



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

- 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
- Meet MIL-STD 810 C, D, E and F Specification

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;
5²⁹/₃₂x1⁹/₁₆x6¹⁹/₃₂in
- 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 meets MIL-STD requirements and strict environmental standards as follows.

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

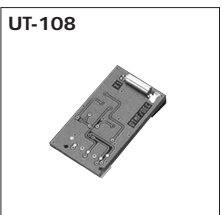
Supplied Accessories

- Hand mic. (HM-100N)
- 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

- **HM-100TN** DTMF MICROPHONE
- **OPC-617** ACC CABLE
For external terminal connection.
- **SM-25** DESKTOP MICROPHONE
Convenient for dispatching, equipped with monitor switch.
- **SP-5/SP-10/SP-22** EXTERNAL SPEAKERS
Compact and easy-to-install.
Input impedance: 4Ω; Max. input power: 5W
- **UT-108** DTMF DECODER UNIT
Provides DTMF decode and ANI capabilities.
- **UT-109** VOICE SCRAMBLER UNIT (Version 02)
- **UT-110** VOICE SCRAMBLER UNIT (Version 02)
The scrambler systems of the UT-109 and UT-110 are not compatible with each other. Ask your dealer for details.
UT-109: Non-rolling type. UT-110: Rolling type.



Icom Inc. 1-1-32, Kamiminami, 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!

Icom America Inc.
<Corporate Headquarters>
2380 116th Avenue N.E., Bellevue, WA 98004, U.S.A.
Phone: +1 (425) 454-8155 Fax: +1 (425) 454-1509
URL : <http://www.icomamerica.com>
<Customer Service> Phone : +1 (425) 454-7619

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

Icom (Australia) Pty. Ltd.
A.B.N. 88 006 092 575
290-294 Albert Street, Brunswick, Victoria, 3056, Australia
Phone: +61 (03) 9387 0666 Fax: +61 (03) 9387 0022
URL : <http://www.icom.net.au>

Icom New Zealand
146A Harris Road, East Tamaki, Auckland, New Zealand
Phone: +64 (09) 274 4266 Fax: +64 (09) 274 4708
URL : <http://www.icom.co.nz>

Icom (Europe) GmbH
Communication Equipment
Himmelgeister Str. 100, D-40225 Düsseldorf, Germany
Phone: +34 (93) 590 26 70 Fax: +49 (0211) 333639
URL : <http://www.icomeurope.com>

Icom Spain S.L.
Ctra. de Gracia a Manresa Km. 14,750
08190 Sant Cugat del Valles Barcelona, Spain
Phone: +34 (93) 590 26 70 Fax: +34 (93) 589 04 46
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
URL : <http://www.icomuk.co.uk>

Icom France S.a
Zac de la Plaine, 1, Rue Brindejonc des Moulinais
BP 5804, 31505 Toulouse Cedex, France
Phone: +33 (5) 61 36 03 03 Fax: +33 (5) 61 36 03 00
URL : <http://www.icom-france.com>

Icom Polska
Sopot, 3 maja 54, Poland
Phone: +48 (58) 550 7135 Fax: +48 (58) 551 0484

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

Beijing Icom Ltd.
1305, Wanshang Plaza, Shijingshan Road, Beijing, China
Phone: +86 (010) 6866 6337 Fax: +86 (010) 6866 3553
URL : <http://www.bjicom.com>



Icom Inc. (Japan), is an ISO 9001 and ISO 14001 certification acquired company.

Your local distributor/dealer: