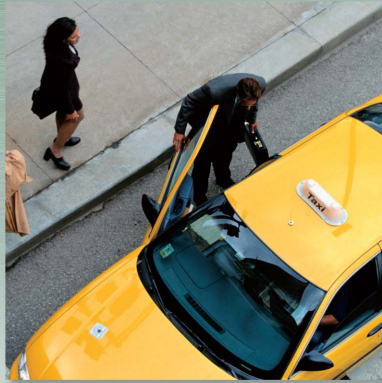# ICOM

VHF AND UHF TRANSCEIVERS

IC-F5022 VHF TRANSCEIVER
IC-F6022 UHF TRANSCEIVER

One
Rank UP

- 128 ch (Max.) / 8 zones
- 2-Tone, 5-Tone CTCSS, DTCS
- MDC PTT ID & MDC emergency call
- 25W Output Power
- 8-character LCD display
- Optional voice scrambler

Rugged
MIL-STD 810

MDC 1200 Compatible

Limited Functions only.

Icom Inc

P0 P1 P2 P3

Features, Performance, Value
For the Everyday PMR User

The IC-F5022 series is ideal for small-to-mid sized sys-tems for public safety, large industry to light commer-cial users.

The IC-F5022 series offers multiple signaling, ad-vanced scanning, improved external channel control capability and wide frequency coverage packed in a compact body. This rugged mobile easily exceeds your expectations with its reliable performance and commu-nication quality.

VHF TRANSCEIVER 25W

IC-F5022

UHF TRANSCEIVER 25W

IC-F6022

128 memory channels

128 channels (Max.) separated into 8 memory zones. Memory channels can be identified with the 8-character channel name and selected easily with the up/down buttons.

Front mounted speaker

4 watts (typ.) front mounted speaker delivers clear and loud audio. With the speaker facing the operator, audio can be clearly heard without impediment during operation.

6 programmable buttons

A pair of up/down and P0–P3 function assignable buttons allow you to customize functions to meet specific needs. An independent volume knob offers simple, convenient operation.

MIL grade rugged construction

The tough aluminum die-cast chassis and polycarbonate front panel have been tested to the MIL standard 810F. With this heavy-duty construction, the IC-F5022 series provides reliable operation over the long term in all manners of rugged environments.

Most popular signalings built-in

Use the built-in 2-Tone, 5-Tone, CTCSS and DTCS capabilities as standard to set up your own talk groups, PTT ID and quiet stand-by when others are talking. The IC-F5022 series has added CTCSS/DTCS high speed decode.

MDC 1200 compatible

The following MDC features are available with the built-in MDC signaling.
- PTT ID (TX/RX)
- Radio check (RX)
- Radio stun (RX)
- Radio revive (RX)
- Emergency TX/RX (No ACK)
- 5 alias table (Max.)

Multiple 2-Tone, Multiple 5-Tone

Up to ten 2-Tone and eight 5-Tone codes can be decoded on a channel. When a matched tone is received, the following items are programmable for each code.
- Beep sound
- Answer back
- Scan
- Bell icon
- Radio stun/kill/revive

Radio kill, stun and revive

The radio kill/stun functions disable a lost or stolen radio over the air, eliminating security threats from undesired listeners. When the stun command is received, all functions will be temporary locked out until the revive command is received or the unlock password is entered.

Lone worker function

When the radio is not operated for a preset period, the radio sounds a beep and requires you to push any button. If the radio is still not operated for a specified wait period, an emergency signal automatically transmits and informs co-workers that something may have happened to the individual worker.

Mode dependent scan

In the mode dependent setting, the scanning setting is dependent on the operating channel. When you change the operating channel, the scanning list automatically changes to the list set for that channel. It is convenient when you move to a different operating area and change operating channel, you don't have to change the scanning setting.

Tx channel setting and Talk back function

The Tx channel setting allows you to program a transmission channel while scanning. Start channel, last detected channel, priority and preprogrammed channel are selectable. Prior to the Tx channel setting, the talk back function allows you to talk on the last detected channel, while scanning resumes after a preset time. The user can easily make a quick response with this function.

Wide frequency coverage

The IC-F5022 series covers a wide frequency range in one version (VHF 136–174, UHF 400–470MHz).

Optional internal units

The IC-F5022 series has a 40-pin option slot for adding an optional internal unit. Optional voice scrambler units, UT-109R or UT-110R provide secure private conversation. Optional DTMF decoder unit, UT-108R offers DTMF decode capability.

External memory channel control with optional ACC cable

With the optional OPC-1939 D-SUB 15-pin ACC cable, the IC-F5022 series can be programmed to control an operating channel from an external device (up to 16 preprogrammed channels). The ACC connector also provides an ignition sensing function, external PTT, PC command, horn honk, audio output and modulated signal input depending on programming.

Photo includes optional OPC-1939

Other features

- BIIS 1200 PTT ID transmission
- Microphone hanger action programmable
- Wide, middle and narrow channel spacing (25, 20, 12.5kHz) programmable
  (* Programmable 25/12.5kHz or 20/12.5kHz)
- Optional DTMF microphone (HM-152T)
- Time-out-timer, lock-out penalty timer and more
- 8 DTMF autodial memories
- Power-on password function
- Nuisance delete function

Compatible with IC-F3022/F4022 series handheld

The IC-F5022/F6022 series is designed to be a companion to our IC-F3022/F4022 series handheld transceiver. The number of channels and banks, signaling formats, programming software and voice scrambler are compatible. Take advantage of the shared functionality to complete your communications requirements.

SPECIFICATIONS

GENERAL

- Frequency range :
  IC-F5022   136–174MHz
  IC-F6022   400–470MHz
- Number of Channels : Max. 128 Ch/ 8 zones
- Channel spacing : 12.5/20/25kHz
- Type of emission : 8K50F3E, 14K0F3E, 16K0F3E
- Antenna impedance : 50Ω (SO-239)
- Operating temp. range : –25˚C to +55˚C
- Power supply requirement : 13.2V DC
- Current drain (approx.) :
  Tx   25W   5.0A
  Rx   Max. audio   0.7A
       Stand-by   250mA
- Dimensions (W×H×D) : 150×40×117.5 mm
  (Projections not included)
- Weight : 0.8kg (approx.)

Measurements made in accordance with EN 300-086. All stated specifications are subject to change without notice or obligation.

TRANSMITTER

- Output power (VHF/UHF) : 25W, 10W, 2.5W
  (at 13.2V DC)   (High, low2, low1; approx.)
- Max. frequency deviation : ± 5.0/4.0/2.5kHz (W/M/N)
- Frequency stability : ±1.5kHz
- Spurious emissions : 0.25µW (≤ 1GHz)
                       1.0µW (> 1GHz)
- Audio harmonic distortion : 3% typ. (40% deviation)
- Residual modulation : 55/53/50dB typ. (W/M/N)
- Modulation limiting : 70–100% of Max. deviation
- External Mic. impedance : 600Ω (8-pin modular)

Applicable U.S. Military Specifications

Icom makes rugged products that have been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810F	
	Method	Procedure
Low Pressure	500.4	I, II
High Temperature	501.4	I, II
Low Temperature	502.4	I, II
Temperature Shock	503.4	I
Solar Radiation	505.4	I
Humidity	507.4	–
Settling Dust	510.4	III
Vibration	514.5	I
Shock	516.5	I, IV

Also meets equivalent MIL-STD-810-C, -D and -E.

RECEIVER

- Sensitivity : –4dBµV typ.
  (emf, at 20 dB SINAD)
- Adjacent Ch. selectivity : 75/75/65dB typ. (W/M/N)
- Spurious response : 80dB typ.
- Intermodulation : 67dB typ.
- Hum and noise ratio : 55/53/50dB typ. (W/M/N)
- Audio output power : 4W typ. at 5% distortion with a 4Ω load
- External SP connector : 2-conductor 3.5 (d) mm (⅛")/4Ω

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

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

HAND MICROPHONES

HM-152   HM-152T   HM-148G   HM-148T

HM-152 : Regular hand microphone. Same as supplied.
HM-152T : DTMF microphone.
HM-148G : Heavy duty microphone. Self-grounding type.
HM-148T : Heavy duty microphone with DTMF keypad. Self-grounding type.

DESKTOP MICROPHONE
SM-26

SM-26 : Convenient for dispatching, equipped with monitor switch.

SM-25 is also available.

EXTERNAL SPEAKERS

SP-5   SP-10   SP-22

SP-5 : Large external speaker.
SP-10 : Mid sized external speaker.
SP-22 : Compact and easy-to-install external speaker.

INTERNAL UNITS

UT-108R DTMF DECODER   **UT-109R** VOICE SCRAMBLER UNIT   **UT-110R** VOICE SCRAMBLER UNIT

UT-108R : Provides DTMF decode capability.
UT-109R : Up to 32 scrambling codes are available.
UT-110R : Provides higher operating security. Up to 1020 (255 codes × 4 groups) scrambling codes are available.

ACC CABLES

OPC-1939 15-pin type   **OPC-2078** 25-pin type

For connecting with a PC, external speaker, external channel control, ignition sense line or vehicle's horn.