

IC-F510 IC-F610



- **9 programmable switches**
Independent AF volume knob
- **256 channels with 16 banks**
Up to 256 channels with 10-character channel names can be stored and classified into 16 banks.
- **Invertible front panel for flexible setup**
- **Built-in 5-tone, CTCSS and DTCSS encoder/decoder plus DTMF encoder**
Multiple signalling systems are equipped as standard. 8 DTMF dialing memories are available. The optional UT-108 decodes DTMF with ANI functions.
- **Audio compander**
The audio compander provides clear, low noise communications.
- **Rugged construction**
The tough aluminum die-cast chassis and polycarbonate front panel have been tested to the MIL standards specifications.
- **BIIS 1200 compatible**
The following selective calling and data messaging features are available with the BIIS version.
 - 32 abbreviated memories
 - 7 Group IDs registration
 - Digital ANI
 - Up to 10-character SDM (Short Data Message)
 - 24-status messages
 - Position data transmission with a GPS receiver
 - PC/Printer interface with the optional OPC-822, RS-232C interface cable



ADDITIONAL FEATURES

- Large, alphanumeric display and backlit keys
- Flash CPU advantage for future upgrades and future compatibility with other protocols
- Selectable channel spacing (25/12.5kHz, 20/12.5kHz)
- Power on password and 'Stun' functions
- Microphone hanger function
- 10 scanning lists and normal/priority scan
- Optional voice scrambler unit, UT-109 or UT-110
- SmarTrunk3G™ or LTR® Trunking capability with optional UT-117 or UT-111, respectively



SPECIFICATIONS

GENERAL

- Frequency coverage :
 - IC-F510 136-174MHz
 - IC-F610 400-430MHz 440-490MHz
 - 480-520MHz
- Number of channels : Max. 256 channels/16 banks
- Type of emission : 12.5/25kHz
12.5/20kHz
- PLL channel step : 2.5kHz, 5kHz and 6.25kHz
- Frequency stability : ±1.5kHz
- Operating temp. range : -25°C to +55°C
- Power supply voltage : 13.2V DC
- Current drain :
 - Tx at 25W 7A
 - Rx max. audio 1.2A
 - standby 300mA
- Antenna impedance : 50Ω (SO-239)
- Dimensions : 140(W)×40(H)×170(D)mm
- Weight : 1.2kg

TRANSMITTER

- Output power : 25W (at 13.2V DC)
- Max. freq. deviation : ±5.0kHz (wide), ±4.0kHz (middle)
±2.5kHz (narrow)
- Spurious emissions : 0.25μW (below 1GHz)
- Adjacent channel power : 70dB (wide, middle)
60dB (narrow)
- Mic. impedance : 600Ω (8-pin modular)

RECEIVER

- Sensitivity : -4dBμV typ. (emf) (at 20dB SINAD)
- Squelch sensitivity : -4dBμV typ. (threshold)
- Adjacent channel selectivity : 75dB typ. (wide, middle)
65dB typ. (narrow)
- Spurious response : 75dB
- Intermodulation : 67dB typ.
- Audio output power : 4.0W at 10% distortion/4Ω load
- Ext. SP connector : 2-conductor 3.5(d)mm/4Ω

Applicable U.S. Military Specifications

The IC-F510/F610 has been tested to and passed the following MIL-STD requirements and strict environmental standards.

Standard	MIL 810 C		MIL 810 D		MIL 810 E		MIL 810 F	
	Method	Proc.	Method	Proc.	Method	Proc.	Method	Proc.
Low Pressure	500.1	I	500.2	I, II	500.3	I, II	500.4	I, II
High Temp.	501.1	I	501.2	I, II	501.3	I, II	501.4	I, II
Low Temp.	502.1	I	502.2	I, II	502.3	I, II	502.4-3	I, II
Temp. Shock	503.1	I	503.2	I	503.3	I	503.4	I
Solar Radiation	505.1	I	505.2	I	505.3	I	505.4	I
Rain	506.1	I, II	506.2	I, II	506.3	I, II	506.4	I, II
Humidity	507.1	I, II	507.2	II, III	507.3	II, III	507.4	-
Salt Fog	509.1	I	509.2	I	509.3	I	509.4	-
Dust	510.1	I	510.2	I	510.3	I	510.4	I
Vibration	514.2	VIII, X	514.3	I	514.4	I	514.5	I
Shock	516.2	I, II, V	516.3	I, IV	516.4	I, IV	516.5	I, IV

Supplied Accessories

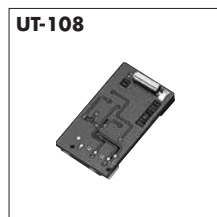
- Hand mic. (HM-152)
- DC power cable
- Mounting bracket kit
- Fuses
- Key assign stickers

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

OPTIONS

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

- **HM-152T** DTMF MICROPHONE
- **OPC-617** ACC CABLE
For external terminal connection.
- **OPC-822** INTERFACE CABLE
Allows you to connect with a PC through an RS-232C serial port for data communications.
- **SM-25** DESKTOP MICROPHONE
- **SP-10/SP-22** EXTERNAL SPEAKERS
Input impedance: 4Ω; Max. input power: 5W
- **UT-105** SmarTrunk II™ Logic Board
- **UT-108** DTMF DECODER UNIT
Provides DTMF decode and ANI capabilities.
- **UT-109** VOICE SCRAMBLER UNIT (Version 02)
Up to 32 scrambling codes are available.
- **UT-110** VOICE SCRAMBLER UNIT (Version 02)
Provides higher operating security. Up to 1020 (255 codes × 4 groups) scrambling codes are available.
- **UT-111** LTR® Trunking UNIT
- **UT-117/S** SmarTrunk 3G™ Boards
Provides SmarTrunk 3G™ and SmarTrunk II™ capabilities. UT-117S has inversion type voice scrambler.



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