

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.

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 25 kHz spacing	118.000–136.992 MHz 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

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