1.2 kHz Optimum Roofing Filter Greatly Improves In-band Adjacent Signal Performance

Improved Phase Noise Characteristics
Phase noise is coherent in the circuit design, and the new LO design introduced in the IC-7851 makes some major breakthroughs while utilizing the 64 MHz, up-conversion receiver design introduced in the IC-7800. An impressive 20 dB improvement is seen with the IC-7851’s 10 kHz measurement, and more than 30 dB improvement at a 1 kHz measurement in comparison to the IC-7800.

Innovative LO Design
Breaking the boundaries of traditional designs, the IC-7851 employs a Direct Digital Synthesizer (DDS) along with a Phase Locked Oscillator for the LO (Local Oscillator). The DDS provides excellent waveform shaping with selectable spread spectrum characteristics, without any additional processing.

Improved Spectrum Scope
Following the design lineage of the IC-7800, the IC-7851 uses a dedicated DSP unit for the fast Fourier transform (FFT) spectrum. The 2250 MFLC/DSP processor enables a new dual scope function, significantly faster sweep speeds, and better accuracy than in the IC-7800.

+40 dBm IP3 (3rd Order Intercept Point)
The IC-7851 continues the +40 dBm, 3rd order intercept point and 110 dB receiver dynamic range benchmark set by the IC-7800. To achieve this superb receiver performance, the entire analogue circuitry and components have been re-engineered to match the DSP units. A newly designed LO amplifier generates high output while keeping flat frequency characteristics over a 60 MHz wide range.

Dual Spectrum Scope with Waterfall Function
The IC-7851 introduces the new dual scope, enabling you to observe both receivers in separate spectrum scopes. The dual scope allows you to observe both receivers in separate spectrum scopes. The dual scope function is vital to watch for multipliers or band openings in contests, or working all bands/modes on a DXpedition. The waterfall display captures signal strengths over time. This enables you to see signals that may not be apparent on a normal scope.

Full Duty 200 W Output Power
The push-pull power amplifiers using power MOS-FETs work on 48 V DC. They provide a powerful 200 W output power at full duty cycle. An effective cooling system maintains internal temperatures within a safe range and prevents thermal runway.

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.

Other Outstanding Features
Antenna and receiver • Two completely independent receivers • 15 kHz, 6 kHz, 3 kHz and 12 kHz 1st IF Roofing filters • Four antenna connectors with automatic antenna selector • Automatic antenna tuner • 50 kHz special

RMDR (Reciprocal Mixing Dynamic Range) of 110 dB (at 1 kHz)

Completely Independent Dual Receivers Receive Two Bands Simultaneously

High-Speed, High-Resolution Spectrum Waterfall Scope

High Stability, High Spectral Purity Local Oscillator

Full Duty 200 W Output Power

1.2 kHz Optimum Roofing Filter

Audio Scope and Oscilloscope for Observing Receive and Transmit Audio

Experience in video
http://www.icom.co.jp/r/ic-7851_me/

HF/50 MHz TRANSCEIVER IC-7851

RMDR: 110 dB, Raising the Bar Again
Design advances developed by the Icom HF engineers for the Local Oscillator (LO) enable the IC-7851 to set a new benchmark for amateur radio receivers. The goal was to dramatically reduce the phase noise that degrades the target signal due to the sum of the entire signal present. The result was RMDR of 110 dB*. Below is a comparison of the improvement over the IC-7800.

At a 1 kHz offset frequency Receive frequency: 14.2 MHz Mode: CW, IF BW: 500 Hz Roofing Filter: 1.2 kHz

RMDR Comparison

IC-7851 IC-7800

<table>
<thead>
<tr>
<th>Frequency (kHz)</th>
<th>RMDR 1kHz</th>
<th>RMDR 10kHz</th>
<th>RMDR 100kHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1kHz</td>
<td>-90</td>
<td>-80</td>
<td>-70</td>
</tr>
<tr>
<td>10kHz</td>
<td>-87</td>
<td>-80</td>
<td>-70</td>
</tr>
<tr>
<td>100kHz</td>
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<td>-70</td>
<td>-60</td>
</tr>
</tbody>
</table>

* At a 1 kHz offset frequency. Receive frequency: 14.2 MHz Mode: CW, IF BW: 500 Hz, Roofing Filter: 1.2 kHz

Digital IF Filters
Digital IF filters provide 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.

Other Outstanding Features

• 2250 MFLOPS DSP processor enables a new dual scope function • Mouse control spectrum scope • Digital manual notch • Digital twin PBT eliminates interference from adjacent signals • New auto digital noise blanker  • ±0.05 ppm High Stability OCXO Unit (CW mode) • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • Audio Peak Filter selection (soft/sharp)

• Simplified remote control capability with the optional RS-BA1 Version 2 • High-quality digital voice recorder memory • Built-in RTTY, PSK31 and PSK63 without needing a computer • Message memory for Voice, CW, RTTY and PSK31/63 • Digital video interface (DV-I) • SD memory card slot • Audio scope function • Mouse control spectrum scope • AGC control • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Screen saver

• Automatic antenna tuner • 50 MHz special preamp and mixer circuit • Digital manual notch • Digital twin PBT eliminates interference from adjacent signals • New auto digital noise blanker  • ±0.05 ppm High Stability OCXO Unit (CW mode) • DSP-controlled CW keying waveform shaping • Multi-function electronic keyer with adjustable keying speed, dot-dash ratio and paddle polarity • Audio Peak Filter selection (soft/sharp)

Operation • Simplified remote control capability with the optional RS-BA1 Version 2 • High-quality digital voice recorder memory • Built-in RTTY, PSK31 and PSK63 without needing a computer • Message memory for Voice, CW, RTTY and PSK31/63 • Digital video interface (DV-I) • SD memory card slot • Audio scope function • Mouse control spectrum scope • AGC control • Microphone equalizer and adjustable transmit bandwidth • FFT scope averaging function for PSK and RTTY decode • Screen saver

Experience in video
http://www.icom.co.jp/r/ic-7851_me/
**Base Station**

**IC-7610**

**Innovative RF Direct Sampling System Achieves 110 dB* (typ) RMDR**

The RF direct sampling system directly converts analog signals to digital signals and collectively puts the data through FPGA (Field-Programmable Gate Array) processing. The master clock uses a high precision VCXO (Voltage Controlled Crystal Oscillator) which excels in low-noise characteristics. This makes it possible to provide superior receive and transmit performance, extremely low phase noise as well as high RMDR (Reciprocal Mixing Dynamic Range).

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**High-Speed, High-Resolution Real-time Spectrum Scope**

The real-time spectrum scope of the IC-7610 shows main and sub band conditions. It provides class-leading performance in resolution, sweep speed and a 100 dB of dynamic range. The waterfall screen enables you to find weak signals by showing the spectrum change over time. Connecting a PC mouse to the USB port aids in flexible use of the spectrum scope.

**FFT Scope and Oscilloscope for Audio Observation**

The audio scope function shows the FFT scope with waterfall and the oscilloscope of either transmit or receive audio. This function can be used to observe various AF characteristics such as microphone compressor level, filter width, notch filter and receive keying waveform in CW mode.

**Touch Screen and Multi-Dial Knob for Smooth Operation**

The combination of the touch screen and the multi-dial knobs offers quick and smooth operation. When you push the multi-dial knob, menu items are shown on the right side of the display. You can select an item with a touch of a button.

**DVI-D Connector for an External Display Connection**

The IC-7610 has a DVI-D connector for an external display, allowing you to observe various AF characteristics and spectrum scope. You can connect a PC mouse to the USB port to control the device.

---

**Independent Dual Receivers Receive Two Bands Simultaneously**

The dual receivers are ideal for simultaneous monitoring of two bands and two modes. The sub receiver works independently of the main receiver. The optional IC-28 can be used as for main dial and/or the sub dial.

**Superior Transmit Phase Noise Characteristics**

Breaking with the tradition of mixing a carrier signal with a local oscillator, a Digital-Up-Conversion (DUC) is used to generate required frequencies by sampling in the Digital to Analogue Converter (DAC). The superior Phase Noise characteristics provide high purity transmit signals.

**DIGI-SEL Firmly Shuts Out Interfering Signals**

Both main and sub receivers are equipped with DIGI-SEL (digital preselector) units. The DIGI-SEL has steeper skirt characteristics than normal band-pass filters, so it rejects out of band strong interference, such as broadcast stations, and prevents intermodulation distortion.

**Other Outstanding Features**

- Audio and receiver • SSB type RX I/Q output connectors • Built-in automatic antenna tuner
- Two types of preamplifiers • 3 dB = 45 dB attenuator • IP+ function improves third order intercept point performance • RTTY demodulator and decoder • Digital twin PBT
- Two independent dual receivers • TX monitor function • All mode power control • VOX (voice operated transmission) capability • Microphone equalizer and adjustable transmit bandwidth • 50 CTCSS tones

**SD Card Slot and USB ports for Data Saving**

For multi-operators using one rig, personal settings such as filter settings, Memory channels, and antenna settings, can be saved and loaded using the SD card/USB memory stick. TX voice memories and RTTY/CW memories on the SD card/USB memory stick can be sent with a touch of a button.

---

**I/Q Signal Output**

The I/Q signal output function* enables you to derive digital IF signals from the I/Q output jack.

- The IC-7310 firmware version must be 1.20 or later.

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**Notes**

*At 2 kHz frequency separation.

**DIGI-SEL Unit**

DIGI-SEL has steeper skirt characteristics than normal band-pass filters, so it rejects out of band strong interference, such as broadcast stations, and prevents intermodulation distortion.

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

High Specification Inband IMD
All (2nd, 3rd or even higher) orders of IMD performance are superior in the IC-7700. You’ll notice the difference as you copy weak signals without internal distortion or noise, especially evident in the CW mode.

Spectrum Waterfall Display
The spectrum waterfall function can show the changing amplitude of frequency spectrum over time. A weak signal which cannot be recognized with the spectrum scope may be found in the waterfall screen. With the high performance receiver, the IC-7700 increases your chances of making QSOs.

Mouse Operation for Spectrum Scope
By connecting a PC mouse to the USB port, the spectrum scope operation is possible with a mouse.

Audio Scope Function for AF Observation
The audio scope function can be used for observing various AF characteristics such as microphone compressor level, filter width, notch filter and CW keying waveform.

200 W Full Duty Operation
The IC-7700 uses a STAC9242 power amplifier in a push-pull configuration. The digital PSN modulator consistently produces an outstanding signal-to-noise ratio, providing clean and low IMD transmission on all bands.

Other Outstanding Features
• Simulated remote control operation with optional RS-B1A Version 2 • OSG recording function into USB flash drive • 15 kHz, 6 kHz, and 3 kHz hi-spec 1st IF filters (roofing filter) • Image rejection mixer is used for the 2nd mixer • Low distortion bandpass filter and mechanical relays • DIGI-SEL automatic preselctor rejects out of band strong interference • High Intercept point and low noise preamplifier • Two AGC loop lines improve dynamic range and blocking from strong interference • ±0.05 ppm high stability OCXO unit • RTTY and PSK 31 operation without PC connection • BPF connectors on the front panel • 4 antenna connectors with automatic antenna selector • Digital twin PBT eliminates interference from adjacent signals • Flexible digital IF filter setting • Manual and auto notch filter • Microphone equalizer and adjustable transmit bandwidth • VGA connector for an external display connection.

Firmware Update Available (Free Download)
http://www.icom.co.jp/world/support/index.html

HF/50 MHz TRANSEIVER
IC-7700

+40 dBm Third-Order Intercept Point (in the HF Bands)

Spectrum Scope with Waterfall Function

200 W Output Power and High-stability Transmitter

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

An IP2 point of more than +110 dBm means 2nd order distortion from strong broadcast stations will be completely eliminated.

The IP2 figure is a typical value.

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

High Specification Inband IMD
All (2nd, 3rd or even higher) orders of IMD performance are superior in the IC-7700. You’ll notice the difference as you copy weak signals without internal distortion or noise, especially evident in the CW mode.

Spectrum Waterfall Display
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Firmware Update Available (Free Download)
http://www.icom.co.jp/world/support/index.html

HF/50/70 MHz TRANSEIVER
IC-7300

Class Leading Real-time Spectrum Scope with Waterfall Function

New “IP+” Function

The IC-7300 employs an RF direct sampling system. RF signals are directly converted to digital data and processed in the FPGA (Field-Programmable Gate Array), making it possible to simplify the circuit construction. This system is the new benchmark technology making an epoch in amateur radio.

15 Discrete Band-pass Filters
The IC-7300 has 15 discrete RF band-pass filters. The RF signal is only passed through one of the band-pass filters, while any out of range signals are rejected. High Q filter coils are used to minimize the loss in the RF band-pass filters.

Superior Signal Quality
The RF direct sampling system is naturally superior at signal linearity and noise immunity by digitally processing the signal from RF to IF. Mathematical frequency conversions within the FPGA drastically improve the signal purity. Thanks to these features, though it is a compact radio, the IC-7300 enjoys exceptionally clean and rich sound which normally can only be expected from a higher class radio.

Large Touch Screen Colour TFT LCD
The large 4.3 inch colour TFT touch LCD offers intuitive operation. Using the software keypad, you can easily set various functions and edit memory contents.

Other Features
• Audio scope function • Built-in automatic antenna tuner • Multi-dial knob for smooth operation • SD card slot for saving data • New speaker unit design • HM-219 hand microphone supplied • A large and effective cooling fan system • Multi-function meter • 101 Memory channels (09 regular, 2 scan edges) • Optional RS-B1A Version 2.1P remote control software (the spectrum scope with the waterfall can be observed) • CW functions: Full break-in, CW reverse, CW auto tuning • 70 MHz operation is possible in the European transceiver version
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 enables direct entry of an operating frequency or a Memory channel number. The auto tuning step function is activated when tuning the dial quickly and helps speed up tuning. The band stacking register is convenient when changing operating bands.

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

Optional DSP Capability, UT-106
The optional DSP unit gives you noise reduction and auto notch filter functions for extra receiver performance.

General Coverage Receiver
The IC-718 has 0.03-29.999 MHz coverage general receive capability.

Interference rejection – IF shift
To reject interference, the IC-718 has an IF shift function which shifts the center frequency of the IF passband electronically to reduce adjacent interference.

Other Features
• Front mounted loud speaker • General coverage receiver • Built-in electronic keyer • Built-in microphone compressor • Combined squelch and RF gain control • Preamp and attenuator • 101 Memory channels • CW full break-in • IF shift interference rejection • 1 Hz tuning • VOX function for hands-free operation • Optional automatic antenna tuner • Digital S/RF meter

Optional USB Remote Encoder
with Dual Spectrum Scopes
The optional RC-28 provides clear audio as well as jacks for an external speaker, headphones, key and microphone.

Other Features
• Optional RS-BA1 Version 2 IP remote control software • 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 right, 4 call, 5 scan edge and 900 DR function repeater channels • 4 TX voice memories • 0.5 ppm frequency stability • Auto reply function* • Digital call sign squelch (DSQL) and digital code squelch (CSDQ) • 12.5 kHz IF output for DRM (Digital Radio Mondiale) receiver

* D-STAR DV mode only

Controller Mounted Speaker and Jacks
The unique remote head design is perfect for providing loud, clear audio as well as jacks for an external speaker, headphones, key and microphone.

SD Card Slot for Saving Data
When used with an SD card, the SD card can store various contents, including voice memory, Memory channels, and D-STAR repeater memories. Other personal settings can be saved to the SD card and loaded into the transceiver.

Near repeater function
DR (D-STAR Repeater) function operation

Other Features
• DSP controlled AGC function loop • Easy vehicle mounting with the optional MBF-1 • RS-MS1A remote control software for Android™ devices (Send and receive pictures) • Optional RS-BA1 Version 2 IP remote control software • CW full break-in, CW receive reverse, CW auto tuning, 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 right, 4 call, 5 scan edge and 900 DR function repeater channels • 4 TX voice memories • 0.5 ppm frequency stability • Auto reply function* • Digital call sign squelch (DSQL) and digital code squelch (CSDQ) • 12.5 kHz IF output for DRM (Digital Radio Mondiale) receiver

* D-STAR DV mode only

Firmware Update Available (Free Download)
http://www.icom.co.jp/world/support/index.html

Intuitive Touch Screen Interface
The IC-7100 provides D-STAR (Digital Smart Technology for Amateur Radio) DV mode digital voice and low-speed data communication. The IC-7100 provides D-STAR (Digital Smart Technology for Amateur Radio) DV mode digital voice and low-speed data communication. The DR function operation makes the D-STAR operation simple and straightforward, even if you are new to D-STAR.

Repeater Search Function
With an external GPS receiver*, this function searches nearby D-STAR repeaters from the internal database, based on your location.

* External GPS receiver or manual positional data input required.

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

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, touch 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 quickly change the transmit meter functions.

■ Straightforward Operation
Just touch the mode, filter function etc., you need to change. The touch screen responds naturally changing your settings.

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

Intuitive Touch Screen Interface
The IC-7100 covers HF, 50, 70, 144, 430 MHz bands in multiple modes, providing 100 W on HF/SSB/AM bands, 50 W on 70/144 MHz band and 35 W on 430 MHz band.

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

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For example, if you want to change the operating band, touch 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 quickly change the transmit meter functions.

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Intuitive Touch Screen Interface
The IC-7100 covers HF, 50, 70, 144, 430 MHz bands in multiple modes, providing 100 W on HF/SSB/AM bands, 50 W on 70/144 MHz band and 35 W on 430 MHz band.
**IC-9700**

**All Mode, Tri-band Transceiver, with Built-in 1200 MHz**

The IC-9700 is an all mode Tri-band transceiver, covering 2 m, 70 cm, and 23 cm. In addition to the traditional SSB, AM, FM, CW, and RTTY modes, the transceiver also incorporates D-STAR DV and DD modes. Satellite mode is also built-in!

**RF Direct Sampling System**

The RF Direct Sampling system, for 144 and 430 MHz, is utilized in the IC-9700. The outcome is that the signal purity is very high, and clear audio can be generated.

**Reantime Spectrum Scope with Waterfall Display**

This is the first time for an Icom VHF/UHF transceiver to have a real-time spectrum scope and waterfall display comparable to an HF high tier transceiver. With the high-speed spectrum scope, you can instantly see any signal on the sub band.

**Independent Receiver, Full Duplex Operation**

The IC-9700 can simultaneously receive on two different bands, and two different modes. This function can be a significant advantage when participating in contests or searching for weak signals. Furthermore, the IC-9700 is Full Duplex, which enables you to transmit on the main band while receiving on the sub band.

**Newly Designed Power Amplifier**

The power amplifier outputs stable power with high efficiency (144/430/1200 MHz class 100/75/100W). The cooling system prevents the PA from overheating, even when operating for a long time.

**D-STAR Operation**

- **Friendly Functions**
  - The IC-9700 has the D-STAR Repeater (DR) function that can be simultaneously used on both the Main and Sub bands to listen to two separate DV signals. Moreover, by using the DD mode, you can browse the Internet through a repeater station.
  - **Built-in DV Gateway Functions**
    - A static IP address is set in the transceiver. If you set a global IP address to your router, you can use the Terminal mode or Access Point mode without any software applications.

**Comprehensive Menus for Satellite Operation**

The Normal and Reverse Tracking Functions simultaneously increase or decrease both the downlink and uplink frequencies in the same steps. The AFC Function follows the frequency change caused by the Doppler effect, thus maintaining a stable receiving condition. The IC-9700 has 95 satellite memory channels.

**Audio Scope Function**

Making good use of the Audio Scope function, various audio characteristics, such as microphone compressor level, filter width, notch filter width, and keying waveform in the CW mode can be monitored. Transmit or receive audio can either be displayed on the FFT scope and the oscilloscope.

**Other Features**

- **Reantime Spectrum Scope with Waterfall Display**
  - This is the first time for an Icom VHF/UHF transceiver to have a real-time spectrum scope and waterfall display comparable to an HF high tier transceiver. With the high-speed spectrum scope, you can instantly see any signal on the sub band.

**Lightweight & Compact Design**

The ID-51E PLUS2 is a 5 W VHF/UHF dual bander, with D-STAR and integrated GPS receiver.

**Terminal/Access Point mode**

Connect the ID-51E PLUS2 to the Internet through a PC or Android™ device, and send your voice and/or data through the Internet gateway to a destination repeater.

**ID-51E PLUS2**

- **750 mW Loud Audio**
- **Built-in CTCSS/DTCS**
- **Other Features**
  - **Frequency coverage** (TX/RX: 144–146 MHz) **Program scan, memory scan, skip scan, priority scan and tone scan** **1750 Hz tone for European repeater operation** **TOT (time out timer) Setting** **Repeater lockout and bus channel lockout** **144MHz PC programmable with optional CS-V80** **Transceiver-to-transceiver cloning (Optional)** **Direct keypad frequency entry** **DIGITAL, autobaud memories** **Auto power off** **Wide/narrow channel spacing**

**ID-V80E**

- **750 mW Loud Audio**
- **Built-in CTCSS/DTCS**
- **Other Features**
  - **Frequency coverage** (TX/RX: 144–146 MHz) **Program scan, memory scan, skip scan, priority scan and tone scan** **1750 Hz tone for European repeater operation** **TOT (time out timer) Setting** **Repeater lockout and bus channel lockout** **144MHz PC programmable with optional CS-V80** **Transceiver-to-transceiver cloning (Optional)** **Direct keypad frequency entry** **DIGITAL, autobaud memories** **Auto power off** **Wide/narrow channel spacing**
**VHF/UHF DIGITAL TRANSCEIVER**

**ID-5100E**

**Intuitive Touch Screen Operation**
The intuitive touch screen interface provides quick and smooth operation. The large 5.5 inch display (320 × 128 pixels) responds naturally to the touch – allowing you to change settings, enter frequencies and edit Memory channels with ease.

**Integrated GPS Receiver**
The integrated GPS receiver shows your own location, course, speed and altitude on the display. The GPS location information can be used for exchanging location reports, tracking the GPS log, and more.

**DV/DV Dualwatch**
The ID-5100E can receive both FM/FM and FM/DV mode signals simultaneously. Two DV mode signals can be monitored for receive on either channel. You can check other repeaters or other channel activities while waiting for the main repeater.

1. Main band audio has priority if two DV signals are received at the same time.

**DV/FM Repeater Search Function**
The DV/FM repeater search 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 location information.

1. To use the repeater search function, the position data of the repeater is required.

**Other Features**
- CD card slot + VS-3 Bluetooth® headset + RS-M51A Android™ application + DV fast data mode + 50 W output power + Repeater memory channels increased to 1000 + CTSS and DTCS with split tone function + Sub band mute auto + DPRS functions + Convenient memory contents management using CSV format + Speech function announces the operating frequency, mode and received call sign (DV mode) + Independent main, volume and SQL knobs for A/B channels + AM airband Dualwatch + CS-5100, programing software supplied + 1750 Hz tone burst

**DV/FM Near Repeater Search Function**
The DV/FM near repeater search function assists you in accessing nearby repeaters, even in areas you are visiting for the first time.

1. To use the repeater search function, the position data of the repeater is required.

**Other Features**
- Applications for iOSTM (RS-MS1I) and Android™ devices • Wireless audio with optional UT-133A Bluetooth® unit • CTCSS and DTCS with Split tone function • Wide band receiver (118–174 MHz and 375–550 MHz) • i4+207 remote control microphone • CS-2730 Free downloadable PC programming software • DV/DV Dualwatch (DR function) example

**Optional VS-3 Bluetooth® Headset**
The optional VS-3 Bluetooth® headset can wirelessly control the IC-2730E with three programmable keys and a PTT button. It also provides VOX operation for hands-free communication.

* Optional UT-133A Bluetooth® unit must be installed in the IC-2730E.

**Easy Controller Mounting with the Optional MBE-1**
The combination of the optional MBE-1 suction cup mounting base and MBE-5 controller bracket provides easy tilt and swivel adjustment. The large suction cup can be mounted on flat surfaces, and can be easily removed.

**Other Features**
- Controller attachment to the main unit with optional MBE-1 + 5 W of output on VHF/UHF + Built-in CTSS and DTCS tones with split tone functions + Wide band receiver (118–174 and 375–550 MHz) + H-207 remote control microphone + CS-2730 Free downloadable PC programming software • Versatile scanning capability • Squelch delay and squelch attenuator • Sub band mute function • Sub band busy beep function • Auto power off • 16 DTMF auto dial memories • CI-V remote control capability (through the OPC-478UC)

* Receiver range differs, depending on the version.

**VHF/UHF DIGITAL TRANSCEIVER**

**ID-4100E**

**Terminal/Access Point Mode**
Terminal and Access Point modes enable you to enjoy long-distance D-STAR communications through the Internet. You can access D-STAR repeaters through the Internet, regardless of locations and conditions of nearby repeaters.

1. An optional RS-M63W/RS-M63A free download software is required to be installed in the PC/Android™ device. See p.10 for function details.
2. Compatible with Icom RS-IP9 gateway software only.

**Compact, Detachable Controller for Flexible Installation**

**DR Function with the Latest Icom User Interface**

**VHF/UHF DUAL BAND TRANSCEIVER**

**IC-2730E**

**50 Watts of Output Power on Both VHF and UHF Bands**

**VHF/VHF, UHF/UHF Simultaneous Receive**

**Optional Wireless Remote Control Bluetooth® Headset VS-3**

**Firmware Update Available (Free Download)**
http://www.icom.co.jp/world/support/index.html

**DR (D-STAR Repeater) Function**
The DR function makes D-STAR communications simple. By simply selecting a destination call sign in “5C” and your access repeater in “From”, you can talk with other D-STAR users.

**Easy-to-Read Full Dot-Matrix Display**
To increase the amount of display information, a full dot-matrix display is used in the ID-4100E.

**VHF/FM Near Repeater Search Function**
The DV/FM near repeater search function assists you in accessing nearby repeaters, even in areas you are visiting for the first time.

1. To use the repeater search function, the position data of the repeater is required.

**Other Features**
- Applications for iOSTM (RS-M61A) and Android™ devices + Wireless audio with optional UT-137 Bluetooth® unit + DV fast data mode + miniSD card slot + Integrated GPS receiver + Wide band receiver (118–174 and 230–550 MHz) + MemoryBank scan, Full scan, Band scan, Program scan, Program link scan, Duplex scan Tone scan and DR scan + 16 channels of DTMF memory (24-digit) • CTSS and DTCS with Split tone function * 8.33 kHz air band channel reception

* Receiver range differs depending on the version.
**Receivers**

**COMMUNICATIONS RECEIVER IC-R6000**

The IC-R6000 decodes various digital protocol signals including P25 (Phase 1), NXDN™, dPMR™, D-STAR, Japanese DCR (Digital Convenience Radio). It also receives conventional analogue signals such as USB, LSB, FSK, CW, AM, S-AM (Synchronous-AM), FM and WFM modes, covering 10 kHz to 3 GHz wideband in 1 Hz steps.

**Software Demodulation in FPGA Processing**

The IC-R6000 utilizes FPGA (Field Programmable Gate Array) and DSP units for demodulation, decoding and most of signal processing. Direct IF signals and intermediate frequency signals, which are converted from VHF/UHF signals, are digitized in a 14-bit A/D converter and transferred to the FPGA and DSP for optimal processing. The high-rate 122.88 MHz sampling frequency is used for the A/D converter to achieve superior aliasing and image rejection reduction.

**Superb Receiver Performance**

The IC-R6000 has 11 discrete IF bandpass filters in the HF bands and 13 bandpass filters in the VHF/UHF bands. To prevent overflow, only the intended signal is passed, while any out of range strong interference signals are rejected. The IC-R6000 provides +3 dBm IF and 106 dB dynamic range at 14.1 MHz. IF3 performance is +10 dBm at 144 MHz and 0 dBm at 440 MHz.

**Variety of Scan Functions**

A variety of scan functions effectively and thoroughly search for desired stations. The IC-R6000 scans up to 100 channels per second in the memory scan mode.

- Program scan/Fine program scan • All scan • Priority scan • Memory scan • Selected memory scan • Selected mode memory scan • Auto memory write scan

**Real-time Spectrum Scope with Waterfall Function**

The high-resolution real-time spectrum scope provides class-leading performance in resolution, maximum 30 frames per second in scan mode (approximate). The waterfall scope enables you to find weak signals by showing the spectrum change over time.

**Quick, Smooth and Intuitive Operation**

To efficiently acquire intended signals, the IC-R6000 user interface provides quick and accurate operation. The large 4.3-inch colour display, with touch screen function, is configured to collect operating information. By tapping indications and icons on the screen, the setting menu will pop up and parameters can easily be adjusted.

**SD Card Slot for Recorder Receiver**

The recorder function can record received audio onto an SD card in WAVE format. The recorded voice can be played back on the receiver or a PC. When a 32 GB SD card is used, up to 270 hours of recording is possible. In addition, the screen capture function saves a snapshot of the screen in PNG or BMP format on the SD card.

**I/Q Signal Output**

The I/Q signal output function enables you to derive digital IF signals from the IQ output port to a PC through a USB cable. It can be used for analyzing spectrum or decoding signals. The IC-R8600 outputs I/Q data to the third-party software HSDDR, and the IC-R6000 can be controlled by the HSDDR.

**Other Features**

- Absolute Value of RSSI (Received Signal Strength Indicator) • 2000 regular Memory channels • Remote control function through IP network or USB cable • 3 antenna connectors: an ISO-239 type and a phono (RCA) connector for HF and a type-N connector • Clock and NTP function • Center tuning meter and digital auto frequency control (AFC) for FM, WFM and digital modes

**IC-R8600**

**Top Level Scan Speed – 200 Channels/Second**

The IC-R80 scans approximately 200 channels per second in the A band. You can quickly find and lock in to a desired signal. The IC-R80 has variety of scan functions, VFO scan (Auto memory write scan, Program scan), Memory scan (Near station scan, Mode scan, Group scan, Group link scan), Priority scan, Tone scan and more.

**Remote Control Application RS-R30/RS-R30A**

The RS-R30 for iOS™ devices, and the RS-R30A for Android™ enable you to wirelessly connect to the IC-R80 through Bluetooth® (BLE), and remotely control VFO operation, memory channels, a variety of scans and the voice recording function.

**IC-R30**

**Decodes Digital Protocols**

The IC-R30 decodes various digital protocol signals including P25 (Phase 1), NXDN™, dPMR™, D-STAR and Japanese DCR (Digital Convenience Radio).

**0.1–3304.999 MHz Wideband Coverage**

The IC-R30 covers a wide frequency range from 0.1 to 3304.999 MHz, and receives conventional analog signals such as AM, FM, WFM, USB, LSB and CW as well as digital mode signals.

**Wireless Operation with an Optional Bluetooth® Headset**

The optional VS-3 Bluetooth® headset offers flexible operating styles. You can put the IC-R30 in your pocket and wirelessly listen to received audio.

**IC-R6**

**Decodes Digital Protocols**

The IC-R6 decodes various digital protocol signals including P25 (Phase 1), NXDN™, dPMR™, D-STAR and Japanese DCR (Digital Convenience Radio).

**0.1–1309.995 MHz Coverage**

Amateur stations, AM, FM, short wave broadcasts, air band, marine VHF, PMR446 and a variety of utility communications can be found and listened to.

**Frequency range depending on version.**

**100 Channels per Second High Speed Scan**

The IC-R6 can receive 100 channels per second high speed scan capability* and a variety of scan functions; Auto memory scan, Tone scan, Programmed scan, Memory scan, Priority scan, auto memory write scan and more.

**VFO mode scanning.**

**15 Hours of Continuous Receive Capability**

The IC-R6 has a long battery life for a variety of applications, including continuous receive capability for up to 15 hours when using Ni-MH or rechargeable batteries. The IC-R6 can receive 100 channels per second with a high speed scan capability and a variety of scan functions; Auto memory scan, Tone scan, Programmed scan, Memory scan, Priority scan, auto memory write scan and more.

**VFO mode scanning.**

**Other Features**

- 1300 Memory Channels with 22 Memory Banks • Voice Squelch Control • Built-in audio low pass filter • 1.5 kHz high frequency stability • ±1.5 kHz frequency stability • ±1.0 ppm high frequency stability (at 25°C) • Earphone cord antenna for AM broadcast • DTCS and CTCSS tone squelch and reverse tone squelch • Noise squelch function • Noise Reduction**

**Dualwatch and Dual Recording**

The IC-R30 can receive on different bands and different modes. The audio of the two bands received while in the Dualwatch mode, can be individually recorded onto a microSD card in WAV format. The recorded audio can be played back on the receiver or a PC.

* A microSD/microSDHC card is required.

**Decodes Digital Protocols**

The IC-R30 decodes various digital protocol signals including P25 (Phase 1), NXDN™, dPMR™, D-STAR and Japanese DCR (Digital Convenience Radio).

**0.1–3304.999 MHz Wideband Coverage**

The IC-R30 covers a wide frequency range from 0.1 to 3304.999 MHz, and receives conventional analog signals such as AM, FM, WFM, USB, LSB and CW as well as digital mode signals.

**Other Features**

- 1300 Memory Channels with 22 Memory Banks • Voice Squelch Control • Built-in audio low pass filter • 1.5 kHz high frequency stability • ±1.5 kHz frequency stability • ±1.0 ppm high frequency stability (at 25°C) • Earphone cord antenna for AM broadcast • Ferrite bar antenna for AM broadcast • CTCSS and CTCSS tone squelch and reverse tone squelch • Optional CS-R6 programming software • Receiver-to-receiver cloning (optional OPC-474 required) • Auto power OFF • Compact, drip-resistant construction • Duplex operation monitoring • Automatic LCD backlight • Dial speed acceleration • Built-in RF attenuator • Reversible up/down buttons and dial knob for function, memory channel, scan direction and set mode settings • Optional tube earphone, SP-27
## OPTIONS FOR BASE STATION TRANSCEIVERS AND RECEIVERS

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<thead>
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<th>MODEL NAME</th>
<th>HAND MICROPHONES</th>
<th>DESKTOP MICROPHONES</th>
<th>EXTERNAL SPEAKERS</th>
<th>Desktop microphones</th>
<th>Conference microphones</th>
<th>Antenna tuners</th>
<th>Antenna adapter</th>
<th>Programming software</th>
<th>Remote control software</th>
<th>RS-8600</th>
<th><strong>Notes</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>IC-7851</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>IC-7610</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>IC-7700</td>
<td>✔</td>
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<tr>
<td>IC-7300</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>IC-7000</td>
<td>✔</td>
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<td>✔</td>
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<tr>
<td>IC-R8600</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<td>✔</td>
<td>✔</td>
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<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

**Notes:**
- Before operating in the Terminal mode or the Access Point mode, BE SURE to check your local regulations or laws.
- For the Access point or Terminal mode operation, please register your MY and Access point call signs with a Gateway repeater server that has the RS-RP3C installed.
### OPTIONS FOR HANDHELD TRANSCEIVERS AND RECEIVERS

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>BATTERY CASES</th>
<th>BATTERY PACKS</th>
<th>SPEAKER-MICROPHONES</th>
<th>EARPHONE-MICROPHONES</th>
<th>HEADSETS</th>
<th>REMOTE CONTROL SOFTWARE</th>
<th>SPEAKER-MICROPHONES</th>
<th>EARPHONE-MICROPHONES</th>
<th>HEADSETS</th>
<th>REMOTE CONTROL SOFTWARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP-273</td>
<td>LRM1AA=5 cells</td>
<td>BP-271</td>
<td>(Use with)</td>
<td>CP-12L</td>
<td>OPC-234L</td>
<td>OPC-513L</td>
<td>OPC-656</td>
<td>HM-158A</td>
<td>HM-159A</td>
<td>HS-94</td>
</tr>
<tr>
<td>BP-295</td>
<td>LRM1AA=3 cells</td>
<td>BP-272</td>
<td>(Use with)</td>
<td>CP-23L</td>
<td>OPC-234L</td>
<td>OPC-513L</td>
<td>OPC-656</td>
<td>HM-158A</td>
<td>HM-159A</td>
<td>HS-94</td>
</tr>
<tr>
<td>IC-R30</td>
<td>LRM1AA=3 cells</td>
<td>IC-R6</td>
<td>BP-265</td>
<td>OPC-234L</td>
<td>OPC-656</td>
<td>HS-94</td>
<td>CP-MIC</td>
<td>SP-40</td>
<td>SP-27</td>
<td>OPC-2004</td>
</tr>
</tbody>
</table>

### OPTIONS FOR HANDHELD TRANSCEIVERS AND RECEIVERS

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>HEADSETS</th>
<th>EARPHONE-MICROPHONES</th>
<th>PLUG ADAPTER CABLES</th>
<th>REMOTE CONTROL SOFTWARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS-97</td>
<td>Three microphone type</td>
<td>SP-40</td>
<td>SP-27</td>
<td>OPC-2004</td>
</tr>
<tr>
<td>OPC-2004L</td>
<td>For VDX operation</td>
<td>OPC-214A</td>
<td>For straight plug microphones</td>
<td>OPC-2004</td>
</tr>
</tbody>
</table>

### OPTIONS FOR HANDHELD TRANSCEIVERS AND RECEIVERS

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>CHARGING CASES</th>
<th>OPTIONS FOR HANDHELD TRANSCEIVERS AND RECEIVERS</th>
<th>DATA CABLE</th>
<th>PROGRAMMING CABLES</th>
<th>BELT CLIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB-127</td>
<td>OPC-214A</td>
<td>OPC-214A+LUX-600</td>
<td>OPC-2350LU</td>
<td>OPC-A784C</td>
<td>MB-128</td>
</tr>
<tr>
<td>OPC-2350LU</td>
<td>OPC-2350LU</td>
<td>OPC-2350LU</td>
<td>OPC-2350LU</td>
<td>OPC-2350LU</td>
<td>MB-128</td>
</tr>
</tbody>
</table>

**Note for the Terminal mode and Access point mode:**

- Before operating in the Terminal mode or the Access point mode, BE SURE to check your local regulations or laws.
- An optional free download software, RS-MS3W is required to be installed in a PC. An optional free download application, RS-MS3A is required to be installed in the Android™ device.
- You need an Internet connection with an IPv4 Global IP address. If you use a cellular system, you need an IPv4 Global IP address assigned to your Windows® or Android™ device.
- Note for the Terminal mode and Access point mode: The following accessories are required:
  - OPC-2006LS
  - OPC-2350LU
  - OPC-214A
  - OPC-234A

**Access point call signs with a Gateway repeater/server that has the RS-RP3C installed.**
Free download software for Windows® PC. Download from the Icom website:

<table>
<thead>
<tr>
<th>MODEL NAME</th>
<th>IC-2730E</th>
<th>ID-5100E</th>
<th>ID-4100E</th>
<th>IC-7300E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ID-5100E</td>
<td>ID-4100E</td>
<td>IC-7300E</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remote Control App

USB cable for an

PC USB cable

RS-MS1A/RS-MS1I Remote Control App

An optional Bluetooth® unit (UT-133A or UT-137) or a data cable (OPC-2350LU) is required. Not all functions are usable with the IC-7300.

Some functions may not work properly, depending on Android®/iOS™ phones and devices used.

Photo shows RS-MS1A.

SELECTIVITY

SSB: 2.4 kHz
CW: 2.1 kHz
CW/RTTY/PSK31: 1.5 kHz
FM (10 kHz): 0.3 kHz
FM (5 kHz): 0.3 kHz
FM (1 kHz): 0.2 kHz

SSB: 2.4 kHz
CW: 2.1 kHz
CW/RTTY/PSK31: 1.0 kHz
FM (10 kHz): 0.2 kHz
FM (5 kHz): 0.2 kHz
FM (1 kHz): 0.1 kHz

SPECS

More than 70 dB

More than 70 dB

More than 70 dB

More than 70 dB

Audio output power (when programmed for FM/AM mode)

More than 2.5 W

More than 2.0 W

More than 2.0 W

More than 2.0 W

Note for the Terminal mode and Access point mode:

Less than ±0.5 ppm

Less than ±0.5 ppm

Less than ±0.5 ppm

Less than ±0.5 ppm

<ref>

*1 Depending on version.

*2 For Windows® PC

*3 For Android™ device

*4 Photo shows RS-MS1A. Repeater map example

*5科目設定例

*6 Remote control example

*7 Google

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

RS-MS1A/RS-MS11 Remote Control App

[Free Download Android™/iOS Application from Google Play™/App Store]

The RS-MS1A and RS-MS11 allow you to connect the Digital transceiver with an Android®/iOS™ device and remotely control various functions or settings from the Android®/iOS™ device. You can take pictures with your iOS® or Android® device, or use stored pictures, and share them over the DV mode.

* An optional Bluetooth® unit (UT-133A or UT-137) or a data cable (OPC-2350LU) is required. Not all functions are usable with the IC-7300.

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

* Photo shows RS-MS1A.

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.

**NOTE**

For more details, please refer to the instruction manual or the website.
### SPECIFICATIONS FOR BASE STATION TRANSCEIVERS

<table>
<thead>
<tr>
<th>IC-718</th>
<th>IC-7100</th>
<th>IC-9700</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong></td>
<td>SSB, CW, RTTY, FM</td>
<td>SSB, CW, RTTY, AM, FM</td>
</tr>
<tr>
<td><strong>Modes</strong></td>
<td>USB, LSB, CW, RTTY, AM</td>
<td>USB, LSB, CW, RTTY, AM</td>
</tr>
<tr>
<td><strong>Frequency stability</strong></td>
<td>Less than ±200 Hz</td>
<td>±5.0 Hz, ±10 Hz <strong>(a)</strong></td>
</tr>
<tr>
<td><strong>Maximum current drain</strong></td>
<td>14 A</td>
<td>14 A</td>
</tr>
<tr>
<td><strong>Selectivity</strong></td>
<td>20 kHz/−40 dB</td>
<td>15 kHz/−40 dB</td>
</tr>
<tr>
<td><strong>Audio output power</strong></td>
<td>More than 200 mW</td>
<td>More than 400 mW</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>2.9 kg</td>
<td>2.3 kg</td>
</tr>
</tbody>
</table>

### SPECIFICATIONS FOR HANDHELD AND MOBILE TRANSCEIVERS

<table>
<thead>
<tr>
<th>ID-510E</th>
<th>ID-5100E</th>
<th>ID-2730E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong></td>
<td>SSB, CW, RTTY, FM, AM, AM-N, FM-N, WFM</td>
<td>SSB, CW, RTTY, FM, AM, AM-N, FM-N, WFM</td>
</tr>
<tr>
<td><strong>Modes</strong></td>
<td>HF, VHF FM, AM, FM-N, WFM</td>
<td>HF, VHF FM, AM, AM-N, FM-N, WFM</td>
</tr>
<tr>
<td><strong>Max. current drain</strong></td>
<td>2.5 A</td>
<td>2.5 A</td>
</tr>
<tr>
<td><strong>Number of Memory channels</strong></td>
<td>1000 (100 regular, 4 dynamic channels)</td>
<td>1000 (100 regular, 5 dynamic channels)</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>140–174 MHz (1 call channel)</td>
<td>140–174 MHz (1 call channel)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>1.1 kg</td>
<td>1.1 kg</td>
</tr>
<tr>
<td><strong>Outdoor audio output power</strong></td>
<td>More than 2 W (into 8 Ω)</td>
<td>More than 2 W (into 8 Ω)</td>
</tr>
</tbody>
</table>

**Notes:**
- **(a)** Guaranteed range 144–146 and 430–434 MHz. **(b)** Guaranteed range 144–146, 430–434 and 435–438 MHz. **(c)** Transceivers are not included.
- All stated specifications are subject to change without notice or obligation.
- All model specifications are subject to change without notice or obligation.

**Applicable U.S. Military Specifications:**

From maps, rugged products that have been tested to and passed the MIL-STD-810 requirements and strict environmental standards for shock and vibration.
### SPECIFICATIONS FOR RECEIVERS

<table>
<thead>
<tr>
<th>IC-R8600</th>
<th>IC-R30</th>
<th>IC-R6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency coverage</strong> (Difference according to versions)</td>
<td>0.01–3000 MHz**</td>
<td>0.1 – 3304.999 MHz</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>USB, LSB, CW, FSK, AM, FM, WFM, D-STAR (DV), P2S, NXDN, dPMR, DCR, S-AM</td>
<td>B band: 0.1 – 3304.999 MHz</td>
</tr>
<tr>
<td><strong>Frequency stability</strong></td>
<td>Less than ±0.5 ppm (at 25°C after warm up)</td>
<td>Less than ±2.5 ppm (~20°C to 60°C)</td>
</tr>
<tr>
<td><strong>Maximum current drain</strong></td>
<td>2.0 A</td>
<td>330 mA typical (at 3.6 V DC)*2</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>4.3 kg</td>
<td>310 g with antenna and BP-287 battery pack</td>
</tr>
</tbody>
</table>

#### Sensitivity

- **SSB/CW/FSK**
  - (Preamp ON, BW: SSB/FSK=2.4 kHz, CW=0.4 kHz)
  - 1.9–29.999 MHz Less than ±0.5 ppm
  - 2000–3000 MHz More than 200 mW (External SP, 8 Ω load)
- **AM**
  - 0.5–1300 MHz Less than ±0.5 ppm
  - 30–3000 MHz More than 12 kHz/−9 dB
- **PMR ( typical)**
  - 0.1–1300 MHz More than 12 kHz/−60 dB
- **WFM**
  - 0.3–30 MHz Less than 0.71 μV
  - 30–300 MHz Less than 9.3 μV
  - 300–3000 MHz Less than 82.9 μV

#### Selectivity

- **SSB/CW/FSK**
  - (BW=2.4 kHz: More than 2.4 kHz−3 dB)
  - CW (BW=500 Hz): More than 0.8 kHz−3 dB
  - AM (BW=6 kHz): More than 0.6 kHz−3 dB
  - FM (BW=25 kHz): More than 1.5 kHz−3 dB
- **PMR**
  - 0.1–1300 MHz More than 8 kHz/−60 dB
  - 30–3000 MHz More than 60 dB
- **WFM**
  - More than 150 kHz/−6 dB

#### Audio output power

- **SSB/CW**: 0.85–1.899 MHz Less than 0.4 μV
- **AM**: 0.5–1300 MHz Less than 0.5 μV
- **FM**: 28–221.999 MHz Less than 0.25 μV
- **WFM**: 75–107.999 MHz Less than 1 μV
- **D-STAR (DV)**: 28–29.999 MHz Less than 0.1 μV
- **NXDN**: 125–1999.995 MHz Less than 1 μV

#### Dimensions

| (Projections are not included) | 220 (W) × 90 (H) × 230 (D) mm | 58 (W) × 143 (H) × 30.5 (D) mm | 58 (W) × 86 (H) × 29.8 (D) mm |

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**Your local distributor/dealer:**

- **Icom Inc.**
  - 1-1-32, Kamiminami, Hirano-Ku, Osaka 547-0003, Japan
  - Phone: +81 (0)6 6793 5302
  - Fax: +81 (0)6 6793 0013
  - www.icom.co.jp/world

- **Icom (Europe) GmbH**
  - www.icom-europe.eu

- **Icom America Inc.**
  - www.icomamerica.com

- **Icom (UK) Ltd.**
  - www.icomuk.co.uk

- **Icom (Australia) Pty. Ltd.**
  - www.icom.net.au

- **Icom Spain S.L.**
  - www.icspain.com

- **Icom Brazil**
  - E-mail: sales@icombrasil.com

- **Icom France s.a.s.**
  - www.icom-france.com

- **Shanghai Icom Ltd.**
  - www.bjicom.com

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