

  
ICOM

VHF AIR BAND TRANSCEIVER

IC-A220

TSO version

**TSO**  
APPROVED

Rugged  
MIL-STD 810



## High-Quality Panel Mount Radio with Clear Visibility OLED Screen

### High Visibility OLED Screen

The OLED (Organic Light Emitting Diode) emits light from itself, so a display backlight is not required. It provides higher contrast, wider viewing angle of almost 180 degrees and faster response time than a conventional LCD. The IC-A220's display has a wide active area, operating frequencies' characters can be maximized in the display, while operating status can be shown on both top and bottom of the display.



### Large Switch Buttons

The IC-A220 has large switch buttons on the front panel. The most frequently used FLIP-FLOP (Frequency exchange) switch button is designed large enough to be pushed with ease. All switch buttons and knobs are illuminated with pure-white backlighting which are the same color as the OLED display.

### TSO/ETSO Certification

The IC-A220 TSO version can be used as a primary VHF radio in general aviation (part 23) aircraft\*. The IC-A220 TSO version is also accepted as an ETSO radio under the TSO/ETSO reciprocal acceptance policy.

**Auto Squelch Function**

The squelch sensitivity is automatically adjusted in accordance with the noise level to eliminate annoying background noise and unwanted signals.

**Quick Squelch Adjustment**

The auto and manual squelch including squelch level can be quickly accessed with the Volume knob. The squelch test function temporarily opens the squelch and allows you to monitor signals.

**Auto Dimmer**

The auto dimmer function sets display and key backlighting brightness. The IC-A220's high sensitivity light sensor covers a wide illumination range.

**External Dimmer Control**

By connecting to an external dimmer control system on the aircraft, the IC-A220's dimmer function can be linked with the aircraft dimmer level. The external dimmer control can be used on either 13.8 V or 27.5 V electrical systems.

**Intercom Function**

The IC-A220 has a built-in voice activated intercom function allowing the pilot to talk with the copilot via the headset. The IC-A220 has adjustable audio level and squelch control functions.

**Memory Channels**

The IC-A220 has 20 memory channels and 20 history memory channels respectively. Often used memory channels can be instantly recalled. Group memory channels are organized into 10 memory channels by 5 groups (total 50 channels). Weather channel scanning function searches for weather channel signals.

\* For more details, please see the Environmental Qualification Form on [www.icomamerica.com](http://www.icomamerica.com). The IC-A220 TSO version is manufactured and serviced by Icom America Inc. All repairs or adjustment information will be provided from Icom America. (<http://www.icomamerica.com>)

**8.33 kHz Channel Spacing**

The IC-A220 allows switching between 8.33 kHz and 25 kHz frequency steps in the menu mode.

\* Use of 8.33 kHz channel spacing may be prohibited depending on country.

**Remote Control Capability**

You can remotely control the FLIP-FLOP (frequency exchange), intercom and recall switches via the rear panel connector.

**9 V Power Supply Operation**

As the TSO specifications require, the radio continues to work with the reduced power supply voltage.

**Configuration Menu**

To improve operability, menu items are divided into two modes, a settings menu and a configuration menu. Seldom-changed settings can be set in the configuration menu, while normal settings can be made in the settings menu.

**Other Features**

- Dualwatch and priority watch functions
- One touch access to 121.5 MHz emergency frequency
- Both 13.8 V and 27.5 V electrical systems compatible
- Side tone function for monitoring your voice with a headset
- ANL (Automatic noise limiter) function reduces pulse type noise
- D-SUB 25-pin connector and MIL-Spec M39029/63-368 compliant socket pins
- Slim 33 mm (1.3 inch) height can be installed in a limited panel space

**SPECIFICATIONS**

GENERAL		
Frequency coverage	Tx/Rx 8.33 kHz spacing	118.000-136.992 MHz
	25 kHz spacing	118.000-136.975 MHz
	Rx Weather channel	161.650-163.275 MHz
Frequency spacing		8.33 kHz/25 kHz
Mode		AM (6K00A3E, 5K60A3E)
Frequency stability		±5 ppm
Operating temperature		-20°C to +55°C; -4°F to +131°F
Antenna impedance		50 Ω
Number of memory channels		20 regular, 50 group memory, 20 history, 10 weather channels
Power supply requirement		13.8 V/27.5 V DC (Negative ground)
Dimensions (WxHxD, Projections not included)		160x34x271 mm; 6.3x1.34x10.67 in
Weight		1.2 kg; 2.65 lb ±10%
Certification		TSO-C128a, TSO-C169a
TRANSMITTER		
Output power		8 W (Carrier power)
Spurious emission		-60 dBc
Modulation limiting		70% (Maximum 98%)
Microphone impedance		600 Ω
RECEIVER		
Intermediate frequencies		38.85 MHz/450 kHz (1st/2nd)
Sensitivity AM (6 dB S/N)		Less than 2 μV
FM (12 dB SINAD)		Less than 1.4 μV
Selectivity 25 kHz spacing		±3 kHz±22 kHz (6 dB/60 dB)
8.33 kHz spacing		±2.778 kHz±7.37 kHz (6 dB/60 dB)
Spurious response		More than 74 dBμ
Audio output power		
External SP		5 W with a 4 Ω load
Headphone		60 mW with a 500 Ω load

Measurements made in accordance with RTCA DO-186B for USA version.

**Applicable U.S. Military Specifications**

Standard	MIL 810 G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I-C
Solar Radiation	505.5	I
Humidity	507.5	II
Vibration	514.6	I
Shock	516.6	I

Also meets equivalent MIL-STD-810-C, -D, -E and -F.

**Supplied Accessories**

- Mounting bracket kit

**REAR PANEL VIEW**



D-SUB 25-pin type connector

Icom, Icom Inc. and the Icom logo are registered trademarks of Icom Incorporated (Japan) in Japan, the United States, the United Kingdom, Germany, France, Spain, Russia, Australia, New Zealand, and/or other countries.

**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.**  
12421 Willows Road NE,  
Kirkland, WA 98034, U.S.A.  
Phone: +1 (425) 454-8155  
Fax: +1 (425) 454-1509  
E-mail: [sales@icomamerica.com](mailto:sales@icomamerica.com)  
URL: <http://www.icomamerica.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@icomeurope.com](mailto:info@icomeurope.com)  
URL: <http://www.icomeurope.com>

**Icom France s.a.s.**  
Zac de la Plaine,  
1 Rue Brindejonc 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](mailto:icom@icom-france.com)  
URL: <http://www.icom-france.com>

**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](mailto:sales@asia-icom.com)  
URL: <http://www.asia-icom.com>

Your local distributor/dealer:

**Icom Canada**  
Glenwood Centre #150-6165  
Highway 17A, Delta, B.C.,  
V4K 5B8, Canada  
Phone: +1 (604) 952-4266  
Fax: +1 (604) 952-0090  
E-mail: [info@icomcanada.com](mailto:info@icomcanada.com)  
URL: <http://www.icomcanada.com>

**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](mailto:icom@icomspain.com)  
URL: <http://www.icomspain.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](mailto:sales@icom.net.au)  
URL: <http://www.icom.net.au>

**Shanghai Icom Ltd.**  
No.101, Building 9, Caifuxingyuan Park,  
No.188 Maoting Road, Chedun Town,  
Songjiang District, Shanghai, 201611, China  
Phone: +86 (021) 6153 2768  
Fax: +86 (021) 5765 9987  
E-mail: [bjicom@bjicom.com](mailto:bjicom@bjicom.com)  
URL: <http://www.bjicom.com>

**Icom Brazil**  
Rua Itororó, 444 Padre Eustáquio  
Belo Horizonte MG,  
CEP: 30720-450, Brazil  
Phone: +55 (31) 3582 8847  
Fax: +55 (31) 3582 8987  
E-mail: [sales@icombrazil.com](mailto:sales@icombrazil.com)

**Icom (UK) Ltd.**  
Blacksloe House, Altira Park,  
Herne Bay, Kent, CT6 6GZ, U.K.  
Phone: +44 (0) 1227 741741  
Fax: +44 (0) 1227 741742  
E-mail: [info@icomuk.co.uk](mailto:info@icomuk.co.uk)  
URL: <http://www.icomuk.co.uk>

**Icom New Zealand**  
39C Rennie Drive, Airport Oaks,  
Auckland, New Zealand  
Phone: +64 (09) 274 4062  
Fax: +64 (09) 274 4708  
E-mail: [inquiries@icom.co.nz](mailto:inquiries@icom.co.nz)  
URL: <http://www.icom.co.nz>