



UHF TRUNKED RADIOS

IC-F610 (MT version) IC-F620 (MT version)



The above photo includes the optional DTMF MIC, HM-100TN.

Icom proudly announces the debut of the IC-F610/F620 MT version. This version is compatible with MPT 1327, 1343 as well as MAP 27 data communication protocol. Also, the MT version keeps the technical features and rugged construction of conventional version. MPT trunking is used for large scale communication needs such as transportation, delivery services, taxis, construction and other organizations. These mobile radios are designed as a complement to our handheld trunked radio IC-F40GT/F40GS MT series. Coupled with the IC-F40GT/F40GS MT version, the IC-F610 MT version will further expand commercial communications lineup.

SELLING POINTS

- **Direct dialing with optional DTMF microphone**
- **Short Data Message (SDM) capability**
- **Complies with MAP 27 data communication protocol**
- **32 ch conventional mode with CTCSS**
- **Invertible chassis**
- **Optional voice scrambler unit**
- **MIL-STD 810F specification, rugged construction**
- **Compatible with IC-F40GT/F40GS MT version**

FEATURES

Compatible with MPT1327/1343 networks

The IC-F610 MT series ensures inter-operability with other MPT trunked radios. Dispatcher, individual, group, emergency, priority and telephone calls are available.

Easy to use

5 programmable switches and 2 up/down switches can be assigned functions to suit specific needs. The 10-digit alphanumeric display shows numerous status messages and memory call comments for easy recognition.

Short Data Message (SDM)

With the optional DTMF mic, HM-100TN, up to 24-character (including calling number) short data messages can be sent directly. 32 status call codes are also available.

Map 27 data capability

MAP 27 data interface allows wireless data communication by connecting a PC or other terminals with an RS-232C interface*. This allows you to exchange up to 100-character extended data messages at a Maximum 1200 bps data transfer rate.

* Optional OPC-822 is required.

Direct dialling with DTMF microphone

With the optional DTMF microphone HM-100TN, DTMF dialling allows you to make up a call from 10-key pad directly.

Conventional mode operation

32 conventional channels with CTCSS signaling allows communication versatility for use areas in without trunking service. Each channel has selectable wide/narrow channel spacing.

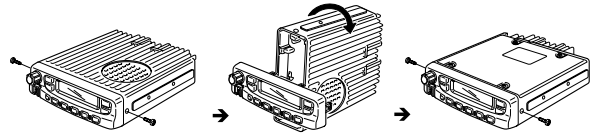
MIL specification rugged construction

The IC-F610 MT series has passed the new MIL 810 F tests as follows.

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

Invertible chassis

The chassis of the IC-F610 MT series is invertible from the front panel. The speaker can be set to face you, allowing clear audio at all times.



Optional voice scrambler

By installing an optional voice scrambler unit*, the IC-F610 MT series provides secure private communication.

* The UT-109 is recommended in MPT mode.

Compatible with IC-F40GT/F40GS MT version

The IC-F610 MT series is designed to be a companion to our handheld transceiver, IC-F40GT/F40GS MT series. The audio compander, voice scrambler and number of channels are all compatible. Take advantage of the shared functionality to complete your communications requirements.

Programmable key assign function

The following functions can be assigned to the switches.

- High/Low
- Emergency
- Public Address
- Up, Down
- Despatcher
- Clear (Set Mode)
- Null
- Call1, 2
- Backspace
- Rx Speaker
- Status Up, Down
- Call Back
- Mode

Conventional mode

- Clear (Set Mode)
- Public Address
- Up, Down
- Mode
- Null
- Simplex
- Rx Speaker
- High/Low
- Monitor

Other functions

- 40 phone memory banks with alphanumeric names
- 5-digit routing code for abbreviated dialling
- Built-in audio compander
- Own and 3rd party divert calls
- Rewritable system messages to other language
- Advanced PC programming capability
- Full Off-Air Call Set Up (FOACSU)
- Flash ROM CPU for easy firmware upgrade capability

PROGRAMMABLE ITEMS WITH CS-F600 (MPT)

■ PERSONALITY

IDENTITY

- Own Prefix
- Own Number
- Fleet Individual Number
- Last Individual Number
- Fleet Group Number
- Last Group Number
- RF power (Auto, High, Low1, Low2)
- Auto (RSSI > L1)
- Auto (RSSI < L1)

FIVE DIGIT LOOKUP TABLE (Max. 40)

SYSTEM MESSAGE

(Rewritable to another language)

■ CALL MEMORY

MEMORY CALL TABLE (Max. 16)

STATUS CALL TABLE

GROUP TABLE (Max. 40)

DESPATCHER NUMBER

- Despatcher Number
- Direct Despatcher (Yes/No)
- Status Select (Enable/Disable)
- SDM Number
- SDM Call (Enable/Disable)
- Call back (Enable/Disable)
- Alert on GTC (Enable/Disable)
- FOACSU (Enable/Disable)
- Dynamic Regroup (Enable/Disable)
- Queue DELETE (One by one/All)

CALL OPTIONS

- Abbreviated PSTN
- PSTN Call (Enable/Disable)
- Long PABX (Enable/Disable)
- Short PABX (Enable/Disable)
- Inter-Fleet call (Enable/Disable)
- Inter-Fleet Group call (Enable/Disable)
- System Wide (Enable/Disable)
- Technical Call (Enable/Disable)
- Divert 3rd Party (Enable/Disable)
- Include Call (Enable/Disable)
- Display Pressel (Enable/Disable)

EMERGENCY

- Emergency Number

■ NETWORK

SYSTEM ID CODE

- Network Type (National/Regional)
- OPID/NET
- LA
- LZ
- Registration Information
- 'Home' Zone
- Control CH Category (A–D)
- Fall-back CH
- Fall-back NDD
- Sync Word
- FFSK Modulation (FM/PM)
- CH Spacing (Wide/Narrow)

CH RANGE

- Min. CH Number
- Max. CH Number

BLOCK FREQUENCY TABLE

NETWORK AAD TABLE

TIMING AND ERROR

HUNT

- Normal Hunt Table
- Comprehensive Hunt (Enable/Disable)
- RSSI Margin (LM1–4)
- Preferential Hunt Table

■ Common Setting

KEY ASSIGN

- Trunk
- Conventional

Set Mode

- Backlight (ON/OFF/Dim/Auto)
- Ringer (1–5/OFF)
- Beep Level (1–5/OFF)
- Squelch
- AF Min Level
- Compander (ON/OFF)
- Mic Gain (1–5/OFF)
- Scrambler (1–5/OFF)
- Hook (ON/OFF)
- Horn (ON/OFF)
- System Info

Indication (Rewritable to other language)

- Answer
- Auto
- Dimmer
- OFF/ON

Conventional Calls (Max. 32 Ch.)

Common

- Clone Comment
- Opening Text
- Power on Password
- User Password
- Clone Out Enable (Enable/Disable)
- Talk Around Timer
- Interval Timer
- Time out Timer
- Penalty Timer
- RSSI L0 (dBm)
- RSSI L2 (dBm)
- Beep Frequency (Low, High1, High2)
- Horn Timer
- at Status (Enable/Disable)
- at Alert (Enable/Disable)
- Dialed Call (Enable/Disable)
- DTMF Mic (Enable/Disable)
- Ignition SW (Enable/Disable)

MAP27

- MAP27 (Enable/Disable)
- Connection Speed (1200/2400/4800/9600/19200)
- Link Establishment Timer
- ACK Timer
- Activity Timer
- Retransmission count
- Link Activity count

Scrambler

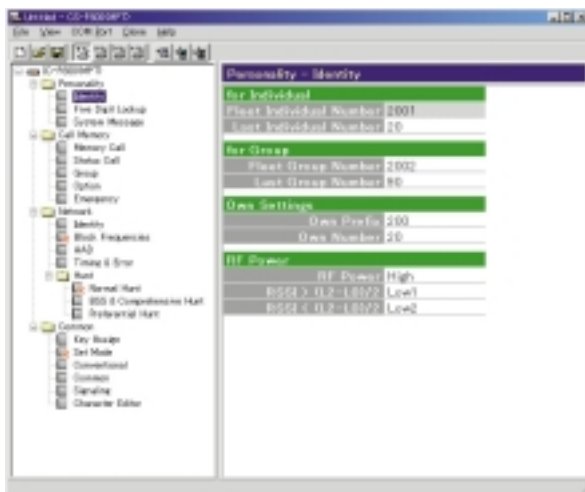
- Type (Non Rolling/Rolling)
- Group Code
- Synchronous Capture (Standard/Continuous)
- Code 1-5

CTCSS

- CTCSS Burst (Notone/Phase)
- Burst Timer
- User CTCSS (Hz)
- RX AF Filter (Normal/Low Cut)

CHARACTER EDITOR TABLE

(16-Character)



SPECIFICATIONS

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 coverage : 400–430MHz
440–490MHz
- Channel Spacing : 12.5/25kHz type
12.5/20kHz type
- PLL channel step : 2.5, 5, 6.25kHz
- Number of channels : Max. 32 Ch conventional mode
- Antenna connector : SO-239 (50 Ω)
- Operating temp. range :
ETS –25°C to +55°C
EIA –22°F to +140°F
- Power supply voltage :
ETS 13.2V DC
EIA 13.6V DC
- Current drain (approx.) :
Tx (25 W) 7.0A
Rx max. audio 1.2A
standby 300mA
- Dimensions : 140(W)×40(H)×170(D) mm
5½ (W)×1¹⁹/₃₂(H)×6¹¹/₁₆(D) in
- Weight : 1.2kg; 4lb 14oz

■ TRANSMITTER

- Output power : 25W
- Modulation system : Variable reactance frequency modulation
- Spurious emissions : 70dB typ. (EIA)
0.25μW (ETS, below 1GHz)
- Adjacent channel power : 60dB (narrow)
70dB (wide, middle)
- Microphone connector : 8-pin modular (600 Ω)

■ RECEIVER

- Intermediate frequencies : 1st 46.35MHz
2nd 450kHz
- Sensitivity (typical) :
EIA 0.25μV typical at 12dB SINAD
ETS –4dBμV typical emf at 20dB SINAD
- Squelch sensitivity (threshold) :
EIA 0.25μV typical
ETS –4dBμV typical emf
- Adj. channel selectivity : 65dB typical (narrow)
75dB typical (wide, middle)
- Spurious response : 75dB
- Intermodulation :
EIA 65dB typical (narrow)
75dB typical (wide)
ETS 67dB typical
- Audio output power : 4.0W typical at 10% distortion with a 4Ω load
- Audio output impedance : 4Ω

OPTIONS

- **CS-F600 (MPT)*** Cloning Software (for dealers only)
- **HM-100TN** DTMF Microphone
- **OPC-617** ACC Cable
- **OPC-822** Interface Cable (For MAP 27)
- **OPC-1122** Cloning Cable (for dealers only)
- **SM-25** Stand Microphone
- **SP-22** External Speaker
- **UT-109** Voice Scrambler Unit
(Version #02) Non-rolling type.
- **UT-110** Voice Scrambler Unit
(Version #02) Rolling type. Available in conventional mode only.

*New options.