



# HAM RADIO PRODUCTS

### All Band Transceivers



### Handheld Transceivers

Base Station Transceivers

45.000

PER



1295.000.00

SUB FM \$

1.09 1.00

17:25 + DY + MAIN

145.000 439.390

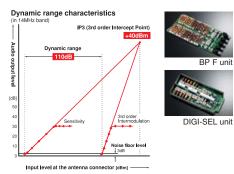
000 H 000 V/M CALL MW SCAN MONI







+40dBm IP3 (3rd order Intercept Point) lcom'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, lcom's engineering team completely re-engineered all of the analog circuitry to match the DSP (Digital Signal Processing) system.



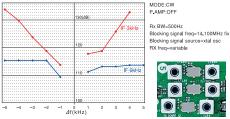
#### Three Hi-spec 1st IF Filters (Roofing Filter)\*1

In addition to selectable 6kHz and 15kHz roofing filters, the IC-7800 has a 3kHz roof-

ing filter before the 1st IF amplifier. It provides 134dB\*<sup>2</sup> (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.)

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

#### Blocking dynamic range characteristics





#### 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.

#### **Digital IF Filter**

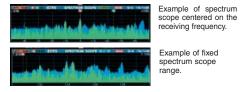
Icom's digital IF filters give you performance that is not possible with crystal or mechanical filters. They allow the operator to adjust filter shape (sharp or soft), filter bandwidth, and center frequency characteristics, without missing the action. Multiple filter memories store the most recently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



Filter preset screen

#### **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  $\pm 2.5$ kHz to  $\pm 250$ kHz in 7 steps, covering up to 500kHz of spectrum!



#### **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



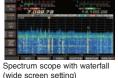
[CW mode] • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dotdash ratio and paddle polarity • APF selection (soft/sharp)

[Operation] • Four independent, 32-bit DSP units and 24-bit AD/DA converters • Ultra high stability OCXO unit • 200W output power, built in • 7-inch wide color TFT LCD • Highquality 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 • 137kHz band operation

#### **IC-7800 Upgrade Functions**

#### **Spectrum Waterfall Display**

Review RF and AF characteristics on the IC-7800's impressive 7-inch color LCD. Includes a wide screen setting.



PC Mouse Operation

Connect a mouse via USB to select operating frequency and control the spectrum scope.

#### **Audio Scope Function**

Review the FFT scope with waterfall and oscilloscope. In CW mode,observe mic compressor level and other attributes.



Audio scope (FFT scope with waterfall and oscilloscope)

**Simplified Remote Control Operation** Connect directly to an IP network using Icom's optional RS-BA1 software and the IC-7800's internal base station function. (A user operation PC is still required; a base station PC is not.)

#### **Digital Voice Recorder**

Automatically capture incoming/outgoing calls onto an external memory card or flash drive.

#### Other New or Enhanced Functions

Waveform outline in spectrum scope (ON/OFF)
Voice TX function transmits the recorded audio repeatedly
Increase APF volume level up to 6dB (Adjustable by 1dB step)
TX delay function sets the transmission timing to control a connected external linear amplifier (OFF/10ms/15ms/20ms/25ms/30ms, each for HF and 50MHz band)
Added RIT and ⊿TX commands for CI-V remote control
Expansion of 7MHz band (7.000–7.200MHz) for EUR version



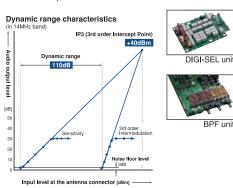






#### +40dBm IP3 (3rd order Intercept Point) and 110dB Dynamic Range

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 2.4kHz filter bandwidth).

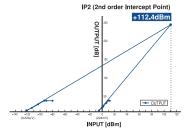


#### More than +110dBm IP2 (2nd order Intercept Point)

An IP2 point of more than +110dBm\* 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.

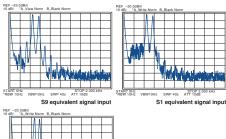
\* The IP2 figure is a typical value.

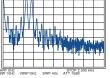
\*\* Measurements were made using custom equipment, due to the limits of normal signal generators (SG) and duplexers to +85dBm.



#### **High Specification Inband IMD**

Inband 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.





S9 +60dB equivalent signal input

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<sup>\*1</sup> of blocking dynamic range.



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

#### of interference signal. 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.



#### **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] • Two AGC loops • 7-inch wide color TFT LCD • Real-time spectrum scope • 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

### IC-7700 Upgrade Functions

Spectrum Waterfall Display Review RF and AF characteristics on the IC-7700's impressive 7-inch color LCD. Includes a wide screen setting.



Spectrum scope with waterfall (wide screen setting)

#### **PC Mouse Operation**

Connect a mouse via USB to select operating frequency and control the spectrum scope.

#### Audio Scope Function

Review the FFT scope with waterfall and oscilloscope. In CW mode,observe mic compressor level and other attributes.



Mini spectrum scope and audio scope

Simplified Remote Control Operation

Connect directly to an IP network using Icom's

optional RS-BA1 software and the IC-7700's internal base station function. (A user operation PC is still required; a base station PC is not.)

#### **Digital Voice Recorder**

Automatically capture incoming/outgoing calls onto an external memory card or flash drive.

#### Other New or Enhanced Functions

Waveform outline in spectrum scope (ON/OFF)
Voice TX function transmits the recorded audio repeatedly
Increase APF volume level up to 6dB (Adjustable by 1dB step)
TX delay function sets the transmission timing to control a connected external linear amplifier (OFF/10ms/15ms/20ms/25ms/30ms, each for HF and 50MHz band)
Added RIT and ⊿TX commands for CI-V remote control
Expansion of 7MHz band (7.000–7.200MHz) for EUR version







+30dBm IP3

Improved inband IMD

5.8 inch ultra-wide viewing angle TFT display

#### 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.



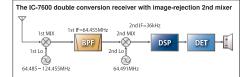
Dual DSP

#### 104dB Dynamic Range and

+30dBm IP3 (3rd order Intercept Point) An astonishing 104dB receiver dynamic range and +30dBm IP3 in the 14MHz band without sacrificing receiver sensitivity is a standard specification befitting 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.



#### 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.

#### 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.

#### **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**] • Spectrum scope • USB connectors on the front and rear panel • RTTY/PSK31 operation with a USB keyboard • 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





Intuitive touch screen interface

**Controls at your fingertips** with an angled display

HF, 50/70/144/430MHz multi-band, multi-mode

#### **Intuitive Touch Screen Interface**

The innovative touch screen interface provides quick and smooth operation for setting and editing various functions and memories.

#### One Touch Selection

For example, if you want to change the operating band, tap the frequency on the display. The band keys will be shown to select the operating

band. Touching the multi-function meter indicator for 1 second will auickly change the transmit meter functions.



#### StraightForward Operation

Just tap the mode, filter, function etc., you need to change. The touch screen responds naturally, changing your settinas.

#### Software Keypad

Entering frequency, callsign or editing memory channels has never been this

easy. The software keypad on the touch screen allows you to input alphanumeric characters incredibly quickly.

#### **Touch Screen Control Portal**

The radio control head features a large, multifunction, "touch screen" dot-matrix LCD display that is positioned for easy viewing and operation. The controller is compact in size, making it ideal for limited vehicle or desktop space.

#### **Resistive Touch Screen**

The  $48.6 \times 75.9$  mm; large resistive touch screen display can be operated while wearing gloves.

#### **Controller Mounted Speaker and Jacks**

The unique remote head design is perfect for pro-

viding loud, clear audio as well as jacks for an external speaker/headphones, key and microphone.



ELEC-KEY MAIN UNIT

#### HF, 50/70/144/430MHz Multiband, Multi-mode

PHONES/SP MIC

The IC-7100 fully covers the HF, 50, 70, 144, 430MHz amateur bands in multiple modes, providing 100W on HF/50MHz bands, 50W on 70/144MHz band and 35W on 430MHz band.

#### D-STAR DV Mode (Digital Voice + Data)

The IC-7100 provides D-STAR DV mode digital voice and low-speed data communication.

#### **IDR (D-STAR Repeater) Function Operation**

The DR function operation makes the D-STAR operation simple and straightforward, even if you are new to D-STAR operation.

#### **Near Repeater Function**

With an external, 3rd party GPS\*, search the internal database based on your location.

\* External GPS receiver or manual data input required.

#### **Other Features**

· Digital features controlled by the IF DSP • DSP controlled AGC function loop • SD memory card slot for saving data . Easy vehicle mounting with optional MBF-1

Optional RS-BA1 IP remote control software

• Built-in RTTY functions • CW full break-in, CW receive reverse, CW auto tuning . Optional multi-function microphone, HM-151 • Band scope and SWR graphic display . RF speech compressor controlled by the DSP • Voice memory function • Multi-function meter • 495 regular, 4 call, 6 scan edge and 900 DR mode repeater channels • 4 channels TX voice memories • ±0.5ppm frequency stability • Auto reply function\*

• Digital callsign squelch and digital code squelch\* • 12kHz IF output for DRM (Digital Radio Mondiale) receive \* D-STAR DV mode only



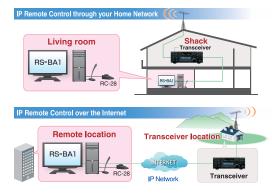
#### **Optional RS-BA1 IP Remote Control Software**

The optional RS-BA1 allows you to use the transceiver from another room using your home network, or even from a remote location over the Internet. The RS-BA1 has low voice latency.



**RC-28** 

RS-BA1 Rem	ste Control 1 Heb		
	3 2. 2 % 🤉 🖻		
Common and	100M	REMOTE CONTROL SOFTWARE RE	HUAL BAND FLITER
TRANSMIT	BW HOLE SET ELEST _A_		1.8 FILTER
TUNER	EXX LSB FIL2 TS 10	LSB FL2 TS 1	35 Maar
TUNE	7.062.000	7.075.000	
MONE	MEXID of JASYUA		TE PETCELR
T BE IN	BANK 00: TM-E BAND SSB	ANT I BOOFING IS	111
FUNCTION	S-P0 0 25 50 100		AM 🔤 🔘
<b>1</b> ,1,10	440 COT 0		
TAT	111111 W	TEW NA	144
M//C	Made		430 AR
NK	SSS CW RTTY PSK		CENE DISISEL
	MEMORY	SPUT I D	UP UP
TIM			
NICSET			AR
SIT		TON/05Q	



\* Base station PC is required for IC-9100, 7600, 7410, 7200 or IC-7100.





#### Faster DSP Unit and In-house DSP Expertise

Icom brings out the best DSP performance, combining more than ten years of DSP technical know-how and much faster DSP processors. Icom's in-house DSP experts have developed a IC-746PRO series replacement that every operator will be proud to own. In addition to the higher speed DSP, the AD/DA converter, AK4620, provides a higher dynamic range and superior S/N ratio.

#### **Other Features**

• Double-conversion superheterodyne • +30dBm class IP3 (3rd order intercept point) • Three first IF filters (3/6/15kHz) • Digital twin PBT • AGC loop management with programmable AGC time constant • Auto/manual notch filter provide more than 70dB attenuation • Noise reduction • RF speech compressor • User programmable tone control • Built-in voice synthesizer • User programmable band edge beep • VSC (Voice Squelch Control) function



Faster DSP unit and in-house DSP expertise

Double-conversion superheterodyne

+30dBm class third-order intercept point (IP3)

• Two preamplifier types: Preamp 1: Improving IMD characteristics, Preamp 2: High gain preamplifier • 20dB built-in attenuator • Built-in automatic antenna tuner • CTCSS tone encoder and decoder • Triple band stacking register • Quick split and frequency lock functions • RIT and  $\Delta$ Tx variable up to ±9.999kHz • SSB/CW synchronous tuning • 1Hz pitch tuning and display •±0.5ppm of high frequency stability • Program, memory, select memory, mode select and  $\Delta$ f scans • Automatic tuning steps



#### **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.

#### **Other Features**

• AGC loop management • High stability transmitter

Digital twin PBT • Manual notch filter • 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
USB connector for PC control





#### **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.

#### **Other Features**

• Front mounted loud speaker • Optional DSP capability, UT-106 • General coverage receiver • 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



## HF/VHF/UHF TRANSCEIVER

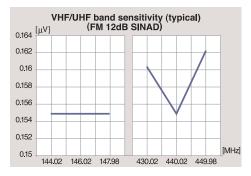
Superb readability in the VHF/UHF band

> Ready-to-install 1200MHz band unit

Satellite mode operation

## Superb Readability in the VHF/UHF Band

The IC-9100 provides excellent receiver sensitivity in the VHF/UHF bands, equivalent to the highly-acclaimed previous VHF/UHF dedicated model, the IC-910H. The IF DSP greatly improves intermodulation and noise elimination and offers better readability than the IC-910H.





#### Ready-to-install 1200MHz Band Unit

By installing the optional UX-9100 1200MHz band unit, you can be operational on the 1200MHz band immediately. The IC-9100 fully covers the

 $HF/50,\ 144,\ 430$  and  $1200\,M\,H\,z$  a mateur bands in multiple modes.



UX-9100, 1200MHz band unit

#### **Satellite Mode Operation**

The satellite mode synchronizes the uplink (transmitting) and downlink (receiving) frequencies, and tracks the frequencies in the same tuning step. This function matches both normal and reverse mode satellites. Compensation of the Doppler effect can be performed easily. 20 satellite memory channels store frequencies, mode and tone settings for quick setup.

#### **Double Conversion Superheterodyne**

The best receiver circuit reproduces high fidelity audio without internal distortion. Icom achieves this by adopting a double conversion superheterodyne system\*. The double conversion system simplifies the electronic circuitry and reduces the number of components which cause internal distortion. The digital signal processing (DSP) technologies and image rejection mixer make it possible to adopt this system.

\* A triple conversion system is used for the 1200MHz band.

#### +30dBm Class IP3

Using receiver design techniques introduced in Icom's highest grade HF transceivers, the IC-9100 has an IP3 of +30dBm\* in the HF band. Even a weak signal adjacent to strong signals is clearly received by the IC-9100. \* Typical in 14MHz band. Spacing=100kHz

## Three First IF Filters (3/6/15kHz) for HF/50MHz Band

The IC-9100 comes with a built-in 15kHz 1st IF filter and can accept up to two optional filters (3kHz FL-431 and 6kHz FL-430). By changing

the first IF filter width according to the operating mode, the desired is protected from adjacent inband signals at the later stages for better receiver performance.



1st IF filters (6kHz, 3kHz)

#### **Other Features**

 Optional D-STAR DV mode 
 Independent dual receivers 
 32-bit floating point DSP & 24-bit AD/DA converters 
 AGC loop management 
 Digital IF filter 
 Digital twin PBT and IF shift 
 Noise reduction 
 Noise blanker 
 RF speech compressor 
 Adjustable transmit bandwidth 
 HF/50MHz, 144MHz 100W, 430/440MHz 75W 
 RTTY demodulator and decoder 
 Ample CW functions 
 Built-in antenna tuner for HF/50MHz band 
 Manual notch filter and auto notch filter 
 Large, multi-function LCD USB connector for PC control 
 Optional CS-9100 programming software
 Optional RS-BA1 IP remote control software

### DIG/TAL

## Mobile Transceivers



## VHF/UHF DUAL BAND DIGITAL TRANSCEIVER

Intuitive touch screen operation DV/DV dualwatch

Integrated GPS receiver

#### **Intuitive Touch Screen Operation**

The intuitive touch screen interface provides quick and smooth operation. The large 5.5 inch display ( $320 \times 128$  pixels) responds naturally to the touch – allowing you to change set-

tings, enter frequencies and edit memory channels with ease.

← → QWERTYUIOPCLR														
A S D F G H J K L														
	T	Ζ	X	Ť	С	۷	В	T	N	М	T			ENT
ab⇔12 / SPACE														
Qwerty keyboard example														

#### DV/DV Dualwatch

The ID-5100E can receive both FM/FM and FM/DV mode

**D-STAR DV mode capability** 

DR (D-STAR repeater) function

for easy setup

CS-80/880 free download software

signals simultaneously. Two DV mode signals can be monitored for

MAIN DUP-	DV	19	:40 i DUP-	4 (DV	) SUB
BB CQ	cqcq		то 283	cacaca	
FROM Herr	ie Bay 662#o GB71	сс	FROM	Herne Bay 439.450	GB7IC B
H	RX>CS	D	<u>C:</u>	SCAN	 MONI
DV/DV (	dualwatch	ו (Dl	R fu	nction) e	xample

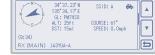
receive on either channel. You can check other repeaters or other channel activities while waiting for the main repeater.

 $^{\ast}$  Main band audio has priority if two DV signals come in at the same time.

#### **Integrated GPS Receiver**

The ID-5100E has an integrated GPS receiver in the controller and shows own position, course, speed and altitude on the display. The GPS position information can be used for exchanging position reports, tracing the GPS log and search-

ing for nearby repeater sites.



Received position information example

#### **DV/FM Repeater List Function**

The DV/FM repeater list function assists you in accessing nearby repeaters, even in areas you are visiting for the first time. The function searches for a nearby repeater using the repeater memories with the GPS position information.

\* To use the automatic repeater list function, the position data of the repeater is required. The ID-5100E will be shipped with a limited number of repeater memories preprogrammed.

#### **Dplus Reflector Linking**

Dplus reflector link commands are added to the DR function to allow easy reflector opera-



#### D-STAR Repeater List and DR Function Operation

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

tion. Use Reflector, link/unlink to Reflector, echo test and repeater information commands are selectable.

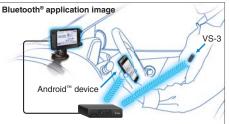
#### SD Card Slot for Voice and Data Storage

When used with an SD card, the SD card can store various contents including voice memory, DV auto reply message, TX voice message, QSO log, RX history log and GPS log data. Memory channels, repeater memories and other personal settings can be saved to the SD card and can be loaded to the transceiver.

#### VS-3 Bluetooth® Headset

The optional Bluetooth<sup>®</sup> headset, VS-3, provides hands-free communication and can remotely control the ID-5100E with three programmable buttons. This provides convenient communication in a vehicle.

\* Optional UT-133 Bluetooth<sup>®</sup> unit must be installed in the ID-5100E.



#### **Other Features**

RS-MS1A Android<sup>™</sup> application (free download application from Google Play<sup>™</sup>)
 Enhanced D-PRS functions with object, position, items and weather formats
 Convenient memory contents management using CSV format
 Speech function announces operating frequency, mode and received callsign (DV mode)
 Independent main dial, volume and SQL knobs for A/B bands
 AM airband dualwatch
 CS-5100, cloning software supplied
 50W output power on both VHF and UHF bands

#### **GPS Position Reporting Functions**

Your position data is shown on the display and can be sent to other station<sup>\*1</sup>. In addition, the GPS A mode assists in D-PRS mode operation to send your position information to an APRS server.

#### **Other Features**

• CS-80/880 free download software • Total of 1052 memory channels • 16 DTMF memories • 50 CTCSS and 104 × 2 DTCS encoder/ decoder\*<sup>2</sup> • Wideband receiver\*<sup>3</sup> • Detachable controller • Backlit LCD • Auto power off and on • Power save

- \*1 3rd party GPS receiver is required.
- \*2 FM mode
- \*3 Receiver range differs depending on version.



## Handheld Transceivers



**VHF/UHF DIGITAL TRANSCEIVER** D-51E

#### **D-STAR** repeater

#### ID-RP2C: Repeater controller

One unit is required for each repeater station and connects up to 4 RF modules. Transfers the received signal to the specified RF module or the

#### Lightweight & compact body

V/V, U/U, V/U dualwatch

Independent AM/FM receiver

#### Lightweight & Compact Body

The ID-51E has a compact  $58 \times 105.4 \times 26.4$  mm body, and weighs only 255g (approx.) with battery pack and antenna. In this slim body, the ID-51E contains 5W output power, VHF/UHF dual band, D-STAR and integrated GPS receiver.



#### V/V, U/U, V/U Dualwatch

The dualwatch function monitors VHF/VHF, UHF/ UHF and VHF/UHF bands simultaneously.\* The audio and squelch levels can be set separately for the main and sub-bands.

\*DV/DV, AM/AM, FM-N/FM-N and DV/FM-N modes dualwatch not available.



#### V/U, V/V Dualwatch example

#### Independent AM/FM Receiver

FM and AM broadcast stations can be listened to while using the dualwatch function for monitoring ham bands. When a ham band signal is received, the broadcast station is automatically muted.



Showing Japan version screen shots.

#### **Automatic Repeater List-up Function**

Using the GPS position information, the automatic repeater list-up function shows the list of nearby D-STAR repeaters from the memory\* and helps you quickly access the nearby D-STAR repeater.

NEAR REPEATER	1/3
Herne Bay	
Folkestone	
Ashford	
Turners Hill	
Barkway	
(A) 3 5km GB7IC B	

Repeater list example

\*To use the automatic repeater list-up function, the position data of the repeater is required. The ID-51E will be shipped with D-STAR repeater memories preprogrammed, but the position data of some D-STAR repeaters may not be available.

#### **Integrated GPS Receiver**

The integrated GPS receiver provides fast start-up time and accurate position. Your current position

and altitude are shown on the display and offers a position reporting function in DV mode. The GPS-A mode assists in easy D-PRS oper- GPS receiver transparent image ation.



Automatic Reply Function (DV Mode)

When receiving a call addressed to your callsign, the ID-51E can automatically reply your current position information\*. Between ID-51E's communication, replied position information can pop up on the caller's display.

\* Function not available on all D-STAR networks.



Received position information example

#### **IPX7 Waterproof Construction**

The ID-51E has superior IPX7 waterproof

protection(1m depth of water for 30 minutes). It can be used in harsh outdoor environments, or when hiking, mountain biking, touring and doing mountain sports.



#### **Other Features**

• 5W output power • 3 hours rapid charging with supplied wall charger (BP-271) . Long lasting battery pack • CS-51 cloning software supplied



## **OPTIONS FOR BASE STATION TRANSCEIVERS**

		HAND MICI	ROPHONES		DESK	TOP MICROPH	IONES	EXTERNAL SPEAKERS		
MODEL NAME	HM-36	HM-103	HM-151	HM-198	SM-30	SM-50	SM-27	SP-21	SP-23	
	\$	B	S	8			J.		100 A	
IC-7800	~				~	~				
IC-7700	~				<ul> <li>✓</li> </ul>	~				
IC-7600	~				~	~			~	
IC-7410	<ul> <li>✓</li> </ul>				<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>		~	<ul> <li>✓</li> </ul>	
IC-7100	(Use with OPC-589)	~	~	~	(Use with OPC-589)	(Use with OPC-589)				
IC-7200	V				V	~	~	~		
IC-718	~				~	~	~	~	V	
IC-9100	~				V	V		~	V	

	EXT	ERNAL SPEAK	(ERS	DC POWER SUPPLY	ANTENNA ELEMENT	ANTENNA	TUNERS	AUTOMATIC TUNING ANTENNA	NVIS KIT
MODEL NAME	SP-33	SP-34	SP-35 2m cable	<b>P5-126</b> 13.8V/25A 4-pin type	AH-2B Covers 7–54MHz	AH-4 Covers 3.5–54MHz	<b>AT-180</b> Covers 1.8–54MHz.	AH-740 Covers 2.5–30MHz. (amateur band) OPC-2321 is required.	AH-5NV Fiberglass antenna element for use with AH-740. Covers 2.2–30MHz (amateur band) with AH-740.
IC-7800	V	V							
IC-7700	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>							
IC-7600				~	<ul> <li>✓</li> </ul>	~		(Use with OPC-2321)	~
IC-7410				<ul> <li>✓</li> </ul>	~	~		(Use with OPC-2321)	<ul> <li>✓</li> </ul>
IC-7100			V	<ul> <li>✓</li> </ul>	~	<ul> <li>✓</li> </ul>	~	(Use with OPC-2321)	~
IC-7200				~	~	~	~	(Use with OPC-2321)	~
IC-718					~	~	~	(Use with OPC-2321)	~
IC-9100				<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>		(Use with OPC-2321)	<ul> <li>✓</li> </ul>

	CONTROL CABLE	FOLDED DIPOLE ANTENNA	FILT	ERS	<b>CI-V CONVERTER</b>	HIGH STABILITY CRYSTAL UNIT	DSP UNIT	LINEAR AMPLIFIER	CARRYING HANDLES
MODEL NAME	OPC-2321 For use with AH-740	AH-710 Covers 1.9-30 MHz bands.	FL-430 6kHz 1st IF FILTER (For HF/ 50MHz band) FL-431 3kHz 1st IF FILTER (For HF/ 50MHz band)	FL-52A 500Hz/-6dB FL-53A 250Hz/-6dB FL-222 1.8kHz/-6dB FL-257 3.3kHz/-6dB	CT-17	CR-338 Frequency sta- bility: ±0.5ppm	UT-106	IC-PW1EURO	MB-23 MB-117 MB-121 MB-123
IC-7800					<ul> <li>✓</li> </ul>			~	
IC-7700					~			~	
IC-7600	~				<ul> <li>✓</li> </ul>			~	(Use MB-121)
IC-7410	<ul> <li>✓</li> </ul>				~			(Use with OPC-599)	(Use MB-123)
IC-7100	<ul> <li>✓</li> </ul>				~			(Use with OPC-599)	
IC-7200	<ul> <li>✓</li> </ul>	~			~			(Use with OPC-599)	(Use MB-117)
IC-718	<ul> <li>✓</li> </ul>	~		(Accepts only one filter)	~	~	<b>v</b>	(Use with OPC-599)	(Use MB-23)
IC-9100	V		~	(	~			(Use with OPC-599)	(Use MB-123)

## **OPTIONS FOR BASE STATION TRANSCEIVERS**

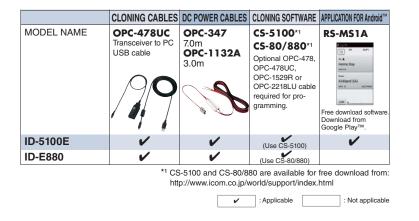
	HANDLE	MOBILE MOUNT	ING BRACKETS	MOUNTING BASE	CONTROLLER BRACKET	SEPARATION CABLES	MIC ADAPTER CABLE	ADAPTER CABLE	CLONING SOFTWARE
MODEL NAME	MB-116	MB-62	MB-118	MBF-1	MBA-1	OPC-2253 3.5m OPC-2254 5.0m	OPC-589 8-pin connector microphone to 8-pin modular	OPC-599 13-pin ACC socket to 7, 8-pin ACC sockets	<b>CS-9100</b> A USB cable (A-B type) is required for programming.
IC-7800									
IC-7700									
IC-7600									
IC-7410								~	
IC-7100		~		(Use with MBA-1)	~	~	~	~	
IC-7200	~		<ul> <li>✓</li> </ul>	,				~	
IC-718			~					~	
IC-9100								<b>v</b>	<ul> <li>✓</li> </ul>

For use with RS-BA1     Data 1 jack to RS-232C     Data 1 jack to USB     Data 1 j		CLONING SOFTWARE	IP REMOTE CONTROL SOFTWARE	USB REMOTE ENCODER	<b>D-STAR UNIT</b>	DATA C	ABLES	DC POWER CABLES	1200MHz BAND UNIT
IC-7700 IC-7600 IC-7410 IC-710	MODEL NAME	CS-7100	RS-BA1	For use with	UT-121	Data 1 jack to	Data 1 jack to	OPC-1457 30A cable OPC-2095	UX-9100
IC-7600         V         V         (Use OPC-145           IC-7410         V         V         (Use OPC-209           IC-7100         V         V         V           UC-7200         V         V         V	IC-7800		~	~					
IC-7600         V         V         (Use OPC-145           IC-7410         V         V         (Use OPC-209           IC-7100         V         V         V           UC 72000         V         V         V	IC-7700		~	~					
IC-7410         V         V         (Use OPC-209)           IC-7100         V         V         V         V         (Use OPC-209)           IC-7200         V         V         V         V         V         V	IC-7600		~	<ul> <li>✓</li> </ul>				(Use OPC-1457)	
IC-7100         ✓         ✓         ✓         ✓         ✓         ✓         (Use OPC-209           IC-7200         ✓         ✓         ✓         ✓         ✓         ✓         ✓         (Use OPC-209	IC-7410		~	~					
	IC-7100	~	~	~		~	<ul> <li>✓</li> </ul>	(Use OPC-2095)	
1	IC-7200		~	~				(Use OPC-1457)	
	IC-718								
	IC-9100		~	~	~	~	<ul> <li>✓</li> </ul>	(Use OPC-2095)	~

### **OPTIONS FOR MOBILE TRANSCEIVERS**

		HAND MICI	ROPHONES		BLUETOOTH <sup>®</sup> HEADSET	<b>BLUETOOTH® UNIT</b>	MOUNTING BASE	CONTROLLER BRACKET	MOUNTING BRACKET
MODEL NAME	нм-207	нм-154	HM-133 w/DTMF keypad	нм-103	v5-3	UT-133	MBF-1	MBA-2	MBF-4
ID-5100E	V	~			(Use with UT-133)	~	(Use with MBA-2)	~	~
ID-E880		~	<ul> <li>✓</li> </ul>	~			<ul> <li>✓</li> </ul>		

	CONTROLLER CABLE	EXTERNAL	EXTERNAL SPEAKERS		MIC ADAPTER CABLE	DATA CABLES		CLONING	CABLES
MODEL NAME	OPC-1156 3.5m extension cable	SP-35 2m cable SP-35L 6m cable	SP-30 102.5mm diameter speaker	2.5m	OPC-589 8-pin connector microphone to 8-pin modular	OPC-1529R For data com- munication and PC cloning	OPC-2218LU USB cable	OPC-474 Between transceivers	OPC-478 Transceiver to PC RS-232C cable
ID-5100E	<ul> <li>✓</li> </ul>	~	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	~		
ID-E880		~		~	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	~	~	~



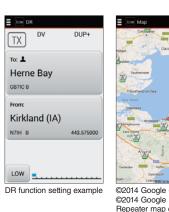
### **RS-MS1A Android<sup>™</sup> Application** (Free download application from Google Play<sup>™</sup>)

The RS-MS1A allows you wirelessly connect the ID-5100E and remotely set DR functions, link with a map application and send/receive messages over the DV mode. In addition, pictures taken by the Android<sup>™</sup> device can be transmitted over the DV mode.

\* Optional UT-133 Bluetooth® unit must be installed in the ID-5100E.

\* Some functions may not work properly, depending on Android™ phones and devices used.





©2014 Google - Map data Repeater map example

~

## **OPTIONS FOR HANDHELD TRANSCEIVERS**

	BATTERY CASE	BATTER	Y PACKS	DESKTOP CHARGER	AC ADAPTER	WALL CHARGER	CIGARETTE LIC	GHTER CABLES	DC POWER CABLE
MODEL NAME	BP-273 LR6 (AA)×3 cells	<b>BP-271</b> (Li-ion) 7.41/1150mAh(min.), 1200mAh(typ.)	<b>BP-272</b> (Li-ion) 7.4V/1880mAh(min.), 2000mAh(typ.)	BC-202 Rapid charger	<b>BC-123SE</b> 12V/1A	BC-1675D 12V/500mA	CP-12L with noise filter	CP-19R with noise filter	OPC-254L/LR
ID-51E	<ul> <li>✓</li> </ul>	<b>v</b>	<ul> <li>✓</li> </ul>	(Use with BC-123SE)	(Use with BC-202)	V	~	V	~

	SPEAKER-MI	CROPHONES	EARPHONE-MICROPHONES		HEADSETS				
MODEL NAME	HM-75LS	HM-186LS	нм-153	HM-153LS	HM-166	HM-166LS	HS-94 Earhook type with boom microphone	HS-95 Behind-the-head type	HS-97 Throat microphone type
ID-51E	~	<ul> <li>✓</li> </ul>	(Use with OPC-2144)	~	(Use with OPC-2144)	~	(Use with OPC-2006LS)	(Use with OPC-2006LS)	(Use with OPC-2006LS)

	EARPHONE	PLUG AD	DAPTERS	BELT CLIP	CARRYING CASE	SILICONE JACKET CASE	DATA CABLE	CLONING SOFTWARES	ANTENNA ADAPTER
MODEL NAME	SP-13	OPC-2006LS	орс-2144	MB-127 Alligator type	LC-179	SJ-1 For use with BP-271	OPC-2218LU USB type	CS-51*1	AD-92SMA BNC type antenna connector
ID-51E	(Use with OPC-2144)	~	~	~	~	~	~	~	<ul> <li>✓</li> </ul>

\*1 CS-51 is available for free download from: http://www.icom.co.jp/world/support/index.html

	ANTENNA	CI-V LEVEL CONVERTER
MODEL NAME	FA-S270C	ст-17
ID-51E	<ul> <li>✓</li> </ul>	~

## SPECIFICATIONS FOR BASE STATION TRANSCEIVERS

		IC-7800	IC-7700	IC-7600			
	Frequency coverage (Differs according to version)	Tx: 137kHz, 1.8, 3.5, 7, 10, 14 18, 21, 24, 28, 50MHz bands Rx: 30kHz-60MHz* * Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz–60MHz* * Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz-60MHz* * 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			
	Frequency stability         ±0.05ppm (0°C to +50°C, after warm up)		±0.05ppm (0°C to +50°C, after warm up)	±0.5ppm (0°C to +50°C, after warm up)			
	Maximum current drain	800VA	800VA	23A at 13.8V DC			
General	Power supply requirement	85–265V AC (Auto sensing)	85–265V AC (Auto sensing)	13.8V DC ±15%			
G	Antenna connector	SO-239 × 4 + BNC × 2 (50Ω)	SO-239 × 4 + BNC (50Ω)	SO-239 × 2 + phono [(RCA) 50Ω]			
	Number of memory channels	101 (99 regular, 2 scan edges)	101 (99 regular, 2 scan edges)	101 (99 regular, 2 scan edges)			
	Dimensions (W×H×D; Projections are not included)	424×149×435 mm	425×149×437 mm	340×116×279.3 mm			
	Weight (approx.)	25kg	22.5kg	10.0kg			
tter	Output power	SSB, CW, RTTY, PSK31, FM: 5–200W AM: 5–50W 137kHz (CW): More than –20dBm	SSB, CW, RTTY, PSK31, FM: 5–200W AM: 5–50W	SSB, CW, RTTY, PSK31, FM: 2–100W AM: 1–30W			
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)			
	Carrier suppression	More than 63dB	More than 63dB	More than 40dB			
	Unwanted sideband	More than 80dB	More than 80dB	More than 55dB			
	Microphone connector Sensitivity (typical) Preamp ON SSB, CW, RTTY, AM: at 10dB S/N FM, WFM: at 12dB SINAD	8-pin connector (600Ω)           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	8-pin connector (600Ω)           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	8-pin connector (600Ω)         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			
Receiver	Selectivity	SSB:         2.4kHz/-3dB           (2.4kHz)         3.6kHz/-6odB           CW:         500Hz/-3dB           (500Hz)         700Hz/-6odB           RTTY, PSK31:         360Hz/-6dB           (350Hz)         650Hz/-6odB           AM:         6.0kHz/-3dB           (6kHz)         15kHz/-6odB           FM:         12kHz/-6dB           (15kHz)         20kHz/-6odB	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	SSB:       2.4kHz/-6dB         (2.4kHz)       3.8kHz/-60dB         CW:       500Hz/-6dB         (500Hz)       900Hz/-60dB         RTTY:       350Hz/-6dB         (350Hz)       650Hz/-6dB         (4Hz)       6.0kHz/-6dB         (6kHz)       15kHz/-6dB         FM:       12kHz/-6dB         FM:       12kHz/-6dB         (15kHz)       20kHz/-60dB			
	Spurious and image rejection (except IF)	More than 70dB	More than 70dB	More than 70dB* (* Except IF point on 50MHz band)			
	Audio output power (at 10% distortion with an 8Ω load)	More than 2.6W	More than 2.6W	More than 2.0W			
	External speaker connector	2-conductor 3.5 (d) mm (¼")/8Ω×2 (for main and sub bands)	2-conductor 3.5 (d) mm (1/ε")/8Ω	2-conductor 3.5 (d) mm (1/s")/8Ω			
	The I CD display may have cosmetic imperfections that appear as small or dark spots. This is not a malfunction or defect, but a normal characteristic of I CD displays						

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 BASE STATION TRANSCEIVERS

IC-7410	IC-7100	IC-7200	IC-718	IC-9100	
Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz–60.000MHz* * Some frequency bands are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50, 70*1, 144, 430MHz bands Rx: 30kHz–199.999MHz, 400–470MHz* <sup>2</sup> * <sup>1</sup> Depending on version. * <sup>2</sup> Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50MHz bands Rx: 30kHz–60.000MHz* * Some frequency ranges are not guaranteed.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28MHz bands Rx: 30kHz–29.999MHz* * Guaranteed range 0.5–29.999MHz.	Tx: 1.8, 3.5, 7, 10, 14, 18, 21, 24, 28, 50, 144, 430, 1200MHz bands Rx: 30kHz-60MHz* <sup>1</sup> , 144–146MHz, 430–440MHz, 1240–1300MHz <sup>42</sup> <sup>1</sup> Some frequency ranges are not guaranteed. <sup>24</sup> With optional UX-9100.	
USB, LSB, CW, RTTY, AM, FM USB, LSB, CW, RTTY, DV, AM, FM, WFM* (*Bx only)		USB, LSB, CW, RTTY, AM	USB, LSB, CW, RTTY, AM	USB, LSB, CW, RTTY (FSK), AM*, FM, DV (with UT-121) 'Transmit HF50MHz only. Cannot receive on 1200MHz band.	
Less than ±0.5ppm (0°C to +50°C)	±0.5ppm (0°C to +50°C @430MHz)	±0.5ppm (-10°C to +60°C)	Less than ±200Hz (From 1 min. to 60 min. after power ON)	±0.5ppm (0°C to +50°C, after warm up)	
23A at 13.8V DC	22A at 13.8V DC	22A at 13.8V DC	20A at 13.8V DC	24A at 13.8V DC	
13.8V DC ±15%	13.8V DC ±15%	13.8V DC ±15%	13.8V DC ±15%	13.8V DC ±15%	
SO-239 × 2 (50Ω)	SO-239 $\times$ 2 (for HF/50/70MHz and 144/430MHz bands: 50 $\Omega)$	SO-239 (50Ω)	SO-239 (50Ω)	HF/50MHz         SO-239 (50Ω)× 2           144MHz         SO-239 (50Ω)           430MHz         Type-N (50Ω)           1200MHz         Type-N (50Ω) (With UX-9100)	
101 (99 regular, 2 scan edges)	495 regular, 4 call, 6 scan edges, 900 D-STAR repeater channels	201 (199 regular, 2 scan edges)	101 (99 regular, 2 scan edges)	396* (99 each for HF/50, 144, 430, 1200MHz band) 4 Call* (1 each for band) 24 Scan edges* (6 each for band) 20 satellite * With optional UX-9100.	
315×116×343 mm	Main unit 167×58×225 mm Controller 165×64×78.5 mm	241×84×281 mm	240×95×239 mm	315×116×343 mm	
10.2kg	Maim unit 2.3kg Contloller 0.5kg	5.5kg	3.8kg	IC-9100 11kg UX-9100 950g	
SSB, CW, RTTY, FM: 2–100W AM: 2–27W	SSB, CW, RTTY, FM, DV: 1.8–50MHz 2–100W 70MHz 2–50W 144MHz 2–50W 430MHz 2–35W AM: 1.8–50MHz 1–30W 70MHz 1.6–20W	SSB, CW, RTTY: 2–100W AM: 1–25W	SSB, CW, RTTY: 2–100W AM: 2–35W	SSB, CW, RTTY, FM, DV*1: HF/50MHz 2-100W 144MHz 2-100W 430MHz 2-75W 1200MHz*2 1-10W AM: HF/50MHz 2-30W * <sup>1</sup> With UT-121. <sup>2</sup> With UX-9100.	
Less than –50dB (HF) Less than –63dB (50MHz)	Less than –50dB (HF) Less than –63dB (50MHz) Less than –60dB (70/144/430MHz)	Less than –50dB (HF) Less than –63dB (50MHz)	Less than50dB	1.8–29.7MHz         Less than –50dB           50,144MHz         Less than –63dB           430MHz         Less than –61.8dB           1200MHz         Less than –53dB (With UX-9100)	
More than 40dB	More than 50dB	More than 50dB	More than 40dB	More than 40dB	
 More than 55dB	More than 50dB	More than 50dB	More than 50dB	More than 55dB	
 8-pin connector (600Ω)	8-pin modular (600Ω)	8-pin connector (600Ω)	8-pin connector (600Ω)	8-pin connector (600Ω)	
SSB, CW, : 1.8–29.999MHz 0.16µV 50–54MHz 0.13µV AM: 0.5–1.8MHz 12.6µV 1.8–29.999MHz 2.0µV 50–54MHz 1.6µV FM: 28–29.7MHz 0.5µV 50–54MHz 0.32µV	SSB, CW: 1.8–29.999MHz 0.15µV 50–54MHz 0.15µV 70MHz 0.15µV 144/430MHz 0.11µV AM: 0.5–1.8MHz 13µV 1.8–29.999MHz 2.0µV 50/70/144/430MHz 1.0µV FM: 28–29.7MHz 0.5µV 50/70MHz 0.25µV 144/430MHz 0.18µV DV: 28–29.7MHz 1.0µV 50/70MHz 0.63µV 144/430MHz 0.35µV WFM: 76–108MHz 10µV	SSB, CW : 1.8–29.999MHz 0.16μV 50–54MHz 0.13μV AM: 0.5–1.8MHz 13μV 1.8–29.995MHz 2.0μV 50–54MHz 1.0μV	SSB, CW, RTTY: 1.8–29.999MHz 0.16μV AM: 0.5–1.799MHz 13μV 1.8–29.999MHz 2.0μV	SSB, CW: 18-29,999MHz 0.16µV 50-54MHz 0.13µV 144/430MHz 0.11µV 1200MHz 0.11µV <sup>+1</sup> AM: 0.5-18MHz 12.6µV 18-29,999MHz 2.0µV 50-54MHz 1.6µV 144/430MHz 0.5µV 50-54MHz 0.5µV 50-54MHz 0.8µV <sup>+1</sup> 200MHz 0.8µV <sup>+1</sup> DV <sup>*2</sup> : 28-29.7MHz 1.0µV 50-54MHz 0.35µV 144/430MHz 0.35µV <sup>+1</sup> * <sup>1</sup> With UX-9100. <sup>2</sup> With UT-121.	
SSB:         2.4kHz/-6dB           (2.4kHz)         3.4kHz/-40dB           CW:         500Hz/-6dB           (500Hz)         700Hz/-40dB           RTTY:         500Hz/-6dB           (350Hz)         800Hz/-40dB           AM:         6.0kHz/-6dB           (6kHz)         10kHz/-40dB           FM:         12kHz/-6dB           (15kHz)         22kHz/-40dB	SSB:         2.4kHz/-6dB           (2.4kHz)         3.4kHz/-40dB           CW:         500Hz/-6dB           (500Hz)         700Hz/-40dB           RTTY:         500Hz/-6dB           (500Hz)         800Hz/-40dB           AM:         6.0kHz/-6dB           (6kHz)         10kHz/-6dB           FM:         12kHz/-6dB           (15kHz)         22kHz/-40dB           DV:         -50dB           (12.5kHz)         50dB	SSB:         2.4kHz/-6dB           (2.4kHz)         3.6kHz/-60dB           CW:         500Hz/-6dB           (500Hz)         900Hz/-6dB           RTTY:         360Hz/-6dB           (350Hz)         650Hz/-6dB           AM:         6.0kHz/-6dB           (6kHz)         15kHz/-60dB	SSB, CW, RTTY: 2.1kHz/–6dB 4.5kHz/–60dB AM: 6.0kHz/–6dB 20kHz/–40dB	SSB:         2.4kHz/-6dB           (2.4kHz)         3.4kHz/-40dB           CW:         500Hz/-6dB           (500Hz)         700Hz/-40dB           RTTY:         500Hz/-6dB           (500Hz)         800Hz/-40dB           AM:         6.0kHz/-6dB           (6kHz)         10.0kHz/-40dB           FM:         12kHz/-6dB           (15kHz)         22kHz/-40dB           DV (With UT-121):         -50dB (12.5kHz spacing)           1200MHz (With UX-9100)         SSB,CW           SSB,CW         2.3kHz/-6dB           FM         15.0kHz/-6dB	
 More than 70dB	More than 70dB (HF/50/70MHz) More than 65dB (144/430MHz) (expect 1/2 IF through on 50/70MHz, IF through on 144MHz)	More than 70dB* (* Except ½ IF point on 50MHz band)	More than 70dB (1.8–29.999MHz)	HF/50MHz More than 70dB 144,430MHz More than 60dB 1200MHz More than 50dB (With UX-9100)	
More than 2.0W More than 2.0W		More than 2.0W	More than 2.0W	More than 2.0W	
 2-conductor 3.5 (d) mm (1/s")/8Ω 2-conductor 3.5 (d) mm (1/s")/8Ω					

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

### **SPECIFICATIONS FOR MOBILE & HANDHELD TRANSCEIVERS**

	ID-5100E	ID-E880	ID-51E
Frequency coverage (Differs according to version)	Europe version Tx 144–146, 430–440MHz Rx 118–174, 375–550MHz <sup>*1</sup> Italia version Tx 144–146, 430–434, 435–438MHz Rx 118–136.9916, 144–146, 430–434, 435–438MHz <sup>*2</sup>	Europe version Tx 144–146, 430–440MHz Rx 118–173.995, 230–549.995, 810–999.990MHz <sup>+1</sup> Italia version Tx 144–146, 430–434, 435–438MHz Rx 118–173.995, 230–549.995, 810–999.990MHz <sup>+2</sup>	Europe version Tx 144–146, 430–440MHz Rx (A/B) 144–146, 430–440MHz (BC) 0.52–1.71, 76.0–108.0MHz UK version Tx 144–146, 430–440MHz Rx (A) 137–174, 380–479MHz*1 (B) 108–174, 380–479MHz*1 (BC) 0.52–1.71, 76.0–108.0MHz
Mode	DV, FM, FM-N, AM AM (receive only), AM-N (receive only)	FM, FM-N, DV, AM (receive only)	FM,FM-N,DV AM (receive only), WFM (receive only)
Max. current drain	VHF/UHF 13A	VHF 11.5A UHF 12.5A	2.5A
Dimensions (W×H×D; Projections are not included)	Main unit:150×40×172.6 mm Controller:182.2×81.5×24.7 mm	Main + Controller:150×40×199.2 mm Controller:122×40×29.7 mm	58×105.4×26.4 mm
Weight (approx.)	Main unit:1.3kg Controller: 260g	1.3kg (without microphone, cable and bracket)	255g with antenna and BP-271
Output power (typical values)	High: 50W Mid: 15W Low: 5W (at 13.8V DC)	High: 50W Mid: 15W (approx.) Low: 5W (approx.) (at 13.8V DC)	High: 5W Mid: 2.5W Low2: 1.0W Low1: 0.5W S-Low: 0.1W (at 7.4V DC)
Sensitivity (FM: at 12dB SINAD DV, DD: at BER 1%)	DV Less than 0.28µV FM/FM–N Less than 0.18µV (144, 430 MHz bands)	DV Less than 0.35µV FM Less than 0.18µV (144, 430 MHz bands)	DV Less than 0.28μV FM, FM–N Less than 0.18μV
Audio output power (at 10% distortion)	2.0W (at 8Ω)	2.0W (at 8Ω)	400mW (Internal SP, 16Ω) 200mW (External SP, 8Ω)

\*1 Guaranteed range 144–146 and 430–440MHz. \*2 Guaranteed range 144–146, 430–440 and 435–438MHz. (A) means VFO A receiver, (B) means VFO B receiver, (BC) means broadcast radio.

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



#### 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).

This logo indicates that model is a digital capable transceiver compatible with the D-STAR DD or DV mode in this brochure.

This logo indicates that model has superior waterproof protection against water intrusion. (1m depth underwater for 30 minutes.)



## Hungry for a new challenge

At the end of 1964, when the Tokyo Olympic boom was continuing in Japan, Icom launched its very first amateur radio product to the market. In 2014, Icom is proud to celebrate its 50th year golden anniversary. With technology that stays one step ahead, Icom makes the world's communication necessities a reality and will challenge the needs of the future from its position as a true high technology organization.





IC-200 (1972)



FDAM-3 (1968)

IC-502

IC-202S IC-402

(1975)

IC-71 (1969)

IC-211 (1976)

FDAM-1 (1964)

IC-2E (1980)

IC-505 (1982)

IC-781 (1988)



IC-706 (1995)



IC-756PRO (1999)



IC-7100 (2013)







ID-5100E (2014)

ID-51E (2013)

IC-7800 upgrade model (2013)

## **ICOM History**

- 1954 Mr. Tokuzo Inoue founded Inoue Electric Seisakusho in Kyoto, Japan.
- 1964 Inoue Electric Seisakusho Co. Ltd. established with Mr. Tokuzo Inoue as President.

First amateur radio product released.

1970 Headquarters office completed in Hirano, Osaka,

1971 Company logo created.





1973 Company logo changed.



- 1976 Icom (Europe) GmbH, established in Dusseldorf, Germany.
- 1978 Name changed to Icom Incorporated.
- 1979 Icom America Inc. established in Bellevue, Washington, U.S.A.



- 1982 Icom (Australia) Pty., Ltd. established in Melbourne, Australia.
- 1986 Hirano manufacturing plant completed.
- 1987 Company logo mark changed.



1988 Wakayama Icom Inc. (Arida Plant) established in Wakayama, Japan.



Wakayama Icom Inc.(Arida Plant)

- 1990 Icom stock listed on Osaka Stock Exchange.
- 1994 Narayama Research and Development office completed.
- 1997 Icom Spain, S.L. established in Barcelona, Spain.
- 1998 ISO 9001 certification acquired.
- 1999 Icom Information Products Inc. established in Osaka, Japan.
- 2000 New Icom headquarters building completed.
- 2001 Icom stock listed on Tokyo Stock Exchange.

Icom stock listed on the 1st Section of the Tokyo & Osaka Stock Exchanges.

- 2003 ISO 14001 certification acquired.
- 2009 Kinokawa Plant of Wakayama Icom Inc. completed in Wakayama, Japan.
- 2010 ISO 27001 certification acquired.
- 2012 Icom Brazil established in Belo Horizonte MG. Brazil.

Tokyo showroom opened.

2014 50th anniversary. Making a leap forward for another 50 years.

www.icom.co.jp/world





Current headquarters office



Kinokawa Plant of Wakayama Icom Inc

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in the United States, the United Kingdom, Germany, France, Spain, Russia, Japan and/ or other countries. Android and Google Play are registered trademarks or trademarks of Google Inc. The Bluetooth word mark and logos are registered trademark owned by Bluetooth SIG, Inc. and any use of such marks by Icom Inc. is under license. All other trademarks are the properties of their respective holders.

#### ICOM Inc. 1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

Icom America Inc. 12421 Willows Road NE, Kirkland, WA 98034, U.S.A. Phone: +1 (425) 454-8155 Fax :+1 (425) 454-1509 E-mail : sales@icomamerica.com URL : http://www.icomamerica.com

#### Icom Canada Glenwood Centre #150-6165 Highway 17A, Delta, B.C., V4K 5B8, Canada Phone: +1 (604) 952-4266 Fax : +1 (604) 952-0090 Fax E-mail : info@icomcanada.com URL : http://www.icomcanada.com URL

#### Icom Brazil

Rua Itororó, 444 Padre Eustáquio Belo Horizonte MG, CEP: 30130-150, Brazil Phone : +55 (31) 3582 8847 Fax : +55 (31) 3582 8987 E-mail : sales@icombrazil.com

Icom (Europe) GmbH Communication Equipment Auf der Krautweide 24 65812 Bad Soden am Taunus, Germany Phone : +49 (6196) 76685-0 Fax : +49 (6196) 76685-50 E-mail : info@icomeurope.com URL : http://www.icomeurope.com : http://www.icomeurope.com

#### Icom Spain S.L. Ctra. Rubi, No. 88 "Edificio Can Castanyer" Bajos A 08174, Sant Cugat del Valles, Barcelona, Spain Phone : +34 (93) 590 26 70 Findhe : +34 (93) 590 26 70 Fax : +34 (93) 589 04 46 E-mail : icom@icomspain.com URL : http://www.icomspain.com

Icom Polska Sp. Z o.o. 80-286 Gdansk, Jaskowa Dolina St. 75, Poland Phone : +48 (58) 551 0484 Fax : +48 (58) 551 4720 E-mail : icompolska@icompolska.com.pl URL : http://www.icompolska.com.pl

### Icom (UK) Ltd.

Blacksole House, Altira Park, Herne Bay, Kent, CT6 6GZ, U.K. Phone : +44 (0) 1227 741741 Fax : +44 (0) 1227 741742 E-mail : info@icomuk.co.uk URL : http://www.icomuk.co.uk

#### Icom France s.a.s. Zac de la Plaine.

1 Rue Brindejonc des Moulinais, BP 45804, 31505 Toulouse Cedex 5, France Phone : +33 (5) 61 36 03 03 +33 (5) 61 36 03 00 mail : icom@icom-france.com RL : http://www.icom-france.com URL

#### Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road, Clayton, VIC 3168 Australia Phone : +61 (03) 9549 7500 +61 (03) 9549 7505 Fax E-mail : sales@icom.net.au URL : http://www.icom.net.au

### Icom New Zealand

146A Harris Road, East Tamal Auckland, New Zealand Phone: +64 (09) 274 4062 Fax: +64 (09) 274 4708 E-mail: inquiries@icom.co.nz URL: http://www.icom.co.nz Asia Icom Inc. 6F No. 68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.

#### Phone : +886 (02) 2559 1899 Fax : +886 (02) 2559 1874 E-mail : sales@asia-icom.com URL : http://www.asia-icom.com

#### Shanghai Icom Ltd.

No.101, Building 9, Caffuxingyuan Park, No.188 Maoting Road, Chedun Town, Songliang District, Shanghai, 201611, China Phone :+86 (021) 6153 2768 Fax :+86 (021) 5765 9987 E-mail : bjicom@bjicom.com URL : http://www.bjicom.com

Your local distributor/dealer:

**Count on us!** 

12HS012B © 2012-2014 Icom Inc. Printed in Japan