ICOM

IC-F31GT
(VHF transceiver with keypad)

IC-F41GT
(UHF transceiver with keypad)

IC-F31GS
(VHF transceiver without keypad)

IC-F41GS
(UHF transceiver without keypad)

Meets
MIL-STD 810

Icom Inc.

The answer to 21st Century business communication is here!

If you want a durable, versatile, reliable and easy-to-operate portable communications tool, the IC-F31G & IC-F41G series is efficient for you. This series is designed for commercial communication or professional use with a host of built-in features, such as multiple tone-signalings, Flash ROM, high speed PLL, Compander function and more. Not only for conventional operation, but also compatible with Trunking systems*, this series is useful for small systems to large wide networks. Icom's technologies guarantee to satisfy your needs.
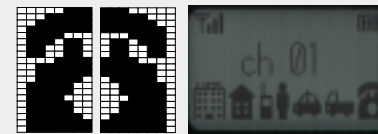
* Optional unit is required.

▲ IC-F41GT   ▲ IC-F41GS

Full built-in tone-signalings

All tone-signalings are builtin such as CTCSS, DTCS, 2-tone/5-tone and DTMF encode/decode, so you don't need to install an optional tone-signaling board. And a wide variety of selective calling systems are available to call specific station(s) or control a repeater. In addition, ANI (Automatic Number Indication) function is available with 2-tone/5-tone and DTMF.

Largest LCD in its class

With the large LCD, a simple sentence of up to 24 full-dot matrix characters provides more smooth communication than previous one word indication. Operational icons, such as antenna (S-meter) or battery life, show various operating status at a glance. What is more, original characters can be made and indicated on the LCD.

8×20 dot character can be made on a PC and plural characters can be combined on LCD.

Durable construction

The body is compact, yet the polycarbonate panel and one-piece aluminum chassis provides durable construction to meet MIL STD grade C, D and E for shock and vibration. You can count on the unit to operate in challenging environments.

Flash ROM for system upgrades

Flash ROM is adapted as the main CPU, which allows system customize and future compatibility with other protocol. A newly designed ultra high speed PLL, with a Fractional-N system, offers faster acquisition times for efficient trunking use.

Up to 8 dealer-programmable key assignments

The following functions can be programmed.
• Channel up/down • Bank up • Call • Beep • Scan A/B start/stop • Scan Tag add/delete • Priority A/B • Key lock • Monitor • Scrambler • C. Tone CH enter • MR-CH 1/2/3/4 • High/Low • Talk around • ID-MR select • Null (Light) • Tx code enter • Re-dial • Wide/Narrow • Tx code CH select • Emergency single/repeat • DTMF autodial • Special function 1/2 • OPT 1/2/3 momentary • Compand

Advanced PC programming for Microsoft® Windows® 95/98

256 memory channels

Up to 256 memory channels with 12 character channel names can be stored with up to 16 banks. The rotary selector allows you to select each bank or memory channel.

Simultaneously work 2 optional internal units

2 optional units can be installed and will work simultaneously. You can select optional units to suit your needs and to provide versatile usage.

Combination of available internal units

Option slot 1 \ Option slot 2	UT-109 Voice Scrambler Unit	UT-110 Voice Scrambler Unit	UT-113 Man Down Unit
UT-109 Voice Scrambler Unit			✔
UT-110 Voice Scrambler Unit			✔
UT-113 Man Down Unit			
UT-105 (②) SmarTrunk II™ Logic Board	✔	✔	①
UT-111 (②) LTR® Trunking Board	✔	✔	①

✔ Available simultaneously
① UT-113 is available in conventional mode.
② UT-105 and the UT-111 have to be installed in slot 1.
* Same optional types, such as UT-109 and UT-110, can not be installed simultaneously.

Prolonged Ni-MH battery

The Ni-MH battery is designed for 10 hours operation. A battery case is optionally available for using a set of alkaline batteries (six AA (R6) cells) during charging.

Built-in compander function

Built-in compander function provides clear audio quality under noisy environments.
* Receiving party must have same function.

Smart design with easy operation

The rounded, compact* design fits comfortably in your palm, and is easy to carry around. The large keypad makes one-hand operation easy.
* Size: 54(W)×139(H)×38(D) mm

Multi connector for accessories

The 9-pin multi connector, which use the spring action for close contact, allows you reliable operation with accessories, such as speaker-microphone or earphone.

Other features

• The red key on the top panel can be an emergency trigger
• Normal and priority scan functions
• Time-out timer capability
• Narrow/wide multi-band width and 2-step power save are supported
• Talk around function changes duplex channels to simplex channel
• VOX capability and more...

OPTIONS

SPECIFICATIONS

GENERAL

- Frequency range :
  - IC-F31GT/GS   136–174 MHz
  - IC-F41GT/GS   400–430 MHz
                             440–480 MHz
- Number of Channels   : Max. 256 Ch/ 16 banks
- Type of emission   : 16K0F3E (25/30 kHz)
                                  8K50F3E (12.5/15 kHz)
                                  14K0F3E (20 kHz)
- Channel spacing   : 30/15 kHz (25/12.5 kHz)
                                  20/12.5 kHz
- Antenna impedance   : 50 Ω
- Frequency error   : ±1.5 kHz
- PLL channel step   : 5 kHz, 6.25 kHz, 7.5 kHz
- Power supply requirement : 7.5 V DC (Icom battery pack)
- Current drain (at 7.5 V DC; approx):
  - Transmit   at 5 W   1.7 A typ. (IC-F31GT/GS)
                    at 4 W   1.7 A typ. (IC-F41GT/GS)
  - Receive   at AF max.   300 mA
                    at stand-by   95 mA
- Operating temp. range   : –25˚C to +55˚C
- Dimensions   : 54(W)×139(H)×38(D) mm
  (projections not included)
- Weight (with BP-210)   : 420 g

TRANSMITTER

- Modulation system   : Variable reactance frequency modu-
                                     lation
- Output power   : 5.0 W (IC-F31GT/GS)
  (nominal)   4.0 W (IC-F41GT/GS)
- Max. freq. deviation   : ± 2.5 kHz, ± 5 kHz, ± 4 kHz
- Modulation limiting   : 60–100%
- Audio harmonic distortion: 3% typ. (1 kHz/40% dev.)
- Spurious emissions   : Less than 0.25 µW
- Adjacent Ch. power   : 60 dB (12.5 kHz)
                                     70 dB (25/20 kHz)
- Residual modulation   : 43 dB typ. (12.5 kHz)
                                     45 dB typ. (25/20 kHz)
- External MIC connector : 9-pin multi connector/ 2.2 kΩ

RECEIVER

- Intermediate freq.   : 1st   31.65 MHz (IC-F31GT/GS)
                                             47.25 MHz (IC-F41GT/GS)
                                     2nd   450 kHz
- Sensitivity   : 0.63 µV typ. (at 20 dB SINAD) e.m.f.
- Squelch sensitivity   : 0.25 µV (at threshold)
- Adjacent Ch. selectivity : 63 dB typ. (12.5 kHz)
                                      73 dB typ. (25 kHz)
- Spurious response   : 70 dB
- Intermodulation   : 70 dB typ.
- Hum and noise ratio   : 43 dB typ. (12.5 kHz)
                                      45 dB typ. (25/20 kHz)
- Audio output power   : 0.5 W typ. (at 5% distortion with an 8 Ω load)
- External SP connector   : 9-pin multi connector/ 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
Vibration	514.2	X	514.3	I	514.4	I
Shock	516.2	I	516.3	I	516.4	I

Measurements made in accordance with ETS 300-086.
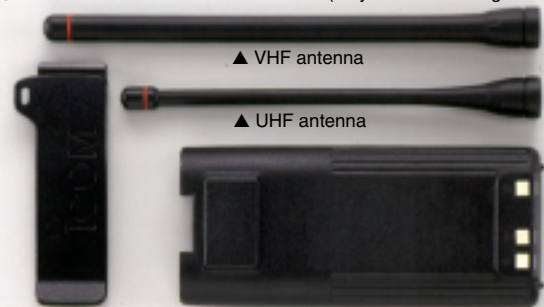**All stated specifications are subject to change without notice or obligation.**

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Supplied accessories: • Antenna (may differ according to version)

▲ VHF antenna

▲ UHF antenna

• Belt clip, MB-68   • Battery pack, BP-210