VHF AND UHF DIGITAL TRANSCEIVERS

IC-F1000D
VHF transceiver

IC-F2000D
UHF transceiver

Compact, Waterproof Digital Business Radio

iDAS™
ICOM DIGITAL ADVANCED SYSTEM

IDAS™ digital conventional

Type-D single-site trunking

Slim, compact and lightweight

IP67 waterproofing and dust-tight protection

Motion detection, man down and lone worker functions as standard

Good audio quality for noisy environments

Long-lasting battery life

Channel announcement function

Rugged MIL-STD 810

IP67

MDC 1200 Compatible

Limited functions.

GENUINE Hologram Label Attached

Compact, Slim Dimensions, Waterproof Digital Transceiver

IDAS™ Digital Mode Operation

The IC-F1000D/F2000D can program Type-D single-site trunking and digital conventional modes as well as analogue mode per channel. The IDAS digital mode employs 4-level FSK modulation and the NXDN™ common air interface, offering true 6.25kHz spectrum efficiency, higher security and better audio clarity – even at the fringes of the communication range.

The following IDAS features are programmable:

- PTT ID (TX) • Individual/group calls
- Radio check (RX) • Stun/Kill/Revive (RX)
- Remote monitor (RX) • Emergency (TX)
- Call alert (RX) • Digital voice scrambler (15-bit)
- Status Call (Power ON/OFF status and GPS request)
- Voting scan for multi-site conventional operation

TX: Transmit, RX: Receive

Intelligent Emergency Functions

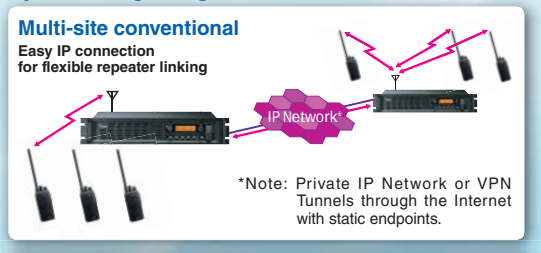
To assist in worker safety, the IC-F1000D/F2000D has three emergency related functions: motion detection, man down and lone worker functions. If one of these functions are activated, the transceiver automatically enters an emergency phase and starts counting down to send an emergency signal. The built-in motion sensor detects position, state of motion and non-motion.

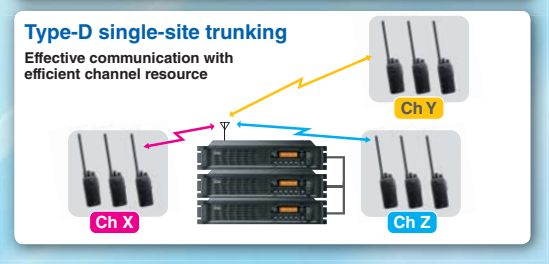
Optional GPS Speaker-Microphone

With the optional GPS speaker-microphone, HM-171GPW, GPS position data can be attached to a voice or data transmission such as responding a GPS request status call.

Photo includes optional stubby antenna.

System image diagram





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IP67 Waterproof and Dust-tight Protection

While the body is compact, the IC-F1000D/F2000D has rugged construction providing superior protection against water (1m depth for 30 minutes), dust, sand, mud and other objects. The radio is also tested to MIL-STD 810 specifications. It can withstand harsh use.

Slim, Compact and Lightweight

The IC-F1000D/F2000D has a compact 52.2×111.8×30.3mm body and weighs only 260g (with BP-280 battery pack and belt clip). It's easy to carry around anywhere.

Easy to Hear in a Noisy Environment

The large 36mm speaker of the transceiver provides clear 800mW* audio. The built-in BTL amplifier increases the audio output power and delivers loud and intelligible voice to a radio operator working in noisy environments.

* Typical with internal speaker.

Built-in 2-Tone and 5-Tone (Analogue mode)

The IC-F1000D/F2000D has built-in 2-Tone, 5-Tone, CTCSS and DTCS signaling capability for analogue mode group communication and selective calling. The IC-F1000D/F2000D can be used as an analogue transceiver ready for future digital migration.

Long-Lasting Battery Pack

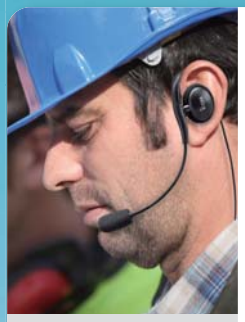
The large capacity waterproof battery pack, BP-280 (2400mAh typ.), provides 18 hours of operating time*. The supplied rapid charger BC-213* charges the BP-280 in 3.5 hours.

* Tx: Rx: Standby=5:5:90. Power save function ON. BC-213 may be not supplied depending on version.

Other Features

- DTMF autodial memories
- MDC functions: PTT ID, emergency call, radio check (RX) and stun/revive (RX)
- BIIS PTT ID call
- Surveillance function
- Escalating alarm
- VOX capability for hands-free operation
- Channel announcement function
- Red emergency switch on the top panel

The IC-F1000D/F2000D: Added Value Optional Accessories



Manufacturing & Construction

»**Headsets**

HS-94LWP
Earhook headset with boom microphone provides hands-free operation.

HS-95LWP
Behind-the-head type with boom microphone provides hands-free operation.

VS-4LA

HS-97 +VS-4LA or OPC-2004LA
Throat microphone picks up your speech vibration, even in a noisy environment.

Facility & Security Guard

»**Speaker-microphones**

HM-171GPW
GPS speaker-microphone for sending GPS position data with voice.

HM-168LWP
IP67 waterproof speaker-microphone for outdoor work or places prone to getting wet.

HM-159LA
Full size, durable speaker-microphone provides loud audio.

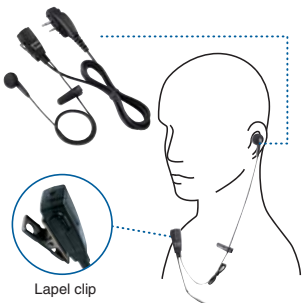
HM-158LA
Lightweight, compact size speaker-microphone.

Retail & Hospitality

»**Earphone-microphones**

PTT lock switch

HM-153LA
Durable lapel microphone with earphone for low-profile, discreet placement.



Lapel clip

HM-166LA
Lightweight lapel microphone with earphone.

IC-F1000D • IC-F2000D

SPECIFICATIONS

	IC-F1000D	IC-F2000D
GENERAL		
Frequency coverage	136–174MHz	400–470MHz
Number of channels	16 channels	
Type of emission (* Depending on version)	16K0F3E (25kHz), 14K0F3E (20kHz), 8K50F3E (12.5kHz), 4K00F1E/D (6.25kHz)	
Power supply requirement	7.5V DC nominal	
Current drain (approx.) Tx High / Rx Max. audio/Standby	1.3A / 400mA (Internal SP)/110mA	1.4A / 400mA (Internal SP)/110mA
Antenna impedance	50Ω	
Operating temperature range	–25°C to +55°C (Radio specifications)	
Dimensions (W×H×D) (Projections not included)	52.2×111.8×30.3 mm (With BP-280)	
Weight (approx.)	260g (With MB-133 and BP-280)	
TRANSMITTER		
Output power (at 7.5V DC)	5W, 2W, 1W (Hi, L2, L1)	4W, 2W, 1W (Hi, L2, L1)
Max. frequency deviation	± 5.0kHz/±4.0kHz/±2.5kHz (Wide/Middle/Narrow)	
Frequency stability	±1.0ppm	
Spurious emissions	0.25μW (≤ 1GHz), 1.0μW (> 1GHz)	
Residual modulation	45/43/40dB min. (W/M/N)	
Audio harmonic distortion	2.0%/1.1% typ. (W/N) (AF 1kHz 40% deviation)	1.0%/1.5% typ. (W/N) (AF 1kHz 40% deviation)
FSK error	5.0% max.	
Ext. microphone connector	3-conductor 2.5 (d) mm (1/10")/2.2kΩ	
RECEIVER		
Sensitivity (at 20dB SINAD) (at 5% BER)	–5/–5/–2dBμV emf typ. (W/M/N) –8dBμV emf typ. (digital)	
Adjacent channel selectivity	70/70/60dB min. (W/M/N) 50dB min. (Digital)	70/70/60dB min. (W/M/N) 50dB min. (Digital)
Spurious response rejection	80dB typ.	
Intermodulation rejection	65dB min. (W/M/N) 71dBμV min. (Digital)	
Hum and noise	45/43/40dB min. (W/M/N)	
Audio output power Internal SP (With 12Ω load) / External SP (With 8Ω load)	800mW typ. (at 5% distortion) 400mW typ. (at 5% distortion)	
Ext. speaker connector	2-conductor 3.5 (d) mm (1/8")/8Ω	

Measurements made in accordance with EN 301 166 and EN 300 086.
All stated specifications are subject to change without notice or obligation.

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
Solar Radiation	505.5	I
Rain Blowing/Drip	506.5	I, III
Humidity	507.5	–
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 (Dust-tight and waterproof protection)

OPTIONS

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

BP-278 BP-279 BP-280

Battery packs	Type	Capacity	Operating time*
BP-278	Li-ion 7.2V	1130mAh (min.) 1190mAh (typ.)	9 hours (Approx.)
BP-279	Li-ion 7.2V	1485mAh (min.) 1570mAh (typ.)	12 hours (Approx.)
BP-280	Li-ion 7.2V	2280mAh (min.) 2400mAh (typ.)	18 hours (Approx.)

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

RAPID CHARGER

BC-123S*1 BC-213

Charges the BP-280 in 3.5 hours (approx.).

MULTI-CHARGER

BC-157S BC-214

Charges up to six BP-280 battery packs in 3.5 hours (approx.).

BELT CLIP

MB-133
Alligator type
Same as supplied.

*1 BC-123SA for USA plug. SE for Europe plug. SV for Australia plug. SUK for UK plug.

CIGARETTE LIGHTER CABLE & POWER SUPPLY CABLE

CP-23L
For use with BC-213

OPC-656
For use with BC-214

CHARGER BRACKET

MB-130
For use with BC-213

PTT SWITCH CABLE AND PLUG ADAPTER CABLE

OPC-2004LA: For VOX operation.

VS-4LA: For manual PTT operation.
* Either VS-4LA or OPC-2004LA is required when using the HS-97.

STUBBY ANNTENAS

FA-SC26US FA-SC27VS FA-SC26VS

STUBBY ANTENNAS

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

STANDARD ANTENNAS

- **FA-SC25V**: 136–150MHz
- **FA-SC55V**: 150–174MHz
- **FA-SC25U**: 400–430MHz
- **FA-SC57U**: 430–470MHz

CUT ANTENNAS

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

SPEAKER-MICROPHONES

- **HM-168LWP**: Waterproof speaker microphone
- **HM-171GPW**: GPS speaker microphone
- **HM-158LA**: Compact type speaker microphone
- **HM-159LA**: Full size durable speaker microphone

EARPHONE-MICROPHONES

- **HM-153LA**: Durable earphone microphone
- **HM-166LA**: Light-weight earphone microphone

HEADSETS

- **HS-94LWP**: Earphone-headset
- **HS-95LWP**: Behind-the-head headset
- **HS-97**: Throat microphone (Use with VS-4LA or OPC-2004LA)

CHARGER ADAPTER

- **AD-130**:
AD-130 charger adapter is supplied with the BC-214.

Supplied accessories: (May differ depending on version)
- Battery pack, BP-280
- Belt clip, MB-133
- Desktop charger, BC-213
- Antenna
- AC adapter, BC-123S

GENUINE Hologram Label Attached

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/

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