



VHF AIR BAND TRANSCEIVERS

# IC-A110 IC-A110EURO

Rugged  
MIL-STD 810



## ***Rugged and reliable for serious ground crew communications***

*Setting a new standard for ground based communications, the IC-A110 /EURO provide durability and reliability in demanding operational environments.*

### ● **Capable of being installed in any vehicle**

IC-A110/EURO are adaptable to vehicles working on a 12 V, as well as a 24 V power source.

### ● **Front mounted loud speaker**

A loud speaker mounted in the front of the transceiver is free of any obstacles blocking audio reproduction. And 10 W, of powerful output power is available for the external speaker.

### ● **Dial selection**

With a simple rotation of the dial, frequently used memory channels, or desired frequency selection can be made.

### ● **Memory channel name capability**

Up to 7-character memory names can be assigned for each channel. Allows simple and quick channel recognition and selection.

### ● **Side tone function**

Operator's transmitted messages and calls are audio modulated and can be heard by standard airband headsets\*, even in the most demanding operating airport conditions.

\*Option OPC-871 is necessary when using standard type headset.

### ● **Convenient on hook scan functions**

Hanging the microphone on the mic. hanger activates the auto scan function. When released, the transceiver will return to the last used, or priority channel, depending on the selection.

### ● **Usable in extreme cold**

The adopted LCD guaranteed usable in temperatures from -30°C to +70°C (-22°F to +158°F). Normal performance, as well as display indications, are guaranteed even in extremely cold areas.

## ADDITIONAL FEATURES

- Additional to the predominantly used 25 kHz channel spacing, an extra version complying to new regulations is available for 8.33 kHz channel spacing
- Equipped EEPROM system provides maintenance free memory backup capability, without the use of a separate backup battery
- Various scan functions, such as VFO and priority scans are available
- Limited number of keys for simple manipulation, but providing advanced multi-functions

- A total of 99 memory channels are available
- Ideal compact size of 150(W)×50(H)×180(D) mm\* to mount in various types of vehicles  
\*5.91(W)×1.97(H)×7.09(D) in
- 36 W (pep) of powerful output
- Excellent durability to cope with even the toughest workplace
- Memory channel only operation possible via PC programming
- Hand microphone supplied

## SPECIFICATIONS

### GENERAL

- Frequency range : 118.000–136.975 MHz
- Channel spacing : 8.33/25 kHz auto selection  
(according to version)
- Mode : 6K00A3E/5K6A3E (AM)
- No. of memory Ch. : 99
- Antenna connector : SO-239 (50 Ω)
- Power supply requirement:  
(negative ground) : 13.75 V DC or 27.5 V DC  
automatic selection
- Current drain (at 13.75 V DC):  
Transmitting : 5.0 A max.  
Receiving : 4.0 A (at AF max.)  
0.5 A (at stand-by)
- Operating temperature range:  
IC-A110 : –30°C to +60°C  
; –22°F to +140°F  
IC-A110EURO : –20°C to +55°C
- Frequency stability :  
IC-A110 : ±5 ppm (–30°C to +60°C)  
IC-A110EURO : ±1 ppm (0°C to +40°C)
- Dimensions : 150(W)×50(H)×180(D) mm  
(projections not incl.) : 5.91(W)×1.97(H)×7.09(D) in
- Weight (approx.) : 1.5 kg; 3.31 lb

Measurements made in accordance with RTCA D0-186a (Class C/E, Class 4/6) or EN 300 676. All stated specifications are and subject to change without notice or obligation.

\*These specification items are not available for the IC-A110 due to approval test specifications.

Type approval for the IC-A110/EURO varies between countries. Ask your dealer for availability.

### TRANSMITTER

- Output power : 36 W typ. pep (9 W typ. for CW)
- Modulation limiting : 70–100% (IC-A110)
- Modulation compression\*: Linear : 85%  
Max. : 95%
- AF harmonic distortion : Less than 10% (at 85% mod.)
- Hum and Noise ratio : More than 40 dB
- Spurious emissions :  
IC-A110 : Less than –16 dBm  
IC-A110EURO : Less than –46 dBm  
9 kHz to 1 GHz : Less than –40 dBm  
(Less than –30 dBm for harmonics in 30 MHz to 1 GHz range)  
1–4 GHz : Less than –40 dBm  
(Less than –30 dBm for harmonics)
- Adjacent Ch. power\* : Less than 60 dB (25 kHz)  
Less than 50 dB (8.33 kHz)
- Microphone connector : 8-pin modular (600 Ω)

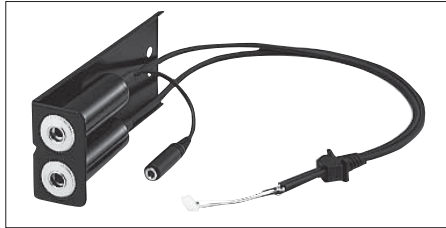
### RECEIVER

- Receiving system : Double conversion super-heterodyne
- Intermediate frequency : 1st : 38.85 MHz  
2nd : 450 kHz
- Sensitivity (pd) :  
IC-A110 : Less than 1 μV (at 6 dB S/N)  
IC-A110EURO : Less than +5 dBμV  
(at 12 dB SINAD)
- Squelch sensitivity (pd; at threshold):  
IC-A110 : Less than 0.3 μV  
IC-A110EURO : Less than –6 dBμV
- Selectivity :  
25 kHz Ch. spacing : More than ±8 kHz (at –6dB)  
Less than ±17 kHz (at –40dB)  
Less than ±25 kHz (at –60dB)  
8.33 kHz Ch. spacing : More than ±2.778 kHz (at –6dB)  
Less than ±7.37 kHz (at –60dB)
- Spurious response : More than 74 dBμ (IC-A110)  
More than 70 dB (IC-A110EURO)
- Intermodulation rejection ratio\*:  
More than 64 dB
- Blocking/desensitisation\*: More than 70 dB
- Cross modulation rejection\*:  
More than 70 dB
- Audio output power (at 13.75 V; 10% dist.; 60% mod.):  
Internal speaker : 1.5 W typical w/8 Ω load  
External speaker : More than 10.0 W w/8 Ω load  
Headset (side tone) : More than 0.1 W w/500 Ω load
- AF output impedance : EXT SP : 8 Ω  
Headset (side tone) : 500 Ω

### Supplied Accessories

- Hand microphone, HM-161
- DC power cable
- Mounting bracket kit
- Microphone hanger kit
- Fuses

## OPTION



**OPC-871 HEADSET ADAPTER**  
For connection with standard airband headset.



**HM-161 HAND MICROPHONE**  
Same as supplied.

### Applicable U.S. Military Specifications

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 E	
	Method	Procedure
Low Pressure	500.3	I, II
High Temperature	501.3	I, II
Low Temperature	502.3	I, II
Temperature Shock	503.3	I
Solar Radiation	505.3	I
Rain	506.3	I, II
Humidity	507.3	II, III
Salt Fog	509.3	I
Dust	510.3	I
Vibration	514.4	I
Shock	516.4	I, IV

Also meets equivalent MIL-STD-810-C and -D.

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