

# 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  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  ( $-22^{\circ}\text{F}$  to  $+158^{\circ}\text{F}$ ). 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 20 memory channels are available
- Ideal compact size of 150(W)×50(H)×180(D) mm\* to mount in various types of vehicles  
\*5<sup>29</sup>/<sub>32</sub>(W)×1<sup>31</sup>/<sub>32</sub>(H)×7<sup>3</sup>/<sub>32</sub>(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) or 25 kHz only
- Mode : 6K00A3E (AM)
- No. of memory Ch. : 20
- 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<sup>29</sup>/<sub>32</sub>(W)×1<sup>31</sup>/<sub>32</sub>(H)×7<sup>3</sup>/<sub>32</sub>(D) in
- Weight (approx.) : 1.5 kg; 3 lb 5 oz

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 (Less than -36 dBm for harmonics in 30 MHz to 1 GHz range)  
9 kHz to 1 GHz Less than -40 dBm (Less than -30 dBm for harmonics)  
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 freq. : 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 C		MIL 810 D		MIL 810 E	
	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	500.1	I	500.2	I, II	500.3	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I
Solar Radiation	505.1	I	505.2	I	505.3	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III
Salt Fog	509.1	I	509.2	I	509.3	I
Dust	510.1	I	510.2	I	510.3	I
Vibration	514.2	VIII, X	514.3	I	514.4	I
Shock	516.2	I, II, IV	516.3	I, IV	516.4	I, IV

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