIL standard durable construction

Built-in tone squelch with tone scan and pocket beep functions

Other Features

• Large, easy-to-push PTT switch • 50 CTCSS tone encoder/decoder with pocket beep and tone scan functions • Optional HM-75A, microphone for simple remote control • Thumb-touch lock switch • Channel indication • 9 DTMF memories with up to 16 digits each • Auto power saver with selectable duty • multiple scans provide versatile signal detection • Auto power off • Auto repeater function*[2] • LCD backlight with timer

*[1] Typical; with 13.5V DC. *[2] Depending on version

Rugged MIL-STD 810

VHF/UHF DUAL BAND FM TRANSCEIVER
IC−T7H

Ultra compact, light weight body —47(W)×81(H)×28(D)mm, 160g*[1]

Mini-power dual bander with wideband receive capability

20 hours*[2] of operating time with slim battery pack

Other features

• Simple operation and stylish design • Built-in 50 CTCSS and 104×2 DTCS tones • 1000 regular memory channels with 6-characters alphanumeric naming • 18 memory banks (Max. 100 Ch per bank) • Bank link scan • Auto memory write scan • Auto power off • Large backlit LCD • Rapid charger, BC-164 is supplied • Weather channel with weather alert*[3] • 10dB attenuator • Priority watch with priority beep

*[1] $1^{27}/_{32} \times 3^3/_{16} \times 1^3/_{32}$ in; Projections are not included, 5.6oz; including battery pack and antenna. *[2] Tx:Rx:Stand-by=5:5:90 *[3] Depending on version.

VHF/UHF DUAL BAND FM TRANSCEIVERS
IC−P7A•IC−E7

DIGITAL
With optional UT-118

Rugged
MIL-STD 810

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

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

200 alphanumeric memories with 10 memory banks

Other features

• 104×2 DTCS or 50 CTCSS tone codes • Weather channel receive with weather alert*[1] • Automatic repeater function*[2] • 16 DTMF memories • Durable construction and simple operation • Backlit LCD • Reversible control knob and up/down buttons assignment • PC Programmable • Optional UT-108 DTMF decoder • Power save function • Various scanning functions including program, memory, skip, priority and tone scan • FM narrow mode capability
*[1] IC-V82 USA version only, *[2] USA version only

VHF AND UHF TRANSCEIVERS

IC-V82 • IC-U82
144MHz   430(440)MHz

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

MIL grade tough construction

Reversible up/down buttons and rotary selector

Other features

• 16 button keypad for easy to access functions • Built-in 50 CTCSS and 104×2 DTCS tones with pocket beep and tone scan functions • 100 memory channels with 5-characters alphanumeric naming • 5 DTMF memory channels • Optional, UT-108 DTMF decoder • Fast scanning speed 40 channels per second (Program scan only) • Auto squelch delay • PC programmable • Backlit LCD • Normal and reverse semi-duplex setting • Long and short, auto squelch delay

Rugged
MIL-STD 810

144MHz FM TRANSCEIVERS
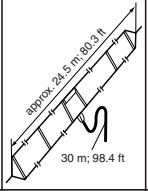
IC-T3H • IC-V8

OPTIONS FOR DESKTOP & PORTABLE TRANSCEIVERS

MODEL NAME	HAND MICROPHONES				DESKTOP MICROPHONES		EXTERNAL SPEAKERS		
	HM-12	HM-36	HM-103	HM-151[*1]	SM-6	SM-20	SP-10	SP-20	SP-21
IC-7800		✔				✔		✔	
IC-756PROIII		✔				✔		✔	✔
IC-746PRO, IC-7400		✔				✔		✔	✔
IC-718		✔			✔	✔		✔	✔
IC-7000				✔		✔ (Use with OPC-589)	✔		
IC-706MKIIG			✔			✔ (Use with OPC-589)	✔		
IC-703			✔			✔ (Use with OPC-589)	✔		
IC-910H	✔					✔		✔	✔

MODEL NAME	EXTERNAL SPEAKERS	DC POWER SUPPLY	LINEAR AMPLIFIER	ANTENNA ELEMENTS		ANTENNA TUNERS		FOLDED DIPOLE ANTENNA	FILTERS
	SP-23	PS-125 13.8V/25A	IC-PW1/EURO	AH-2b Covers 7–54MHz.	AH-703 Covers 7, 14, 21, 28, 50MHz bands.	AH-4 Matches 3.5–54 MHz bands.	AT-180	AH-710	FL-100 500Hz/–6dB; FL-101 250Hz/–6dB; FL-103 2.8kHz/–6dB; FL-223 1.9kHz/–6dB; FL-232 350Hz/–6dB
IC-7800			✔						
IC-756PROIII	✔	✔	✔	✔		✔			
IC-746PRO, IC-7400	✔	✔	✔	✔		✔			
IC-718	✔	✔	✔ (Use with OPC-599)	✔		✔	✔	✔	
IC-7000			✔ (Use with OPC-599)	✔		✔	✔		
IC-706MKIIG		✔	✔ (Use with OPC-599)	✔		✔	✔		✔ (Up to two filters)
IC-703		✔[*2] (Use with OPC-1248)		✔	✔	✔	✔		
IC-910H	✔	✔							

MODEL NAME	FILTERS		HIGH STABILITY CRYSTAL UNITS			VOICE SYNTHESIZER	DSP UNIT	CI-V CONVERTER	MULTI-BAG
	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-282 Frequency stability: ±0.5ppm	CR-293 Frequency stability: ±0.5ppm	CR-338 Frequency stability: ±0.5ppm	UT-102	UT-106	CT-17	LC-156
IC-7800								✔	
IC-756PROIII					(CR-338 installed)	✔		✔	
IC-746PRO, IC-7400				✔		✔		✔	
IC-718	✔ (One of these filters)			✔		✔	✔ (Installed depending on version)	✔	
IC-7000								✔	
IC-706MKIIG		✔				✔	✔ (Installed depending on version)	✔	
IC-703	✔ (One of these filters)					✔	✔ (Installed depending on version)	✔	✔
IC-910H	✔			✔		✔	✔ (Up to two units)	✔	

[*1] For exclusive use with IC-7000 only.
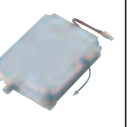[*2] When used with a compact mobile type antenna, the IC-703 may receive switching noise from the PS-125.
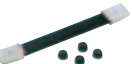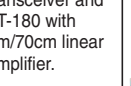
✔ : Applicable   : Not applicable

OPTIONS FOR DESKTOP & PORTABLE TRANSCEIVERS

MODEL NAME	BATTERY PACK	CHARGER	CARRYING HANDLES			MOBILE MOUNTING BRACKETS		CONTROLLER BRACKET	
	BP-228 9.6V/2800mAh (Ni-Cd)	BC-155A/D	MB-23	MB-72	MB-106	IC-MB5	MB-62	MB-63	MB-105
IC-7800									
IC-756PROIII									
IC-746PRO, IC-7400									
IC-718			✔			✔			
IC-7000					✔		✔		✔
IC-706MKIIG				✔			✔	✔	
IC-703	✔	✔		✔			✔	✔	
IC-910H			✔			✔			

MODEL NAME	MOUNTING BASES	SEPARATION CABLES		MIC ADAPTER CABLE	ACC CABLE	ADAPTER CABLE	ACC 13-PIN CABLE	POWER SUPPLY ADAPTER
	MB-65	OPC-581 3.5m;11.5ft OPC-587 5.0m;16.4ft	OPC-1443 3.5m;11.5ft OPC-1444 5.0m;16.4ft	OPC-589 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-1248 3-pin DC cable to 6-pin connector.
IC-7800								
IC-756PROIII								
IC-746PRO, IC-7400								
IC-718						✔		
IC-7000	✔ (Use with MB-105)		✔	✔	✔	✔	✔	
IC-706MKIIG	✔ (Use with MB-63)	✔		✔	✔	✔	✔	
IC-703	✔ (Use with MB-63)	✔		✔	✔	✔		✔
IC-910H								
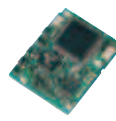
MODEL NAME	DC POWER CABLES		WATERPROOF PREAMPLIFIERS		DOWN CONVERTER	1200MHz BAND UNIT		
	OPC-025A 20A cable OPC-025D 30A cable OPC-1229 4A cable OPC-1457 30A cable	OPC-639 20A cable with Noise Filter OPC-1457R 30A cable with Noise Filter For Europe versions	AG-25 144MHz. Not available for EU countries	AG-35 430MHz. Not available for EU countries	AG-2400 Converts 2400–2402MHz to 144 –146MHz.	UX-910		
IC-7800								
IC-756PROIII	✔ (Use OPC-025D)							
IC-746PRO, IC-7400	✔ (Use OPC-025D)							
IC-718	✔ (Use OPC-025A)							
IC-7000	✔ (Use OPC-1457)	✔ (Use OPC-1457R)						
IC-706MKIIG	✔ (Use OPC-025D)	✔ (Use OPC-639)						
IC-703	✔ (Use OPC-1229)							
IC-910H	✔ (Use OPC-025D)		✔	✔	✔	✔		

✔ : Applicable   : Not applicable

OPTIONS FOR MOBILE TRANSCEIVERS

MODEL NAME	HAND MICROPHONES			CONTROLLER BRACKETS		MOUNTING BASE	COMBINATION BRACKET	DC POWER CABLES	
	HM-154	HM-154T w/DTMF keypad	HM-133/V w/DTMF keypad	MB-58	MB-84	MB-65	MB-85	OPC-347 7.0m: 23ft / OPC-1132 3.0m: 9.8ft	
ID-1	✔								
ID-800H	✔		(Use HM-133)	✔		(Use with MB-58)		✔	
IC-2720H, IC-2725E	✔	✔	(Use HM-133)		✔	(Use with MB-84)	✔	✔	
IC-208H, IC-E208	✔	✔	(Use HM-133)	✔		(Use with MB-58)		✔	
IC-V8000	✔	✔	(Use HM-133V)					✔	
IC-2200H	✔	✔	(Use HM-133V)					✔	

MODEL NAME	SEPARATION CABLES		SPEAKER CABLE	MICROHONE CABLE	MIC ADAPTER CABLE	DATA CABLE	EXTERNAL SPEAKERS		CONTROLLER
	OPC-600/R 3.5m: 11.5ft / OPC-601/R 7.0m: 23ft	OPC-1156 3.5m: 11.5ft with modular cable	OPC-441 5.0m: 16.4ft	OPC-440 5.0m: 16.4ft	OPC-589 8-pin connector microphone to 8-pin modular	OPC-1384 For PC, GPS connection	SP-10	SP-22	RC-24
ID-1			✔	✔			✔	✔	✔
ID-800H	✔		✔	✔	✔	✔	✔		
IC-2720H, IC-2725E		✔	✔	✔	✔		✔		
IC-208H, IC-E208	✔		✔	✔	✔		✔		
IC-V8000			✔	✔	✔		✔		
IC-2200H			✔	✔	✔		✔		

MODEL NAME	DTMF DECODER UNIT	DIGITAL UNIT	CLONING CABLES			CLONING SOFTWARE		
	UT-108	UT-118	OPC-474 Between transceivers	OPC-478 Transceiver to PC RS-232C cable	OPC-478U Transceiver to PC USB cable	CS-208 CS-2200H CS-2720 CS-D800 CS-V8000		
ID-1		(D-STAR ready)						
ID-800H		(D-STAR ready)	✔	✔	✔	(Use CS-D800)		
IC-2720H, IC-2725E			✔	✔	✔	(Use CS-2720)		
IC-208H, IC-E208			✔	✔	✔	(Use CS-208)		
IC-V8000	✔		✔	✔		(Use CS-V8000)		
IC-2200H	✔	✔	✔	✔	✔	(Use CS-2200H)		

✔ : Applicable   : Not applicable

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	BATTERY CASES			BATTERY PACKS					
	BP-170 AA(LR6)×4 cells	BP-208N AA(LR6)×6 cells	BP-216 AA(LR6)×2 cells	BP-171 4.8V/700mAh (Ni-Cd)	BP-172 4.8V/950mAh (Ni-Cd)	BP-173 9.6V/650mAh (Ni-Cd)	BP-180 7.2V/600mAh (Ni-Cd)	BP-209N 7.2V/1100mAh (Ni-Cd)	BP-210N 7.2V/1650mAh (Ni-MH)
IC-T90A, IC-E90			✔						
IC-T7H	✔			✔	✔	✔	✔		
IC-P7A, IC-E7									
IC-V82, IC-U82		✔						✔	✔
IC-V8, IC-T3H		✔						✔	✔

MODEL NAME	BATTERY PACKS				DESKTOP CHARGERS				
	BP-211N 7.4V/1800mAh (Li-Ion)*1	BP-217 7.4V/1300mAh (Li-Ion)	BP-222N 7.2V/600mAh (Ni-Cd)	BP-243 3.7V/1800mAh (Li-Ion)	BC-119N Rapid charger	BC-139 Rapid charger Includes AC adapter.	BC-144N Rapid charger	BC-146 Regular charger	BC-164 Rapid charger
IC-T90A, IC-E90		✔				✔			
IC-T7H					✔ (Use with AD-56+BC-145)				
IC-P7A, IC-E7			✔						✔ (Use with BC-145L)
IC-V82, IC-U82	✔		✔		✔ (Use with AD-101+BC-145)		✔ (Use with BC-145)	✔ (Use with BC-147)	
IC-V8, IC-T3H			✔		✔ (Use with AD-94+BC-145)		✔ (Use with BC-145)	✔ (Use with BC-147)	

MODEL NAME	AC ADAPTERS			WALL CHARGER	CHARGER ADAPTERS			CIGARETTE LIGHTER CABLES	
	BC-145 16V/1A	BC-145L 16V/1A	BC-147 12V/200mA	BC-110A/D/V/AR/DR 12V/200mA	AD-56	AD-94	AD-101	CP-12L w/noise filter	CP-19R w/noise filter
IC-T90A, IC-E90				✔					✔
IC-T7H	(Use with BC-119N)			✔	✔ (Use with BC-119N)			✔	
IC-P7A, IC-E7		✔ (Use with BC-164)							
IC-V82, IC-U82	✔ (Use with BC-144N or BC-119N)		✔ (Use with BC-146)				✔ (Use with BC-119N)		
IC-V8, IC-T3H	✔ (Use with BC-144N or BC-119N)		✔ (Use with BC-146)			✔ (Use with BC-119N)			

MODEL NAME	CIGARETTE LIGHTER CABLES	DC POWER CABLE	SPEAKER-MICROPHONES					EARPHONE-MICROPHONES	
	CP-21LR w/noise filter	OPC-254L	HM-46/L	HM-54	HM-75A	HM-131	HM-158L	HM-128/L	HM-153P
IC-T90A, IC-E90			✔ (Use HM-46)	✔	✔	✔			
IC-T7H		✔	✔ (Use HM-46)	✔	✔	✔			
IC-P7A, IC-E7	(Use with BC-164)					✔ (Use with OPC-782)		(Use HM-128 with OPC-782)	✔
IC-V82, IC-U82					✔		✔	✔ (Use HM-128L)	
IC-V8, IC-T3H			✔ (Use HM-46L)	✔	✔		✔		

*1 Charge with BC-119N + AD-101.

✔ : Applicable　　　　: Not applicable

OPTIONS FOR HANDHELD TRANSCEIVERS

MODEL NAME	HEADSETS				VOX/PTT CASE	EARPHONE	PLUG ADAPTER CABLE	BELT CLIPS	
	HS-85	HS-94 Earhook type with boom microphone	HS-95 Behind-the-head type	HS-97 Throat microphone type	VS-1L	SP-13	OPC-782	MB-83 Swivel type.	MB-86 Swivel type.
IC-T90A, IC-E90	✔					✔		✔	
IC-T7H	✔					✔			
IC-P7A, IC-E7						✔ (Use with OPC-782)	✔		
IC-V82, IC-U82	✔	(Use with VS-1L)	(Use with VS-1L)	(Use with VS-1L)	✔	✔			✔
IC-V8, IC-T3H	✔					✔			✔

MODEL NAME	BELT CLIPS	LEATHER BELT HANGERS		CARRYING CASES				DTMF DECODER UNIT	DIGITAL UNIT
	MB-103 Alligator type.	MB-96N Swivel type. MB-86 swivel joint supplied.	MB-96F Fixed type	LC-136	LC-137	LC-152A	LC-161	UT-108	UT-118
IC-T90A, IC-E90		(Use with MB-83 swivel joint)				✔			
IC-T7H				✔ (Use with BP-170/171/172)	✔ (Use with BP-173/BP-180)				
IC-P7A, IC-E7							✔		
IC-V82, IC-U82	✔	✔	✔					✔	✔
IC-V8, IC-T3H	✔	✔	✔					✔	

MODEL NAME	CLONING CABLES			CLONING SOFTWARE	ANTENNA ADAPTER	ANTENNAS			
	OPC-474 Between transceivers.	OPC-478 Transceiver to PC RS-232C cable	OPC-478U Transceiver to PC USB cable	CS-P7 CS-T7 CS-T90A CS-V8 CS-V82	AD-92SMA BNC type antenna connector	FA-1443B FA-B2E FA-B270C FA-B70C FA-S270C FA-S6270D			
IC-T90A, IC-E90	✔	✔		✔ (Use CS-T90A)	✔	✔ (Use FA-S6270D)			
IC-T7H		✔		✔ (Use CS-T7)		✔ (Use FA-1443B/B270C)			
IC-P7A, IC-E7	✔	✔	✔	✔ (Use CS-P7)	✔	✔ (Use FA-S270C)			
IC-V82, IC-U82	✔	✔	✔	✔ (Use CS-V82)		✔ (Use FA-B2E/B70C)			
IC-V8, IC-T3H	✔	✔		✔ (Use CS-V8)		✔ (Use FA-B2E)			

✔ : Applicable   : Not applicable

SPECIFICATIONS

DESKTOP TRANSCEIVERS

		IC-7800	IC-756PROIII	IC-746PRO IC-7400	IC-718
General	**Frequency coverage** (Differs according to version)	Tx: 137kHz*¹, 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, 7, 10, 14, 18, 21, 24, 28, 50, 144MHz bands Rx: 30kHz–60MHz, 108–174MHz*¹ *¹ Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28MHz bands Rx: 30kHz–29.999MHz*¹ *¹ Guaranteed range 0.5–29.999MHz.
	Modes	USB, LSB, CW, RTTY, PSK31, AM, FM	USB, LSB, CW, RTTY, AM, FM	USB, LSB, CW, RTTY, AM, FM	USB, LSB, CW, RTTY, AM
	Frequency stability	±0.05ppm (0˚C to +50˚C; +32˚F to +122˚F, after warm up)	±0.5ppm (−10˚C to +50˚C; +14˚F to +122˚F)	±7ppm (From 1 min. to 60 min. after power ON)	Less than ±200Hz (From 1 min. to 60 min. after power ON)
	Maximum current drain	800VA	23A at 13.8V DC	23A at 13.8V DC	20A at 13.8V DC
	Power supply requirement	85–265V AC	13.8V DC ±15%	13.8V DC ±15%	13.8V DC ±15%
	Antenna connector	SO-239 × 4 + BNC × 2 (50Ω)	SO-239 × 2 + phono [(RCA) 50Ω]	SO-239 × 3 (2 for HF/50MHz and 1 for 144MHz bands; 50Ω)	SO-239 (50Ω)
	Number of memory channels	101 (99 regular, 2 scan edges)	101 (99 regular, 2 scan edges)	102 (99 regular, 2 scan edges and 1 call)	101 (99 regular, 2 scan edges)
	Dimensions (W×H×D) ; Projections are not included.	424×149×435 mm; 16¹¹⁄₁₆×5⁷⁄₈×17¹⁄₈ in	340×111×285 mm; 13³⁄₈×4³⁄₈×11⁷⁄₃₂ in	287×120×316.5 mm; 11⁵⁄₁₆×4²³⁄₃₂×12¹⁵⁄₃₂ in	240×95×239mm; 9⁷⁄₁₆×3³⁄₄×9¹³⁄₃₂in
	Weight (approx.)	25kg; 55lb	9.6kg; 21.2lb	9.0kg; 19.8lb	3.8kg; 8.4lb
Transmitter	**Output power**	SSB, CW, RTTY, PSK31, FM: 5–200W AM: 5–50W 137kHz (CW): More than −20dBm	SSB, CW, RTTY, FM: 5–100W AM: 5–40W	SSB, CW, RTTY, FM: 5–100W AM: 5–40W	SSB, CW, RTTY: 2–100W AM: 2–40W
	Spurious emissions	Less than −60dB (HF) Less than −70dB (50MHz)	Less than −50dB (HF) Less than −60dB (50MHz)	Less than −50dB (HF) Less than −60dB (50/144MHz)	Less than −50dB
	Carrier suppression	More than 63dB	More than 40dB	More than 40dB	More than 40dB
	Unwanted sideband	More than 80dB	More than 55dB	More than 55dB	More than 50dB
	Microphone connector	8-pin connector (600Ω)	8-pin connector (600Ω)	8-pin connector (600Ω)	8-pin connector (600Ω)
Receiver	**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: 0.1–1.799MHz 6.3μV (6kHz) 1.8–29.999MHz 2.0μV 50–54MHz 1.0μV FM: 28–29.999MHz 0.5μV (15kHz) 50–54MHz 0.32μV	SSB, CW, RTTY (2.4kHz): 1.8–29.999MHz 0.16μV 50–54MHz 0.13μV AM: 0.5–1.799MHz 13μV (6kHz) 1.8–29.999MHz 2.0μV 50–54MHz 1.0μV FM: 28–29.999MHz 0.5μV (15kHz) 50–54MHz 0.32μV	SSB, CW, RTTY, FM (2.4kHz): 1.8–29.999MHz 0.16μV 50–54MHz 0.13μV 144–148MHz 0.11μV AM: 0.5–1.8MHz 13μV (6kHz) 1.8–29.999MHz 2.0μV 50–54MHz 1.0μV 144–148MHz 1.0μV FM: 28–29.999MHz 0.5μV (15kHz) 50–54MHz 0.25μV 144–148MHz 0.18μV	SSB, CW, RTTY 1.8–29.999MHz 0.16μV AM: 0.5–1.799MHz 13μV 1.8–29.999MHz 2.0μV
	Selectivity	SSB 2.4kHz/−3dB (2.4kHz) 3.6kHz/−60dB CW 500Hz/−3dB (500Hz) 700Hz/−60dB RTTY, PSK31 360Hz/−6dB (350Hz) 650Hz/−60dB AM 6.0kHz/−3dB (6kHz) 15kHz/−60dB FM 12kHz/−6dB (15kHz) 20kHz/−60dB *variable between 50Hz and 3.6kHz	SSB, RTTY: 2.4kHz/−6dB (2.4kHz) 3.2kHz/−40dB 3.6kHz/−60dB 4.3kHz/−80dB CW: 500Hz/−6dB (500Hz) 700Hz/−60dB AM: 6.0kHz/−6dB (6kHz) 15kHz/−60dB FM: 12kHz/−6dB (15kHz) 20kHz/−60dB *variable between 50Hz and 3.6kHz	SSB: 2.4kHz/−6dB (2.4kHz) 3.2kHz/−40dB 3.6kHz/−60dB 4.3kHz/−80dB CW: 500Hz/−6dB (500Hz) 700Hz/−60dB RTTY: 360Hz/−6dB (350Hz) 650Hz/−60dB AM: 6.0kHz/−6dB (6kHz) 15.0kHz/−60dB FM: 12kHz/−6dB (15kHz) 20kHz/−60dB *variable between 50Hz and 3.6kHz	SSB, CW, RTTY: 2.1kHz/−6dB 4.5kHz/−60dB AM: 6.0kHz/−6dB 20kHz/−40dB
	Spurious and image rejection	More than 70dB	More than 70dB	More than 70dB (HF, 50MHz bands) More than 60dB (144MHz band) (Except IF point on 50MHz band)	More than 70dB (1.8–29.999MHz)
	AF power at 10% distortion with an 8Ω load	More than 2.6W	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 (for main and sub bands)	2-conductor 3.5 (d) mm (¹⁄₈″)/8Ω	2-conductor 3.5 (d) mm (¹⁄₈″)/8Ω	2-conductor 3.5 (d) mm (¹⁄₈″)/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

DESKTOP AND PORTABLE TRANSCEIVERS

		IC-7000	IC-706MKIIG	IC-703	IC-910H
General	**Frequency coverage** (Differs according to version)	Tx: 1.8, 3.5, 5*[1], 7, 10, 14, 18, 21, 24, 28, 50, 144, 430(440)MHz bands Rx:30kHz–199.999, 400–470MHz*[2] *[1] Depending on version. *[2] Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50, 144, 430(440)MHz bands Rx:30kHz–199.999, 400–470MHz*[1] *[1] Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 5*[1], 7, 10, 14, 18, 21, 24, 28, 50*[1] MHz bands Rx: 30kHz–60MHz*[2] *[1] Depending on version. *[2] 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 Europe version: Tx/Rx: 144–146, 430–440 1240–1300*[1] MHz
	Modes	USB, LSB, CW, RTTY, PSK31, AM, FM, WFM* (*Rx only)	USB, LSB, CW, RTTY, AM, FM, WFM* (*Rx only)	USB, LSB, CW, RTTY, AM, FM	USB, LSB, CW, FM, FM-N (FM-N is not available in 1200MHz band)
	Frequency stability	±0.5ppm (0˚C to +50˚C; +32˚F to +122˚F)	±7ppm (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)
	Maximum current drain	22A at 13.8V DC	20A at 13.8V DC	3.0A typical at 13.8V DC (10W) 2.0A typical at 9.6V DC (5W)	23A at 13.8V DC
	Power supply requirement	13.8V DC ±15%	13.8V DC ±15%	9–15.8V DC	13.8V DC ±15%
	Antenna connector	SO-239 × 2 (for HF/50MHz and 144/430(440)MHz bands: 50Ω)	SO-239 × 2 (for HF/50MHz and 144/430(440)MHz bands: 50Ω)	SO-239 (50Ω)	144MHz SO-239 (50Ω) 430 (440) MHz Type-N (50Ω) 1200*[1]MHz Type-N (50Ω)
	Number of memory channels	503 (495 regular, 6 scan edges and 2 call)	107 (99 regular, 6 scan edges and 2 call)	105 (99 regular and 6 scan edges)	328*[1] (99 regular, 6 scan edges and 1 call for each band plus 10 satellite memories)
	Dimensions (W×H×D) ; Projections are not included.	167×58×180mm; 6⁹⁄₁₆×2⁹⁄₃₂×7⁷⁄₃₂in	167×58×200mm; 6⁹⁄₁₆×2⁹⁄₃₂×7⁷⁄₈in	167×58×200mm; 6⁹⁄₁₆×2⁹⁄₃₂×7⁷⁄₈in	241×94×239mm; 9¹⁄₂×3¹¹⁄₁₆×9¹³⁄₃₂in
	Weight (approx.)	2.3kg; 5.1lb	2.45kg; 5.4lb	2.0kg; 4.4lb	4.5kg; 9.9lb (IC-910H) 850g; 1.9lb (UX-910)
Transmitter	**Output power**	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	SSB, CW, RTTY, FM: 1.8–50MHz 5–100W 144MHz 5–50W 430(440)MHz 2–20W AM: 1.8–50MHz 2–40W 144MHz 2–20W 430(440)MHz 2–8W	SSB, CW, RTTY, FM: at 13.8V DC 0.1–10W at 9.6V DC 0.1–5W AM: at 13.8V DC 0.1–4W at 9.6V DC 0.1–2W	144MHz 5–100W 430 (440) MHz 5–75W 1200MHz*[1] 1–10W
	Spurious emissions	Less than –50dB (HF) Less than –60dB (other bands)	–50dB typical (HF) Less than –60dB (other bands)	Less than –50dB (HF) Less than –60dB (50MHz)	Less than –60dB (144/430MHz) Less than –50dB (1200MHz*[1])
	Carrier suppression	More than 50dB	More than 40dB	More than 40dB	More than 40dB
	Unwanted sideband	More than 50dB	More than 50dB	More than 50dB	More than 40dB
	Microphone connector	8-pin modular (600Ω)	8-pin modular (600Ω)	8-pin modular (600Ω)	8-pin connector (600Ω)
Receiver	**Sensitivity** (typical) Preamp ON SSB, CW, RTTY, AM: at 10dB S/N FM, WFM: at 12dB SINAD	SSB, CW: 1.8–29.999MHz 0.15μV 50–54MHz 0.12μV 144/430(440)MHz0.11μV AM: 0.5–1.8MHz 4.0μV 1.8–29.999MHz 2.0μV 50–54MHz 1.0μV 144/430(440)MHz1.0μV FM: 28–29.7MHz 0.5μV 50–54MHz 0.25μV 144/430(440)MHz0.18μV WFM: 76–108MHz 10μV	SSB, CW: 1.8–29.995MHz 0.15μV 50–54MHz 0.12μV 144/430(440)MHz0.11μV AM: 0.5–1.8MHz 13μV 1.8–29.995MHz 2.0μV 50–54MHz 1.0μV 144/430(440)MHz1.0μV FM: 28–29.7MHz 0.5μV 50–54MHz 0.25μV 144/430(440)MHz0.18μV WFM: 76–108MHz 10μV	SSB, CW: 1.8–29.999MHz 0.16μV 50–54MHz 0.13μV AM: 0.5–1.8MHz 13μV 1.8–29.999MHz 2.0μV 50–54MHz 1.0μV FM: 28–29.7MHz 0.5μV 50–54MHz 0.25μV	SSB, CW: 0.11μV FM: 0.18μV
	Selectivity	SSB: 2.4kHz/–6dB (2.4kHz) 3.6kHz/–60dB CW: 500Hz/–6dB (500Hz) 900Hz/–60dB RTTY: 360Hz/–6dB (350Hz) 650Hz/–60dB AM: 6.0kHz/–6dB (6kHz) 15kHz/–60dB FM: 12kHz/–6dB (15kHz) 20kHz/–60dB	SSB, CW, RTTY: 2.4kHz/–6dB 4.8kHz/–60dB AM, FM-N: 8.0kHz/–6dB 30kHz/–36dB FM: 12kHz/–6dB 30kHz/–50dB	SSB, CW: 2.4kHz/–6dB (2.4kHz) 4.0kHz/–60dB AM, FM-N: 9.0kHz/–6dB (6kHz) 20kHz/–50dB FM: 15kHz/–6dB (15kHz) 30kHz/–50dB	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 (HF) More than 65dB (other bands; except ½ IF point on 50MHz, IF point 144MHz band)	More than 70dB (HF) More than 65dB (other bands; except IF point on 50MHz band)	More than 70dB (HF) More than 65dB (50MHz band; except IF point)	More than 60dB (144/430MHz band) More than 50dB (1200MHz band*[1])
	AF power at 10% distortion with an 8Ω load	More than 2.0W	More than 2.0W	More than 1.0W (at 13.8V DC) More than 0.5W (at 9.6V DC)	More than 2.0W
	External speaker connector	2-conductor 3.5 (d) mm (⅛″)/8Ω	2-conductor 3.5 (d) mm (⅛″)/8Ω	2-conductor 3.5 (d) mm (⅛″)/8Ω	2-conductor 3.5 (d) mm (⅛″)/8Ω × 2 (for Main and Sub bands)

*[1] An optional UX-910, 1200MHz band unit is required for 1200MHz operation.
*[2] Guaranteed range 144–148, 430–450MHz

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

SPECIFICATIONS

MOBILE TRANSCEIVERS

	ID-1	ID-800H	IC-2720H / IC-2725E	IC-208H / IC-E208	IC-V8000	IC-2200H
Frequency coverage (Differs according to version, Unit: MHz)	1240–1300	U.S.A. version : Tx 144–148, 440–450 Rx 118–173.995, 230–549.995, 810– 999.990*1	IC-2720H (U.S.A.): Tx 144–148, 440–450 Rx 118–549.995 810–999.990*1 IC-2725E (Europe): Tx/Rx 144–146, 430–440	IC-208H (U.S.A.): Tx 144–148, 440–450 Rx 118–173.995, 230–549.995, 810– 999.990*1 IC-E208 (Europe): Tx 144–146, 430–440 Rx 118–173.995, 230–549.995, 810–999.990*2 IC-E208 (Europe-1) Tx/Rx 144–146, 430–440	U.S.A version Tx 144–148 Rx 136–174*3	U.S.A. version: Tx 144–148 Rx 118–174*3 Europe version: Tx 144–146 Rx 118–174*4 Europe-1 version: Tx/Rx 144–146
Max. current drain	7A	VHF 12A UHF 12.5A	VHF 12A UHF 11A	VHF 12A UHF 11.5A	15A	15A
Dimensions (W×H×D; Proj. not included.)	Main unit: 141×40×165.8 mm; 5⁹⁄₁₆×1⁹⁄₁₆×6¹⁷⁄₃₂ in Controller: 150×50×49.5 mm; 5²⁹⁄₃₂×1³¹⁄₃₂×1¹⁵⁄₁₆ in	141×40×185.4 mm; 5⁹⁄₁₆×1⁹⁄₁₆×7⁵⁄₁₆ in	Main unit: 140×40×187 mm; 5½×1⁹⁄₁₆×7⅜ in Controller: 140×50×24.5 mm; 5½×1³¹⁄₃₂×³¹⁄₃₂ in	141×40×185.4 mm; 5⁹⁄₁₆×1⁹⁄₁₆×7⁵⁄₁₆ in	150×50×150 mm; 5²⁹⁄₃₂×1³¹⁄₃₂×5²⁹⁄₃₂ in	140×40×196 mm; 5½×1⁹⁄₁₆×7²³⁄₃₂ in
Weight (approx.)	Main unit: 1.2kg; 2.6lb Controller: 220g; 7.7oz	1.2kg; 2.65lb	Main unit: 1.25kg; 2.8lb Controller: 150g; 5.3oz	1.2kg; 2.65lb	1.09kg; 2.2lb	1.25kg; 2.75lb
Output power (at 13.8V DC; Differs according to version)	High: 10W Low: 1W (approx.)	144MHz High: 55W Mid.: 15W (approx.) Low: 5W (approx.) 430(440)MHz High: 50W Mid.: 15W (approx.) Low: 5W (approx.)	144MHz High: 50W Mid.: 15W (approx.) Low: 5W (approx.) 430(440)MHz High: 35W Mid.: 15W (approx.) Low: 5W (approx.)	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)	DV Less than 0.35µV DD Less than 1.58µV FM Less than 0.18µV (DV, DD = at BER 1%)	DV Less than 0.35µV FM Less than 0.18µV (144, 430(440) MHz bands, DV, DD = at BER 1%)	Less than 0.18µV (144, 430(440) MHz bands)	Less than 0.18µV (144, 430(440) MHz bands)	0.15µV typ.	0.133µV typ.

*1 Guaranteed range 144–148 and 440–450MHz. Cellular blocked.   *2 Guaranteed range 144–146 and 430–440MHz.   *3 Guaranteed range 144–148MHz.   *4 Guaranteed range 144–146MHz.

HANDHELD TRANSCEIVERS

	IC-T90A / IC-E90	IC-T7H	IC-P7A / IC-E7	IC-V82 / IC-U82	IC-T3H / IC-V8
Frequency coverage (Differs according to version, Unit: MHz)	IC-T90A (U.S.A.): Tx 50–53.995 144–148 430–450*2 Rx 0.495–999.990*3 IC-E90 (Europe): Tx 50–52 144–146 430–440 Rx 0.495–999.990	U.S.A. Version Tx 144–148 430–450*2 Rx 118–174*1 400–470*2 Europe Version Tx/Rx 144–146 430–440	IC-P7A (U.S.A.): Tx 144–148 430–450*2 Rx 0.495–999.990*1*2*3 IC-E7 (Europe): Tx 144–146 430–440 Rx 0.495–999.990*4*5	IC-V82 (U.S.A.): Tx 144–148 Rx 136–174*1 IC-V82 (Europe): Tx/Rx 144–146 IC-U82 (U.S.A.): Tx 420–450*2 Rx 400–479*2 IC-U82 (Europe): Tx/Rx 430–440	IC-V8 (U.S.A.): Tx 144–148 Rx 136–174*1 IC-T3H (Europe): Tx/Rx 144–146
Dimensions (W×H×D; Proj. not included.)	58×87×29mm; 2⁹⁄₃₂×3⁷⁄₁₆×1⁵⁄₃₂in	57×122×29mm; 2¼×4¹³⁄₁₆×1⁵⁄₁₆in with BP-173/BP-180	47×81×28mm; 1²⁷⁄₃₂×3³⁄₁₆×1³⁄₃₂in	54×139×36.7mm; 2⅛×5¹⁵⁄₃₂×1⁷⁄₁₆in	54×132×35mm; 2⅛×5⁹⁄₁₆×1⅜in
Weight (approx.)	280g; 9.9oz with antenna and BP-217	320g; 11.3oz with antenna and BP-180	160g; 5.6oz with antenna and BP-243	390g; 13.8oz with antenna and BP-222N	350g; 12.3oz with antenna and BP-222N
Output power (typical values)	5W, 0.5W at 8.0V DC	6.0W, 0.5W at 13.5V DC	144MHz 1.5W, 0.1W 430(440)MHz 1.0W, 0.1W at 3.7V 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 (at 12dB SINAD)	0.16µV typ. (50, 144, 430 (440) MHz bands)	Less than 0.18µV	Less than 0.18µV (144, 430 (440) MHz bands)	0.16µV typ.	0.16µV typ.

*1 Guaranteed range 144–148MHz.   *2 Guaranteed range 440–450MHz.   *3 Cellular blocked.   *4 Guaranteed range 144–146MHz.   *5 Guaranteed range 430–440MHz.

Meets MIL-STD 810

Applicable U.S. Military Specifications

Icom makes rugged products that have been tested to and passed the MIL-STD requirements and strict environmental standards for shock (MIL-810C, D, E and F) and vibration (MIL-810C, D, E and F).

Some models have not been approved by the appropriate authorities in each country. These models may not be sold or leased, or be offered for sale or lease, until approval has been obtained.

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