

 ICOM

HF+50 MHz ALL MODE COMMUNICATIONS RECEIVER

# IC-R75



Icom Inc.



# WIDE FREQUENCY COVERAGE AND

## Expanded frequency coverage

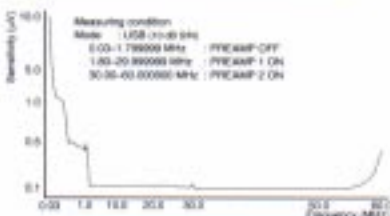
The IC-R75 covers a frequency range that's wider than other HF receivers; 0.03–60.000000 MHz\*. This wide frequency coverage allows you to listen to a variety of communications including marine communications, amateur radio, short wave radio broadcasts and more.

\*Guaranteed 0.1–29.99 MHz and 50–54 MHz only

## High stability receiver circuit

Icom's latest wide band technology provides highly stable receive sensitivity over the entire receive frequency range. The IC-R75 makes it easy to catch communications world wide.

### • Receive sensitivity characteristics example



## Superior dynamic range

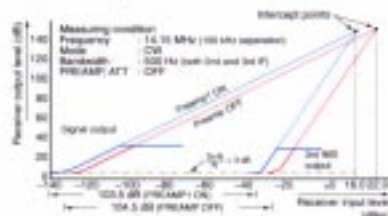
A wide dynamic range of more than 100 dB\*, 104.5 dB\*\* for 14 MHz band, 102.5 dB\*\* for 50 MHz band, and a well-designed triple conversion system help min-

imize image and spurious responses for better signal fidelity.

\*\* Not guaranteed.

\*\* Not guaranteed; When PREAMP OFF; CW narrow 500 Hz bandwidth; 100 kHz channel spacing

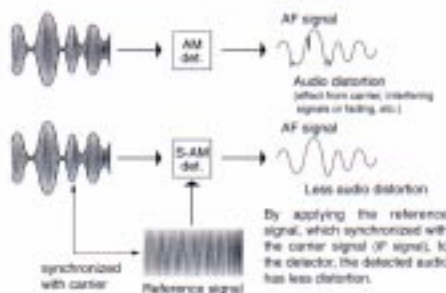
### • Dynamic range characteristics example



## Synchronous AM detection

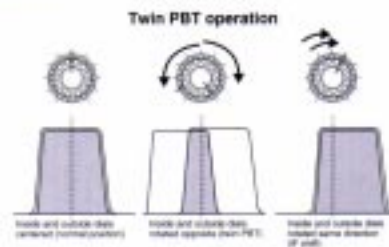
Synchronous AM detection (or S-AM) prevents audio distortion while receiving AM broadcasts, etc. This provides high quality AM receive as an additional mode.

### • Difference between AM and S-AM detection



## Twin PBT capability

The PBT (passband tuning) function narrows and moves the IF passband at two stages to efficiently eliminate interfering signals.



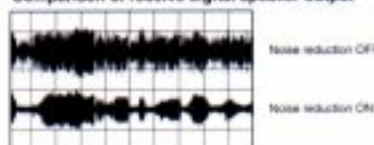
## DSP capabilities

DSP (Digital Signal Processor) filtering in the AF stage is available with the optional UT-106 DSP UNIT. The DSP provides the following functions:

### Noise reduction:

Pulls desired AF signals from noise. Outstanding S/N ratio is achieved, providing clean audio in SSB, AM and FM. Pull weak signals right out of the noise.

### Comparison of receive signal speaker output





## SPECIFICATIONS

## GENERAL

- Frequency coverage : 0.03-60.000000 MHz\*  
\*0.03-29.999999 MHz only for Asia version; specifications guaranteed 0.1-29.99 MHz and 50-54 MHz only
- Mode : USB, LSB, CW, RTTY, AM, S-AM, FM
- Number of memory channels : 101 (99 regular, 2 scan edges)
- Frequency stability : Less than  $\pm 7$  ppm from 1 min. to 60 min. after power on. After that rate of stability less than  $\pm 1$  ppm/hr. at +25°C (+77°F). Temperature fluctuations 0°C to +50°C (+32°F to +122°F) less than  $\pm 5$  ppm.
- Power supply requirement : 13.8 V DC  $\pm 15\%$  (negative ground)
- Current drain (at 13.8 V DC) : Standby 0.9 A  
Max. audio 1.1 A
- Antenna connector : SO-239 (50  $\Omega$ ), push connection terminal (500  $\Omega$ )
- Dimensions : 241(W)  $\times$  94(H)  $\times$  229(D) mm  
9 $\frac{1}{2}$ (W)  $\times$  3 $\frac{1}{4}$ (H)  $\times$  9 $\frac{1}{2}$ (D) in
- Weight (approx.) : 3.0 kg; 6 lb 10 oz
- REMOTE connector : RS-232C D-sub 9-pin
- CI-V connector : 2-conductor 3.5 (d) mm ( $\frac{1}{4}$ )

## RECEIVER

- Receive system : Triple-conversion superheterodyne system
- Intermediate frequencies :

Mode	1st (kHz)	2nd (kHz)	3rd (kHz)
USB*/LSB*	69.0115	9.0115	455
CW*	69.0106	9.0106	455.9
RTTY*	69.0105	9.0105	456
AM*/S-AM	69.0100	9.0100	450
FM	69.0115	9.0115	450

\*May differ according to selected IF filter.

## • Sensitivity

Frequency range	SSB/CW/RTTY	AM/S-AM	FM
	10 dB S/N	10 dB S/N	12 dB SINAD
0.1-1.8 MHz**	2.0 $\mu$ V	5.6 $\mu$ V	—
1.8-28 MHz**	0.16 $\mu$ V	1.6 $\mu$ V	—
28-29.99 MHz**	0.16 $\mu$ V	1.6 $\mu$ V	0.22 $\mu$ V
50-54 MHz**	0.13 $\mu$ V	1.0 $\mu$ V	0.2 $\mu$ V

\*\*Preamp: OFF; \*Preamp 1: ON; \*\*Preamp 2: ON

- SQL sensitivity (threshold) : SSB, CW, RTTY : Less than 5.6  $\mu$ V \*\*  
FM : Less than 0.32  $\mu$ V \*\*  
\*\*Preamp 1: ON; \*\*preamp 2: ON
- Selectivity : SSB, CW, RTTY : More than 2.1 kHz/-6 dB  
Less than 4.0 kHz/-60 dB  
AM, S-AM : More than 6 kHz/-6 dB  
Less than 20 kHz/-50 dB  
FM : More than 12 kHz/-6 dB  
Less than 30 kHz/-40 dB
- Spurious and image rejection ratio : More than 70 dB (except IF through 50 MHz band)
- Audio output power : More than 2.0 W at 10% distortion with an 8  $\Omega$  load (at 13.8 V DC)
- PHONES connector : 3-conductor 6.35 (d) mm ( $\frac{1}{4}$ )
- External SP connector : 2-conductor 3.5 (d) mm ( $\frac{1}{4}$ )/8  $\Omega$

## Supplied accessories:

- AC adapter or DC power cable (depending on version)
- Spare fuse

All stated specifications are typical and subject to change without notice or obligations.

## OPTIONS



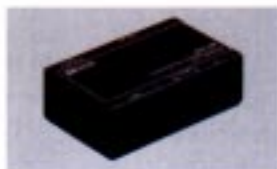
**CR-282 HIGH STABILITY CRYSTAL UNIT**  
Contains a temperature-compensating oven heater and crystal unit for improved frequency stability. Frequency stability:  $\pm 0.5$  ppm



**UT-102 VOICE SYNTHESIZER**  
Announces the operating mode, frequency, signal strength level and the time.



**UT-106 DSP UNIT**  
Provides AF DSP functions such as noise reduction and auto notch.



**CT-17 CI-V LEVEL CONVERTER**  
For remote receiver control using a PC equipped with an RS-232C port.

## RS-R75 REMOTE CONTROL SOFTWARE

- Supplied items:**
- Application CD-ROM
  - RS-232C serial interface cable

Allows you to control the receiver from your PC (for Microsoft® Windows® 95 or Windows® 98). Microsoft and Windows are registered trademarks of Microsoft Corporation.



9 MHz filters

- FL-100 CW/RTTY narrow; 500 Hz/-6 dB
- FL-101 CW narrow; 250 Hz/-6 dB
- FL-103 SSB wide; 2.8 kHz/-6 dB
- FL-223 SSB narrow; 1.9 kHz/-6 dB
- FL-232 CW/RTTY narrow; 350 Hz/-6 dB



455 kHz filters

- FL-52A CW/RTTY narrow; 500 Hz/-6 dB
- FL-53A CW narrow; 250 Hz/-6 dB
- FL-96 SSB wide; 2.8 kHz/-6 dB
- FL-222 SSB narrow; 1.8 kHz/-6 dB
- FL-257 SSB wide; 3.3 kHz/-6 dB

**IC-MB5 MOBILE BRACKET**  
Communications receiver bracket for mobile operation.

**MB-23 CARRYING HANDLE**  
For easy portable operation.

**AD-55A/V AC DAPTER**  
Allows you to power the receiver via domestic AC.

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Count on us!

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Certificate Number 014190

Icom Inc. (Japan), is an ISO9001 certification acquired company.

Your local distributor/dealer: