ICOM

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.

DURABILITY, DEPENDABILITY, OPERATION SIMPLICITY, STYLE, RUGGED-NESS, 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† (for 2/5-tone), or UT-108† (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 though 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† is required.

Trunking capabilities*
Compatible with the SmarTrunk II™, or the LTR® trunking systems.
*Optional UT-105† for SmarTrunk II™, UT-111† for LTR® trunking is required.

Operation security
Optional voice scrambler units, UT-109† and UT-110†, 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.

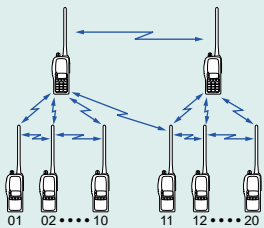### Wide/narrow channel switchable depending on version

MIL spec. durability
54(W)×132(H)×35(D) mm* compact body with durable, dependable construction, meets the MIL standard.
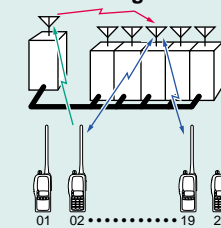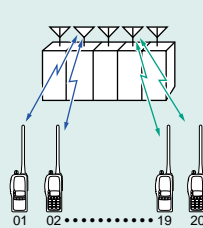*2⅛(W)×5³⁄₁₆(H)×1⁷⁄₁₆(D) in

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

• **System image diagram**

Conventional	LTR* trunking	SmarTrunk II™

01 02••••10   11 12••••20   01 02••••••••19 20   01 02••••••••19 20

OPTIONS

BATTERY PACKS AND CASE

BP-208   BP-209   BP-210   BP-222

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-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-121+AD-94
(6 pcs.)

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

BC-146 +BC-147

BC-144 DESKTOP CHARGER + **BC-145A/E/V** AC ADAPTER
For rapid charging of battery packs. The BC-145A/E/V may be supplied depending on version. Charging time: 1.5 to 2 hours. **BC-119** DESKTOP CHARGER is also available with **AD-94** CHARGER ADAPTER.
BC-121 MULTI-CHARGER + **AD-94** CHARGER ADAPTER + **BC-124** AC ADAPTER
For rapid charging of up to 6 battery packs (six AD-94s are required.), BP-209, BP-210 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.

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.

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)

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.

HS-94 EARHOOK-HEADSET + VS-1L VOX SWITCH CASE
Flexible boom microphone and rotating earbud with a spring earhook.

AD-98FSC ANTENNA CONNECTOR ADAPTER

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

BELT CLIPS

MB-74

Alligator type clip.
MB-68 (same as that supplied) is also optionally available.

SP-13 EARPHONE

Provides clear audio in noisy environments.

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-105** SmarTrunk II™ Logic Board   **UT-108** DTMF DECODER   **UT-109** VOICE SCRAMBLER UNIT   **UT-110** VOICE SCRAMBLER UNIT   **UT-111** TRUNKING UNIT   **UT-113** MAN DOWN UNIT

UT-96 : Provides either the 2/5-tone encode/decode and ANI capabilities.
UT-105 : Provides SmarTrunk II™ capabilities. SmarTrunk is a trademark of SmarTrunk System Inc.
UT-108 : Provides DTMF decode and ANI capabilities.
UT-109 : Provides operating security. Up to 32 scrambling codes are available. The scrambling system is not compatible with the UT-110, therefore, cannot operate with the scrambled signals by UT-110.
UT-110 : Provides higher operating security. Up to 1020 (255 codes × 4 groups) scrambling codes are available. The scrambling system is not compatible with the UT-109, therefore, cannot operate with the scrambled signals by UT-109.
UT-111 : Provides LTR® trunking capabilities.
UT-113 : 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)
- Type of emission : 16K0F3E (25 kHz)
  - 8K50F3E (12.5 kHz)
  - 14K0F3E (20 kHz)
- 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) ; 2⅛(W)×5³⁄₁₆(H)×1⁷⁄₁₆(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 (¹⁄₁₀″)/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 (⅛″)/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:
- Belt clip   • Antenna (may differ according to version)

• Battery pack, BP-209   • Plastic plate