



IC-F1100D Series
IC-F2100D Series

VHF AND UHF DIGITAL TRANSCEIVERS

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

The IC-F1100D series is an economical standard IDAS™ digital handheld radio improved from the IC-F1000D series. In addition to the basic non-display types (IC-F1100D, IC-F2100D), LCD types with ten-keypad and simple-keypad (IC-F1100DT/DS, IC-F2100DT/DS) are added to the line-up. The Icom's custom high power handling capacity speaker and acoustic improvements provide class leading 1500 mW loud and high clarity audio. The compact easy-to-hold, dust-tight and waterproof durable design, with a long lasting battery, offers reliable operation.

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 water away from the speaker grill

Motion/Stationary detection, Man Down and Lone Worker functions

Up to 18 hours of operating time with the supplied BP-280 battery pack

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)
- 1500 mW large volume audio from Icom's custom speaker
- Improved acoustic structure improves 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™ clear water away from the speaker grill
- DTMF autodial memories
- 16-position rotary selector and ON/OFF volume knob
- "Shift key" function increases the number of programmable key assignments
- Up to 18 hours of operating time with 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 data (Optional HM-171GPW required)

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)
- Analog voice scrambler (16-code inversion)
- Radio Stun/Revive/Kill (RX only)
- Remote monitor
- Emergency key for emergency call
- Man Down function
- Lone Worker function
- 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		0.24 μV typical
	(at 20 dB SINAD)	–4 dBμV typical emf		–5 dBμV typ. emf (25/20 kHz), –2 dBμV typ. emf (12.5 kHz)
	(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)		42 dB typical (12.5 kHz) (USA)
	(Without CCITT filter)	52 dB typ. (25 kHz), 50 dB typ. (20 kHz), 46 dB typ. (12.5 kHz) (EUR)		50 dB typ. (25 kHz), 48 dB typ. (20 kHz), 45 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 2.5 mm earphone jack.
HM-158LA: Compact speaker microphone with a 2.5 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-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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