



IC-F3400D Series
IC-F4400D Series

VHF AND UHF DIGITAL TRANSCEIVERS

Look Smart, Work Smart

The IC-F3400D/F4400D series is Icom's new generation IDAS handheld radios. Incorporating cutting edge design, superb performance and a comprehensive range of features including built-in GPS and Bluetooth[®]*1, Active Noise Cancelling technology, digital voice playback and a USB port for easy programming and data transfer. Available in three versions for VHF and UHF, each radio features a high-resolution color LCD in a compact, IP68 waterproof body.

Small, slim and stylish with custom SoC (System-on-a-Chip)

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

High-resolution transreflective color LCD

Icom's custom high power handling capacity speaker for 1300 mW of powerful audio

Built-in Bluetooth[®], voice recording, active noise cancelling functions

*1 Version without Bluetooth also available. Ask your Dealer for details.

Motion/stationary detection, man down and lone worker functions

Standard DES encryption, optional AES with OTAR (Over-the-Air-Rekeying)



IC-F4400DT

IC-F3400DS

IDAS[™]
ICOM DIGITAL ADVANCED SYSTEM

NXDN[™]

dPMR[™]
digital

General Features

- 136–174, 380–470, 450–520 MHz versions
- 1024 Channels / 128 Zones
- 4000 Channels with optional license key, ISL-CHEX
- High-resolution transreflective color LCD*
- 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)
- Continuous rotary knob and ON/OFF volume knob
- Quick lever switch on the top panel programmable for various functions such as lock, scrambler/encryption, etc.
- 1300 mW large volume audio from Icom custom speaker
- Improved sound clarity
- MIL-STD-810 G shock, vibration, temperature and more
- IP68 waterproof (1 m depth water for 1 hour) and dust-tight protection
- AquaQuake™ prevents audio degradation from a water-logged speaker
- 29.3 mm (1.2 inch) slim dimensions (with BP-303 battery pack)
- Battery information display
- Flat sheet keypad offers large button space and protects the radio from dust
- DTMF autodial and decoder

Operating Mode (Available mode depending on version)

- NXDN or dPMR mode 1/mode 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 (conventional mode)

Digital Functions (Voice and Data)

- Over-the-Air Programming (OTAP) function*
 - * Optional 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
- Status call and polling
- Short data messages (Up to 100 characters)
- Call alert (NXDN)
- GPS position
- Transparent data mode (dPMR)

Analog Functions

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

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)
- Emergency key for emergency call
- Man down function
- Lone worker function
- Motion/stationary detection

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 vibration alert and ringer beep
- Built-in Bluetooth® for wireless audio and data*¹
- A third-party wireless Bluetooth® headset (for example, 3M™ Peltor™ WS™ 5 series) can be used*^{1*2}
- Wireless radio programming over Bluetooth®*¹
- USB connector for data transfer mode or card reader mode
- 14-pin accessory connector
- Integrated GPS with GPS position screen and auto log function
- Internal clock with time auto adjustment
- microSD card slot

*¹ Version without Bluetooth® also available. Ask your Dealer for details.

*² Compatibility with third-party Bluetooth® headsets cannot be guaranteed.



Check our web site to know more about 6.25 kHz FDMA narrow band.
www.icomjapan.com/explore/digital



SPECIFICATIONS

IC-F3400D • IC-F4400D Series

| | | IC-F3400DT/DS NXDN Version | IC-F3400DT/DS dPMR Version | IC-F4400DT/DS NXDN Version | IC-F4400DT/DS dPMR Version |
|--|---|---|---|---|---|
| GENERAL | | | | | |
| Frequency coverage (Depending on the 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 | | | |
| Type of emission (Depending on the version) | Analog | 16K0F3E*2, 14K0F3E, 11K0F3E, 8K50F3E | 16K0F3E*2, 14K0F3E, 11K0F3E, 8K50F3E | 16K0F3E*2, 14K0F3E, 11K0F3E, 8K50F3E | 16K0F3E*2, 14K0F3E, 11K0F3E, 8K50F3E |
| | Digital Narrow (DN) | 8K30F1E/D | | | |
| | Digital Very Narrow (DVN) | 4K00F1E/D | | | |
| Power supply requirement | | 7.5 V DC nominal | | | |
| Current drain (approx.) | Tx | 1.5 A | | 1.8 A | |
| | Rx | 580 mA /140 mA (Max. audio (internal SP)/Standby) | | 580 mA /140 mA (Max. audio (internal SP)/Standby) | |
| Antenna impedance | | 50 Ω | | | |
| Operating temperature range | | –30 °C to +60 °C; –22 °F to +140 °F (Radio specifications) | | | |
| Dimensions (W × H × D; Projections not included) | | 53.6 × 123.5 × 29.3 mm; 2.1 × 4.9 × 1.2 in (with BP-303) | | | |
| Weight (approx.) | 215 g; 7.6 oz (main unit) | | | 335 g; 11.8 oz (with BP-303, MB-133 and FA-S81US) | |
| | 340 g; 12.0 oz (with BP-303, MB-133 and FA-S81VS) | | | | |
| TRANSMITTER | | | | | |
| Output power (Hi, L2, L1) | | 5 W, 2 W, 1 W | | | |
| Frequency stability | | ±1.0 ppm | | | |
| Spurious emissions | | 80 dB typical (USA) 0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz) (EUR) | | | |
| FM Hum and noise | | 55 dB typical (@25 kHz), 55 dB typical (@12.5 kHz)(USA) | | 60 dB typical (@25 kHz), 59 dB typical (@12.5 kHz) (USA) | |
| Audio harmonic distortion | | 0.5% typical (AF 1 kHz 40% deviation) | | 0.4% typical (AF 1 kHz 40% deviation) | |
| FSK error | | 1% typical (@DVN/DN*) | | | |
| RECEIVER | | | | | |
| Sensitivity | Digital (1% BER) | –5.5 dBμV emf typical (0.26 μV typical) (@DVN), –4.0 dBμV emf typical (0.32 μV typical) (@DN*) | | –4.0 dBμV emf typical (0.32 μV typical) (@DVN), –4.0 dBμV emf typical (0.32 μV typical) (@DN*) | |
| | Analog (12 dB SINAD) | 0.22 μV typical | | | |
| | Analog (20 dB SINAD) | –5.5 dBμV emf typical (@25/20 kHz), –2.5 dBμV emf typical (@12.5 kHz) | | –5.0 dBμV emf typical (@25/20 kHz), –2.0 dBμV emf typical (@12.5 kHz) | |
| Adjacent channel selectivity | Digital | 71 dB typical (@DVN), 70 dB typical (@DN*) | | 66 dB typical (@DVN), 66 dB typical (@DN*) | |
| | Analog | 80 dB typical (@25 kHz), 76 dB typical (@12.5 kHz) | | 75 dB typical (@25 kHz), 72 dB typical (@12.5 kHz) | |
| Spurious response rejection | | 81 dB typical | | 76 dB typical | |
| Intermodulation rejection | Digital | 72 dBμV emf typical (@DVN), –41 dBm typical (@DN*) | | 73 dBμV emf typical (@DVN), –41 dBm typical (@DN*) | |
| | Analog | 75 dB typical (USA) 67 dB typical (EUR) | | 74 dB typical (USA) 68 dB typical (EUR) | |
| Audio output power | Internal SP | 1300 mW typical (at 5% distortion, 8 Ω load) | | | |
| | External SP | 1300 mW typical (with HM-222H at 5% distortion, 8 Ω load) 1000 mW typical (at 5% distortion, 8 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. *2 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions.
 *3 DVN: Digital Very Narrow (6.25 kHz), DN: Digital Narrow (12.5 kHz). DN is for NXDN version only. *4 For the transceiver with a "U" mark on the serial number label.
 NXDN/dPMR modes are not compatible with each other. The radio protocol/mode cannot be changed after purchase.

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 |
| Immersion | 512.5 | 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 | IP68 (Dust-tight and waterproof protection) |

Battery Life

| Battery pack | Type | Capacity | Operating time* |
|--------------|--------------|----------------------------------|----------------------|
| BP-303 | Li-ion 7.2 V | 3350 mAh (typ.), 3200 mAh (min.) | 16.5 hours (Approx.) |

* Tx: Rx: standby = 5:5:90 duty cycle. Power save function ON.

Supplied accessories: (May differ depending on the transceiver version)
 • BP-303 battery pack • MB-133 belt clip

OPTIONAL ACCESSORIES

IC-F3400D • IC-F4400D Series

■ BATTERY PACK

BP-303: Rechargeable Li-ion 7.2 V/3350 mAh (typ.), 3200 mAh (min.). IP68 protection.

■ BATTERY CHARGERS

BC-226: Multi-connectable rapid charger (connects up to six BC-226 units). Charges the BP-303 in 4.2 hours (approx.). AC adapter for single unit. The straight plug type is required.

+ **BC-123S:** AC adapter for single unit. The straight plug type is required.
or **BC-228:** AC adapter. One AC adapter is required for up to six charger units.

BC-227: Compact desktop charger. Charges the BP-303 in 4.4 hours (approx.). AC adapter BC-123S supplied with the BC-227, depending on version.

BC-214N: Multi-charger. Charges up to six BP-303 batteries in 4.5 hours (approx.). AC adapter BC-157S supplied with the BC-214N, depending on version. BC-214N Version #61-#63 required.

■ POWER SUPPLY CABLES

CP-23L: Vehicle charger cable for use with the BC-227.

OPC-515L: DC power cable for use with the BC-227.



■ SPEAKER-MICROPHONE

HM-222H: Large audio speaker microphone with emergency button and 3.5 mm earphone jack. IP68 protection.



■ HEADSETS AND PTT SWITCH CABLE

HS-94: Earphone-headset (Use with VS-4MC)

HS-95: Behind-the-head headset (Use with VS-4MC).

HS-97: Throat microphone (Use with VS-4MC).

VS-4MC: PTT switch cable. VS-4MC is required when using any of HS-94, HS-95 or HS-97.



■ BELT CLIPS, BELT HANGERS AND CARRYING CASES

MB-133: Alligator belt clip. Same as supplied.

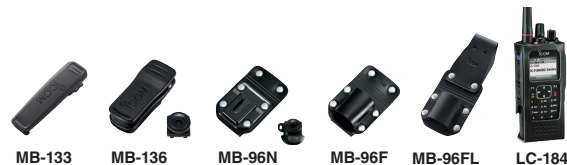
MB-136: Swivel belt clip.

MB-96N: Swivel type leather belt hanger.

MB-96F: Fixed type leather belt hanger. For use with the MB-133.

MB-96FL: Long fixed type leather belt hanger. For use with the MB-133.

LC-184: Hard type carrying case. Charging is possible while the case is attached.



■ OTHER OPTIONS AND CABLES

AD-118: ACC adapter. For use with Hirose plug accessory.

UT-134: AES/DES encryption unit.

OPC-2338: Programming cable. USB-14-pin type.

OPC-1870: Zone copy cable. Handheld to handheld type.

OPC-2362: Zone copy cable. Handheld to mobile type.

■ SOFTWARE AND ACTIVATION KEYS

CS-OTPM1: OTAP manager software.

CS-OTAR1: OTAR manager software.

CS-KLD2: Key-loader for UT-134.

ISL-UGMTR: NXDN™ Type-D trunking upgrade key.

ISL-UGMD3: dPMR™ Mode 3 trunking upgrade key. (Not available in all regions.)

ISL-AKAES: AES activation key.

ISL-CHEX: Channel expansion key.

ISL-AK25K: 25 kHz activation key.

ISL-AKSTM: Dealer set mode activation key.

■ ANTENNAS

FA-S81V: 136-150 MHz

FA-S82V: 148-162 MHz

FA-S83V: 160-174 MHz

FA-S81U: 380-430 MHz

FA-S82U: 430-480 MHz

FA-S83U: 470-520 MHz

■ STUBBY ANTENNAS

FA-S81VS: 136-150 MHz

FA-S82VS: 148-162 MHz

FA-S83VS: 160-174 MHz

FA-S81US: 400-450 MHz

FA-S82US: 450-490 MHz

■ CUT-TYPE ANTENNAS

FA-S67VC: 136-174 MHz

FA-S76UC: 380-520 MHz

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

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Icom Inc.

1-1-32, Kamiminami, Hirano-Ku, Osaka 547-0003, Japan Phone: +81 (06) 6793 5302 Fax: +81 (06) 6793 0013

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หมู่ที่ 15 ตำบลบางแก้ว อำเภอบางพลี

จังหวัดสมุทรปราการ 10540

โทร. 02 090 2920-22 , 0816439181

แฟกซ์. 02 090 2922

Email : info@gsimon.com