



VHF AND UHF DIGITAL TRANSCEIVERS (dPMR™)

**IC-F1000D**

VHF transceiver

**IC-F2000D**

UHF transceiver

# Compact, Waterproof Digital Business Radio

**iDAS™**  
ICOM DIGITAL ADVANCED SYSTEM

**dPMR™ Mode 1/2 digital operation**

**Slim, compact and lightweight**

**IP67 waterproofing and dust-tight protection**

**Motion detection, stationary detection,  
man down and lone worker functions as standard**

**Good audio quality for noisy environments**

**Long-lasting battery life**

**Channel announcement function**



# Compact, Slim Dimensions, Waterproof Digital Transceiver

## dPMR™ Mode 1/2 Operation

The IC-F1000D/F2000D provides dPMR digital Modes 1, 2 as well as analogue operation. dPMR digital mode offers 6.25kHz spectrum efficiency, higher security and greater audio clarity even on the fringes of the communication range.

The following dPMR features are programmable:

- Remote kill, stun and revive (RX)
- Ambience listening
- Status Call (TX and RX beep)
- SDM (Short Data Message) (RX, notification only)
- Voting scan for multi-site conventional operation
- GPS position data (TX) with optional GPS microphone, HM-171GPW

TX: Transmit, RX: Receive

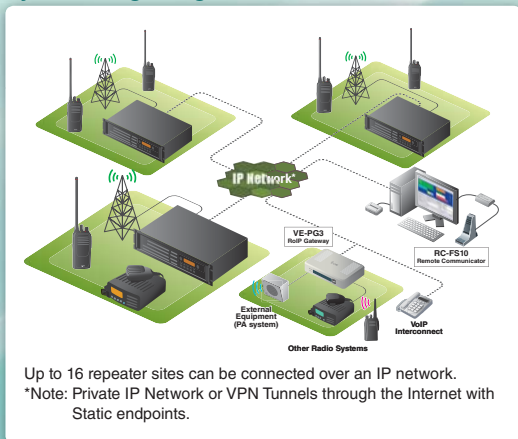
## Intelligent Emergency Functions

To assist in worker safety, the IC-F1000D/F2000D has four emergency related functions: motion detection, stationary 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 acceleration sensor sensitivity level is programmable in 10-levels for each function.

## 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.

## System image diagram



Up to 16 repeater sites can be connected over an IP network.  
\*Note: Private IP Network or VPN Tunnels through the Internet with Static endpoints.



30.3mm  
(With 2400mAh battery pack, BP-280)

Photo includes optional stubby antenna.

52.2mm

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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.

## 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.

## 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.

## Other Features

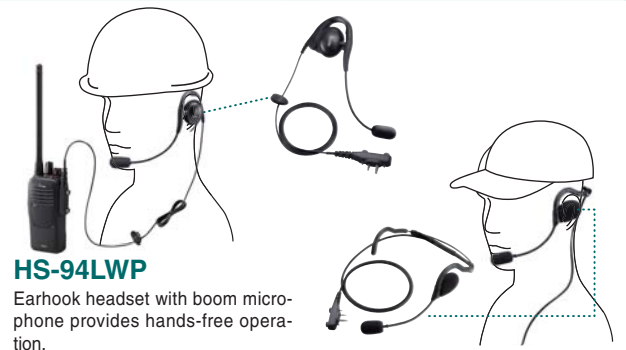
- DTMF autodial memories
- BIIS PTT ID call and emergency call
- Surveillance function
- Escalating alarm
- VOX capability for hands-free operation
- Channel announcement function
- Red emergency switch on the top panel

# 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



IP67  
GPS

### HM-171GPW

GPS speaker-microphone for sending GPS position data with voice.

IP67

### 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.

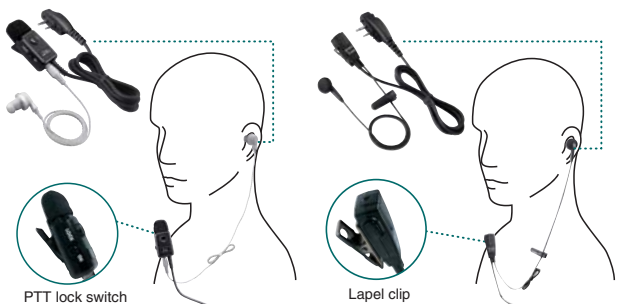
### HM-158LA

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.

# VHF AND UHF DIGITAL TRANSCEIVERS (dPMR™) IC-F1000D • IC-F2000D

## SPECIFICATIONS

	IC-F1000D	IC-F2000D
<b>GENERAL</b>		
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	1.3A	1.4A
Rx Max. audio (Internal SP)	400mA	400mA
Standby	110mA	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)	
<b>TRANSMITTER</b>		
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	0.25μV (≤ 1GHz), 1.0μV (> 1GHz)	
Residual modulation	52/50/46dB typ. (W/M/N)	54/53/48dB typ. (W/M/N)
Audio harmonic distortion	2.0%/1.1%/1.1% typ. (W/M/N) (AF 1kHz 40% deviation)	1.0%/1.0%/1.5% typ. (W/M/N) (AF 1kHz 40% deviation)
FSK error	5.0% max.	
Ext. microphone connector	3-conductor 2.5 (d) mm (1/16")/2.2kΩ	
<b>RECEIVER</b>		
Sensitivity (at 20dB SINAD) (at 5% BER)	–4dBμV emf typ. (W/M/N) –8dBμV emf typ. (Digital)	–5/–5/–2dB emf typ. (W/M/N) –8dBμV emf typ. (Digital)
Adjacent channel selectivity	77/74/69dB typ. (W/M/N) 59dB typ. (Digital)	75/74/69dB typ. (W/M/N) 58dB typ. (Digital)
Spurious response rejection	80dB typ.	
Intermodulation rejection	69dB typ. (W/M/N) 74dBμV emf typ. (Digital)	70dB typ. (W/M/N) 74dBμV emf typ. (Digital)
Hum and noise	52/50/46dB typ. (W/M/N) / 50/48/45dB typ. (W/M/N)	
Audio output power	800mW typ. (at 5% distortion) 400mW typ. (at 5% distortion)	
Internal SP (With 12Ω load)		
External SP (With 8Ω load)		
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.

\*Some frequency ranges may be restricted, depending on country.

### 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.



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



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

### MULTI-CHARGER



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

### BELT CLIP



Same as supplied.

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

### CIGARETTE LIGHTER CABLE & POWER SUPPLY CABLE



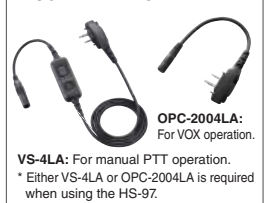
For use with BC-213 / For use with BC-214

### CHARGER BRACKET



For use with BC-213

### PTT SWITCH CABLE AND PLUG ADAPTER CABLE



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

### STUBBY ANTENNAS



FA-SC26US FA-SC27VS FA-SC26VS

### STANDARD 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
- 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

### HEADSETS

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

### EARPHONE-MICROPHONES

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

### 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
- Desktop charger, BC-213
- AC adapter, BC-123S
- Belt clip, MB-133
- Antenna



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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