

Information regarding the Land Based Test Facility (“LBTF”)

Location:

1000 Access Road
Pascagoula, Mississippi

Lat : 30 21 05
Long: 88 34 42

Equipment:

ICOM IC-M402	25 Watts	See below
ICOM IC-A110	36 Watts	See below
ICOM IC-M710	150 Watts	See below

Harris R-2368/URR 500 Watts

CU-1772/SRA-56

RT-1107(V)/WSC-3(V) 100 Watts

RT-1272/GRC-171(V)

INMARSAT C

Antennas are OMNI or Dipole tuned to Shipyard standard frequencies.

Point of Contacts for Cease Radiation (Stop Buzzer):

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Sector Director, Test
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Superintendent, NSC Test
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ICOM IC-A110 LBTF

ICOM

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IC-A110
VHF Air Band Transceiver

features | specifications | options

Specifications

General

Frequency range	: 118.000 - 136.975 MHz
Channel spacing (according to version)	: 8.33/25 kHz auto selection or 25 kHz only
Mode	: 6K02A3E (AM)
No. of memory Ch.	: 20
Antenna connector	: SO-239 (50Ω)
Power supply requirement (negative ground)	: 13.75 V DC or 27.5 V DC automatic selection
Current drain (at 13.75 V DC)	: Transmitting : 5.0A max. Receiving : 4.0A (at AF max.) : 0.5A (at stand-by)
Operating temperature range	: -30°C to +60°C; : -22°F to +140°F
Frequency stability	: ±5 ppm (-30°C to +60°C)
Dimensions (projections not incl.)	: 150(W) × 50(H) × 180(D) mm : 6 ³⁰ / ₃₂ (W) × 1 ³¹ / ₃₂ (H) × 7 ¹ / ₈ (D) in
Weight (approx.)	: 1.5 kg; 3 lb 5 oz

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 max. mod.)
Hum and Noise ratio	: More than 40 dB
Spurious emissions	: Less than -95 dBm
Adjacent Ch. power*	: Less than 60 dB (25 kHz) Less than 50 dB (8.33 kHz)
Microphone connector	: 8-pin modular (600Ω)

Receiver

Receiving system	: Double conversion superheterodyne
Intermediate freq.	: 1st : 38.95 MHz 2nd : 450 kHz
Sensitivity (pd)	: Less than 1 μV (at 6 dB S/N)
Squelch sensitivity (pd, at threshold)	: Less than 0.3 μV
Selectivity	:

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Request for Special Temporary Authority
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25 kHz Ch. Spacing	More than ± 8 kHz (at -6 dB) Less than ± 17 kHz (at -60 dB) Less than ± 25 kHz (at -80 dB)
6.33 kHz Ch. Spacing	More than ± 2.775 kHz (at -6 dB) Less than ± 7.37 kHz (at -60 dB)
Spurious response	More than 74 dBu
Intermodulation rejection ratio*	More than 64 dB
Blocking/desensitization*	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/80 load
External Speaker	More than 10.0 W w/80 load
Headset (side tone)	More than 0.1 W w/800 load
AF output impedance	
EXT SP	60
Headset (side tone)	5000

*These specification items are not available for the IC-A110 due to approval test specifications.

Applicable U.S. Military Specifications

Icom makes rugged products that meet MIL-STD requirements and strict environmental standards as follows:

Standard	MIL 810C		MIL 810D		MIL 810E	
	Method	Procedure	Method	Procedure	Method	Procedure
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, V	516.3	I, IV	516.4	I, IV

Measurements made in accordance with RTCA D0-186a (Class C/E, Class 4/S) or EN 300 676. All stated specifications are and subject to change without notice or obligation.

Type approval for the IC-A110 varies between countries. Ask your dealer for details.

Supplied Accessories

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

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Icom IC-M402

LBTF

SPECIFICATIONS

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■ Specifications

◆ General

- Frequency coverage :
 - Transmit 156.025–157.425 MHz
 - Receive 156.050–163.275 MHz
- Mode : FM (16K0G3E)
DSC(16K0G2B)
- Channel spacing : 25 kHz
- Current drain (at 13.8 V) : Tx 6.0 A (at 25 W output).
Rx 1.2 A (at AF max.)
- Power supply requirement : 13.8 V DC $\pm 15\%$
- Operating temperature range : -20°C to $+60^{\circ}\text{C}$; -4°F to $+140^{\circ}\text{F}$
- Dimensions : 153(W) $\times$ 67(H) $\times$ 141.6(D) mm
(Projection not included) 6 $\frac{1}{32}$ (W) $\times$ 2 $\frac{9}{16}$ (H) $\times$ 5 $\frac{9}{16}$ (D) in
- Weight : 900 g ; 2 lb

◆ Transmitter

- Output power : High 25 W
Low 1 W
- Modulation system : Variable reactance frequency modulation
- Max. frequency deviation : ± 5.0 kHz
- Spurious emissions : Less than -70 dB

◆ Receiver

- Receive system : Double conversion superheterodyne
- Sensitivity (12 dB SINAD) : 0.25 μV
- Squelch sensitivity : 0.20 μV (typical)
- Intermodulation rejection ratio : 70 dB
- Spurious response rejection ratio : 70 dB
- Adjacent channel selectivity : 70 dB
- Audio output power : 4.5W (typical) at 10% distortion with a 4 Ω load
- GPS interface : NMEA0183 ver.2.0

All stated specifications are subject to change without notice or obligation.

HF ICOM IC-M710 LBTJ

SPECIFICATIONS AND OPTIONS

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Specifications

General

- Frequency coverage

Receive	500 kHz – 29,999 MHz
Transmit	1.8 – 29,999 MHz, 4.0 – 4,9999 MHz 4.0 – 9,9999 MHz, 8.0 – 9,9999 MHz 12.0 – 13,9999 MHz, 18.0 – 17,9999 MHz 18.0 – 19,9999 MHz, 22.0 – 23,9999 MHz 25.0 – 27,5000 MHz
- Mode

J2B (USB), J2C, J2B/APSK, F1B (FSK), F3E, A1A (CW)

 (available modes differ depending on version)
- Number of channels

1120 channels (max.)

 (100 (user programmable)
340 (ITU R5B duplex), 72 (ITU R5B simplex)
680 (ITU R5K duplex))
- Antenna impedance

50 Ω nominal

- Usable temperature range

-30 to +55°C (-22 to +130°F)

- Frequency stability

± 10 Hz (-30 to +55°C; -22 to +130°F) (± 20 Hz above 18 MHz for General and Marine versions)

- Power supply requirement

13.6 V DC $\pm 15\%$ (negative and floating grounds are available de- pending on version)

- Current drain

Transmit (max. output power): 30 A Receive (max. audio output): 2.5 A (negative ground type) 3 A (floating ground type)

- Dimensions

281.4(W) x 118.4(H) x 31.5(D) mm 11.3(W) x 4.4(H) x 1.25(D) in (projections not included)

- Weight

7.8 kg; 17.4 lb (negative ground type) 8.1 kg; 17.9 lb (floating ground type)
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Transmitter

- Output power

U.S.A. versions	150, 60, 20 W r.e.r. (selectable) (60, 20 W only for 25 MHz band)
Europe versions	150, 60 W r.e.r. (selectable) (60 W only for 25 MHz band)
GMDSS versions*	120 W r.e.r. (60 W r.e.r. for MF and 25 MHz bands)
 - Spurious emissions

-65 dB (U.S.A. versions)
-60 dB (Europe versions)
 - Carrier suppression

-40 dB

 - Unwanted sideband suppression

-55 dB

 - Microphone impedance

600 Ω

- * This output power of GMDSS version is provided for output power from the AT-1305C antenna tuner.

Receiver

- Sensitivity

J2E, F3E, J2B, F1B, A1A (for 12 dB SINAD):	0.5 μ V (1.8 – 29,999 MHz) 1.0 μ V (1.8 – 1,7000 MHz) 5.0 μ V (0.5 – 1,5000 MHz)
H3E (w/af AGC)	3.2 μ V (1.8 – 29,999 MHz) 6.3 μ V (1.8 – 1,7000 MHz) 32 μ V (0.5 – 1,5000 MHz)
- Spurious response rejection

-70 dB (1.8 – 29,9999 MHz)

- Audio output power

-4.5 W (at 10% distortion with a 4 Ω load)

- Audio impedance

-4 to 8 Ω

- Clarity variable range

-4150 Hz

All stated specifications are subject to change without notice or obligation.

Options



6 channel emergency scanning receiver that contains the remote control capability of the IC-M710 GMDSS for distress calls, selective calls, etc. Distress switch-box attached.



Matches the transceiver to a long wire antenna with a minimum of insertion loss.



Match the transceiver to a long wire antenna without applying DC power.
Antenna wire attached to the matchers:
MN-100 : 8 m x 2
MN-100L : 15 m x 1



Provides better audio reception during offshore conditions and comes in handy for listening privacy on board.



Provides 13.6 V DC (30 A) output from an AC outlet.



Provides 13.6 V DC (30 A) output from a 10.5-18 V (PS-85), 19-32 V (PS-66) DC power source.



Allows better receiver selectivity for CW and FSK.
(bandwidth: 500 Hz-6 dB)
GMDSS versions already have an improved narrow filter.



Provides an alarm transmission for emergency use during maritime operation. Built-in to marine and GMDSS versions.