# COMMUNICATIONS RECEIVERS











# SIMPLY THE BEST

Icom Inc.

# Professional communications receiver with high performance spectrum scope



### Wideband coverage

0.005 - 3335MHz coverage\*1

The IC-R9500 covers 0.005–3335MHz<sup>\*1</sup> in SSB, AM, FM, WFM, CW, FSK and P25<sup>\*2</sup> modes. It is suitable for a wide variety of radio monitoring and listening activities.

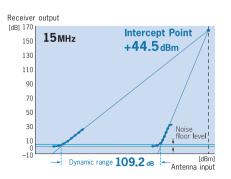
**PROFESSIONAL COMMUNICATIONS RECEIVER** 

**-R9500** 

- \*1 Frequency range differs depending on version.
- \*2 Optional UT-122 digital unit is required.

### Superb receiver performance

The IC-R9500 achieves its amazing performance by using a D-MOS FET array in the 1st mixer (below 30MHz) and an excellent IMD roofing filter. The IC-R9500 has +40dBm IP3 and 109dB dynamic range at 14.1MHz. IP3 performance is +9.8dBm at 50MHz and +6.2dBm at 620MHz (+5dBm (typical) from 30MHz to 3335MHz).



### **Five roofing filters**

With optional UT-122

The IC-R9500 has 5 independent roofing filters (240, 50, 15, 6 and 3kHz) for improved selectivity. In very crowded RF spectrum conditions, it is extremely important to prevent overload from strong signals. The 3kHz roofing filter provides a 130dB (approx.)\* blocking dynamic range.

\* At 15MHz reception, with 5kHz signal separation.



### ±0.05ppm high frequency stability

The IC-R9500 uses an OCXO (Oven Control Crystal Oscillator) unit which provides ±0.05ppm frequency stability from 0°C to 50°C. The 10MHz reference frequency can either be supplied to or input from external equipment.

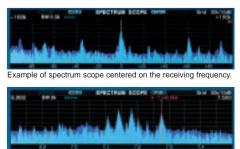


### Multi function spectrum scope

Using a dedicated DSP unit improves the dynamic range of the spectrum scope. The IC-R9500 has four different display modes such as normal/wide and center/fixed width. The spectrum scope normally covers a range from ±2.5kHz to ±5MHz, while the wide band spectrum scope\* observes up to ±500MHz (±10MHz, ±250MHz, ±50MHz, ±100MHz ±250MHz and ±500MHz selectable). When using the normal spectrum scope mode, the digital scope's filter width can vary from 200Hz to 20kHz with a variable sweep speed.

The peak search function automatically moves the display marker to the strongest signal on the scope screen. In addition to these features, the scope has 3 levels of attenuation (10dB, 20dB, 30dB).

\* While using the wide band scope function, AF output is muted.



Example of fixed spectrum scope range.



### 7-inch wide color TFT LCD

The large 7-inch wide ( $800 \times 480$  pixels) active matrix display delivers quick response time, high resolution and has a wide viewing angle. The multi-function spectrum scope is displayed in vivid color. The background color is selectable from black or blue for your preference. In addition, the IC-R9500 has a VGA connector allowing you to connect an external monitor.

### **Multiple RSSI**

S-meter,  $dB\mu$ ,  $dB\mu$  (emf) and dBm meter types are selectable in the IC-R9500. The  $dB\mu$ ,  $dB\mu$  (emf) and dBm meter have ±3dB of accuracy\*.

(\* 10 to 70dB $\mu\,$  signal from 100kHz to 3335MHz at 25°C)

#### **Digital voice recorder**

The IC-R9500 has two types of digital voice recorders. One is the regular recorder, recording for long periods in "WAV" format to the built-in CF memory or an external USB memory. The sampling rate is variable from 8kHz (SQ1) to 48kHz (SHQ). In SQ1 mode, up to 130 minutes (approx.) of recorded audio can be stored into the CF memory. The other recorder is the short term voice recorder that saves the previous 15 seconds of radio audio into RAM, allowing you to play back the audio instantly.

### **Dual DSP**

The IC-R9500 incorporates two independent, 32-bit floating point DSP units, a dedicated DSP unit for receiver functions and another for the spectrum scope. By using the power of two independent DSP units, the radio can respond to operator changes in an instant.

### Other outstanding features [Receive assist functions]

- Digital IF filter Digital twin PBT
- Noise blanker Noise reduction
- Notch filter 
   Synchronous AM detection
- FSK demodulator and decoder
- 10 VFOs 1220 memory channels
- Multiple-scan functions
- Voice synthesizer USB connector
- SSB/CW/AM mode auto tuning function

• AFC function compensates for frequency shifts (FM/WFM mode only) • CW-R (reverse) mode • Preamp and attenuator • 1/4 tuning step function and dial click function • APF (Audio Peak Filter) • AGC (Automatic Gain Control) • VSC (Voice Squelch Control) • Input overload protection (HF bands only) • Optional P25 digital mode reception • CI-V interface and RS-232C for PC remote control • Analog TV tuner (NTSC/PAL/SECAM)\*1 • 4 antenna connectors: an SO-239, a phono (RCA) connector and two type-N connectors • S/P DIF output jack • Video input/output\*1 • Clock function • IF output jack (10.7MHz) • CTCSS and DTCS tone squelch • Simplified frequency calibration using WWV or WWVH

\*1 TV tuner and video output are not available in the USA version except for export or to authorized government users. Contact Icom America for details.



# **Discover a world of information and intrigue**



### COMMUNICATIONS RECEIVER 0.1 – 1999.99999MHz coverage\*

### Various modes for wide range Rx

Various modes are supported for listening not only to amateur bands, FM or TV Broadcast stations, but also marine and aviation communications. The IC-R8500 covers a wide frequency range — continuously from 0.1 to 1999.99999MHz\* with 10Hz resolution.

\* Guaranteed 0.1–1000MHz and 1240–1300MHz only ; Cellular bands are blocked in the USA version.

### Superior receive characteristics

The IC-R8500 has superior receive sensitivity over its entire range and the built-in, high quality crystal oscillator (TCXO) provides good frequency stability of less than 100Hz drift below 30MHz; less than 3ppm above 30MHz. The variable tuning system employed in the frontend tuning circuit improves multi-signal characteristics, ensuring enhanced receiving performance.

### Versatile scanning functions

Basic scanning, memory, priority and program scans are available. For more advanced needs, specific scans can also be selected. VSC (voice scan control) provides efficient scanning by skipping unmodulated signals.

### **IF shift and APF function**

The IF shift function works efficiently to reject interference from nearby signals, especially in SSB mode. APF adjusts the peak frequency of the received audio, particularly in CW mode.

### Ample 1000 memory channels

The IC-R8500 has 800 memory channels divided into 20 banks (40 channels each), plus an auto memory write area of 100 channels and a skip area of 100 channels. Alphanumeric names can be assigned to the channels (up to 8 characters) and banks (up to 5 characters) for easy recognition. There are also 20 scan edge memory channels to store 10 sets of frequencies for programmed scan plus 1 priority channel for priority scan.



### Other outstanding features

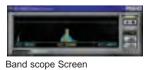
- REC and REC-Remote terminals for tape recorder control and for recording received signals
- SO-239 type and phono (RCA) antenna connectors for HF bands and type-N for VHF/UHF
- S-meter squelch
- Optional UT-102 Voice Synthesizer
- Sleep timer (30, 60, 90, 120 min. selectable)
  Noise blanker, RF attenuator, and selectable AGC
- AFC function tunes the receiving frequency to the center of FM or WFM signals
- RS-232C serial interface connector
- $^{\star}$  For sale in the US to qualifying agencies or export only.

### PC remote control

The optional RS-R8500 software allows you to control the IC-R8500 from your PC. All the receiver functions can be accessed from the front panel screen. The memory channel list and program scan list makes it easier to edit the contents, and the band scope screen provides a special function the IC-R8500 does not provide. When you find a busy frequency, clicking on the screen will tune to that frequency.



Front Panel Screen





Rear view

# HF/50MHz coverage and innovative features...



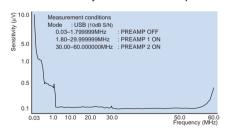
### HF+50MHz COMMUNICATIONS RECEIVER 0.03 - 60MHz coverage\*1

### High sensitivity receiver circuit

Icom's wide-band technology provides a consistent receiver sensitivity over the entire receive frequency range: 0.03–60MHz\*1. The IC-R75 makes it easy to receive communications world wide.

\*<sup>1</sup> Guaranteed 0.1–29.99MHz and 50–54MHz only ; Some versions have restricted coverage.

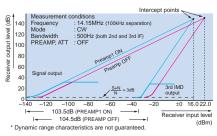
• Receive sensitivity characteristics example



### Superior dynamic range

A wide dynamic range of over 100dB, and a well-designed triple conversion system help minimize image and spurious responses for better signal fidelity.

Dynamic range characteristics example



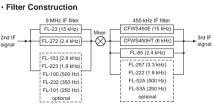
### **Twin PBT capability**

IC-R75

The twin PBT (Passband Tuning) function electronically narrows or moves the IF passband widths at two stages to avoid or remove interfering signals.

### **Flexible filter selection**

Up to two optional filters\*<sup>2</sup> can be installed, providing flexible bandwidth selection. \*<sup>2</sup> One each for 9MHz and 455kHz IF stage.



### **DSP** capability

With the optional UT-106 DSP unit installed,\* you can activate a noise reduction function that improves the S/N ratio. And the automatic notch filter automatically cuts interference from carriers. These digital functions pull desired signals out of noise, and provide superior receive quality.

\* Already installed with some versions.

### Front mounted loud speaker

The IC-R75 has the speaker mounted on the front panel. With the speaker facing the operator, audio is heard clearly and directly while operating.

### Simple operation

The function display has a large alphanumeric readout that indicates up to 8-character memory names for easy recognition. Often-used keys such as mode switches, filter and tuning step have been placed above the tuning dial for easy access.

Rugged

### Other features

- Optional PC remote control software RS-R75
- Internal clock with ON/OFF, sleep timer
- 20dB attenuator and 2-level preamplifier
- 99 memories and 2 program scan edges with 8-digit memory name
- Selectable AGC (FAST/SLOW/OFF)
- Noise blanker for eliminating pulse type noise
- RTTY/CW reverse mode and CW pitch control
- Various scanning functions
- Adjustable LCD backlighting
- CI-V capability for computer control
- RS-232C serial interface connector





**COMMUNICATIONS RECEIVER** 0.01 – 3299MHz coverage\*<sup>4</sup>

# IC-R2500 MIL-STD 810



With optional UT-118

Dualwatch capability

The IC-R2500 has a dualwatch receive capability<sup>\*1</sup>, allowing you to receive two bands simultaneously. It covers 0.01–3299.999 MHz in AM, FM, WFM, SSB, CW, DV<sup>\*2</sup> and P25<sup>\*3</sup> on the main band, while the sub-band covers 50–1300MHz in AM, FM and WFM modes.

\*1 Two antennas are required for dualwatch receive.
\*2 Optional UT-118 required. \*3 Optional UT-122 required.
Already installed with some versions. \*4 Frequency range differs depending on version.

### **Diversity receive capability**

The diversity receive\* mode is useful for mobile operation where the receive conditions change continuously. It compares the signal strength and dynamically chooses the antenna with better signal strength to maintain good sound quality.

\* Two antennas are required. Available in FM/DV/P25 mode between 50–1300MHz only. Cannot use the diversity receive function while using the dualwatch function.

### Wide LCD display for independent band control

The wide LCD display shows both main/sub band settings in an easy to read, symmetric side by side layout. The controller provides separate tuning, volume, squelch knobs and function buttons for the left (Main) and right (Sub) bands. Also, The LCD backlit color is selectable from amber and green. Chose the suitable color for lighting conditions or preference.

# 1000 alphanumeric memory channels

1000 on-board memory channels at the touch of a button! With Icom's Dynamic Memory Scan, DMS, you have a versatile memory channel management system at your command. The 1000 memory channels can be arranged by service or personal preference in the 21 memory banks. Selectively link the channels together to scan depending on your needs. Programming the memory channels and 6 character memory names is simple with your PC.

### 60 channels per second scan

Quickly scan through a band with the IC-R2500's 60 channel/second scan rate\*. Program, priority scan and various scanning modes are available. \* When tuning step is less than 100kHz in program scan mode.

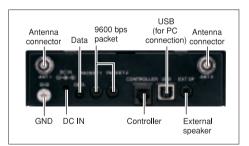
### **Other features**

- Optional DSP capability with UT-106
- CTCSS/DTCS tones and duplex mode operation for monitoring a repeater
- VSC (Voice squelch control) opens the squelch only when a modulated signal is detected
- IF filter selection for changing IF filter width
- IF shift function (SSB, CW mode only)
- Noise blanker eliminates pulse type noise such as engine ignition noise (SSB, CW, AM mode only)
- Weather alert function (USA and Canada versions only)
- AFC function follows signal frequency drift in FM mode (BW: 6kHz or 15kHz)
- 20dB (approx.) RF attenuator (below 1300MHz)

• 30 min – 2 hour auto power off timer

With optional UT-122

- Fast/slow AGC setting
- Short/long squelch delay
- PC control software is supplied (See the PC control page for details)





Supplied accessories

AD-113A/E<sup>★</sup>
 Controller cable, 3.5m; 11.5ft
 Antenna
 USB cable
 Software CD
 Controller head

\* This receiver consumes vehicle battery power in stand-by mode. We advise you to turn off the main unit power switch after use.

# Wideband mobile receiver with remote control head



#### **COMMUNICATIONS RECEIVER** 0.01 – 3299MHz coverage\*<sup>1</sup>

IC-R1500



### Ultra wideband coverage

The IC-R1500 covers 0.01–3299.999MHz\*1 in AM, FM, SSB and CW mode.

\*1 Frequency range differs depending on version.

### Remote control head

The IC-R1500 is supplied with a remote control head and 3.4m (11.2ft) separation cable for mobile and/or base station operation. It provides a variety of mounting possibilities in various places. In addition, green, amber and yellow backlit colors are selectable.



### **Optional DSP capability**

Whether you are into weak signal work or you have noise from your vehicle ignition, the optional DSP unit, UT-106, will help. The noise reduction and auto notch filter functions are the key to pulling a radio signal out of the noise.

### CTCSS, DTCS tone squelch

The CTCSS and DTCS tones provide quiet stand-by while waiting for a matching tone signal. And the pocket beep function alerts you with a beep when a signal with a matching tone is received.

### 1000 alphanumeric memory channels

1000 on-board memory channels at the touch of a button! With Icom's Dynamic Memory Scan, DMS, you have a versatile memory channel management system at your command. The 1000 memory channels can be arranged by service or personal preference in the 21 memory banks. Selectively link channels together to scan depending on your needs. Programming the memory channels and 6 character memory names is simple with your PC.

### 60 channels per second scan

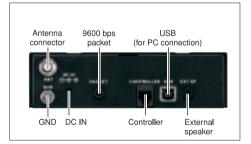
Quickly scan through a band with the IC-R1500's 60 channel/second scan rate\*<sup>2</sup>. Program, priority scan and other scanning modes are available.

\*2 When tuning step is less than 100kHz in program scan mode.

### **Other features**

- VSC (Voice squelch control) opens the squelch only when a modulated signal is detected
- IF filter selection for changing IF filter width
- IF shift function (SSB, CW mode only)
- Noise blanker eliminates pulse type noise such as engine ignition noise (SSB, CW, AM mode only)
- 20dB (approx.) RF attenuator (below 1300MHz)
- Weather alert function (USA/Canada versions only)
- AFC function follows the received signal when its frequency drifts in FM mode (BW: 6kHz or 15kHz)

- 30 min 2 hour auto power off timer
- Fast/slow AGC setting
- Short/long squelch delay
- PC control software is supplied (See the PC control page for details)





 Supplied accessories

 ● AD-113A/E\*
 ● Controller cable, 3.4m; 11.2ft
 ● Antenna

 ● USB cable
 ● Software CD
 ● Controller head

\* This receiver consumes vehicle battery power in stand-by mode. We advise you to turn off the main unit power switch after use.

# PC control software for IC-R2500 & IC-R1500



### **USB connection PC receiver**

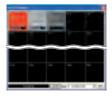
The supplied PC control software with the IC-R2500 and IC-R1500 turns your PC into a wideband receiver. Just connect it to the USB port on your PC. All functions can be controlled on your desktop and the received signals can be heard through your computer's audio system via USB cable.

### 3 interface screens to choose from

Choose the look you want from three user interface screens. "Multi-function receiver", "Component" and "Simple" screen are selectable.

### Multi channel monitor function

You can monitor up to 25 channels. The software tracks the channel activities with Smeter levels as status for each channel is visually displayed by three background col-



ors. Simply click the busy channel and the IC-R2500/R1500 tunes to the active channel.

### **Recording function**

You can record audio in "WAV" format directly through the USB port. Skip the hours of channel inactivity with the software's remote control function which pauses and resumes recording according to the channel activity. You can also

adjust the sampling rate.



### Band scope and time-line scope

Along with a 5MHz (Max.) wide range band scope\*1, the new time-line scope allows you to observe band conditions within a specified time period (3 to 100 minutes). In addition, the sweep data can be stored on your PC for future use.

\*1 AF output is not emitted when setting the band scope range between 500kHz and 5MHz or setting in CW or SSB mode.

### **DTMF** remote control capability

Not only display the message, but also execute a PC program or sound a beep when receiving a matching DTMF code<sup>\*2</sup>.

\*1 Optional UT-108 DTMF decoder is required for the IC-R2500 sub-band.

### These great features too

- S-meter squelch releases the AF mute only when signals stronger than the pre-set S-meter level are received.
- Auto memory write scan stores detected frequency and mode into the PC memory.
- Up to 2600 memory channels per file

#### ■ IC-R2500/IC-R1500 PC requirements

- Microsoft<sup>®</sup> Windows Vista<sup>®</sup> and Windows<sup>®</sup> 7/XP/2000/ ME/98SE
- USB 1.1 or 2.0
- Intel® Pentium® III 450MHz or faster (Pentium® 4 recommended)
- Hard disk with at least 50 MB of free disk space
- At least 128 MB of memory
- (256MB or more recommended)
- Display with 1024 × 768 pixel resolution, high color
   CD-ROM or DVD drive is required for software in-
- stallation • Additional hard disk space is required for recording
- Additional mand disk space is required for recording sound or storing scope data
- Please note: USB audio dropouts or gaps may occur because of a lack of PC power

# Scan, monitor, record!

#### COMMUNICATIONS RECEIVER 0.150 – 3304.999MHz coverage\*1

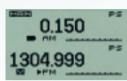




### 2 for 1, Dualwatch receive

Until the IC-R20, the capability of monitoring two frequencies required two radios. Whether you need to monitor local public safety, air traf-

fic control, or listening to two drivers at the track, even listen to play by play from both TV and radio!



**IC-R20** 

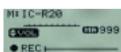
### Shortwave to microwave, Wideband coverage

The IC-R20 covers 150kHz to 3304.999MHz<sup>\*1</sup> in SSB, CW, AM, FM and WFM modes. When receiving in dualwatch, the combination of channels is limited to 150kHz to 469.999MHz (VFO A) and 118MHz to 174.999MHz or 330MHz to 1304.999MHz in AM, FM, WFM modes (VFO B). <sup>\*1</sup> Depending on version, U.S.A. version is cellular blocked.

### 4-hour digital recorder

The IC-R20 has an internal 32MB digital recorder capable of storing received communications. This feature is useful in a variety of ways, like recording wireless microphone audio at a meeting. There is also a USB port to down-

load to a computer for storage or to forward to a friend. (PC playback not possible)



### **Alphanumeric memory channels**

With 1,000 regular memory channels, 200 automatic memory scan channels and 25 pairs of frequency scan edges, the IC-R20 makes it easy to identify received signals with the capability of assigning a name to each channel.

### CTCSS, DTCS tone signaling

When multiple users share the same channel, they must use specialized signaling to reduce interference from other users. The two popular signaling formats, CTCSS and DTCS, are standard in the IC-R20.

### 11 hours of continuous receive\*2

Icom's energy efficient design allows the IC-R20 11<sup>\*2</sup> hours of continuous reception from the internal Li-Ion battery pack. Also, the IC-R20 can operate with 3 AA Alkaline cells for longer operation. Charging of the internal battery pack is possible from either an optional cigarette lighter cable or the supplied AC adapter. \*<sup>2</sup> Single receive in FM mode at Max. AF audio.

### See your signals

Sometimes hearing a signal is not enough, so the IC-R20 includes a band scope. The band scope enables you to see signals around a monitored frequency. An additional function of the band scope is the ability to hear the signal while sweeping a

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00999

range, so you can see if the signal is modulated.

### Scan features

The IC-R20 is Icom's fastest receiver with 100<sup>\*3</sup> channels per second scanning speed. You can tag memory channels into dynamic banks, ranging from a maximum of 100 channels per bank (Max. 26 banks) as well as link multiple banks for customized memory bank scanning. Additionally, the IC-R20 offers multiple scanning controls such as scan delay and scan resume for received signal notification. \*<sup>3</sup> In VFO mode.

### Other superior features...

- VSC (Voice Squelch Control) opens the squelch only when a modulated signal is detected.
- Offset monitor capability
- Auto squelch and squelch monitor capability
- Built-in attenuator and RF gain control
- Noise blanker, ANL (Auto Noise Limiter), AF filter
- AFC (Auto Frequency Control) function
- PC remote control capability with optional CT-17
- Built-in ferrite bar antenna for AM broadcast
- FM earphone cord antenna capability
- Dial speed-up function
- Auto power off and power save functions
- Reversible rotary selector and up/down buttons
- Weather channel\* (\* U.S.A. version only)
- Preprogrammed TV and shortwave channels

# **Slim and smart wideband receiver**

WIDEBAND RECEIVER 0.150 – 1300.000MHz coverage\*

# IC-RX7

# Menu-driven user interface and easy-to-see category icons

The IC-RX7 has a menu driven user interface that allows intuitive user-friendly operation. The 4way cursor but-



tons provide quick navigation to menus and settings.

new active channels within a designated fre-

quency range or fixed category with a push of

the "Search" button. The auto memory write

function automatically stores detected chan-

The IC-RX7 comes with preset memory chan-

nels\* for ham radio, air band, railroads, auto racing, and more. Select your desired listening

subject and, with the push of the "Scan" button,

the IC-RX7 will automatically find active chan-

nels within that area of interest. The link scan

dynamically adds and deletes a category or a

A total of 1600 memory channels can be clas-

sified in 3 levels: by "Category" (up to 26 cate-

gories), by "Group" (up to 100), and "Memory

Group 02

•

Group 100

Group 01 Name 01

Name 02

-

Name 100

Ch 1)

Ch 6

group to the scan list, even while scanning.

**Efficient 3-level memory** 

### **One-touch search button**

The channel mode and channel step are preprogrammed for each frequency range. Easily detects

nels in your memory.

\* Depending on version.

management

name" (up to 100).

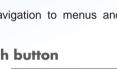
Category 01

Category 02

.

Category 26

**One-Touch Scan Button** 



SEARCH +

99.900

### Computer programmable with optional CS-RX7 software

With the optional CS-RX7 software, the programming and cloning of the IC-RX7 is a breeze. Connect the IC-RX7 to your PC and you can update or customize channel names, scan lists and more.

### 0.150–1300MHz wide frequency coverage

\* Cellular blocked in the USA version.

### Slim, stylish and light weight

Only 23 mm  $(^{29}/_{32}$  in) slim depth and weighing just 200g (7.1oz (approx) with BP-244 and antenna).

### Tone control function and audio filter

The tone control function adjusts the sound quality easily. It allows you to boost or cut bass and treble respectively. When used with external headphones, you can enjoy high-quality WFM sound. The built-in audio low pass filter\* suppresses high audio frequencies to reduce distortion and noise.

\* AM/WFM mode only

### These excellent features

- 8 hours\* of continuous receive capability with BP-244 battery pack
  - \* Backlight off, rated audio output power.
- Splash resistant construction equivalent to IPX4
- Large, backlit full dot-matrix display
- High speed scan and high speed search (100 channel/second)
- CTCSS/DTCS decode with pocket beep function
- VSC (Voice Squelch Control)
- Built-in RF-gain control and attenuator
- Built-in AM bar antenna
- Earphone antenna function for FM broadcast RX
- VFO mode operation
- CI-V PC remote control capability with optional CT-17
- Weather alert function (USA version only)
- Auto power save function
- DC power jack for external DC operation



# Icom's fastest scanning wideband portable receiver

COMMUNICATIONS RECEIVER 0.100 – 1309.995MHz coverage\*1

**ÍCOM** 

# IC-R6



### 100kHz-1309.995MHz\* wideband coverage

While the IC-R6 receives an ultra wideband frequency range, the radio provides superior sensitivity and receiver characteristics that is insusceptible to interference. Amateur stations, AM, FM, short wave broadcasts, TV audio\* and a variety of utility communications can be caught and listened to.

\* Frequency range depends on version. Analog TV audio only. Cannot decode digital TV audio.

### 100 Ch/Sec. high speed scan

The IC-R6 has 100 channels per second high speed scan capability\*. This superior scanning power allows the utmost efficiency when searching over 1300MHz of spectrum! \* VFO mode scanning.

# 15 hours of continuous receive capability\*

The IC-R6 is energy-efficient, designed to provide many hours of listening enjoyment on a single charge. With the supplied rechargeable Ni-MH cells (1400mAh  $\times$ 2), the IC-R6 provides up to 15 hours of continuous receive capability\*. \* At 50mW output using external speaker.

### 1300 memory channels with 22 memory banks

With 1300 alphanumeric memory channels, 50 scan edges and 200 auto write memories, the IC-R6 gives you flexible scanning. Use the bank link scan feature to choose from and connect any of the 22 memory banks.

### **Multiple power choices**

The IC-R6 can be powered by rechargeable Ni-MH cells, or with alkaline batteries. Run the IC-R6 using the AC adapter, BC-196SA/SD, or opt for a cigarette lighter cable, CP-18A/E. When used the optional drop-in charger stand BC-194 and the AC adapter or cigarette lighter cable, you can easily start charging the Ni-MH cells, while on the move.

### **CI-V** remote control capability

When used with the optional CT-17 CI-V remote controller, the IC-R6 can be controlled from a PC. You can change frequencies, mode, volume level, etc,.

### VSC (Voice Squelch Control)

The VSC opens the squelch only when a modulated signal is detected and ignores unmodulated beat noise. It is a handy feature for those listeners who are scanning for talk, news and music, but not data bursts or beacons.

### More outstanding features...

- Built-in audio low pass filter
- ±1.0ppm high frequency stability (at 25°C)
- Earphone cord antenna for AM aviation as well as FM broadcast
- Ferrite bar antenna for AM broadcast
- 150mW loud audio with internal speaker
- DTCS and CTCSS tone squelch and reverse tone squelch
- Priority watch function with priority beep
- PC programmable with optional CS-R6
- Receiver-to-receiver cloning (optional OPC-474 required)
- Auto power OFF (0.5-2 hours and end of busy signal)
- Compact, drip-resistant construction
- Duplex operation monitoring
- Automatic LCD backlight
- Dial speed acceleration
- Built-in RF attenuator
- Auto memory write scan stores the detected frequency, mode and tone into a specified memory
- Reversible up/down buttons and dial knob for volume, frequency, memory channel, scan direction and set mode settings
- Weather channel receive with weather alert (USA version only)



### **OPTIONS FOR BASE RECEIVERS**

	AC ADAPTER	EXT	ERNAL SPEAK	(ERS	EXTERNAL	ANTENNAS	MOBILE BRACKETS		CARRYING HANDLE
MODEL NAME	AD-55*	SP-20	SP-21	SP-23	AH-8000 100–3335MHz	AH-710 1.9-30MHz	IC-MB5	MB-12	MB-23
IC-R9500		<ul> <li>✓</li> </ul>			<ul> <li>✓</li> </ul>				
IC-R8500	<ul> <li>✓</li> </ul>	~		<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>				
IC-R75	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>		<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>		<ul> <li>✓</li> </ul>

\*1 AD-55S USA version and Europe version available.

	REMOTE CONT	ROL SOFTWARE	<b>CI-V CONVERTER</b>	HIGH STABILITY	<b>CRYSTAL UNITS</b>	VOICE SYNTHESIZER	DSP UNIT	P25 DIGITAL UNIT	DC POWER CABLE
MODEL NAME	RS-R75	RS-R8500	ст-17	<b>CR-282</b> ±0.5ppm	<b>CR-293</b> ±0.5ppm	UT-102	UT-106	UT-122	OPC-023
IC-R9500			<ul> <li>✓</li> </ul>					<ul> <li>✓</li> </ul>	
IC-R8500		<ul> <li>✓</li> </ul>	~		~	~			<ul> <li>✓</li> </ul>
IC-R75	<b>v</b>		<b>v</b>	<b>v</b>		<ul> <li>✓</li> </ul>	<b>~</b>		

			9MHz FILTERS	5		455kHz FILTERS				
MODEL NAME	FL-100 CW/RTTY narrow; 500Hz/-6dB	FL-101 CW narrow; 250Hz/-6dB	FL-103 SSB wide; 2.8kHz/-6dB	FL-223 SSB narrow; 1.9kHz/-6dB	FL-232 CW/RTTY narrow; 350Hz/-6dB	FL-52A CW/RTTY narrow; 500Hz/-6dB	FL-53A CW narrow; 250Hz/-6dB	FL-222 SSB narrow; 1.8kHz/-6dB	FL-257 SSB wide; 3.3kHz/-6dB	
IC-R9500										
IC-R8500						~				
IC-R75	(One of these 9MHz filters)	(One of these 9MHz filters)	(One of these 9MHz filters)	(One of these 9MHz filters)	(One of these 9MHz filters)	(One of these 455kHz filters)	(One of these 455kHz filters)	(One of these 455kHz filters)	(One of these 455kHz filter	

\* Some options may not be available in some countries. Please ask your dealer for details.

### **OPTIONS FOR MOBILE RECEIVERS**

	AC ADAPTER	EXTERNAL SPEAKER	EXTERNAL ANTENNA	CIGARETTE LIGHTER CABLE	DC POWER CABLE	CONTROLLE	R BRACKETS	MOUNTING BASE	EXTENSION CABLE
MODEL NAME	AD-113*2	SP-10	<b>AH-8000</b> 100–3335MHz	CP-12L	OPC-254L	MB-58	MB-84	MB-120	<b>OPC-1156</b> 3.5m;11.5ft
				<b>~</b> 5	8.S			- Me	R
IC-R2500	<ul> <li>✓</li> </ul>	~	✓*3	<ul> <li>✓</li> </ul>	~		<ul> <li>✓</li> </ul>	(Use with MB-84)	~
IC-R1500	<ul> <li>✓</li> </ul>	~	✓*3	<b>v</b>	<ul> <li>✓</li> </ul>	~		(Use with MB-58)	~

\*2 AD-113S USA version and Europe version available.
 \*3 The AH-8000 has a Type-N connector. Please arrange a separate antenna connector adapter.

### **OPTIONS FOR MOBILE RECEIVERS**

	DSP UNIT	DTMF DECODER UNIT	D-STAR DIGITAL UNIT	P25 DIGITAL UNIT
MODEL NAME	UT-106	UT-108	UT-118	UT-122
IC-R2500	<ul> <li>✓</li> </ul>	✓*4	✓*4	~
IC-R1500	~			

\*4 Either of UT-108 or UT-118 can be installed.

\* Some options may not be available in some countries. Please ask your dealer for details.

### **OPTIONS FOR HANDHELD RECEIVERS**

	BATTERY ASSEMBLY	BATTERY PACK	BATTERY CASE	CHARGERS		AC ADAPTER	CHARGER STAND	CIGARETTE LIC	GHTER CABLES
MODEL NAME	BP-206 (Li-Ion) 3.7V/1920mAh (min.) 2100mAh (typ.)	<b>BP-244</b> (Li-Ion) 3.7V/1100mAh (min.) 1150mAh (typ.)	BP-262 3× LR6 (AA) cells	BC-153SA/SE WALL CHARGER	BC-156*5 RAPID CHARGER	BC-196SA/SD*	BC-194	CP-18A/E	CP-23L
IC-R20	<b>v</b>			<b>v</b>	V	-		<ul> <li>✓</li> </ul>	(Use with BC-156)
IC-RX7		~	~	<ul> <li>✓</li> </ul>				~	
IC-R6						<ul> <li>✓</li> </ul>	(Use with BC-196 or CP-18)	~	

\*5 BC-156 USA/Europe versions available. \*6 BC-196SA/SD for exclusive use with the IC-R6 and BC-194 only.

**CARRYING CASES CLONING SOFTWARE CLONING CABLES** MODEL NAME LC-146A LC-158 LC-170 **OPC-474** OPC-478 OPC-478UC CS-RX7\*7 CS-R6\*7 CS-R20\*7 With USB cable Receiver to PC RS-232C cable Receiver-to-receiver Receiver to PC USB cable With USB cable V **IC-R20** IC-RX7 1 V V V V V IC-R6 1 / / V

\*7 Windows® 7 compatible.

	ANTENNA ADAPTER	EARPHONES		HEADPHONE	CI-V CONVERTER	BELT CLIP
MODEL NAME	AD-92SMA	SP-13	SP-27	HP-4	CT-17	MB-112G
	BNC to SMA	O.	Tube earphone			
IC-R20		~	<ul> <li>✓</li> </ul>		<ul> <li>✓</li> </ul>	
IC-RX7	<ul> <li>✓</li> </ul>	~	~	~	~	<ul> <li>✓</li> </ul>
IC-R6	<ul> <li>✓</li> </ul>	~	~	~	~	

\* Some options may not be available in some countries. Please ask your dealer for details.



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 or F) and vibration (MIL-810C, D, E or F).

Look for this logo to determine which models meet these requirements.

### SPECIFICATIONS FOR BASE RECEIVERS

		IC-R9500	IC-R8500	IC-R75	
	Frequency coverage (Differs according to version)	0.005–3335.000000MHz*1	0.1–1999.999999MHz Guaranteed range 0.1–1000, 1240–1300MHz	30kHz–60MHz Guaranteed range 0.1–29.99 and 50–54MHz	
	Mode	USB, LSB, CW, FSK, AM, FM, WFM, P25* TV <sup>*2</sup> (NTSC M, PAL B/G, PAL I, PAL D and SECAM K) * Optional UT-122 required.		USB, LSB, CW, RTTY, AM, FM	
	Frequency stability	±0.05ppm (25°C; after 5 min. warm up)	±100Hz (below 30MHz) ±3ppm (above 30MHz)	±7ppm (25°C; from 1 min. to 60 min. after power ON)	
	Maximum current drain	100VA (Power consumption)	2.0A at 13.8V DC	1.1A at 13.8V DC	
General	Power supply requirement	100, 120, 230, 240V AC	13.8V DC ±15% or 117, 220, 240V AC with AD-55	13.8V DC ±15% or 117, 220, 240V AC with AD-55	
	Antenna connector	$\begin{array}{l} SO-239 \; (50\Omega \; \text{for HF}) \\ Phono \; (RCA: 500\Omega \; \text{for HF}) \\ Type-N \times 2 \; (50\Omega^{*3}) \end{array}$	SO-239 (50Ω for HF) Phono (RCA: 500Ω for HF) Type-N (50Ω for above 30MHz)	SO-239 (50Ω) 500Ω terminals	
	Number of memory channels	1220 (including 100 auto memory write, 100 memory scan skip and 20 scan edges)	1021 (including 20 scan edges, 1 priority)	101 (including 2 scan edges)	
	Dimensions (W×H×D; Projections are not included)	424×149×340 mm; 16 <sup>11</sup> /16×5 <sup>7</sup> /8×13 <sup>3</sup> /8 in	287×112×309 mm; 115⁄16×4 <sup>13</sup> ⁄32×125⁄32 in	241×94×229 mm; 9½×3 <sup>11</sup> /16×9 <sup>1</sup> /32 in	
	Weight (approx.)	20kg; 44.1lb	7.0kg; 15.4lb	3.0kg; 6.6lb	
Receiver	<b>Sensitivity</b> (typical) SSB, CW, RTTY, AM: at 10dB S/N FM, WFM: at 12dB SINAD	SSB, CW, FSK (BW=2.4kHz):           0.1-1.799MHz         0.5μV (Preamp1 ON)           1.8-29.999MHz         0.2μV (Preamp1 ON)           30-2999.999MHz         0.32μV (Preamp1 ON)           3000-3335MHz         1.0μV (Preamp ON)           3000-3335MHz         1.0μV (Preamp1 ON)           1.8-29.999MHz         2.5μV (Preamp1 ON)           30-2999.999MHz         2.5μV (Preamp1 ON)           30-2999.999MHz         3.5μV (Preamp1 ON)           300-3335MHz         11μV (Preamp ON)           3000-3335MHz         0.5μV (Preamp1 ON)           300-3335MHz         0.5μV (Preamp ON)           3000-3335MHz         1.6μV (Preamp ON)           3000-3335MHz         1.6μV (Preamp ON)           3000-3335MHz         0.71μV (Preamp ON)           3000-3335MHz         2.2μV (Preamp ON)           3000-3335MHz         2.2μV (Preamp ON)           3000-3335MHz         2.2μV (Preamp ON)           3000-3335MHz         2.2μV (Preamp ON)           3000-3335MHz         3.4μV (Preamp ON)           3000-3335MHz         3.4μV (Preamp ON)           3000-3335MHz         3.4μV (Preamp ON)	SSB, CW, RTTY:           0.1–0.5MHz         1.0μV           0.5–1.8MHz         2.0μV           1.8–2.0MHz         0.25μV           2.0–30MHz         0.22μV           30–1000MHz         0.32μV           1240–1300MHz         0.32μV           AM:         0.1–0.5MHz         6.3μV           0.5–1.8MHz         13μV           1.8–2.0MHz         3.2μV           2.0–1000MHz         2.5μV           2.0–1000MHz         2.5μV           2.0–1000MHz         2.5μV           2.0–1000MHz         2.0μV           AM-N:         1.8–2.0MHz         2.5μV           2.0–1000MHz         2.0μV           AM-N:         3.2μV         2.0–1000MHz           2.0–1000MHz         2.0μV           AM-N:         3.2μV           2.0–1000MHz         2.0μV           AM-W:         30–1000MHz         3.2μV           FM:         28–1000MHz         0.5μV           1240–1300MHz         0.5μV           1240–1300MHz         0.5μV           WFM:         30–1000MHz         1.4μV           1240–1300MHz         2.0μV	SSB, CW, RTTY:         0.1–1.8MHz         2.0μV (Preamp OFF)           1.8–29.99MHz         0.16μV (Preamp OFF)           50–54MHz         0.13μV (Preamp OFF)           0.1–1.8MHz         5.6μV (Preamp OFF)           1.8–29.99MHz         1.6μV (Preamp OFF)           1.8–29.99MHz         1.6μV (Preamp OFF)           50–54MHz         1.0μV (Preamp OFF)           50–54MHz         0.22μV (Preamp ON)           50–54MHz         0.22μV (Preamp2 ON)	
	Selectivity	SSB, FSK:       2.4kHz/–3dB         (BW=2.4kHz*)       3.6kHz/–60dB         CW (500Hz):       500Hz/–3dB         700Hz/–60dB         AM (6kHz):       6.0kHz/–3dB         15.0kHz/–60dB         FM (15kHz):       12kHz/–3dB         25kHz/–60dB         WFM:       180kHz/–6dB         *variable between 50Hz and 3.6kHz	SSB, AM-N, RTTY: 2.2kHz/-6dB AM, FM-N: 5.5kHz/-6dB AM-W, FM: 12kHz/-6dB WFM: 150kHz/-6dB	SSB, CW, RTTY: 2.1kHz/-6dB 4.0kHz/-60dB AM: 6.0kHz/-6dB 20kHz/-50dB FM: 12kHz/-6dB 30kHz/-50dB	
	Spurious and image rejection	More than 70dB (0.1–30MHz) More than 50dB (30–2500MHz) More than 40dB (2500–3000MHz)	More than 60dB (1.8–30MHz) 50dB typical (above 30MHz)	More than 70dB (Except IF point and 50MHz band)	
	AF power (at 10% distortion)	2.6W with an $8\Omega$ load	2.0W with an $8\Omega$ load	2.0W with an $8\Omega$ load	
	External speaker connector	2-conductor 3.5 (d) mm (1/8")/8Ω	2-conductor 3.5 (d) mm (1/8")/4–8Ω	2-conductor 3.5 (d) mm (1/8")/8Ω	

\*1 USA version: 0.005–821.999, 851–866.999, 896–3335MHz. \*2 TV tuner is not available in the USA version except for export or to authorized government users. \*3 One each for 30–1149.999MHz, 1150–3335MHz \* 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.

IC-R8500 is for sale in the US to qualifying agencies or export only. If re-exporting the IC-R9500, it is your responsibility to check you are in compliance with the export regulations of your country or the country you are exporting to. Export regulations can be highly restrictive in relation to some of the technology implemented in this product. Your failure to comply with export regulations may subject you to fines or penalties. Please consult with the relevant Government Department in your country.

### SPECIFICATIONS FOR MOBILE AND HANDHELD RECEIVERS

		IC-R2500	IC-R1500	IC-R20	IC-RX7	IC-R6
	Frequency coverage (Differs according to version, Unit: MHz)	Main band: 0.010–3299.999*1 Sub band: 50–1300*1 Guaranteed range 0.495–3000	0.010-3299.999*1 Guaranteed range 0.495-3000	0.150–1304.999, 1305–3304.999* <sup>2</sup> (VFO A): 0.150–469.999 (VFO B): 118–174.999, 330–1304.999	0.150–1300.000*3	0.100–1309.995*4
	Mode	Main band: FM, WFM, AM, SSB* <sup>5</sup> , CW* <sup>5</sup> , DV* <sup>6</sup> , P25 <sup>*7</sup> Sub band: FM, WFM, AM	FM, WFM, AM, SSB*5, CW*5	FM, WFM, AM, USB*, LSB*, CW* * 0.150–469.999MHz only.	FM, WFM, AM	FM, WFM, AM
	Frequency stability	±3ppm (Controller operation, -10°C to +60°C; +14°F to +140°F)	±3ppm (Controller operation, -10°C to +60°C; +14°F to +140°F)	±6ppm (–10°C to +60°C; +14°F to +140°F)	±6ppm (–10°C to +60°C; +14°F to +140°F)	±1.0ppm (at 25°C; +77°F) ±2.5ppm (-10°C to +60°C; +14°F to +140°F on the basis of 25°C; +77°F)
	Current drain	1.5A (Dualwatch mode)	1.25A	Rated audio output* <sup>8</sup> : 150mA typ. (at 3.7V DC)	Rated audio output <sup>*9</sup> : 150mA typ. (at 3.7V DC)	Rated audio output <sup>*10</sup> : 130mA typ. (at 3.0V DC)
General	Battery pack or cells	-	-	BP-206, $3 \times LR6$ (AA) alkaline cells	BP-244 or, $3 \times LR6$ (AA) alkaline cells with BP-262	$2 \times R6$ (AA) size Ni-MH or alkaline cells
g	Power supply requirement	12.0V DC ±15%	12.0V DC ±15%	6.0V DC (with BC-153 or CP-18A/E)	6.0V DC (with BC-153 or CP-18A/E)	4.5V DC (with BC-196SA/SD or CP-18A/E)
	Antenna connector	BNC × 2 (50Ω)	BNC (50Ω)	BNC (50Ω)	SMA (50Ω)	SMA (50Ω)
	Number of memory channels	Controller operation: 1000 PC operation: Unlimited (2600 channels/file)	Controller operation: 1000 PC operation: Unlimited (2600 channels/file)	1000 memory channels, 200 auto write memory channels, and 50 scan edges	1600 memory channels, 200 auto write memory channels, and 25 scan edges	1300 memory channels, 200 auto write memory channels and 50 scan edges
	Dimensions (WxHxD; Projections are not included)	Main unit: 146×41×206 mm; 5¾×15%×8½ in Controller: 140×50×27.5 mm; 5½×1¾2×1¾2 in	Main unit: 146×41×206 mm; 5¾×15%×8½ in Controller: 111×40×26.5 mm; 4¾×1%16×1⅓2 in	60×142×34.8 mm; 2³⁄8×5 <sup>19</sup> ⁄32×1³⁄8 in	57×128×23 mm; 2¹/4×5¹⁄32× <sup>29</sup> ⁄32 in	58×86×29.8 mm; 2 <sup>9</sup> ⁄32×33⁄8×13⁄16 in
	Weight (approx.)	Main unit: 1.35kg; 3lb Controller: 250g; 8.8oz	Main unit: 1.2kg; 2.6lb Controller: 200g; 7oz	320g; 11.3oz (With antenna and BP-206)	200g; 7.1oz (With antenna and BP-244)	200g; 7.1oz (With antenna and battery cells)
Receiver	Sensitivity (less than, except spurious points)	FM (12dB SINAD):           28-49.999MHz         0.63μV           50-699.999MHz         0.5μV           700-1300.000MHz         0.63μV           1300-2299.999MHz         5.6μV           2300-3000.000MHz         18μV           WFM (12dB SINAD):         50-699.999MHz         1.4μV           700-1300.000MHz         1.8μV           1300-2299.999MHz         1.4μV           700-1300.000MHz         1.8μV           1300-2299.999MHz         1.8μV           1300-2299.999MHz         1.8μV           1300-2299.999MHz         1.8μV           1300-2299.999MHz         1.8μV           1300-2299.999MHz         1.8μV           1300-2299.999MHz         2.5μV           1.40         5.00000MHz         2.5μV           50-699.999MHz         2.5μV           50-699.999MHz         2.5μV           SSB, CW (10dB S/N):         0.495-1.799MHz         5.0μV           0.495-1.799MHz         5.0μV           1.8-49.999MHz         5.0μV           0.495-1.799MHz         5.0μV           50-699.999MHz         0.5μV           50-699.999MHz         0.5μV           50-699.999MHz         0.5μV           50-699.999MHz <th>FM (12dB SINAD) :           28-49.999MHz         0.63μV           50-699.999MHz         0.5μV           700-1300.000MHz         0.63μV           1300-2299.999MHz         5.6μV           2300-3000.000MHz         18μV           WFM (12dB SINAD):         50-699.999MHz         1.4μV           700-1300.000MHz         1.8μV           700-1300.000MHz         1.8μV           1300-2299.999MHz         1.4μV           1300-2299.999MHz         1.8μV           2300-3000.000MHz         56μV           AM (10dB S/N):         0.495-1.799MHz         25μV           1.8-49.999MHz         2.5μV         50-699.999MHz         2.0μV           700-1300MHz         2.5μV         SSB, CW (10dB S/N):         0.495-1.799MHz         5.0μV           0.495-1.799MHz         2.0μV         700-1300MHz         0.5μV           50-699.999MHz         0.4μV         700/V         1.8-49.999MHz         0.5μV</th> <th>5.000-221.999MHz 0.4µV 330-832.999MHz 0.56µV 833-1304.999MHz 0.71µV 1330-2304.999MHz 5.6µV 2330-2999.999MHz 18µV WFM (at 12dB SINAD): 76-108.000MHz 1.8µV 175-221.999MHz 1.8µV 470-769.999MHz 2.5µV AM (at 10dB S/N): 0.495-4.999MHz 2.2µV 5.000-29.999MHz 1.4µV 118-135.999MHz 1.4µV</th> <th>5.000-246.995MHz 0.4µV 247-832.995MHz 0.56µV 833-1300.000MHz 0.79µV* (* USA version only 851-866.995MHz 1.26µV 896-1300.000MHz 0.79µV) WFM (at 12dB SINAD): 76-108.000MHz 1.8µV 470-770.000MHz 1.8µV 470-770.000MHz 2.5µV AM (at 10dB S/N with external antenna): 0.495-4.995MHz 2.5µV 5.000-29.995MHz 1.8µV 118-136.000MHz 1.8µV 222-246.995MHz 1.8µV 247-329.995MHz 1.8µV</th> <th>FM (typical at 12dB SINAD):           1.625-4.995MHz         0.32μV           5.000-29.995MHz         0.25μV           30–117.995MHz         0.18μV           118-246.995MHz         0.18μV           247-469.995MHz         0.18μV           247-469.995MHz         0.18μV           30-117.995MHz         0.18μV           247-469.995MHz         0.28μV           833-1029.995MHz         0.28μV           1030-1309.995MHz         0.28μV           1030-1309.995MHz         0.28μV           1030-1309.995MHz         0.32μV           WFM (typical at 12dB SINAD):         76-108.000MHz           76-108.000MHz         1.1μV           470-770.000MHz         1.8μV           AM (typical at 10dB S/N):         0.495-4.995MHz         0.39μV           0.495-4.995MHz         1.3μV         5.000-29.995MHz         0.89μV           118-136.000MHz         0.63μV         222-246.995MHz         0.63μV           247-329.995MHz         0.79μV         247-329.995MHz         0.79μV</th>	FM (12dB SINAD) :           28-49.999MHz         0.63μV           50-699.999MHz         0.5μV           700-1300.000MHz         0.63μV           1300-2299.999MHz         5.6μV           2300-3000.000MHz         18μV           WFM (12dB SINAD):         50-699.999MHz         1.4μV           700-1300.000MHz         1.8μV           700-1300.000MHz         1.8μV           1300-2299.999MHz         1.4μV           1300-2299.999MHz         1.8μV           2300-3000.000MHz         56μV           AM (10dB S/N):         0.495-1.799MHz         25μV           1.8-49.999MHz         2.5μV         50-699.999MHz         2.0μV           700-1300MHz         2.5μV         SSB, CW (10dB S/N):         0.495-1.799MHz         5.0μV           0.495-1.799MHz         2.0μV         700-1300MHz         0.5μV           50-699.999MHz         0.4μV         700/V         1.8-49.999MHz         0.5μV	5.000-221.999MHz 0.4µV 330-832.999MHz 0.56µV 833-1304.999MHz 0.71µV 1330-2304.999MHz 5.6µV 2330-2999.999MHz 18µV WFM (at 12dB SINAD): 76-108.000MHz 1.8µV 175-221.999MHz 1.8µV 470-769.999MHz 2.5µV AM (at 10dB S/N): 0.495-4.999MHz 2.2µV 5.000-29.999MHz 1.4µV 118-135.999MHz 1.4µV	5.000-246.995MHz 0.4µV 247-832.995MHz 0.56µV 833-1300.000MHz 0.79µV* (* USA version only 851-866.995MHz 1.26µV 896-1300.000MHz 0.79µV) WFM (at 12dB SINAD): 76-108.000MHz 1.8µV 470-770.000MHz 1.8µV 470-770.000MHz 2.5µV AM (at 10dB S/N with external antenna): 0.495-4.995MHz 2.5µV 5.000-29.995MHz 1.8µV 118-136.000MHz 1.8µV 222-246.995MHz 1.8µV 247-329.995MHz 1.8µV	FM (typical at 12dB SINAD):           1.625-4.995MHz         0.32μV           5.000-29.995MHz         0.25μV           30–117.995MHz         0.18μV           118-246.995MHz         0.18μV           247-469.995MHz         0.18μV           247-469.995MHz         0.18μV           30-117.995MHz         0.18μV           247-469.995MHz         0.28μV           833-1029.995MHz         0.28μV           1030-1309.995MHz         0.28μV           1030-1309.995MHz         0.28μV           1030-1309.995MHz         0.32μV           WFM (typical at 12dB SINAD):         76-108.000MHz           76-108.000MHz         1.1μV           470-770.000MHz         1.8μV           AM (typical at 10dB S/N):         0.495-4.995MHz         0.39μV           0.495-4.995MHz         1.3μV         5.000-29.995MHz         0.89μV           118-136.000MHz         0.63μV         222-246.995MHz         0.63μV           247-329.995MHz         0.79μV         247-329.995MHz         0.79μV
	Selectivity	SSB, CW, AM: 2.8kHz/-6dB AM, FM, SSB, CW: 6.0kHz/-6dB AM, FM: 15kHz/-6dB AM, FM, WFM: 50kHz/-6dB WFM: 230kHz/-6dB	SSB, CW, AM: 2.8kHz/-6dB AM, FM, SSB, CW: 6.0kHz/-6dB AM, FM: 15kHz/-6dB AM, FM, WFM:50kHz/-6dB WFM: 230kHz/-6dB	AM, FM: 12kHz/–6dB 30kHz/–60dB	AM, FM: 15kHz/–9dB 30kHz/–60dB WFM: 150kHz/–6dB	AM, FM: 12kHz/–9dB 30kHz/–60dB WFM: 150kHz/–6dB
	AF power (at 10% distortion)	500mW with an $8\Omega$ load	500mW with an $8\Omega$ load	100mW typ. with an $8\Omega$ load	$60mW$ with an $8\Omega$ load	$\begin{array}{l} 150mW \text{ with a } 16\Omega \text{ load (Int. SP)} \\ 80mW \text{ typ. with an } 8\Omega \text{ load (Ext. SP)} \end{array}$
	External speaker connector	2-conductor 3.5 (d) mm ( <sup>1</sup> / <sub>8</sub> ″)/8Ω	2-conductor 3.5 (d) mm ( <sup>1</sup> / <sub>8</sub> ″')/8Ω	2-conductor 3.5 (d) mm ( <sup>1</sup> / <sub>8</sub> ″)/8Ω	2-conductor 3.5 (d) mm (1⁄8″)/8Ω	2-conductor 3.5 (d) mm (½″)/8Ω

\*<sup>1</sup> USA version : 0.01–809.999, 851–866.999, 896–1300, 1300.000001–1810.999, 1852–1867.999, 1897–2305.899, 2357–2811.999, 2853–2868.999, 2898–3109.799, 3136–3154.799, 3181–3299.999MHz.

\*<sup>2</sup> USA version : 0.150–821.999, 851–866.999, 896–1304.999, 1305–3304.999MHz. \*<sup>3</sup> USA version : 0.150–821.995, 851–866.995, 896–1300MHz. \*<sup>4</sup> USA version : 0.100–821.995, 851–866.995, 896–1309.995MHz. \*<sup>5</sup> 0.495–1300MHz only. \*<sup>6</sup> With optional UT-118 \*<sup>7</sup> With optional UT-122 \*<sup>8</sup> Single receive mode, IC recorder OFF \*<sup>9</sup> Backlight OFF. \*<sup>10</sup> External SP, backlight OFF.

\* 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.

\* The IC-R2500 and IC-R1500 have stand-by power consumption that will drain the vehicle battery over a period of time.

Please turn off the main unit power switch when not using the receiver while installed in a vehicle.

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

# **FUNCTIONS COMPARISON CHART**

	IC-R9500	IC-R8500	IC-R75	IC-R2500	IC-R1500	IC-R20	IC-RX7	IC-R6
Frequency coverage*1 Low band edge	5kHz	100kHz	30kHz	10kHz	10kHz	150kHz	150kHz	100kHz
HF	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	V	V	V	<ul> <li>✓</li> </ul>	~
50MHz	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	V	V	<ul> <li>✓</li> </ul>	<i>v</i>	<ul> <li>✓</li> </ul>	~
144MHz	V	V	-	~	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	V	~
430/440MHz	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	-	<i>v</i>	v	V	<ul> <li>✓</li> </ul>	~
800MHz*1	<ul> <li>✓</li> </ul>	V	-	~	<b>v</b>	V	<ul> <li>✓</li> </ul>	~
1200MHz		<ul> <li>✓</li> </ul>	-	<ul> <li>✓</li> </ul>	V	V	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>
2400MHz	<ul> <li>✓</li> </ul>	-	-	V	V	V	-	-
High band edge	3335.000MHz	1999.999MHz	60.000MHz	3299.999MHz	3299.999MHz	3304.999MHz	1300.000MHz	1309.995MHz
FM, AM, WFM	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<ul> <li>✓</li> </ul>	<b>v</b>	v	<ul> <li>✓</li> </ul>	~
SSB, CW	V	V	V	V	<b>v</b>	<ul> <li>✓</li> </ul>	-	-
S-AM	<ul> <li>✓</li> </ul>	-	-	-	-	-	-	_
P25	🖌 (With UT-122)	-	-	✔ (With UT-122)	-	-	-	-
D-STAR DV	-	-	-	✓ (With UT-118)	-	-	-	-
TV (Image)	✔*3	-	-	-	-	-	-	-
Memory channels	1220	1021	101	1000 (with controller)*4	1000 (with controller)*4	1250	1825	1550
Memory banks	13	20	-	21 (with controller)*4	21 (with controller)*4	26	226* <sup>5</sup>	22
10-key pad	<b>v</b>	<ul> <li>✓</li> </ul>	~	✓ (With PC)	✓ (With PC)	<b>v</b>	~	_
Pass band tuning	v .	IF shift	V	IF shift (With PC)	IF shift (With PC)	-	-	-
Minimum tuning step	1Hz	10Hz	1Hz	1Hz (With PC)*6	1Hz (With PC)*6	10Hz	5kHz	5kHz
8.33 tuning step	-	-	-	<b>v</b>	<b>v</b>	V	<ul> <li>V</li> </ul>	<ul> <li>✓</li> </ul>
Dualwatch	_	_	_	~	_	V	_	_
Band scope	~	✔ (With RS-R8500)	✔ (With RS-R75)	✓ (With PC)	✓ (With PC)	~	_	_
Recorder	~	-	-	✓ (With PC)	✓ (With PC)	· ·	-	_
PC control software	_	RS-R8500	RS-R75	✓* <sup>7</sup>	✓ (····································	-	-	-
PC cloning	_	-	-	✔* <sup>7</sup>	<b>√</b> * <sup>7</sup>	CS-R20*7	CS-RX7*7	CS-R6*7
USB connector	V	-	-	V	×	V	-	_
<b>CI-V</b> connection	CT-17	CT-17	CT-17	_	_	CT-17	CT-17	CT-17
Auto frequency control	v	×	_	~	<i></i>	v	_	_
Auto notch	~	-	✓ (With UT-106)	(With UT-106)	(With UT-106)	_	_	_
Noise blanker	~	- -				~	_	_
Noise reduction	~	-	✔ (With UT-106)	✔ (With UT-106)	✔ (With UT-106)	_	-	_
Voice squelch control	~	×	-			~	~	×
DSP	✔ (IF DSP)	-	UT-106	UT-106	UT-106	-	-	-
DTMF decoder	( )	_	_	✔ (With PC)*8	✔ (With PC)	_		
Optional filter	(DSP filter)	-	-			_	_	_
Tone squelch		-	-	~	~	~	~	~
DTCS squelch	~	_	_	~	<i>v</i>	<i>v</i>	~	~
Weather alert	-	-	-	~	~	v	~	~
Diversity antenna	_			~		_		
AM bar antenna	_	_	_	-	-	-	~	-
FM earphone antenna	-	-	-	_	_	~	~	~
•				00.1/	00.1/	· · · · · · · · · · · · · · · · · · ·	-	•
Scan speed (Max.)*2	50 ch/sec.	40 ch/sec.	20 ch/sec.	60 ch/sec.	60 ch/sec.	100 ch/sec.	100 ch/sec.	100 ch/sec.

\*1 Frequency range shows working range. Some frequency ranges are not guaranteed. Cellular bands are blocked in the USA version. \*2 Scan speed differs depending on operating conditions.

\*<sup>3</sup> Depending on version. \*<sup>4</sup> 2600 channels per file, 26 banks, when used with a PC. \*<sup>5</sup> Up to 26 category, up to 100 group and up to 100 memory name. \*<sup>6</sup> 10Hz, when used with the controller.

\*7 Windows® 7 compatible. \*8 UT-108 is required for sub-band.

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