



## VHF AND UHF TRANSCEIVERS

### IC-F3GT

(VHF transceiver with keypad)

### IC-F4GT

(UHF transceiver with keypad)

### IC-F3GS

(VHF transceiver without keypad)

### IC-F4GS

(UHF transceiver without keypad)



Meets  
MIL-STD 810



Icom Inc.

# Supports demanding com



DURABILITY, DEPENDABILITY, OPERATION SIMPLICITY, STYLE, RUGGEDNESS, ECONOMICAL USE, AND MORE ARE REQUIRED FOR COMMERCIAL TRANSCEIVERS. BUT ONLY A FEW SUCH TRANSCEIVERS ARE AVAILABLE, PARTICULARLY FOR PORTABLES. NOW FROM ICOM— THE IC-F3G SERIES OF PORTABLE TRANSCEIVERS AIM TO BECOME THE MOST HIGHLY REPUTABLE OF ALL COMMERCIALS. SUPERIOR PERFORMANCE AND FEATURES, EVERYTHING YOU REQUIRE IS INCLUDED. ICOM'S TECHNOLOGY GIVE YOU SATISFACTION YOU NEVER KNEW BEFORE.

## VHF AND UHF TRANSCEIVERS

### IC-F3GT

VHF transceiver with keypad

### IC-F3GS

VHF transceiver without keypad

### IC-F4GT

UHF transceiver with keypad

### IC-F4GS

UHF transceiver without keypad

#### Supports multiple signalling and flexible selective calling

CTCSS/DTCS encoder/decoder, and DTMF, 2/5-tone encoder with user programmable CTCSS, DTCS capabilities, are built-in. The optional UT-96<sup>†</sup> (for 2/5-tone), or UT-108<sup>†</sup> (for DTMF) allows decode with ANI functions. In addition, special tone code, for group, and individual calls, and more features are available to support flexible, perfect selective calling operations.

- 7-digit code can be used as the 5-tone
- Direct individual station/group call with/without own ID transmission, or through repeater
- Selectable 5-tone format includes user tone format programming capability (Encode and Decode frequencies, Tone period, No-tone timer, and Tone length)
- Text or ID number indication
- Desired 5-tone code entering for both individual and group call
- Transceiver remote control— stun, kill, and scan start/stop functions
- Selectable comparing digit code for decoding
- Selective calling capability from a public telephone (UT-108 DTMF DECODER is required; base/repeater station must be connected to the public telephone network)

#### Man down function\*

Automatically sending an emergency signal when the transceiver is left in the horizontal position for a pre-set time.

\*Optional UT-113<sup>†</sup> is required.

#### Trunking capabilities\*

Compatible with the SmarTrunk II™, or the LTR® trunking systems.

\*Optional UT-105<sup>†</sup> for SmarTrunk II™, UT-111<sup>†</sup> for LTR® trunking is required.

#### Operation security

Optional voice scrambler units, UT-109<sup>†</sup> and UT-110<sup>†</sup>, for secure communications are available.

#### Programmable key assign

Up to 8 programmable keys are available to assign specific functions. In particular, the red key can be used for important function, such as emergency call, etc.

#### Wide/narrow channel switchable depending on version



#### MIL spec. durability

54(W)×132(H)×35(D) mm\* compact body with durable, dependable construction, meets the MIL standard.

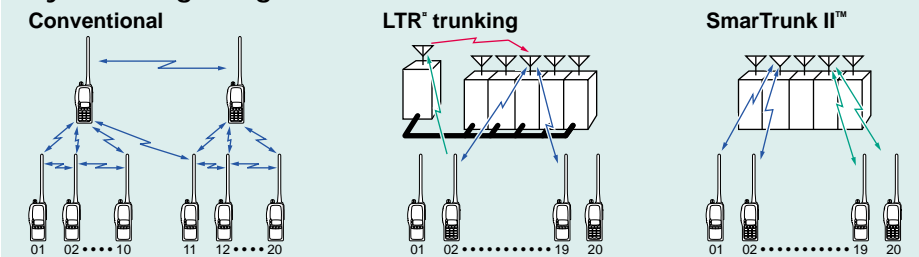
\*2<sup>1</sup>/<sub>8</sub>(W)×5<sup>3</sup>/<sub>16</sub>(H)×1<sup>7</sup>/<sub>16</sub>(D) in



#### Simple operation

Enlarged 7-character alphanumeric automatic backlit LCD, and function keys make for easier operation.

#### • System image diagram



# Communication with simple operation



## OPTIONS

**BATTERY PACKS AND CASE**

BP-208    BP-209/BP-222    BP-210    BP-211

BATTERY PACKS & CASE	TYPE & CAPACITY	OUTPUT POWER		BATTERY LIFE
		IC-F3GT/GS	IC-F4GT/GS	
BP-208	AA (R6) batteries × 6	1 W typ.	1 W typ.	—
BP-209	Ni-Cd 7.2 V/1100 mAh	5 W typ.	4 W typ.	8 hours
BP-210	Ni-MH 7.2 V/1650 mAh	5 W typ.	4 W typ.	11 hours
BP-211	Li-Ion 7.4 V/1800 mAh	5 W typ.	4 W typ.	12 hours
BP-222	Ni-Cd 7.2 V/600 mAh	5 W typ.	4 W typ.	4.5 hours

Approx.: (Tx (Hi): Rx: standby=5:5:90)

**BC-121N+AD-101**  
(6 pcs.)

**BC-144**  
+**BC-145A/E/V**

**BC-144 DESKTOP CHARGER + BC-145A/E/V AC ADAPTER**  
For rapid charging of battery packs (except for BP-211). The BC-145A/E/V may be supplied depending on version. Charging time: 1.5 to 2 hours. **BC-119N + AD-101 + BC-145A/E/V** rapidly charges BP-211 as well as other battery packs.  
**BC-121N MULTI-CHARGER + AD-101 CHARGER ADAPTER + BC-124 AC ADAPTER**  
For rapid charging of up to 6 battery packs (six AD-101s are required.), BP-209, BP-210, BP-211 or BP-222. The BC-124 outputs 12 V DC and has 7 A capacity for the BC-121. Charging time: 1.5 to 2 hours.  
**OPC-656 DC POWER CABLE:** For use the BC-121N with a DC power supply. (12~20 V DC required.)

**BC-146 +BC-147**

**BC-146 DESKTOP CHARGER + BC-147A/E AC ADAPTER**  
Charges the battery pack, BP-209, BP-210 or BP-222 with/without transceiver in 12, 18.5, 6.5 hours (approx.), respectively. An AC adapter, BC-147, is additionally required. Cannot charge Li-Ion battery, BP-211.

**SPEAKER-MICROPHONES**

HM-46L    HM-75A    HM-131L

**HM-46L** : Slim dimensions. Equipped with an earphone jack and a transmit indicator.  
**HM-75A** : Allows you remote control capabilities. The [▼], [▲], [A] and [B] switches, act as the [▼], [▲], [P0] and [P1] switches of the transceiver, respectively.  
**HM-131L:** Compact and durable body. Equipped with an earphone jack and a revolving clip.

**HM-128L**  
EARPHONE-  
MICROPHONE

The light weight earphone-mic. has a compact microphone that clips to your lapel.

**HEADSETS and PTT/VOX UNIT**

▲HS-94    ▲HS-95    ▲HS-97    ▲VS-1L

**HS-94:** Earhook headset with flexible boom microphone.  
**HS-95:** Behind-the-head headset with flexible boom microphone.  
**HS-97:** Throat microphone fits around your neck and picks up a speech vibration.  
**VS-1L:** PTT/VOX unit. Required when using these headsets with the transceiver.

**HS-51**  
HEADSET

For hands-free operation. Includes VOX, PTT and "one-touch" PTT with a time-out timer. (UHF only in USA and Canada)

**SP-13**  
EARPHONE

Provides clear audio in noisy environments.

**BELT CLIPS**    **MB-87**

**MB-87:** Swivel belt clip.  
**MB-74:** Alligator type clip.  
**MB-68:** Standard flat type.

**AD-98FSC**  
ANTENNA  
CONNECTOR  
ADAPTER

Allows you to connect a BNC-type antenna. (For maintenance use only)

**STUBBY ANTENNAS**

FA-SC56VS    FA-SC57VS    FA-SC73US

	Freq. range	Length	Ring Color
FA-SC56VS	146~162 MHz	80mm	Red
FA-SC57VS	160~174 MHz	80mm	Green
FA-SC73US	450~490 MHz	60mm	Red

**INTERNAL UNITS**

**UT-96**  
5-TONE UNIT    **UT-108**  
DTMF  
DECODER    **UT-109**  
VOICE  
SCRAMBLER  
UNIT

**UT-96 5-TONE UNIT:**  
Provides either the 2-tone/5-tone encode and decode and ANI capabilities.  
**UT-105 SmarTrunk II™ LOGIC BOARD:**  
Provides SmarTrunk II™ capabilities.  
**UT-108 DTMF DECODER:**  
Provides DTMF decode and ANI capabilities.  
**UT-109 VOICE SCRAMBLER UNIT:**  
Provides operating security. Up to 32 scrambling codes are available. The scrambling system is not compatible with the UT-110.  
**UT-110 VOICE SCRAMBLER UNIT:**  
Up to 1020 (255 codes × 4 groups) scrambling codes are available. The scrambling system is not compatible with the UT-109.  
**UT-111 LTR™ TRUNKING UNIT:**  
Provides LTR™ trunking capabilities.  
**UT-113 MAN DOWN UNIT:**  
Allows man down function

## Long life batteries

The standard Ni-Cd battery pack, allows 8 hours\* operation. Optional battery pack for extended operation, and a battery case for use while charging the battery, or for emergency operation, etc., are available.  
\*approx.; Tx:Rx:Standby ratio = 5:5:90

## Other features

- 100 or 40 memory channels are available
- Powerful 5 W output for IC-F3GT/GS, 4 W output for IC-F4GT/GS
- Selectable channel attribute from emergency, priority A/B, and normal
- Normal and priority scans
- Auto LCD contrast
- 2 step power saver
- 5 autodialing memories for DTMF
- Busy, repeater lockout functions
- Power ON password
- Mic. remote control with optional HM-75A, and more...

†only one of either unit can be installed.

**SPECIFICATIONS**

GENERAL	
• Frequency range	: IC-F3GT/GS 136–150 MHz 146–174 MHz IC-F4GT/GS 400–430 MHz 440–470 MHz 470–500 MHz 490–512 MHz (USA) 490–520 MHz (others)
• Number of channel	: 100Ch or 40Ch (Varies according to version)
• Channel spacing	: 12.5 kHz, 20 kHz, 25kHz 12.5/25kHz
• Antenna impedance	: 50 Ω
• Frequency error	: ±0.0005% (EIA; IC-F3GT) ±0.00025% (EIA; IC-F4GT) ±1.5 kHz (ETS; 12.5 kHz) ±2 kHz (ETS; 25/20 kHz)
• PLL channel step	: 5 kHz, 6.25 kHz, 7.5 kHz
• Power supply requirement	: 7.2 V DC (Icom battery pack)
• Current drain (at 7.2 V DC)	: Transmit at 5 W 1.6 A (IC-F3GT/GS) at 4 W 1.55 A (IC-F4GT/GS) at 1 W 0.7 A (IC-F3GT/GS) 0.8 A (IC-F4GT/GS) Receive at AF max. 250 mA at stand-by 70 mA
• Operating temp. range	: -30°C to +60°C; -22°F to +140°F (EIA) -25°C to +55°C (ETS)
• Dimensions	: 54(W)×132(H)×35(D) mm (projections not included) ; 2 1/8(W)×5 3/16(H)×1 1/16(D) in
• Weight (with BP-209)	: 370 g; 13.1 oz

TRANSMITTER	
• Output power	: IC-F3GT/GS 5.0 W IC-F4GT/GS 4.0 W
• Max. freq. deviation	: ±2.5 kHz, ± 5 kHz, ±4 kHz
• Modulation limiting	: 80–100%
• Audio harmonic distortion	: 3% max. (1 kHz/40% dev.) 5% max. (1 kHz/60% dev.)
• Spurious emissions	: 73 dBc (EIA) Less than 0.25 μW (ETS)
• Adjacent ch. power	: 60 dB typ. (EIA; 12.5 kHz) 70 dB typ. (EIA; 25 kHz) 60 dB (ETS; 12.5 kHz) 70 dB (ETS; 25/20 kHz)
• Residual modulation	: 40 dB typ. (EIA; 12.5 kHz) 45 dB typ. (EIA; 25 kHz) 43 dB (ETS; 12.5 kHz) 45 dB (ETS; 25/20 kHz)
• External MIC connector	: 3-conductor 2.5 (d) mm (1/16")/2.2 kΩ

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RECEIVER	
• Sensitivity	: IC-F3GT/GS 0.25 μV (at 12 dB SINAD) 0.63 μV (at 20 dB SINAD) IC-F4GT/GS 0.3 μV (at 12 dB SINAD) 0.79 μV emf (at 20 dB SINAD)
• Squelch sensitivity (at threshold):	: IC-F3GT/GS 0.25 μV IC-F4GT/GS 0.3 μV
• Adjacent Ch. selectivity	: 65 dB typ. (EIA; 12.5 kHz) 75 dB typ. (EIA; 25 kHz) 60 dB (ETS; 12.5 kHz) 70 dB (ETS; 25/20 kHz)
• Spurious response	: 70 dB (EIA) 70 dB (ETS)
• Intermodulation	: 70 dB (EIA) 65 dB (ETS)
• Hum and noise ratio	: 40 dB typ. (EIA; 12.5 kHz) 45 dB typ. (EIA; 25 kHz) 43 dB (ETS; 12.5 kHz) 45 dB (ETS; 25/20 kHz)
• Audio output power	: 0.5 W at 5% distortion with an 8 Ω load
• External SP connector	: 2-conductor 3.5 (d) mm (1/8")/8 Ω

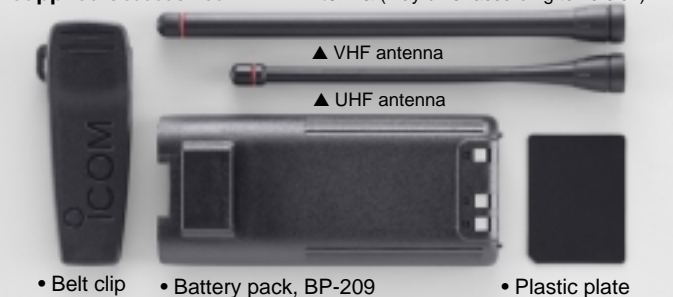
**Applicable U.S. Military Specifications**

Icom makes rugged products that meet MIL-STD requirements and strict environmental standards as follows.

Standard	MIL 810C		MIL 810D		MIL 810E	
	Method	Procedure	Method	Procedure	Method	Procedure
Low Pressure	500.1	I	500.2	I, II	500.3	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I
Solar Radiation	505.1	I	505.2	I	505.3	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III
Salt Fog	509.1	I	509.2	I	509.3	I
Dust	510.1	I	510.2	I	510.3	I
Vibration	514.2	VIII, X	514.3	I	514.4	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV

Measurements made in accordance with EIA/TIA-152C/204D, or ETS 300-086. All stated specifications are typical and subject to change without notice or obligation.

**Supplied accessories:**



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Certificate Number Q14190  
Icom Inc. (Japan), is an ISO9001 certification acquired company.

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