

ICOM

HF/VHF/UHF ALL MODE TRANSCEIVER

IC-706MKIIIG



160m-70cm

HF+6m+2m+70cm



The amazing evolution of the '706' series...

Icom Inc.

THE AMAZING EVOLUTION OF THE '706' SERIES...

IC-706



This ground-breaking transceiver offered mobile-sized compactness—including a detachable front panel, with base station class performance and features. And all mode operation from the HF bands to VHF.



IC-706MKII

The IC-706MKII incorporated all of the wizardry of the IC-706 with refined features and user-friendliness, as well as enhanced performance.



The IC-706MKIIG carries on the '706' series tradition of base station performance and features in a mobile rig-sized package. Building on this legacy, frequency coverage is expanded to the 70 cm band and output power is increased for the 2 m band. A long list of enhancements, both to usability and performance, as well as added features and functions have produced the latest in the evolution of the '706' series.



160m-70cm

HF/VHF/UHF ALL MODE TRANSCEIVER

IC-706MKIIG

HF

6m

2m

70cm

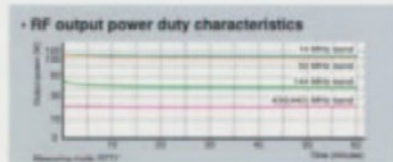


HF to 70 cm band coverage

Operating frequency range has been expanded to the 70 cm band. Of course, all mode operation (SSB, CW, RTTY, AM and FM) is possible and a full 100 W of output power is available for HF and 6 m operation; 50 W for 2 m and 20 W for 70 cm operation.

High stability transmitter

MOS-FET power amplifiers are employed at the PA unit for all HF, 6 m, 2 m and 70 cm bands. And, a one piece aluminum, die-cast chassis with a large cooling fan is employed. This combination provides stable, high quality output with low IMD and low spurious emissions even during full duty cycle and extended operation.



Illuminated keys and switches

Backlighting of keys and switches is a great help during nighttime operation—the intensity is even adjustable!



Tone squelch standard

Tone squelch operation is available in FM mode for basic signalling and quiet standby. Tone frequencies can be set independently for tone squelch (Tx/Rx) and repeater tones, and a range of 50 frequencies is available. A tone scan function is available to search for a repeater's access tone quickly and easily.

DSP features

DSP capabilities are available*. These include noise reduction and auto notch functions. Superior receive quality in your shack, vehicle or during DX'peditions.



*AF DSP; UT-106 DSP user required for some versions.

Compact with detachable panel**

The IC-706MKIIG is very compact at 167(W) × 58(H) × 200(D) mm** and weighs a mere 2.5 kg**, making it ideal for DX'peditions, etc. A detachable front panel allows easy installation in your shack or in a wide variety of mobile applications.

**An optional separation cable is required; *6⁵/₁₆(W) × 2⁵/₁₆(H) × 7⁷/₁₆(D) in; **5.5 lb.

Automatic repeater function[†]

An automatic repeater function is available and repeater frequencies can be programmed via a special operation. This eliminates the need for repeater settings for 6 m, 2 m or 70 cm repeater operation.

[†]Standard for USA version; programming required for others.

Optional high frequency stability

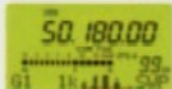
±0.5 ppm of high frequency stability is provided when an optional CR-282 HIGH STABILITY CRYSTAL UNIT is installed.

Simple operation

The individual band change key, a sub dial and quick band change capability provide simple operation. The individual band change key allows quick and easy QSY, the sub dial enhances mobile and memory operation, and the quick band change capability selects pre-set frequency bands with the last-used frequency and mode. Also, each band can store preamplifier/attenuator and tuner on/off settings.

Simple band scope function

This function sweeps ±14 steps from the displayed frequency and plots received signal strength on the function display. This function is useful not only for checking HF band conditions, but also seeking vacant frequencies during VHF or UHF FM operation.



Narrow FM capability

For FM operation on the 10 m or the 2 m (where narrow FM is required) bands, the IC-706MKIIG has narrow FM capability that allows you to take advantage of this operating mode.

107 memory channels with alphanumeric name capability

99 channels can memorize both transmit and receive frequencies separately; 6 channels are for programmed scan edges; and 2 channels are for call memory for the 2 m and 70 cm bands. And, up to 9-character alphanumeric names can be programmed into each memory channel.

And more...

- Up to 3 selectable passband widths
- Built-in electronic keyer
- CW reverse function
- Adjustable CW pitch
- Full break-in (QSK)
- IF shift interference rejection
- Superior audio characteristics
- Continuously adjustable RF output power
- VOX
- AF speech compressor
- RF gain control
- Adjustable SSB carrier point
- 4 scan types
- Noise blanker
- Receiver protection circuit
- RIT
- Selectable AGC time constant
- Optional voice synthesizer
- CI-V capability
- Digital, multi-function S/R/F meter
- Optional antenna tuners (control circuit built-in)



SPECIFICATIONS

GENERAL

- Frequency coverage

Receive	0.030-139.999 MHz*	400-470.000 MHz*
Transmit	1.8-1.999 MHz*	3.5-3.999 MHz*
	7.0-7.300 MHz*	10.1-10.190 MHz*
	14.0-14.350 MHz*	18.068-18.168 MHz*
	21.0-21.450 MHz*	21.89-24.990 MHz*
	28.0-29.700 MHz*	50.0-54.000 MHz*
	144.0-146.000 MHz*	430.0-430.000 MHz*

 *Varies according to version.
- Mode

USB, LSB, CW, RTTY (FSK), AM, FM, WPM (A or only)

- No. of memory ch.

107: 50 regular, 8 scan edges, 2 call channels
50: 238-2 (for HF/50 MHz and 144/430 MHz/50 Ω)
- Power supply requirement

13.8 V ±10% (negative ground)
Less than 27 ppm from 1 min. to 60 min. after power on. After that rate of stability less than ±1 ppm/hr. at +25°C (+17°F). Temperature fluctuations 3°C to +50°C (+32°F) to +122°F less than ±5 ppm.
- Frequency stability

Transmit: max. power 20 A
Receive: standby 1.6 A
max. audio 2.0 A
- Current drain

Transmit: max. power 20 A
Receive: standby 1.6 A
max. audio 2.0 A
- Usable temp. range

-10°C to 60°C (14°F to 140°F)

- Dimensions

167(W) × 56(H) × 200(D) mm (projections not included)
6 1/2(W) × 2 1/4(H) × 7 7/8(D) in
- Weight

2.45 kg (5 lb 6 oz)

- CI-V connector

2-conductor 3.5 (Ø) mm (1/4")

- ACC connector

13-pin

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

TRANSMITTER

- Output power

	SSB/CW/RTTY/FM	AM
HF/50 MHz	5-100 W	2-40 W
144 MHz	5-50 W	2-20 W
430 MHz	2-20 W	2-8 W
- Modulation system

SSB	Balanced modulation
AM	Low level modulation
FM	Variable reactance modulation
- Spurious emissions

-50 dB (pp. HF bands)
Less than -60 dB (other bands)
More than -60 dB
- Carrier suppression

More than 60 dB

- Unwanted sideband

More than 50 dB

- Microphone connector

8-pin modular jack (Ø9.5)

- KEY connector

3-conductor 6.35 (Ø) mm (1/4")

- RTTY connector

5-conductor 3.5 (Ø) mm (1/4")

RECEIVER

- Receive system

SSB/CW/AM/WFM	Double superheterodyne
FM	Triple superheterodyne
- Intermediate frequencies

	(Unit MHz; *FM only)		
SSB-AM-AM/FM	1st	2nd	3rd
	49.0115	9.0115	0.455*
CW	49.0106	9.0106	—
RTTY	49.0106	9.0106	—
AM/FM-A	49.0100	9.0100	0.455*
WFM	70.7000	10.7000	—

*Receive sensitivity (green on, except 4-4.5 and 5-5 MHz)

	SSB/CW 10 dB S/N	AM 10 dB S/N	FM 12 dB SINAD	WFM 12 dB SINAD
0.5-1.8 MHz	—	13 µV	—	—
1.9-38 MHz	—	—	—	—
39-59.7 MHz	0.15 µV	2.0 µV	0.3 µV	—
60 MHz band	0.12 µV	1.0 µV	0.25 µV	—
70-108 MHz	—	—	—	10.0 µV
144-430 MHz band	0.11 µV	1.0 µV	0.18 µV	—

- Squelch sensitivity

SSB	Less than 5.0 µV (break-in)
FM	Less than 0.3 µV
- Selectivity (normal setting)

SSB, CW, RTTY	More than 2.4 kHz/-6 dB
	Less than 4.5 kHz/-60 dB
AM/FM-A	More than 6.0 kHz/-6 dB
	Less than 30 kHz/-36 dB
FM	More than 12 kHz/-6 dB
	Less than 30 kHz/-60 dB
- Spurious and image rejection ratio

HF bands	More than 70 dB
50 MHz	More than 65 dB (except F-Front)
144/430/430 MHz	More than 65 dB
- Audio output power

More than 2.0 W (at 13.8 V DC)
±0.09 kHz
- PTT variable range

3-conductor 3.5 (Ø) mm (1/4")

- PHONE connector

3-conductor 3.5 (Ø) mm (1/4")

- EXT GP connector

2-conductor 3.5 (Ø) mm (1/4") 5/8 L

Supplied accessories:		
• Hand microphone	• DC power cable	• Spare fuse
• RTTY key (plug)	• Electronic key (plug)	• ALC cable

OPTIONS



- **IC-PW1 HF+50 MHz 1 kW HF LINEAR AMPLIFIER**
Covers all HF and 50 MHz bands, provides clean, stable 1 kW output. Automatic antenna tuner and compact detachable controller are standard. 2 exciter inputs are available. (An optional OPC-589 is required.)



- **AH-2b ANTENNA ELEMENT**
For mobile operation with the AH-4. All bands between 7-84 MHz can be matched.



- **AH-4 HF+50 MHz AUTO-MATIC ANTENNA TUNER**
Covers 3.5-54 MHz with a 7 m (23 ft) or longer wire antenna.



- **AT-180 HF+50 MHz AUTO-MATIC ANTENNA TUNER**
Style and size are matched to the IC-706MKIIIG.



- **PS-85 DC POWER SUPPLY**
Output: 13.8 V DC (20 A max.)



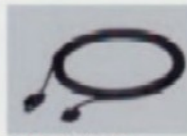
- **MB-62 MOBILE MOUNTING BRACKET**
For mounting the IC-706MKIIIG main unit or the AT-180.



- **MB-63 MOBILE MOUNTING BRACKET**
For mounting the detached front panel.



- **MB-65 MOUNTING BASE**
For mounting the detached front panel in a vehicle. The MB-63 is required.



- **OPC-581/OPC-587 SEPARATION CABLES**
Provides separate operation. OPC-581: 3.5 m (11 ft) OPC-587: 8 m (26 ft)



- **SM-25 DESKTOP MICROPHONE**
High quality desktop microphone. (An optional OPC-589 is required.)



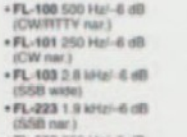
- **SM-8 DESKTOP MICROPHONE**
Equipped with 2 connector cables. (An optional OPC-589 is required.)



- **UT-106 DSP UNIT**
Provides AF DSP functions such as noise reduction and auto notch. Built-in to some versions.



- **9 MHz FILTERS**
Have good shape factor and provide you with better reception.



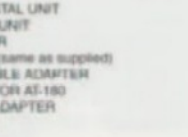
- **FL-100 500 Hz/-6 dB (CW/RTTY) filter**



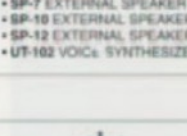
- **FL-181 250 Hz/-6 dB (CW) filter**



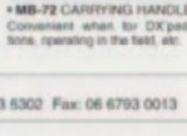
- **FL-103 2.8 kHz/-6 dB (SSB wide) filter**



- **FL-223 1.9 kHz/-6 dB (SSB narrow) filter**



- **FL-232 350 Hz/-6 dB (CW/RTTY) filter**



- **MB-72 CARRYING HANDLE**
Convenient when for DX positions, operating in the field, etc.

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Certificate Number Q14130

Icom Inc. (Japan), is an ISO9001 certification acquired company.

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