

VHF TRANSCEIVERS (Intrinsically Safe version)

UHF TRANSCEIVERS (Intrinsically Safe version)

IC-F50 (Version #61)

IC-F60 (Version #61, 62)

**Intrinsically safe
versions available**



▲ IC-F50

▲ IC-F60

Icom introduces the new intrinsically safe versions of the IC-F50 and F60, approved by the FMRC. This version is suitable for use in hazardous area such as oil rigs, area where flammable gasses or liquids are used, and other potentially explosive environments.

The IC-F50 series is a waterproof LMR/PMR transceiver. The waterproof construction is equivalent to JIS grade 7 which is the same rating as most of our marine handheld models. In addition, built-in signaling capabilities and UT-110 compatible voice scrambler function eliminate the need for an optional logic board. The IC-F50 series meets the requirements for a tough, waterproof and intrinsically safe communication tool.

MAJOR SELLING POINTS

- **Intrinsically Safe version approved by FMRC**
- **Compact, lightweight and durable design**
- **Expanded frequency coverage**
(400–470MHz, 450–512MHz versions for IC-F60)
- **Waterproof construction***
*Equivalent to JIS Grade 7 (1m for 30 minutes)
- **Simple operation**
- **1700mAh Li-Ion battery pack supplied**
- **Built-in 2-Tone, 5-Tone, CTCSS and DTCS**
- **Optional waterproof speaker microphone, HM-138**
- **Built-in voice scrambler**
(Compatible with UT-110.)

FEATURES

Approved classes

Intrinsically Safe : Class I, II and III, Division 1, Groups C, D, E, F, and G

Nonincendive : Class I, Division 2, Groups A, B, C and D hazardous locations when used with Icom BP-227FM battery pack. "Max. Temp. T3C at 40°C"

Special conditions for use:

- Must be used with BP-227FM

Approved accessories:

- Speaker-microphone HM-138



IS versions have all the same functions and features of non-IS versions such as;

Waterproof construction

The IC-F50 series has outstanding waterproof construction which is equivalent to JIS Grade 7. The IC-F50 series can withstand submersion in 1m depth of water for up to 30 minutes. All products are rigorously inspected with Icom's air leakage test at our factory.

Wide frequency coverage

The IC-F50 series covers wide frequency range with one version. The VHF version covers 136–174MHz and UHF version covers 400–470MHz or 450–512MHz.

Tough and compact body

The IC-F50 series is built tough! The aluminum die-cast chassis combined with a polycarbonate casing is designed to last. Its compact dimensions of 56 (W) × 97 (H) × 36 (D) mm allow the IC-F50 series to fit comfortably in your palm or shirt pocket.

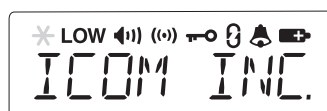
Lithium-Ion battery pack standard

With the supplied 1700mAh Lithium-Ion battery pack, BP-227FM, the IC-F50 series provides stable output power and a practical 10 hours* of operating time. Lithium-ion batteries allow flexible charging and have almost no memory effect.

* Typical operation; Tx:Rx:Stand-by duty cycle=5:5:90
BP-227FM is required for Intrinsically Safe version.

Alphanumeric LCD

For the function display, an 8-character 14 segment alphanumeric LCD is employed to make a variety of information visually recognizable at a glance. Of course, an automatic LCD backlight is standard for night time operation.



Built-in signaling

The IC-F50 series has 2-Tone, 5-Tone, CTCSS and DTCS signaling capabilities for group communication or selective calling built-in as standard.

Built-in rolling type voice scrambler*

The IC-F50 series has a built-in voice scrambler. The scrambling system is fully compatible with our UT-110 voice scrambler unit, which uses 1020 codes (255 codes × 4 groups.). In addition, an inversion type voice scrambler is also available.

* All Intrinsically Safe versions have a built-in UT-110 compatible Voice scrambler.

Programmable functions

Up to 7 programmable buttons, [P0]–[P3], [▲], [▼], and [Red button] can be assigned additional functions to meet a variety of requirements. In addition, there is a space for function assign stickers below those buttons.

Optional speaker microphone, HM-138

The optional speaker microphone, HM-138, also has waterproof construction equivalent to JIS Grade 7. The HM-138 is also approved for use with Intrinsically Safe versions.

Other features

- 2.5kHz channel step (VHF only)
- Wide/narrow channel spacing
- Built-in compander (same as IC-F30G series and IC-F510 series)
- BIIS 1200 built-in
- SMA type ANT connector
- Up to 128 memory channels/8 memory banks

SPECIFICATIONS

The specifications described below are target values. They may be subject to change.
DO NOT incorporate this information in your advertisements until it has been confirmed.

■ GENERAL

- Frequency range :
 - IC-F50 136–174MHz (#61)
 - IC-F60 400–470MHz (#61),
450–512MHz (#62)
- Number of channels : 128 channels/8 banks
- Channel spacing : 12.5/25kHz
- Antenna impedance : 50Ω
- Power supply requirement: 7.2V DC
- Current drain (at 7.2V DC; approx.):
 - Transmit High 1.5A
 - Receive AF max. 300mA
 - stand-by 85mA
- Operating temperature range:
 - 30°C to +60°C; –22°F to +140°F
- Dimensions (W×H×D) : 56×97×36 mm
(projections not included) $2\frac{7}{32} \times 3\frac{13}{16} \times 1\frac{13}{32}$ in
- Weight (with BP-227) : 280g; 9.9oz (approx.)

■ TRANSMITTER

- Output power VHF : 5.0W
UHF 4.0W
- Max. freq. deviation : ±5.0/2.5kHz (Wide/Narrow)
- Frequency error : ±2.5ppm
- Spurious emissions : 70dB typ.
- Adjacent Ch. power : 70/60dB (Wide/Narrow)
- FM Hum and Noise : 46/40dB typ. (Wide/Narrow)
- External MIC connector : 9-pin multi connector /2.2kΩ

■ RECEIVER

- Intermediate frequency : 46.35MHz/450kHz (1st/2nd)
- Sensitivity : 0.25μV typ. (at 12dB SINAD)
- Squelch sensitivity : 0.25μV typ. (at threshold)
- Adjacent Ch. selectivity : 75/65dB typ. (Wide/Narrow)
- Spurious response : 70dB
- Intermodulation : 74dB typ.
- Hum and Noise : 45/40dB typ. (Wide/Narrow)
- Audio output power : 0.5W typical at 5% distortion with
an 8Ω load
- External SP connector : 9-pin multi connector /8Ω

Measurements made in accordance with TIA/EIA 603 for IC-F50/F60 .

OPTIONS

BP-226 BATTERY CASE

Battery case for AA (R6)×5 alkaline cells. The BP-226 is splash resistant equivalent to JIS Grade 4.

BP-227FM/BP-227 Li-Ion BATTERY PACK

7.2V/1700mAh Li-Ion battery pack. Same as that supplied.
BP-227 is Non-Intrinsically Safe version.

BC-152 DESKTOP CHARGER +BC-147A/E AC ADAPTER

Charges the BP-227 within 9–10 hours. Same as that supplied.
An AC adapter, BC-147, is supplied depending on version.

BC-119N DESKTOP CHARGER

+BC-145A/E/V AC ADAPTER

+AD-100 CHARGER ADAPTER

For rapid charging of the BP-227FM. An AC adapter, BC-145, is supplied depending on version. Charging time: 2.5–3 hours.

BC-121N MULTI-CHARGER

+BC-124 AC ADAPTER

+AD-100 CHARGER ADAPTER

For rapid charging of up to six BP-227FMs (Six AD-100s are required). Charging time: 2.5–3 hours.

CP-17L CIGARETTE LIGHTER CABLE

OPC-515L DC POWER CABLE

Used when charging a battery with the BC-152 or BC-119N from a cigarette lighter socket or DC power supply.

CS-F50 CLONING SOFTWARE

+ OPC-966 CLONING CABLE

Allows quick and simple setting of operating frequencies, memory names, etc, from a PC. (Microsoft® Windows® 95/98/Me/2000/XP).

FA-S24V ANTENNA (VHF, 136–150MHz)

FA-S59V ANTENNA (VHF, 150–174MHz)

FA-S27U ANTENNA (UHF, 400–430MHz)

FA-S56U ANTENNA (UHF, 430–470MHz)

FA-S74U ANTENNA (UHF, 470–520MHz)

SMA type antenna.

HM-138 SPEAKER-MICROPHONE

Waterproof construction, equivalent to JIS Grade 7.

MB-86 SWIVEL BELT CLIP

Swivel belt clip. A fast and easy way to remove the radio from your belt.

MB-98 BELT CLIP

Standard type belt clip. Same as that supplied.

The transceiver is guaranteed waterproof only when the battery pack, BP-227/FM and antenna are attached to the transceiver.

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