

# 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 99 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/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<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 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.

**Icom Inc.**

1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

[www.icom.co.jp/world](http://www.icom.co.jp/world)

**Count on us!**

**Icom America Inc.**

2380 116th Avenue NE,  
Bellevue, WA 98004, U.S.A.  
Phone : +1 (425) 454-8155  
Fax : +1 (425) 454-1509  
E-mail : sales@icomamerica.com  
URL : http://www.icomamerica.com

**Icom New Zealand**

146A Harris Road, East Tamaki,  
Auckland, New Zealand  
Phone : +64 (09) 274 4062  
Fax : +64 (09) 274 4708  
E-mail : inquiries@icom.co.nz  
URL : http://www.icom.co.nz

**Icom (UK) Ltd.**

Blacksole House, Altira Park,  
Herne Bay, Kent, CT6 6GZ, U.K.  
Phone : +44 (01227) 741741  
Fax : +44 (01227) 741742  
E-mail : info@icomuk.co.uk  
URL : http://www.icomuk.co.uk

**Asia Icom Inc.**

6F No. 68, Sec. 1 Cheng-Teh Road,  
Taipei, Taiwan, R.O.C.  
Phone : +886 (02) 2559 1899  
Fax : +886 (02) 2559 1874  
E-mail : sales@asia-icom.com  
URL : http://www.asia-icom.com

Your local distributor/dealer:

**Icom Canada**

Glenwood Centre #150-6165 Highway 17,  
Delta, B.C., V4K 5B8, Canada  
Phone : +1 (604) 952-4266  
Fax : +1 (604) 952-0900  
E-mail : info@icomcanada.com  
URL : http://www.icomcanada.com

**Icom (Europe) GmbH**

Communication Equipment  
Auf der Krautweide 24  
65812 Bad Soden am Taunus, Germany  
Phone : +49 (6196) 76685-0  
Fax : +49 (6196) 76685-50  
E-mail : info@icom-europe.com  
URL : http://www.icomeurope.com

**Icom France s.a.s.**

Zac de la Plaine,  
1 Rue Brindejone des Moulinais, BP 45804,  
31505 Toulouse Cedex 5, France  
Phone : +33 (5) 61 36 03 03  
Fax : +33 (5) 61 36 03 00  
E-mail : icom@icom-france.com  
URL : http://www.icom-france.com

**Beijing Icom Ltd.**

10C07, Long Silver Mansion, No.88, Yong Ding  
Road, Haidian District, Beijing, 100039, China  
Phone : +86 (010) 5889 5391/5392/5393  
Fax : +86 (010) 5889 5395  
E-mail : bjicom@bjicom.com  
URL : http://www.bjicom.com

**Icom (Australia) Pty. Ltd.**

Unit 1 / 103 Garden Road,  
Clayton, VIC 3168 Australia  
Phone : +61 (03) 9549 7500  
Fax : +61 (03) 9549 7505  
E-mail : sales@icom.net.au  
URL : http://www.icom.net.au

**Icom Spain S.L.**

Ctra. Rubi, No. 88 "Edificio Can Castanyer"  
Bajos A 08174, Sant Cugat del Valles,  
Barcelona, Spain  
Phone : +34 (93) 590 26 70  
Fax : +34 (93) 589 04 46  
E-mail : icom@icomspain.com  
URL : http://www.icomspain.com

**Icom Polska**

81-850 Sopot, ul. 3 Maja 54, Poland  
Phone : +48 (58) 550 7135  
Fax : +48 (58) 551 0484  
E-mail : icompolska@icompolska.com.pl  
URL : http://www.icompolska.com.pl