

SPECIFICATIONS

IC-F5400D • IC-F6400D Series

		IC-F5400D	IC-F6400D
GENERAL			
Frequency coverage		136–174 MHz	380–470 MHz, 450–520 MHz
Number of channels		1024 channels /128 zones 4000 channels /128 zones (Option)*1	
Type of emission		16K0F3E, 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	
Channel spacing		25/20/12.5/6.25kHz	
Power supply requirement		13.6–13.2 V DC nominal	
Current drain (approx.)	Tx	10.0 A (at 60 W) 6.0 A (at 30 W)	9.0 A (at 50 W) 6.0 A (at 30 W)
	Rx	0.9 A/370 mA (Max. audio (Internal SP)/Standby) 0.8 A/270 mA (Max. audio (Internal SP)/Standby)	
Antenna impedance		50 Ω	
Operating temperature range		–30 °C to +60 °C; –22 °F to +140 °F	
Dimensions (W × H × D; Projections not included)		174 × 55 × 150 mm; 6.9 × 2.2 × 5.9 in	
Weight (approx.)		1.5 kg; 3.3 lb	
TRANSMITTER			
Output power		5 – 60 W (Programmable)	5 – 50 W (Programmable)
Adjacent channel power		70/60dB	
Audio frequency response		+1dB to -3dB of 6dB/octave range from 300Hz to 3000Hz/2550Hz	
Frequency stability		±1.0 ppm	
Spurious emissions		90 dB	80 dB
		0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz)	
FM Hum and noise		55 dB	
Audio harmonic distortion		0.5% (AF 1 kHz 40% deviation)	
FSK error		1% (@DVN/DN)	
RECEIVER			
Sensitivity	Analog (12 dB SINAD)	0.22μV	0.25μV
	Digital (1% BER)	-6.0 dBμV emf (0.25 μV) (@DVN), -5.0 dBμV emf (0.28 μV) (@DN)	
Adjacent channel selectivity	Analog	75 dB	
	Digital	65 dB (@DVN), 68 dB (@DN)	
Audio frequency response		+1dB to -3dB of 6dB/octave range from 300Hz to 3000Hz/2550Hz	
Spurious response rejection		85 dB	
Intermodulation rejection	Analog	80 dB	75 dB
	Digital	70 dB (@DVN), 70 dB (@DN)	70 dB (@DVN), 70 dB (@DN)
Hum and noise		55 dB	
Audio output power	Internal SP	4.0 W (at 5% distortion with 4 Ω load)	
	External SP	4.0 W (at 5% distortion with 4 Ω load)	

Measurements made in accordance with TIA-603, EN300 086, EN301 166, EN300 113. All stated specifications are subject to change without notice or obligation.
 * 1 Optional license key (ISL-CHEX) required.

Applicable U.S. Military Specifications & IP Rating

Standard	MIL 810G		
	Method		Procedure
Low Pressure	500.5		I, II
High Temperature	501.5		I, II
Low Temperature	502.5		I, II
Temperature Shock	503.5		I-C
Solar Radiation	505.5		I
Rain Blowing/Drip	506.5		I, III
Humidity	507.5		II
Salt Fog	509.5		-
Dust Blowing	510.5		I
Vibration	514.6		I
Shock	516.6		I, IV

Also meets equivalent MIL-STD810-C, -D, -E, -F and -G

Ingress Protection Standard

Dust & Water	IP55 (Dust-protection and jet water resistance)
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Supplied accessories: (May differ depending on version)

- Hand microphone, HM-220 or HM-221
- DC power cable
- Mounting bracket kit
- Microphone hanger

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IC-F5400D Series
IC-F6400D Series

VHF AND UHF DIGITAL TRANSCEIVERS

Look Smart, Work Smart

The IC-F5400D/F6400D series is Icom's new generation IDAS mobile radios. Incorporating cutting edge design, superb performance and a comprehensive range of features on a flexible, upgradable multi-protocol platform. The series is available in both VHF and UHF with either a numeric or full color high resolution LCD. Multiple controller configurations are available to suit almost any vehicle application.

High resolution color LCD (IC-F5400D/IC-F6400D only)

Optional OTAR (Over-the-Air-Rekeying) function for AES/DES

Multiple operating modes (Available mode depending on version)

Optional OTAP (Over-the-Air-Programming) function

- NXDN™/dPMR™ conventional
- Upgradable to NXDN™ Type-D trunking
- Upgradable to dPMR™ Mode 3 trunking
- Analog FM

IP55 jet water resistance and dust-protection

Built-in Bluetooth®, voice recording, active noise canceller functions

Optional detached controller, dual head or COMMANDMIC™ configurations (IC-F5400D/IC-F6400D only)

Encryption: DES (4-key, 64-key), AES*

* 4-key standard. 64-key DES requires UT-134. AES requires UT-134 and ISL-AKAES



IC-F5400D



IC-F5400DS



General Features

- 136–174, 380–470, 450–520 MHz versions
- 1024 Channels / 128 Zones, 99 Channels (7 Segment display type)*
- * IC-F5400DS/F6400DS/F5400DPS/F6400DPS: Due to the segment display, channel indication is possible for up to 99 selected channels out of 1024.
- 4000 Channels with optional license key, ISL-CHEX
- High resolution color LCD and intuitive user interface
- Large sized function and four-direction buttons
- Day and night mode display settings
- Programmable functions and menu items in a language other than English (For example French, Spanish, German, Russian and Turkish)
- MIL-STD-810 G shock, vibration, temperature and more
- IP55, water jet resistance and dust protection
- DTMF autodial and decoder

Operating Mode (Available mode depending on version)

- NXDN or dPMR Mode 1/2 conventional
- NXDN or dPMR multi-site conventional over IP network
- NXDN Type-D single/multi-site trunking*
- * License key (ISL-UGMTR) required.
- dPMR Mode 3 trunking*
- * License key (ISL-UGMD3) required. Not available in all regions.
- 12.5 kHz digital mode (NXDN conventional)
- Analog mode
- Analog/digital mixed operation

Digital Functions (Voice and Data)

- Over-the-Air Programming (OTAP) function*
- * OTAP manager (CS-OTPM1) required.
- Over-the-Air Alias (OAA) sends own name with a call
- Over-the-Air Update (OTAU) changes the repeater channel data and site code over the air (NXDN Type-D trunking)
- Individual, group and all call
- Late entry for group call
- Unit ID and talkgroup display on receive
- Status call and polling
- Short data messages (up to 100 characters)
- Call alert (NXDN)
- GPS position
- Transparent data mode

Analog Functions

- CTCSS and DTCS tone
- 2-Tone and 5-Tone
- MDC functions (Depending on version)
- BIIS 1200 functions (Depending on version)
- LTR™ trunking (Depending on version)

 Check our web site to know more about 6.25 kHz FDMA narrow band. www.icom.co.jp/world/fdma/

Security and Safety

- Encryption: DES (4-key, 64-key)*, AES
- * 4-key standard. 64-key DES requires UT-134. AES requires UT-134 and ISL-AKAES.
- Over-the-Air-Rekeying (OTAR) function*
- * OTAR manager (CS-OTAR1) required.
- Digital voice scrambler (Low level encryption)
- Analog voice scrambler (Inversion)
- Power ON password
- Tactical group temporarily reconfigures user talkgroups
- Remote Kill, Stun and Revive
- Remote monitor (NXDN)/ambience listening (dPMR)
- Power OFF emergency
- Emergency key for emergency call
- Lone worker function

Scan Functions

- Priority scan
- Voting scan for site roaming

Voice/Audio Functions

- Voice announcement (Channel number and zone)
- VOX function for hands-free operation
- Voice recording/playback (Saves to a microSD card)*
- * A microSD card is required separately.
- The following information can be embedded in the WAV file; user IDs, GPS position, frequency, AF volume, RSSI, etc. (Depending on setting).
- Customized channel announcement
- TX/RX active noise canceller
- TX/RX audio equalizer (Flat, high/mid/low boost, low cut)
- Audio compander (Analog mode)

Hardware Features

- Programmable ringer beep
- Built-in Bluetooth® for wireless audio and data
- A third-party wireless Bluetooth® headset (for example, 3M™ Peltor™ WS™ 5 series) can be used*
- * Compatibility with third-party Bluetooth® headsets cannot be guaranteed.
- Wireless radio programming over Bluetooth®
- USB connector for data transfer mode or card reader mode
- Built-in GPS with GPS position screen and auto log function*
- * An optional GPS antenna UX-241 is required.
- Internal clock with time auto adjustment
- Programmable D-SUB connector for external PTT, channel, horn, PA/RX speaker, ignition switch and dimmer control
- Low voltage alert
- Optional detached controller, dual head controller or COMMANDMIC™ configurations (IC-F5400D/IC-F6400D only)
- Intercom function between dual head controller or COMMANDMIC™
- microSD card slot

HAND MICROPHONES AND DESKTOP MICROPHONE

- HM-220: Heavy duty microphone. IP54 protection.
- HM-220T: Heavy duty microphone with DTMF keypad. IP54 protection.
- HM-221: Hand microphone with emergency button. IP55 protection.
- HM-221T: Hand microphone with DTMF keypad and emergency button. IP55 protection.
- SM-29: Desktop microphone with monitor and monitor lock buttons.



COMMANDMIC™ AND SEPARATION KITS

- HM-218*: Remote control microphone for use with RMK-5. IP55 protection.
- RMK-5*: Separation kit. For detached controller configuration.
- RMK-7*: Dual-head separation kit. Separation kit and secondary controller for dual head configuration.

* HM-218, RMK-5, RMK-7 and separation cables are options for IC-F5400D/F6400D, F5400DP/F6400DP only



SEPARATION CABLES

- OPC-2364: 1.9 m; 6.2 ft separation cable for RMK-5 or RMK-7.
- OPC-2365: 3 m; 9.8 ft separation cable for RMK-5 or RMK-7.
- OPC-2366: 5 m; 16.4 ft separation cable for RMK-5 or RMK-7.
- OPC-2367: 8 m; 26.2 ft separation cable for RMK-5 or RMK-7.
- OPC-2373: 1.9 m; 6.2 ft separation cable for HM-218, COMMANDMIC.
- OPC-2374: 8 m; 26.2 ft separation cable for HM-218, COMMANDMIC.



EXTERNAL SPEAKERS

- SP-30: External speaker. Cable length 2.6 m; 8.5 ft.
- SP-35: Compact external speaker. Cable length 2 m; 6.6 ft.
- SP-35L: Compact external speaker. Cable length 6 m; 19.7 ft.



GPS ANTENNA

- UX-241: External GPS antenna. Cable length 5 m; 16.4 ft.

AES/DES ENCRYPTION UNIT

- UT-134: AES/DES encryption unit.

ZONE COPY, PROGRAMMING AND DC POWER CABLES

- OPC-2362: Zone copy cable. Mobile to handheld cable.
- OPC-2363: Programming cable.
- OPC-1132: DC power cable. Cable length 3 m; 9.8 ft.
- OPC-347: DC power cable. Cable length 7 m; 23 ft.



SOFTWARE AND ACTIVATION KEYS

- CS-F3400D: Programming software.
- CS-KLD2: Key-loader for UT-134.
- CS-OTPM1: OTAP manager software.
- CS-OTAR1: OTAR manager software.
- ISL-UGMTR: NXDN™ Type-D trunking upgrade key.
- ISL-UGMD3: dPMR™ Mode 3 upgrade key.
- ISL-AKAES: AES activation key.
- ISL-CHEX: Channel expansion key.
- ISL-AK25K: 25 kHz activation key.
- ISL-AKSTM: Dealer set mode activation key.

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



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