



## 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 conventional (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™**  
ICOM DIGITAL ADVANCED SYSTEM



**Mackay**  
Marine Electronics & Satellite Communications  
[www.mackaymarine.com](http://www.mackaymarine.com)

# Conventional/IDAS™ Digital\*/ IDAS™ Trunking\*/LTR™ – 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 land mobile radio system using the 6.25kHz narrowband FDMA technology. The IC-F5061 series is compatible with the IDAS conventional and IDAS single-site/ multi-site trunking using the NXDN™ common air interface. 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 scan (Analog mode only)

The voting mode scanning detects the signal strength level of repeater sites and automatically selects the strongest station, or the first station to exceed the pre-set 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
- 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

	IC-F5061D, IC-F5061	IC-F6061D, IC-F6061
<b>GENERAL</b>		
Frequency coverage	136–174MHz	400–470MHz, 450–512MHz 350–400MHz* (*Non-FCC)
Number of channels	512 channels/128 zones	
Type of emission	16K0F3E, 11K0F3E, 8K10F1E/D, 4K00F1E/D	16K0F3E, 11K0F3E, 11K0F7E/D*, 8K10F1E/D, 4K00F1E/D (* Depending on version)
Channel spacing	12.5/25kHz, 15/30kHz, 6.25kHz* (*digital)	
Power supply requirement	13.6V DC nominal	
Current drain (approx.)		
Tx High (50W/45W)	14A	
Rx Max. audio/Stand-by	1200mA/300mA	
Antenna impedance	50Ω (SO-239)	
Operating temperature range	–30°C to +60°C; –22°F to +140°F	
Dimensions (W×H×D) (Projections not included)	160×45×150 mm; 6.3×1.77×5.91 in	
Weight (approx.)	1.3 kg; 2.9 lb	
<b>TRANSMITTER</b>		
Output power (at 13.6V DC)	50W, 25W, 0.5W (Hi, L2, L1)	45W, 25W, 0.5W (Hi, L2, L1)
Max. frequency deviation	± 5.0kHz/±2.5kHz (W/N)	
Frequency stability	±1.0ppm	
Spurious emissions	75dB typ.	
FM Hum and noise	45/40dB typ. (Wide/Narrow)	
Audio harmonic distortion	3% typ. (AF 1kHz 40% deviation)	
Modulation limiting	70–100% of Max. deviation	
FSK error	5.0% max.	
Ext. microphone impedance	600Ω (8-pin modular)	

Measurements made in accordance with EIA-152C/204D, TIA-603 (for Analog). All stated specifications are subject to change without notice or obligation. \* 25kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

	IC-F5061D, IC-F5061	IC-F6061D, IC-F6061
<b>RECEIVER</b>		
Sensitivity (at 12dB SINAD) (at 5% BER)	0.25μV typ. 0.20μV typ.	
Adjacent channel selectivity	85/75dB typ. (Wide/Narrow)	
Spurious response rejection	90dB typ.	
Intermodulation rejection	77dB typ.	
Hum and noise	50/45dB typ. (Wide/Narrow)	
Audio output power (4Ω load)	4W typ. (at 5% distortion)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/4Ω	

### Applicable U.S. Military Specifications & IP Rating

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
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

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

### Ingress Protection Standard

Dust & Water IP54\* (Dust-protection and water resistant)

\* MIL Rain and IP54 tests were performed on the controller and RMK-3 only.

### Supplied Accessories

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

## OPTIONS

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

### SEPARATION KIT



**RMK-3**  
Use with one of the following separation cables.

### SEPARATION CABLES



**OPC-609** 1.9m; 6.2ft  
**OPC-607** 3m; 9.8ft  
**OPC-726** 5m; 16.4ft  
**OPC-608** 8m; 26.2ft

### HAND MICROPHONES



**HM-152**  
**HM-152T** DTMF microphone  
**HM-148G** Heavy duty microphone  
**HM-148T** Heavy duty microphone with DTMF keypad

### DESKTOP MICROPHONE



**SM-26**

### EXTERNAL SPEAKERS



**SP-30** 20W rated input  
**SP-35:** 2m cable  
**SP-35L:** 6m cable

### INTERNAL UNITS



**UT-109R** Non-rolling type voice scrambler for analog mode  
**UT-110R** Rolling type voice scrambler for analog mode  
**UT-126H, UT-126HL** IDAS NXDN digital unit

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