



VHF AND UHF TRANSCEIVERS

# IC-F110S IC-F210S



- Simple Operation with Large Buttons and Volume Knob
- 4 Watts (typ.) Front-mounted Speaker
- 8 Memory Channels with LED Display
- User Programmable LED lighting and Various Hanger Actions
- Built-in 5-tone, 2-tone, CTCSS, DTCS Encoder & Decoder
- Advanced Multi 5-tone/2-tone Systems (See overleaf for details)
- Standard DTMF Encoder and Optional DTMF Decoder with ANI Function
- Programmable Wide/Narrow Channel Spacing for Each Channel
- Optional Voice Scrambler, UT-109/UT-110
- MIL-STD 810 C, D, E and F Specification Rugged Construction



Icom Inc.

ADDITIONAL FEATURES

Advanced Multi 5-tone/2-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)
- Eight 5-tone codes or ten 2-tone codes can be decoded on a channel
- Three Call codes are programmable

Other features

- MDC PTT ID and MDC emergency call functions and BIIS1200 PTT ID function (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
- Reduced length (117.5mm) allows for easier installation
- External I/O terminal socket with optional OPC-617

SPECIFICATIONS

GENERAL

- Frequency coverage :
  - IC-F110S 136–174MHz
  - IC-F210S 400–430MHz
  - 440–490MHz
- Number of channels : 8 (4 channels × 2 banks)
- Channel Spacing : 12.5/25kHz, 12.5/20kHz
- PLL channel step : 2.5, 3.125kHz (VHF)
- 5, 6.25kHz (UHF)
- Frequency stability : ±1.5kHz
- Operating temp. range : -25°C to +55°C
- Power supply voltage : 13.2V DC
- Current drain :
  - Tx at 25W 7A
  - Rx Max. audio 1200mA
  - Stand-by 300mA
- Antenna impedance : 50Ω (SO-239)
- Dimensions : 150(W)×40(H)×117.5(D) mm
- Weight : 800g

TRANSMITTER

- Output power : 25W (at 13.2V DC)
- Max. frequency deviation : ±5.0kHz (wide)
- ±4.0kHz (middle)
- ±2.5kHz (narrow)
- Spurious emissions : 0.25μW (below 1GHz)
- Adjacent channel power : 70dB (wide, middle)
- 60dB (narrow)
- Mic. impedance : 600Ω (8-pin modular)

RECEIVER

- Sensitivity : -4dBμV typ. (emf) (at 20dB SINAD)
- Squelch sensitivity : -4dBμV typ. (emf, threshold)
- Adjacent channel selectivity : 75dB typ. (wide, middle)
- 65dB typ. (narrow)
- Spurious response : 75dB
- Intermodulation : 67dB typ.
- Audio output power : 4.0W typ. at 10% dist./4Ω load
- Ext. SP connector : 2-conductor 3.5(d)mm/4Ω

Applicable U.S. Military Specifications

The IC-F110S/F210S 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, II	501.3	I, II	501.4	I, II
Low Temp.	502.1	I	502.2	I, II	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	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)
- DC power cable
- Mounting bracket kit
- Hanger kit
- Key assign stickers

Measurements made in accordance with ETS 300 086. 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**  
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.



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