



VHF AND UHF TRANSCEIVERS

IC-F5061D

(IDAS digital VHF transceiver)

IC-F5061

(VHF transceiver)

IC-F6061D

(IDAS digital UHF transceiver)

IC-F6061

(UHF transceiver)



LTR™
Conventional
IDAS Digital
IDAS Trunking

- 512 ch / 128 zones
- Conventional / LTR™ mode
- IDAS Trunking (With UT-126H)
- IDAS digital (With UT-126H)
- 2-Tone, 5-Tone CTCSS, DTCS
- VHF 50W, UHF 45W Output
- IP54 (Controller only)
- Full dot-matrix LCD

IDAS
COM DIGITAL ADVANCED SYSTEM



Conventional/LTR™/IDAS Digital*/ IDAS Trunking* – Multi-Mode Land Mobile!

*With UT-126H installed. Already installed to IC-F5061, IC-F6061 "D" versions.

The IC-F5061/D series is ideal for public safety, business & industry, transportation and delivery service users. It offers advanced multi-mode operation, improved scanning and flexible installation that is suitable for mobile and base stations.



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

VHF TRANSCEIVERS **50W**
IC-F5061/D

UHF TRANSCEIVERS **45W**
IC-F6061/D



MDC 1200 compatible

PTT ID, 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 as a user name using the alias table. Selective calling enables you to call individuals or groups, depending on your needs. The emergency call feature allows you to send and repeat an emergency message to dispatch until the dispatch responds to it. In these situations, the radio can transmit anything the microphone hears and the dispatcher can monitor the background sounds. Radio check, status, message, radio stun/revive and call log features are also available.

IDAS system digital mode ready

IDAS (Icom digital Advanced System) is Icom's digital conventional and trunking system using the NXDN™ common air interface. It has useful calling features including selective calling, status message, radio stun/revive/kill, etc.. The IC-F5061 series provides 2 optional slots: one for the UT-126H digital unit and one for an additional option board. See the IDAS brochure for details.



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 for 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. Get efficient trunking operation without the need for any optional module.

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 operation

The voting operation detects the signal strength level of repeater sites and automatically selects the strongest station or the first station to exceed the preset signal level. This is useful for roaming between 2 or more repeater sites.

Enhanced scanning

While scanning, you can program which Tx channel you want when you press PTT button. Start channel, last detected channel, priority or a preprogrammed channel are selectable. In addition, the nuisance delete function temporary removes a busy channel from the scanning list.

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.

* Inversion type voice scrambler is not compatible with UT-109/UT-110 voice scrambler.

D-sub accessory connector

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



Other features

- Advanced scanning functions including Tx channel, talk back and mode dependent scan
- 8 DTMF autodial memories and ANI function with DTMF
- Self grounding microphone HM-148G
- Power on password • Embedded ESN
- Radio stun, kill and revive functions disable or re-enable 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
- Lone worker function
- Escalating alert
- Flash CPU for future upgrade 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) : 6³/₁₆ × 1²⁵/₃₂ × 5²⁹/₃₂ in
- Weight (approx.) : 1.31kg; 2.9lb

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

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 : 46/40dB 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)

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 F	
	Method	Proc.
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
Rain (Blowing/Drip)*	506.4	I, III
Humidity	507.4	–
Salt Fog	509.4	–
Dust Blowing	510.4	I
Vibration	514.5	I
Shock	516.5	I, IV

* Rain tests were performed on the controller and RMK-3 only. Also meets equivalent MIL-STD-810-C, -D, and -E.

RECEIVER

- Sensitivity FM (W/N) : 0.25μV typ. (at 12dB SINAD)
Digital : 0.20μV typ. (at 5% BER)
- 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 5% distortion with a 4Ω load
- External speaker connector : 2-conductor 3.5 (d) mm (1/8")/4Ω

Supplied Accessories

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

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-148G : 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-126H : Digital unit. Provides IDAS digital capability.

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