



IC-F1100D Series
IC-F2100D Series

VHF AND UHF DIGITAL TRANSCEIVERS

Big on Audio, Small on Size 1500 mW Class Leading Audio

The IC-F1100D and IC-F2100D IDAS™ digital handheld units improve on the past performance of the IC-F1000D and IC-F2000D as well as setting a new standard in digital communication. This model continues Icom's reputation for high power audio clarity with a leading edge 1500 mW speaker. These compact handheld radios are also waterproof, dustproof and come with a long lasting battery for those times when communication matters. The digital handheld units are available in three designs which are Simple version with no display or keypad (IC-F1100D & IC-F2100D), simple keypad and display version (IC-F1100DS & IC-F2100DS) and Full keypad and display version (IC-F1100DT & IC-F2100DT).

Icom's custom high power handling capacity speaker for 1500 mW of powerful audio

Compact, waterproof durable design (IP67/55/54 and MIL-STD-810-G)

Over-the-Air Alias (OAA) function displays the caller's name without programming (IC-F1100DT/DS and IC-F2100DT/DS only)

AquaQuake™ function clears any water ingress that may penetrate the speaker grill of the unit

Motion/Stationary detection, Man Down and Lone Worker functions

Operating time of up to 18 hours with the supplied battery (BP-280)

IDAS™ conventional and Type-D single-site trunking



IC-F1100DT

IC-F2100DS

IC-F1100D

IDAS™ **NXDN™**
ICOM DIGITAL ADVANCED SYSTEM

General Features

- 136–174, 350–400, 400–470, 450–520 MHz versions
- 128 Channels / 8 Zones (for LCD types)
- 16 Channels (for non-display types)
- Icom's customized speaker offers a louder 1500 mW audio output
- An engineered casing that amplifies and improves acoustic sound clarity
- Compact (52.2 (W) × 111.8 (H) mm; 2.1 × 4.4 in) and light-weight
- IP67/55/54 waterproof and dust-tight protection
- Tested to 12 categories of MIL-STD-810-G environmental tests
- AquaQuake™ – Expels water ingress from the speaker grill
- DTMF autodial memories
- 16-position rotary selector and ON/OFF volume knob
- Programmable keys – Increase the number of programmable key assignments by using the “Shift key”
- Operating times of up to 18 hours (with the supplied BP-280 battery pack)
- Eight character alphanumeric display (for LCD types)
- Three color LED



1500 mW powerful audio



Icom custom high power handling capacity speaker



Waterproof for 30 minutes in one meter depth of water

Operating Mode

- NXDN conventional
- NXDN multi-site conventional over IP network
- NXDN Type-D single-site trunking
- Analog mode
- Analog/digital mixed operation



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

Digital Functions (Voice and Data)

- AMBE+2™ vocoder
- Over-the-Air Alias (OAA) displays the caller's name without programming (for LCD types)
- Individual, Group and All call
- Late entry for Group call
- Status call and Polling
- Short data messages (for LCD types)
- Call alert
- Radio check (RX only)
- GPS position capabilities (requires HM-171GPW)

Analog Functions

- CTCSS and DTCS tone
- 2-Tone and 5-Tone
- MDC PTT ID transmission
- BIIS PTT ID transmission

Safety and Security

- Digital voice scrambler (Low level encryption)
- Radio Stun/Revive/Kill (RX only)
- Remote monitor
- Man down, Lone worker and Emergency call key capability
- Motion and Stationary detection function
- Surveillance function temporarily turns OFF the beep and LED indicator
- Power ON password (for LCD types)

Scan Functions

- Priority scan monitors one or two priority channels while scanning non-priority channels
- Voting scan automatically selects the optimal repeater site
- Mode dependent scan automatically changes the scan list, depending on the operating channel
- Power ON scan function
- Talk Back timer

Voice/Audio Functions

- Channel announcement function
- VOX function for hands-free operation
- Siren sound for security alarm

| | | IC-F1100DT/DS | IC-F1100D | IC-F2100DT/DS | IC-F2100D |
|---|--|--|-------------|---|-------------|
| GENERAL | | | | | |
| Frequency coverage* (* Varies, depending on the version) | | 136–174 MHz | | 350–400 MHz (EXP) 400–470 MHz (ALL) 450–520 MHz (USA, EXP) | |
| Number of channels | | 128 channels/ 8 zones | 16 channels | 128 channels/ 8 zones | 16 channels |
| Type of emission* (* Depends on the version) | | 11K0F3E, 4K00F1D (USA) 16K0F3E, 14K0F3E, 11K0F3E, 8K50F3E, 4K00F1D (EXP) 16K0F3E, 14K0F3E, 8K50F3E, 4K00F1D (EUR) | | | |
| Power supply requirement | | 7.5 V DC nominal | | | |
| Current drain (approximate) | | Tx 1.3 A | | 1.4 A | |
| | | Rx 520 mA /110 mA (Max. audio (internal SP)/Standby) | | 520 mA /110 mA (Max. audio (internal SP)/Standby) | |
| Antenna impedance | | 50 Ω | | | |
| Operating temperature range | | –30°C to +60°C; –22°F to +140°F (Radio specification) (USA/EXP) –25°C to +55°C (Radio specification) (EUR) | | | |
| Dimensions (W × H × D; Projections not included) | | IC-F1100DS/D, IC-F2100DS/D: 52.2 × 111.8 × 29.4 mm; 2.1 × 4.4 × 1.2 in (With BP-280) IC-F1100DT, IC-F2100DT: 52.2 × 111.8 × 34.1 mm; 2.1 × 4.4 × 1.3 in (With BP-280) | | | |
| Weight (approximate) | | IC-F1100D, IC-F2100D: 260 g; 9.2 oz (With BP-280 and MB-133) IC-F1100DS, IC-F2100DS: 270 g; 9.5 oz (With BP-280 and MB-133) IC-F1100DT, IC-F2100DT: 280 g; 9.9 oz (With BP-280 and MB-133) | | | |
| TRANSMITTER | | | | | |
| Output power (Hi, L2, L1) | | 5 W, 2 W, 1 W | | 4 W, 2 W, 1 W | |
| Maximum frequency deviation | | ± 5.0 kHz (25 kHz), ±4.0 kHz (20 kHz), ±2.5 kHz (12.5 kHz) | | | |
| Spurious emissions | | 70 dB minimum (USA) 0.25 μW (≤ 1 GHz), 1.0 μW (> 1 GHz) (EUR/EXP) | | | |
| Frequency stability | | ±1.0 ppm | | | |
| Audio harmonic distortion | | 0.7% typ. (25 kHz), 0.9% typical (20 kHz), 1.0% typical (12.5 kHz) (at AF 1 kHz 40% deviation) | | | |
| FM Hum and Noise (without CCITT filter) | | 40 dB typical (12.5 kHz) (USA) | | 44 dB typical (12.5 kHz) (USA) | |
| Residual modulations (with CCITT filter) | | 52 dB typical (25 kHz), 50 dB typical (20 kHz), 46 dB typical (12.5 kHz) (EUR/EXP) | | 54 dB typical (25 kHz), 52 dB typical (20 kHz), 48 dB typical (12.5 kHz) (EUR/EXP) | |
| FSK error | | 5% maximum | | | |
| External microphone connector | | 3-conductor 2.5 (d) mm (1/10)/2.2 kΩ | | | |
| RECEIVER | | | | | |
| Sensitivity | | (at 12 dB SINAD) | | 0.21 μV typical | |
| | | (at 20 dB SINAD) | | –4 dBμV typical emf | |
| | | (at 5% BER) | | –8 dBμV typical emf (0.20 μV typical) | |
| Adjacent channel selectivity | | 77 dB typ. (25 kHz), 74 dB typ. (12.5 kHz), 69 dB typ. (12.5 kHz), 59 dB typ. (digital) | | 76 dB typ. (25 kHz), 75 dB typ. (12.5 kHz), 69 dB typ. (12.5 kHz), 58 dB typ. (digital) | |
| Spurious response rejection | | 80 dB typical | | | |
| Intermodulation rejection | | 75 dB typ. (25/12.5 kHz), 71 dB typ. (digital) (USA/EXP) 69 dB typ. (25/20/12.5 kHz), 74 dBμV emf typ. (digital) (EUR) | | 77 dB typ. (25/12.5 kHz), 70 dB typ. (digital) (USA/EXP) 70 dB typ. (25/20/12.5 kHz), 74 dBμV emf typ. (digital) (EUR/EXP) | |
| Hum and noise | | (With CCITT filter) | | 47 dB typ. (25 kHz), 43 dB typ. (12.5 kHz) (USA/EXP) | |
| | | (Without CCITT filter) | | 52 dB typ. (25 kHz), 50 dB typ. (20 kHz), 46 dB typ. (12.5 kHz) (EUR) | |
| AF output power (at 5% distortion) | | Internal SP | | 1500 mW typical (With an 8 Ω load) | |
| | | External SP | | 400 mW typical (With an 8 Ω load) | |
| External speaker connector | | 2-conductor 3.5 (d) mm (1/8)/8 Ω | | | |

All stated specifications are subject to change without notice or obligation. Measurements made in accordance with TIA-603 (USA/EXP) or EN 300-086, EN 301-166 (EUR). The IC-F1100DT/DS/D VHF versions are under evaluation as of May 2018.

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 | | IP67/55/54 | |
| Battery Life | | | |
| Battery pack | Type | Capacity | Operating time* |
| BP-280 | Li-ion 7.2 V | 2400 mAh (typ.), 2280 mAh (min.) | Up to 18 hours |
| BP-279 | Li-ion 7.2 V | 1570 mAh (typ.), 1485 mAh (min.) | Up to 11.5 hours |
| BP-278 | Li-ion 7.2 V | 1190 mAh (typ.), 1130 mAh (min.) | Up to 9 hours |

* TX: RX: standby = 5:5:90. Power save function ON.

Supplied accessories: (May differ, or not supplied, depending on version)
 • Battery pack, BP-280 • Belt clip, MB-133 • Antenna
 • Desktop charger, BC-213* • AC adapter, BC-123SE*



The "3D GENUINE Icom label" is attached to the rear chassis under the battery. Check the Icom website for details: <http://www.icom.co.jp/world/genuine-info/>

BATTERY PACKS

BP-278: 1190 mAh (typ.), 1130 mAh (min.) rechargeable Li-ion battery.
BP-279: 1570 mAh (typ.), 1485 mAh (min.) rechargeable Li-ion battery.
BP-280: 2400 mAh (typ.), 2280 mAh (min.) rechargeable Li-ion battery.



BP-278 BP-279 BP-280

BATTERY CHARGERS

BC-213: Desktop charger.
 Charges the BP-278, BP-279 or BP-280. Charges the BP-280 in 3.5 hours (approximate).
 + **BC-123SA/SE/SUK/SV:** AC adapter.

BC-214: Multi-charger.
 Charges up to six radios and/or batteries at the same time.
 + **BC-157S:** AC adapter.

* AD-130 charger adapter is supplied with the BC-214, depending on the version.



BC-213 BC-123SA BC-214 BC-157S

POWER SUPPLY CABLES AND CHARGER BRACKET

CP-23L: Vehicle charger cable for use with the BC-213.
OPC-656: DC power cable for use with the BC-214.
MB-130: Charger bracket for use with the BC-213.



CP-23L OPC-656 MB-130

SPEAKER-MICROPHONES

HM-171GPW: GPS speaker microphone with a waterproof connector. IP67 protection.
HM-168LWP: Waterproof speaker microphone with a waterproof connector. IP67 protection.
HM-159LA: Speaker microphone with a 3.5 mm earphone jack.
HM-158LA: Compact speaker microphone with a 3.5 mm earphone jack.



HM-171GPW HM-168LWP HM-159LA HM-158LA

EARPHONE-MICROPHONES

HM-153LA: Durable lapel microphone with earphone.
HM-166LA: Light weight lapel microphone with earphone.



HM-153LA HM-166LA

HEADSETS, PTT SWITCH CABLE & PLUG ADAPTER

HS-94LWP: Earphone-headset with a waterproof connector.
HS-95LWP: Behind-the-head headset with a waterproof connector.
HS-94: Earphone-headset. (Use with either the VS-4LA or OPC-2004LA)
HS-95: Behind-the-head headset. (Use with either the VS-4LA or OPC-2004LA)
HS-97: Throat microphone. (Use with either the VS-4LA or OPC-2004LA)
VS-4LA: PTT switch cable for manual PTT operation.
 (For use with either the HS-94, HS-95 or HS-97)
OPC-2004LA: Plug adapter cable for VOX operation.
 (For use with either the HS-94, HS-95 or HS-97)



HS-94LWP HS-95LWP HS-97 VS-4LA OPC-2004LA

BELT CLIP

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

SOFTWARE AND CABLE

CS-F2100D: Programming software.
OPC-478UC: USB type radio programming cable.

ANTENNAS

FA-SC25V: 136–150 MHz
FA-SC55V: 150–174 MHz
FA-SC25U: 400–430 MHz
FA-SC57U: 430–470 MHz
FA-SC72U: 470–520 MHz
FA-SC01U: 350–400 MHz
FA-SC02U: 330–380 MHz



FA-SC25V FA-SC55V FA-SC25U FA-SC57U FA-SC72U FA-SC01U

HIGH GAIN ANTENNAS

FA-SC62V: 150–160 MHz
FA-SC63V: 155–165 MHz



FA-SC62V FA-SC63V

STUBBY ANTENNAS

FA-SC26VS: 136–144 MHz
FA-SC27VS: 142–150 MHz
FA-SC56VS: 150–162 MHz
FA-SC57VS: 160–174 MHz
FA-SC26US: 400–450 MHz
FA-SC73US: 450–490 MHz

FA-SC26VS FA-SC27VS FA-SC56VS
FA-SC57VS FA-SC26US FA-SC73US**CUT-TYPE ANTENNAS**

FA-SC61VC: 136–174 MHz
FA-SC61UC: 380–520 MHz



FA-SC61VC FA-SC61UC

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

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