

OPTIONS

IC-F5400D • IC-F6400D Series

■ 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.



Detached Controller*

Optional RMK-5 and separation cable required.

Dual Head Controller*

Optional RMK-7, hand microphone and separation cables required.

COMMANDMIC™ and Detached Controller*

Optional RMK-5, COMMANDMIC, HM-218 and separation cables required.

Les spécifications et informations données dans ce document peuvent être modifiées sans préavis. La configuration du poste peut varier suivant les versions.

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IC-F5400D IC-F6400D

Series

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.



■ 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.

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

Multiple operating modes (Available mode depending on version)

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

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

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

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

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

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

IP55 jet water resistance and dust-protection

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



IC-F5400D



IC-F5400DS

IDAS™
ICOM DIGITAL ADVANCED SYSTEM

NXDN™

dPMR™ digital



FEATURES

IC-F5400D • IC-F6400D Series

SPECIFICATIONS

IC-F5400D • IC-F6400D Series

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™ WST™ 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

	IC-F5400D/DS NXDN Version	IC-F5400DP/DPS dPMR Version	IC-F6400D/DS NXDN Version	IC-F6400DP/DPS dPMR Version
GENERAL				
Frequency coverage* (* Depending on version)	136–174 MHz	136–174 MHz	380–470 MHz, 450–520 MHz	380–470 MHz
Number of channels	1024 channels /128 zones 4000 channels /128 zones (Option)* ¹ 99 channels (7 Segment display type)* ²			
Type of emission* (* Depending on version)	16K0F3E* ³ , 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	16K0F3E* ³ , 14K0F3E, 8K50F3E, 4K00F1E/D	16K0F3E* ³ , 14K0F3E, 11K0F3E, 8K50F3E, 8K30F1E/D, 4K00F1E/D	16K0F3E* ³ , 14K0F3E, 8K50F3E, 8K00F1E/D
Power supply requirement	13.6 V DC nominal (USA/EXP), 13.2 V DC nominal (EUR)			
Current drain (approx.)	Tx 5.0 A typical (at 25 W) Rx 0.9 A typical/370 mA typical (Max. audio (Internal SP)/Standby)	9.0 A typical (at 50 W) 5.0 A typical (at 25 W)	8.8 A typical (at 45 W) 5.0 A typical (at 25 W)	50 Ω
Antenna impedance				
Operating temperature range	-30 °C to +60 °C; -22 °F to +140 °F			
Dimensions (W x H x 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 (Hi, L2, L1)* (* Depending on version)	50 W, 25 W, 5 W (USA/EXP) 25 W, 10 W, 5.8 W (EUR)	45 W, 25 W, 4.5 W (USA/EXP) 25 W, 10 W, 5.8 W (EUR)		
Frequency stability		±1.0 ppm		
Spurious emissions	90 dB typical (USA) 0.25 μW (< 1 GHz), 1.0 μW (> 1 GHz) (EUR)	80 dB typical (USA)		
FM Hum and noise	54 dB typical (@25 kHz), 54 dB typical (@12.5 kHz)			
Audio harmonic distortion	0.5% typical (AF 1 kHz 40% deviation)			
FSK error	1% typical (@DVN/DN)			
RECEIVER				
Analogue (12 dB SINAD)	0.22 μV typical			0.25 μV typical
Sensitivity	Analog (20 dB SINAD) Digital (1% BER)	−4.0 dBμV emf typical (@25 kHz), −4.0 dBμV emf typical (@12.5 kHz)		
Adjacent channel selectivity	Analog Digital	−6.0 dBμV emf typical (0.25 μV typical) (@DVN), −5.0 dBμV emf typical (0.28 μV typical) (@DN)	75 dB typical (@25/20 kHz), 72 dB typical (@12.5 kHz)	65 dB typical (@DVN), 68 dB typical (@DN)
Spurious response rejection		85 dB typical		
Intermodulation rejection	Analog Digital	78 dB typical (USA) 70 dB typical (EUR)	75 dB typical (USA) 70 dB typical (EUR)	
Audio output power	Internal SP External SP	4.0 W typical (at 5% distortion with 4 Ω load) 4.0 W typical (at 5% distortion with 4 Ω load)	70 dB typical (@DVN), 70 dB typical (@DN)	70 dB typical (@DVN), 70 dB typical (@DN)

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.

*2 IC-F5400DS/F6400DS/F5400DPS/F6400DPS: Due to the segment display, channel indication is possible for up to 99 selected channels out of 1024.

*3 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions.

DVN: Digital Very Narrow (6.25 kHz), DN: Digital Narrow (12.5 kHz). DN is for NXDN version only.

Applicable U.S. Military Specifications & IP Rating

Standard	MIL 810G	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-STD-810-C, -D, -E and -F.

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