



VHF AND UHF TRANSCEIVERS

IC-F121S (VHF transceiver)
IC-F221S (UHF transceiver)



- Powerful 50W (VHF), 45W (UHF) Output
- Simple Operation with Large Buttons and Volume Knob
- 4W typ. Front-mounted Speaker
- 8 Memory Channels with LED Display
- Interactive LED Lighting and Flexible Hanger Actions
- Built-in 2-Tone, 5-Tone, CTCSS, DTCS Encoder & Decoder
- Advanced Multi 2-tone/5-tone Systems (See overleaf for details)
- Standard DTMF Encoder and Optional DTMF Decoder with ANI Function
- Programmable Wide/Narrow Channel Spacing for Each Channel
- 2.5kHz Channel Step (U.S.A. VHF only)



Icom Inc.

ADDITIONAL FEATURES

Advanced Multi 2-tone/5-tone systems

Programmable actions when a matched tone is received

- LED lighting ON/OFF/Blink
- Answer back calls
- Beep sounds
- Scan start/stop
- Auto transmission
- Stun/Kill functions (prevents use of a lost or stolen radio)
- External out for horn drive (Optional OPC-617 is required)

Ten 2-tone codes or eight 5-tone codes can be decoded on a channel

Three call codes are programmable

Other features

MDC PTT ID and MDC emergency call functions (Transmit only)

Hook scan function and Hook scan ON/OFF button are assignable

24-digit DTMF autodial memory

Automatic ID (DTMF code) transmission linked to PTT

Busy lockout and repeater lockout

Power on password

External I/O terminal socket with optional OPC-617

Optional Voice Scrambler, UT-109/UT-110

SPECIFICATIONS

GENERAL

- Frequency coverage : IC-F121S 136-174MHz
IC-F221S 440-490MHz
- Number of channels : 8 channels (4 channels x 2 banks)
- Channel spacing : 12.5/25kHz, 15/30kHz
- PLL channel step : VHF 2.5, 3, 125kHz
UHF 5, 6.25kHz
- Frequency stability : VHF ±5.0ppm
UHF ±2.5ppm
- Operating temp. range : -30°C to +60°C; -22°F to +140°F
- Power supply voltage : 13.6V DC
- Current drain (approx.) : Tx VHF (50W) 14A
UHF (45W) 13A
Rx max. audio 1200mA
standby 300mA
- Antenna impedance : 50Ω (SO-239)
- Dimensions (WxHxD) : 150x40x167.5mm;
5²⁹/₃₂x1¹⁹/₁₆x6¹⁹/₃₂in
- Weight : 1.1kg ; 2.4lb

TRANSMITTER

- Output power : VHF 50W
(at 13.6V DC) UHF 45W
- Max. freq. deviation : ±5.0/2.5kHz (wide/narrow)
- Spurious emissions : 70dB typ.
- Adjacent Ch. power : 70/60dB (wide/narrow)
- Mic. impedance : 600Ω (8-pin modular)

RECEIVER

- Sensitivity : 0.25μV typ. (at 12dB SINAD)
- Squelch sensitivity : 0.25μV typ.
- Adjacent Ch. selectivity : 75/65dB typ. (wide/narrow)
- Spurious response : 75dB
- Intermodulation : 75dB typ.
- Audio output power : 4W typ. at 10% distortion with a 4Ω load
- Ext. SP connector : 2-conductor 3.5 (d) mm (1/8 ")/4Ω

Applicable U.S. Military Specifications

The IC-F121S/F221S has been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 C		MIL 810 D		MIL 810 E		MIL 810 F	
	Method	Proc.	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	I, II
High Temp.	501.1	I	501.2	I, III	501.3	I, II	501.4	I, II
Low Temp.	502.1	I	502.2	I, III	502.3	I, II	502.4	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Rain	506.1	I, II	506.2	I, II, III	506.3	I, II	506.4	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	-
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.5	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

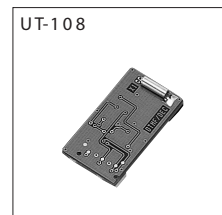
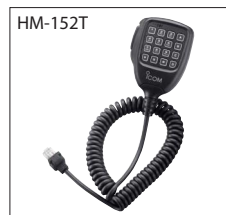
- Supplied Accessories
- Hand mic. (HM-152)
 - Mounting bracket kit
 - Key assign stickers
 - DC power cable
 - Hanger Kit

Measurements made in accordance with EIA-152C/204D, TIA-603. All stated specifications are subject to change without notice or obligation.

OPTIONS

Some options may not be available in some countries. Please ask your dealer for details.

- HM-152T DTMF MICROPHONE
- OPC-617 ACC CABLE
For external terminal connection.
- SM-25 DESKTOP MICROPHONE
Convenient for dispatching, equipped with monitor switch.
- S P-5/SP-10/SP-22 EXTERNAL SPEAKERS
Compact and easy-to-install.
Input impedance: 4Ω; Max. input power: 5W
- U T-108 DTMF DECODER UNIT
Provides DTMF decode and ANI capabilities.
- U T-109 VOICE SCRAMBLER UNIT (Version 02)
Up to 32 non-rolling scrambling codes available.
- U T-110 VOICE SCRAMBLER UNIT (Version 02)
Up to 1020 (255 codes x 4 groups) rolling scrambling codes are available.



Icom Inc.

1-1-32, Kami-minami, Hirano-ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013 URL: <http://www.icom.co.jp/world/index.html>

Count on us!

GATT Communications, Inc.

20 E. 49th St 5th Fl.
New York, NY 10017
Phone: +1 (212) 755-5995
Fax: +1 (212) 755-4994
Email: sales@gattcom.com
URL: <http://www.gattcom.com>

Icom Canada

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

Icom New Zealand

146A Harris Road, East Tamaki,
Auckland, New Zealand
Phone: +64 (09) 274 4062
Fax: +64 (09) 274 4708
E-mail: inquiries@icom.co.nz
URL: <http://www.icom.co.nz>

Icom (Europe) GmbH

Communication Equipment
Himmelgeister Str. 100,
D-40225 Düsseldorf, Germany
Phone: +49 (0211) 346047
Fax: +49 (0211) 333639
E-mail: info@icom-europe.com
URL: <http://www.icomeurope.com>

Icom Spain S.L.

Ctra. Rubi, No. 88 "Edificio Can Castanyer"
08190, Sant Cugat del Valles, Barcelona, Spain
Phone: +34 (93) 590 26 70
Fax: +34 (93) 590 04 46
E-mail: icom@icomspain.com
URL: <http://www.icomspain.com>

Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay,
Kent, CT6 8LD, U.K.
Phone: +44 (01227) 741741
Fax: +44 (01227) 741742
E-mail: info@icomuk.co.uk
URL: <http://www.icomuk.co.uk>

Icom France s.a.s.

Zac de la Plaine,
1 Rue Brindejonn 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
URL: <http://www.icom-france.com>

Icom Polska

Sopot, 3 maja 54, Poland
Phone: +48 (58) 550 7135
Fax: +48 (58) 551 0484
E-mail: icompolksa@icompolksa.com.pl
URL: <http://www.icompolksa.com.pl>

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
URL: <http://www.asia-icom.com>

Beijing Icom Ltd.

10C07, Long Silver Mansion, No.88, Yong Ding
Road, Haidian District, Beijing, 100039, China
Phone: +86 (010) 5889 5391/5392/5393
Fax: +86 (010) 5889 5395
E-mail: bjicom@bjicom.com
URL: <http://www.bjicom.com>

Your local distributor/dealer: