



## VHF AND UHF TRANSCEIVERS

**IC-F5061** (VHF transceiver)

**IC-F6061** (UHF transceiver)



Rugged  
**MIL-STD 810**



F5061  
F6061

512ch /  
128zones

Conventional /  
LTR® mode

6.25kHz digital  
(Option)

MDC1200  
2-Tone, 5-Tone

VHF 50W,  
UHF 45W Output

IP54  
(Controller only)

Full dot-matrix  
LCD



b0 b1 b5 b3 b4

# Conventional/LTR®/Digital\*— Multi-Mode Professional Mobile

\*With UT-119H

The IC-F5061/F6061 is ideal for public safety, transportation and delivery service users. It offers advanced multi-mode operations, improved scanning and flexible installation suitable for mobile and base stations.

VHF TRANSCEIVER

**IC-F5061** 50W

UHF TRANSCEIVER

**IC-F6061** 45W



The above photo includes optional separation kit, RMK-3, and separation cable, OPC-609.



## MDC 1200 compatible

Advanced automatic number identification (ANI), selective call (Selcall) and emergency call features are available with the built-in MDC signaling. The PTT ID function sends your unit ID number when you push (or release) the PTT button. The received ID number can be decoded to a user name using the alias table. The selcall enables you to call individual or group users as you desire. The emergency call feature allows you to send and repeat an emergency message to dispatch until the dispatch responds to it. In such a situation, the radio can transmit anything the microphone hears and the dispatcher can monitor the background sound. Radio check, status, message, radio stun, revive and call log are also available.

## 6.25kHz digital mode ready

With the optional UT-119H, the IC-F5061 series provides 6.25kHz digital narrow mode communication that meets the FCC 6.25kHz emission mask requirements for narrow banding, and increases efficiency of channel allocation and use of spectrum. The IC-F5061 series provides 2 optional slots: one for the UT-119H digital unit and one for another option board.



## Detachable front panel

With the optional remote control kit, RMK-3 and separation cable, the front panel of the radio can be detached from the main unit. It allows you flexible installation even in limited installation space. Separation cable length is selectable from 1.9m, 3.0m and 8.0m\*.

\* 6.2ft, 9.8ft and 26.2ft respectively.

## Dot matrix, multi-function LCD

With a high contrast dot matrix display, upper and lower case characters can be easily distinguished. You can change the display setting to show one line and 12 characters, or two lines and 24 characters via programming. LCD backlighting is standard.



Two line setting display example.

## Front mounted speaker

4 watts (typ.) front mounted speaker delivers clear and loud audio. The built-in audio compander improves the signal to noise ratio.

## IP54 dust-protection and splash resistance (Controller only)

The rugged die-cast chassis and polycarbonate front panel are resistant to shock and vibration. When used with the optional separation kit, the remote control head has dust-protection and splash resistant construction, equivalent to IP54.

## Wide frequency range and large channel capacity

The IC-F5061 series covers a wide frequency range in one version (VHF 136–174 MHz, UHF 400–470MHz or 450–512 MHz). The 512 memory channel capacity with 128 zones allows you to divide and store a variety of flexible channel groupings.

## Basic LTR®/Conventional mode operation

Group, selective, and phone calls are all available in LTR® mode. The beep on receive function informs you with a beep sound when an individual call is received.

## Multiple 2-Tone, 5-Tone signalings

The built-in 2-Tone and 5-Tone capabilities allows you to send a tone code with your call and decode multiple tone codes on a channel. 40 pairs of CTCSS/ DTCS memory channels are available.

## Voting scan

The voting scan detects the S-meter level of repeater stations and automatically selects the strongest station or the first station to exceed the preset S-meter level, useful for roaming between 2 or more repeater sites. Primary and secondary channels are also programmable for the priority scan.

## Mode slave scan

In the normal mode scan, you can select a scanning list independent to the channel setting. In the mode slave setting, the scanning list is automatically selected according to the operating channel.

## Built-in inversion-type voice scrambler

The built-in inversion type voice scrambler provides secure conversation. When a more secure system is required, the 32 code non-rolling-type voice scrambler UT-109R and 1020 code rolling type UT-110R are available as an option.

## D-sub accessory connector

The IC-F5061 series has a D-SUB 25 pin ACC connector for connecting various external devices.



## Other features

- Improved scanning functions including Tx channel, talk back and nuisance delete
- 8 DTMF autodial memories and ANI function with DTMF
- Heavy duty, dynamic microphone HM-148
- Power on password
- Radio stun and kill functions disable a lost or stolen unit over the air
- Busy repeater lockout function
- Surveillance function temporarily turns off the LED backlight and beep sound
- Convenient key assign sticker is supplied
- Microphone hanger action programmable
- Ignition sensing line
- ±1ppm frequency stability
- Embedded ESN
- Flash CPU for future upgrade
- The IC-F3061/ F4061 series is the handheld equivalent model and more...

**SPECIFICATIONS**

**GENERAL**

- Frequency range : IC-F5061 136–174MHz  
IC-F6061 400–470MHz, 450–512MHz
- Number of channels : 512 channels/ 128 zones
- Channel spacing : 12.5/25kHz, 15/30kHz  
6.25kHz (option)
- PLL channel step : 2.5kHz, 3.125kHz
- Antenna impedance : 50Ω
- Operating Temp. range : -30°C to +60°C  
-22°F to +140°F
- Power supply requirement : 13.6V DC nominal
- Current drain (approx) :  
Tx 50W/45W 14.0A  
Rx Max. audio 1200mA  
Stand-by 300mA
- Dimensions (W×H×D) : 160×45×150 mm  
(projections not included) ; 6<sup>3</sup>/<sub>16</sub> × 1<sup>25</sup>/<sub>32</sub> × 5<sup>29</sup>/<sub>32</sub> in
- Weight (approx.) : 1.31kg; 2.9lb

**TRANSMITTER**

- Output power (approx) : 50W (VHF)  
45W (UHF)
- Max. frequency deviation : ±5.0/2.5kHz (Wide/Narrow)
- Frequency error : ±1.0ppm
- Spurious emissions : 75dB typ.
- FM Hum and Noise : 45/40dB typ. (Wide/Narrow)
- Adjacent channel power : 70/60dB min. (Wide/Narrow)
- Audio harmonic distortion : 3% typ. (40% deviation)
- Modulation limiting : 70–100% of Max. deviation
- Ext. microphone impedance : 600Ω (8-pin modular)

**RECEIVER**

- Sensitivity (12dB SINAD) : 0.25μV typ.
- Squelch sensitivity : 0.25μV typ. (at threshold)
- Adjacent channel selectivity : 85/75dB typ. (Wide/Narrow)
- Spurious response : 90dB typ.
- Intermodulation : 77dB typ.
- Hum and noise ratio : 50/45dB typ. (Wide/Narrow)
- Audio output power : 4W typ.  
at 10% distortion with a 4Ω load
- External speaker connector : 2-conductor 3.5 (d) mm  
(<sup>1</sup>/<sub>8</sub>"/4Ω)

**Applicable U.S. Military Specifications**

The IC-F5061/F6061 and RMK-3 have 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.
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
Rain Blowing*	506.1	I	506.2	I	506.3	I	506.4	I
Rain Drip*	506.1	II	506.2	III	506.3	III	506.4	III
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	—
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

\* Rain blowing and drip tests were performed on the controller and RMK-3 only.

**Supplied Accessories**

- Hand microphone, HM-148
- DC power cable
- Microphone hanger
- Mounting bracket kit
- Key assign stickers

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.

**HAND MICROPHONES**



- HM-152 : Regular hand microphone.
- HM-152T : DTMF microphone.
- HM-148 : Heavy duty dynamic microphone. Same as supplied.

**DESKTOP MICROPHONE**



Convenient for dispatching, equipped with monitor switch.

**EXTERNAL SPEAKERS**



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

**SEPARATION KIT**



RMK-3 : For front panel detachment installation.

Use with one of the following cables: OPC-609 (1.9m; 6.2ft), OPC-607 (3m; 9.8ft), or OPC-608 (8m; 26.2ft).

**SEPARATION CABLES**



**INTERNAL UNITS**



- UT-109R : Non-rolling type. Up to 32 scrambling codes are available.
- UT-110R : Rolling type. Up to 1020 scrambling codes are available.
- UT-119H : Digital unit. Provides 6.25kHz digital capability.

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