



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.

Icom Inc.

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
*5²⁹/₃₂(W)×1³¹/₃₂(H)×7³/₃₂(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.)
5²⁹/₃₂(W)×1³¹/₃₂(H)×7³/₃₂(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 –60 dB (25 kHz)
Less than 50 dB (8.33 kHz)
- Adjacent Ch. power* : Less than 60 dB (25 kHz)
Less than 50 dB (8.33 kHz)
- Microphone connector : 8-pin modular (600 Ω)

Supplied Accessories

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

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

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.

OPTION



OPC-871 HEADSET ADAPTER

For connection with standard airband headset.



HM-161 HAND MICROPHONE

Same as supplied.

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