# IC-F3400D • IC-F4400D Series

#### **■ BATTERY PACKS**

BP-283: Rechargeable Li-ion 7.2 V/2010 mAh (typ.), 1910 mAh (min.). IP68 protection. BP-284: Rechargeable Li-ion 7.2 V/3210 mAh (typ.), 3070 mAh (min.). IP68 protection.

#### **■ BATTERY CHARGERS**

BC-226: Connectable type charger (connects up to six BC-226 units). Charges the BP-283/BP-284 in 2.7/4.3 hours.

+BC-228: AC adapter. One AC adapter is required for up to six charger units.

BC-225: Intelligent charger. Shows the charging information with the LED lighting. Charges the BP-283/BP-284 in 3/4.5 hours (approx.).

+ BC-123SA/SE/SV: AC adapter

RS-BC225: Intelligent charger software for Windows® PC.

BC-227: Compact type desk top charger. Charges the BP-283/BP-284 in 2.7/4.3 hours. + BC-123SA/SE/SV: AC adapter.

BC-219N: Desk top charger. Charges the BP-283/BP-284 in 3/4.5 hours.

+ BC-123SA/SE/SV: AC adapter

BC-214: Multi-charger. Charges up to six BP-283/BP-284 batteries in 3/4.5 hours (approx.). + BC-157S: AC adapter

\*AD-132N charger adapter is supplied with the BC-214, depending on version.

#### **■ POWER SUPPLY CABLES**

CP-23L: Vehicle charger cable for use with the BC-219N or BC-227. OPC-515L: DC power cable for use with the BC-219N, BC-225 or BC-227. OPC-656: DC power cable for use with the BC-214.



### ■ SPEAKER-MICROPHONE

HM-222: 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











#### ■ 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 MBB-3.

MB-96FL: Long fixed type leather belt hanger. For use with the MBB-3.

LC-184: Hard type carrying case. Charging is possible while the case is attached. LC-186: 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-F3400D: Programming software. CS-KLD2: Key-loader for UT-134.

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

ISL-UGMD3: dPMR™ Mode 3 trunking 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.

### ANTENNAS

#### **■ 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

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

#### ■ 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

www.icom.co.jp/world

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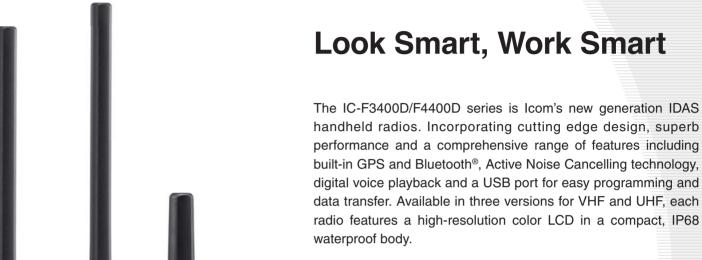
СОМ

com IC-F3400D

IC-F3400DT



VHF AND UHF DIGITAL TRANSCEIVERS



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<sup>®</sup>, voice recording, active noise cancelling functions

Motion/stationary detection, man down and lone worker functions

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



IC-F3400D





#### General Features

- 136-174, 380-470, 450-520 MHz versions
- 1024 Channels / 128 Zones, 32 Channels / 2 Zones (Non-display type)\*
- \* IC-F3400D/F4400D/F3400DP/F4400DP (Non-display type): Up to 32 selected channels out of 1024 can be allocated to the channel knob.
- 4000 Channels with optional license key, ISL-CHEX
- High-resolution transreflective color LCD\*
- \* For IC-F3400DT/F3400DS/F3400DPT/F3400DPS/F4400DT/ F4400DS/F4400DPT/F4400DPS (Display type)
- 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<sup>™</sup> prevents audio degradation from a water-logged speaker
- 29.3 mm (1.2 inch) slim dimensions (with BP-283 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 1/2 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\*
- \* 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



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

### Analog Functions

- . CTCSS and DTCS tone
- 2-Tone and 5-Tone
- MDC functions (Depending on version)
- BIIS 1200 functions
- 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
- · 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
- 14-pin accessory connector
- Integrated GPS with GPS position screen and auto log function
- · Internal clock with time auto adjustment
- Battery life cycle management with optional intelligent charger, BC-225, and software, RS-BC225
- · microSD card slot

#### IC-F3400DT/DS/D IC-F3400DPT/DPS/DP IC-F4400DT/DS/D IC-F4400DPT/DPS/DF NXDN Version NXDN Version dPMR Version dPMR Version GENERAL Frequency coverage\* 380-470 MHz 136-174 MHz 136-174 MHz 380-470 MHz 450-520 MHz (\* Depending on version 1024 channels /128 zones Number of channels 4000 channels /128 zones (Ontion)\* 32 channels /2 zones (Non-display type)\*2 16K0F3E\*3, 14K0F3E, 16K0F3E\*3, 14K0F3E, 16K0F3E\*3, 14K0F3E, 16K0F3E\*3, 14K0F3E, Type of emission 11K0F3F 11K0F3F 8K50F3E . 8K30F1E/D. 8K50F3E, 4K00F1E/D 8K50F3E . 8K30F1E/D. 8K50F3E, 4K00F1E/D Power supply requirement 7.5 V DC nominal Current drain (approx.) 580 mA/140 mA (Max. audio (internal SP)/Standby Rx Antenna impedance $50 \Omega$ -30 °C to +60 °C; -22 °F to +140 °F (Radio specifications) Operating temperature range Dimensions (W x H x D;Project 53.6 × 123.5 × 29.3 mm; 2.1 × 4.9 × 1.2 in (With BP-283) 180 a: 6.4 oz (main unit Weight (approx.) 305 a: 10.8 oz (BP-283, MB-133, FA-S81VS) 300 a: 10.6 oz (BP-283, MB-133, FA-S81US) RANSMITTER Output power (Hi, L2, L1) 5 W. 2 W. 1 W Frequency stability ±1.0 ppm 80 dB typical (USA) Spurious emissions $0.25 \,\mu W \ (\leq 1 \, \text{GHz}), \ 1.0 \,\mu W \ (> 1 \, \text{GHz}) \ (\text{EUR})$ 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) 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) **ECEIVER** Analog (12 dB SINAD) 0.22 uV typical 0.23 uV typical -5.5 dBµV emf typical (@25/20 kHz) -5.0 dBµV emf typical (@25/20 kHz) Sensitivity (20 dB SINAD -2.5 dBµV emf typical (@12.5 kHz) -2.0 dBµV emf typical (@12.5 kHz) -5.5 dBµV emf typical (0.26 µV typical) (@DVN), -4.0 dBμV emf typical (0.32 μV typical) (@DVN), -4.0 dBμV emf typical (0.32 μV typical) (@DN) (1% BER) -4.0 dBμV emf typical (0.32 μV typical) (@DN) Analog 80 dB typical (@25/20 kHz), 76 dB typical (@12.5 kHz) 75 dB typical (@25 kHz), 72 dB typical (@12.5 kHz) Adjacent channel selectivity Diait 71 dB typical (@DVN), 70 dB typical (@DN) 66 dB typical (@DVN), 66 dB typical (@DN) Spurious response rejection 81 dB typical 76 dB typical 75 dB typical (USA) 74 dB typical (USA) Analo Intermodulation rejection 67 dB typical (EUR) 68 dB typical (EUR) Digital 72 dBµV emf typical (@DVN), -41 dBm typical (@DN) 73 dBµV emf typical (@DVN), -41 dBm typical (@DN) 1300 mW typical (at 5% distortion with 8 Ω load Audio output power 1000 mW typical (at 5% distortion with 8 Ω load) External SF

Measurements made in accordance with TIA-603, EN300 086, EN301 166, EN300 113. All stated specifications are subject to change without notice or obligation.

\*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			
Stanuaru	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		

### **Battery Life**

Battery pack	Туре	Capacity	Operating time*
BP-283	Li-ion 7.2 V	2010 mAh (typ.), 1910 mAh (min.)	10.5 hours (Approx.)
BP-284	Li-ion 7.2 V	3350 mAh (typ.), 3120 mAh (min.)	16.5 hours (Approx.)

**Dust & Water** 

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

Supplied accessories: (May differ depending on version) · BP-283 battery pack MB-133 belt clip

IP68 (Dust-tight and waterproof protection)

<sup>\*1</sup> Optional license key (ISL-CHEX) required.
\*2 IC-F3400D/F4400D/F3400DP/F440DP (Non-display type): Up to 32 selected channels out of 1024 can be allocated to the channel knob.