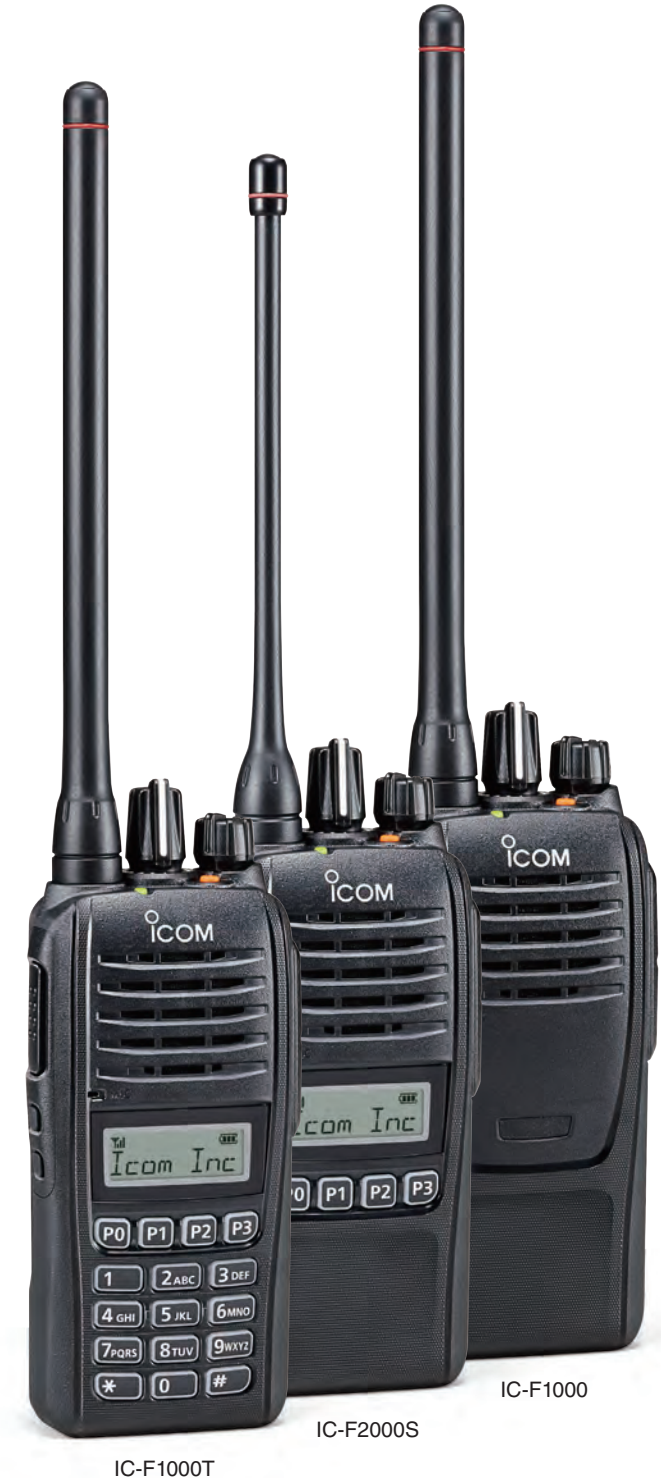
ICOM

Apex Radio Systems Ltd.

IC-F1000 Series
IC-F2000 Series

VHF AND UHF TRANSCEIVERS



IC-F1000T IC-F2000S IC-F1000

Little Radio, Big Sound! Class Leading 1500 mW Audio and Full of Great Features

The IC-F1000/F2000 series provides class leading 1500 mW loud and clear audio with Icom custom high power handling capacity speaker. It offers a compact, waterproof durable design and is full of great features such as motion/stationary detection sensor, man down, voice scrambler and voice announcement functions. The radio is ideal for business and industry users who require economical value and reliability in a radio.

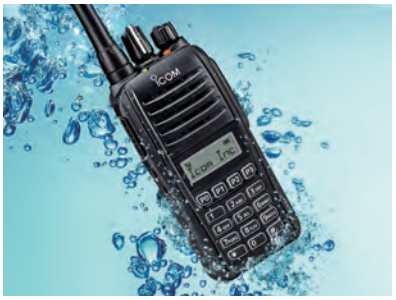
- **Icom custom high power handling capacity speaker for 1500 mW powerful audio**
- **Compact, waterproof durable design (IP67 and MIL-STD-810-G)**
- **Enhanced emergency safety with built-in motion/stationary detection sensor**
- **128 channel capacity with eight zones (Simple type and ten-key type)**
- **Built-in 2-Tone, 5-Tone, CTCSS and DTCS**
- **MDC and BIIS compatible**
- **16-code inversion voice scrambler**
- **Man down and lone worker functions**
- **Channel announcement**
- **Up to 14 hours of operating time with supplied BP-279 battery**
- **5 W (VHF), 4 W (UHF) RF output power**

General Features

- 136–174, 400–470, 450–512, 450–520 MHz versions
- 1500 mW large volume audio from Icom custom speaker
- Improved sound clarity
- Compact (52.2 × 111.8 × 24.5 mm; 2.1 × 4.4 × 1.0 in) and lightweight (240 g; 8.5 oz with BP-279)
- IP67 waterproof and dust-tight protection
- Tested to 12 categories of MIL-STD-810-G environmental tests
- DTMF autodial memories
- 16-position rotary selector and ON/OFF volume knob
- "Shift key" function increases number of programmable key assignments
- Up to 14 hours of operating time with supplied BP-279 battery pack
- Eight character alphanumeric display (Ten-keypad/simple keypad versions)
- Three colour LED
- Optional 1500 mW Speaker-Microphone, HM-222HLWP*
  * For the transceiver with a "U" mark on the serial number label.

1500 mW powerful audio

Icom custom high power handling capacity speaker



Waterproof for 30 minutes at one meter

1500 mW powerful audio with optional HM-222HLWP

Signaling Functions

- CTCSS and DTCS tone
- 2-Tone and 5-Tone
- MDC PTT ID, Emergency (TX/RX), Radio Check (RX), Stun (RX), Revive (RX)
- Up to 100 ID numbers and names can be saved to show the alias name, instead of the ID number
- BIIS PTT ID transmission

Safety and Security

- 16-code inversion voice scrambler
- Radio Stun/Revive/Kill commands (2-Tone and 5-Tone, RX only)
- Radio Stun/Revive commands (MDC, RX only)
- Auto TX function (2-Tone and 5-Tone)
- MDC emergency call with open microphone function (MDC, RX only)
- 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 the simple type and 10-key type)
- Emergency key for emergency call

Scan Functions

- Priority scan monitors one or two priority channels while scanning non-priority channels
- Mode dependent scan automatically changes the scan list according to the operating channel
- Power ON scan function
- Talk back timer

Voice/Audio Functions

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

SPECIFICATIONS

		IC-F1000T/S	IC-F1000	IC-F2000T/S	IC-F2000
GENERAL					
Frequency coverage* (* Varies according to version)		136–174 MHz		400–470 MHz (ALL) 450–512 MHz (USA) 450–520 MHz (EXP)	
Number of channels		128 channels/ 8 zones	16 channels	128 channels/ 8 zones	16 channels
Type of emission* (* Depending on version)		16K0F3E*1/11K0F3E (USA/EXP) 16K0F3E/14K0F3E/8K50F3E (EUR)			
Power supply requirement		7.5 V DC nominal			
Current drain (approx.)	Tx	1.3 A			
	Rx	500 mA /77 mA (Max. audio (internal SP)/Standby)		500 mA /80 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)		52.2 × 111.8 × 24.5 mm; 2.1 × 4.4 × 1.0 in (With BP-279) 52.2 × 111.8 × 30.3 mm; 2.1 × 4.4 × 1.2 in (With BP-280)			
Weight (approx.)		240 g; 8.5 oz (With BP-279), 270 g; 9.5 oz (With BP-280)			
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), 0.5 µW (> 1 GHz) (EUR/EXP)		0.25 µW (≤ 1 GHz), 1.0 µW (> 1 GHz) (EUR/EXP)	
Frequency stability		±2.5 ppm			
Audio harmonic distortion		1.0% typical (@ 25/20 kHz), 1.5% typical (@ 12.5 kHz) (at AF 1 kHz 40% deviation)			
FM Hum and Noise (without CCITT filter)		46 dB typical (@ 25 kHz), 40 dB typical (@ 12.5 kHz) (USA/EXP)			
Residual modulations (with CCITT filter)		50 dB typical (@ 25 kHz), 47 dB typical (@ 20 kHz), 44 dB typical (@ 12.5 kHz) (EUR)		53 dB typical (@ 25 kHz), 51 dB typical (@ 20 kHz), 48 dB typical (@ 12.5 kHz) (EUR)	
External microphone connector		3-conductor 2.5 (d) mm (1/10)/2.2 kΩ			
RECEIVER					
Sensitivity	(at 12 dB SINAD)	0.25 µV typical			
	(at 20 dB SINAD)	–4 dBµV typical emf			
Adjacent channel selectivity		76 dB typical (@ 25 kHz), 53 dB typical (@ 12.5 kHz) (TIA-603D) 78 dB typical (@ 25 kHz), 71 dB typical (@ 12.5 kHz) (TIA-603A) 76 dB typical (@ 25 kHz), 72 dB typical (@ 20 kHz), 53 dB typical (@ 12.5 kHz) (EUR)		73 dB typical (@ 25 kHz), 56 dB typical (@ 12.5 kHz) (TIA-603D) 74 dB typical (@ 25 kHz), 64 dB typical (@ 12.5 kHz) (TIA-603A) 75 dB typical (@ 25 kHz), 73 dB typical (@ 20 kHz), 67 dB typical (@ 12.5 kHz) (EUR)	
Spurious response rejection		70 dB minimum			
Intermodulation rejection		74 dB typical (USA/EXP) 68 dB typical (EUR)		73 dB typical (USA/EXP) 67 dB typical (EUR)	
Hum and noise	(Without CCITT filter)	51 dB typical (@ 25 kHz), 45 dB typical (@ 12.5 kHz) (USA/EXP)		46 dB typical (@ 25 kHz), 40 dB typical (@ 12.5 kHz) (USA/EXP)	
	(With CCITT filter)	52 dB typical (@ 25 kHz), 49 dB typical (@ 20 kHz), 46 dB typical (@ 12.5 kHz) (EUR)		52 dB typical (@ 25 kHz), 50 dB typical (@ 20 kHz), 47 dB typical (@ 12.5 kHz) (EUR)	
AF output power (at 5% distortion)	Internal SP	1500 mW typical (With 8 Ω load)			
	External SP	400 mW typical (With 8 Ω load) 1500 mW typical (With 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 (EUR).
*1 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions.

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 (Dust-tight and waterproof protection)

Battery Life

Battery pack	Type	Capacity	Operating time*
BP-278	Li-ion 7.2 V	1190 mAh (typ.), 1130 mAh (min.)	Up to 10 hours
BP-279	Li-ion 7.2 V	1570 mAh (typ.), 1485 mAh (min.)	Up to 14 hours
BP-280	Li-ion 7.2 V	2400 mAh (typ.), 2280 mAh (min.)	Up to 20 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* • Desktop charger, BC-213* • Belt clip, MB-133
- AC adapter, BC-123SA/SE/SUK/SV or BC-242* • Antenna

GENUINE Hologram Label Attached

The "3D GENUINE Icom label" is attached to the rear chassis under the battery. Check the Icom website for details: www.icomjapan.com/explore/genuine_info/

OPTIONS

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-279 in 2.5 hours (approximate).
+ BC-123SA/SE/SUK/SV or BC-242: AC adapter.

BC-214N: 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-214N, depending on version.

BC-213 BC-123SA BC-214N 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-214N.
MB-130: Charger bracket for use with the BC-213.

CP-23L OPC-656 MB-130

SPEAKER-MICROPHONES

HM-222HLWP: High-power audio speaker microphone with a 3.5 mm earphone jack. IP67 protection.
HM-168LWP: Waterproof speaker microphone with a waterproof connector. IP67 protection.
HM-158LA: Compact speaker microphone with 3.5 mm earphone jack.
HM-159LA: Speaker microphone with 3.5 mm earphone jack.

HM-222HLWP HM-168LWP HM-158LA HM-159LA

EARPHONE-MICROPHONES

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

HM-153LA HM-166LA

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

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 with 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)

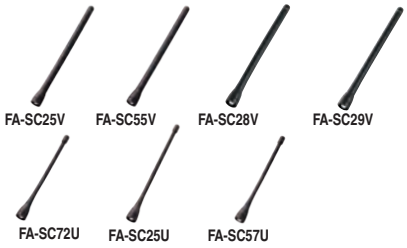
HS-94LWP HS-95LWP HS-97 VS-4LA OPC-2004LA

BELT CLIP

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

ANTENNAS

FA-SC25V: 136–150 MHz
FA-SC28V: 148–162 MHz
FA-SC29V: 160–174 MHz
FA-SC55V: 150–174 MHz
FA-SC25U: 400–430 MHz
FA-SC57U: 430–470 MHz
FA-SC72U: 470–520 MHz



FA-SC25V FA-SC55V FA-SC28V FA-SC29V
FA-SC72U FA-SC25U FA-SC57U

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

PARTNER PRODUCT

Icom affiliated IJKP Product

IJKP

IJKP-HM-2PL-OW:
Acoustic Type Earphone Microphone

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