



VHF P25 CONVENTIONAL & TRUNKED TRANSCEIVER

IC-F9511HT

High Power Mobile for the First Responder!

- P25 Conventional & Trunking
- AES/DES Encryption (Option)
- Enhanced Vocoder Ready
- 110W Output Power
- 512 Channels
128 Zone
- Dual-head Configuration (Option)



High-Power **110W**

Photo includes optional RMK-4, OPC-609 and SP-30

High Power Mobile for the First Responder!

Ready for: P25 conventional, P25 trunking and
analog conventional. All in one radio!

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110W
High-Power



P25 Conventional & Trunking Features

P25 VHF Conventional and Trunking

The IC-F9511HT comes with P25 VHF conventional and trunking capabilities. You can assign individual channels to analog conventional, P25 conventional or P25 trunking, all within one radio.

Interoperability

The IC-F9511HT conforms to standard specifications for TIA/EIA -102, CAAB, Digital C4FM Transceiver Performance Recommendations. Provides interoperability with other brand P25 equipment for public safety applications.

Digital/Analog mixed mode operation

The mixed mode operation allows you to detect and receive both analog FM and P25 digital modes and to transmit either mode depending on programming.

Individual ID and talkgroup ID

The IC-F9511HT has a 100 individual ID and 250 talkgroup ID memories. Use the display to visually select the person or group you're going to call.

Optional AES/DES encryption

The IC-F9511 series provides AES and/or DES encryption for secure conversation with the optional UT-125 or UT-128. UT-125 FIPS 140-2 level 1 certified version is also available.

OTAR (Over-the-Air-Rekeying)

The IC-F9511HT supports P25 OTAR and trunked OTAR for changing encryption keys over the air.

Enhanced vocoder ready

Using the DVSI's AMBE+2™ vocoder, the IC-F9511HT is enhanced vocoder ready.



110 W of powerful RF output

A full 110 W of output power is available for reliable long distance communication. A large heat sink provides effective cooling mechanism allowing continuous duty cycle operation (20% duty cycle transmission).

IP54 dust and water resistance

The controller and RF unit have IP54 dust-protection and splash resistance allowing it to be used in wet and dusty conditions.

Compact "letter size" RF unit

The IC-F9511HT's RF (main) unit dimensions are only 175 (W) × 60 (H) × 279 (D) mm (6.9 × 2.4 × 11 in), so the RF unit can be fit into a "letter size" console box.



flexible channel and communication group management. The CTCSS and DTCS encoder and decoder* are also built-in to set up your own talk groups.

* Analog mode only.

Dot matrix, multi-function LCD

With a high contrast dot matrix display, upper and lower case characters can be easily distinguished. The display shows 12 characters by 2 lines. LCD backlight is standard.



Internal clock setting example



Photo includes optional RMK-4, OPC-607, SP-22, SP-30 and HM-148G.

Optional dual-head controller*

By installing the optional RMK-4 with a separation cable, the IC-F9511HT can be made a two controller "Dual-head" configuration. While a dual-head operator is communicating using one of the controllers, the other operator can monitor incoming and outgoing audio. Also, the radio can be used as an intercom between controllers.

* Optional dual-head separation kit, separation cable, microphone and speaker are required.

512 memory channels, 128 zones

Up to 512 memory channels can be divided into 128 memory zones, allowing you

9-pin external speaker connector

The IC-F9511HT has a 9-pin speaker connector with a 15 W (typ.) audio amplifier for connecting the SP-30 external speaker, horn honk and ignition sensing line, etc.. When an external loud speaker is connected, the RX speaker function allows you to relay the received audio over the loud speaker.

Programmable accessory connector

The IC-F9511HT has a D-SUB 25-pin ACC connector for connecting external devices. It has reserved pins for programming to input operating channels, turn on/off functions and output received audio.

Tactical group function

The tactical group function allows you to copy memory channels to the tactical zone and temporarily regroup memory channels. Using the optional zone copy cable, memory channels in the tactical zone can be transferred from a master radio to other radios.

Abundant scanning functions

The dual priority scan monitors two primary channels alternately, while scanning other channels. The mode dependent scan function automatically changes the scan list according to the operating channel setting. The talk back function with timer beep, TX channel and cancel channel settings allow you to preset the transmission channel when you push the PTT button during a scanning operation or cancel the scanning.

Radio stun/kill and Power-on password function

The radio stun/kill function* disables a lost or stolen radio over the air, eliminating security threats from undesired listeners. The power-on password** prevents unauthorized people from turning on the radio.

* P25 digital mode only. ** The power-on password function is not compatible with the RMK-4.

Optional external speaker SP-30

Newly designed external speaker, SP-30 offers 15 W* (typ.) of high level audio with the IC-F9511HT for improved operation in noisy environments.

* Rated input of the SP-30 is 20 W.

Other features

- Wide frequency coverage (136–174MHz)
- HM-148G self-grounding microphone supplied with the IC-F9511HT
- FM wide/narrow channel spacing*¹
- Built-in audio compander*¹
- Built-in inversion type voice scrambler*¹
- NTIA VHF specification compliant
- Talk around function
- DTMF autodial*¹
- Microphone hanger action (On hook scan and off hook monitor)
- 2-Tone encoder and decoder*¹ and MDC 1200 compatible*¹

*¹ Analog mode only



SPECIFICATIONS

IC-F9511HT	
GENERAL	
Frequency coverage	136-174 MHz
Number of channels	Max. 512 Ch/ 128 zones
Type of emission	16K0F3E*, 11K0F3E, 8K10F1E, 8K10F1D
Channel spacing	12.5/25, 15/30 kHz*
PLL channel step	2.5/3.125 kHz
Power supply requirement	13.6 V DC
Current drain (approx.)	
Tx 110 W	22.0 A
Rx Max. audio/Standby	3.0 A/400 mA
Antenna impedance	50Ω (SO-239)
Operating temperature range	-30 °C to +60 °C; -22 °F to +140 °F
Dimensions (W × H × D)	(Projections not included)
RF unit	175 × 60 × 279 mm; 6.9 × 2.4 × 11 in
Controller	175 × 45 × 50.3 mm; 6.9 × 1.8 × 2 in
Weight	
RF unit	4.1 kg; 9.0 lb (approx.)
RF unit with controller & cable	4.7 kg; 10.4 lb (approx.)
Controller	320 g; 11.3 oz (approx.)
TRANSMITTER	
Output power (at 13.6 V DC)	110 W, 50 W, 10 W (Hi, L2, L1)
Max. frequency deviation	±5.0 kHz/±2.5 kHz (Wide/Narrow)
Digital	Maximum pattern ±2.85 kHz
Frequency stability	±1.0 ppm
Spurious emissions	70 dB min.
FM Hum and noise	48/45 dB typ. (Wide/Narrow)
Audio harmonic distortion	3% typ. (40% deviation)
Ext. microphone impedance	600 Ω (8-pin modular)

Supplied Accessories

- Hand microphone, HM-148G
- DC power cable
- Mounting bracket kit for main unit and controller
- Controller unit
- Microphone hanger
- Separation cable, 5 m (16.4 ft)
- Key assign stickers
- Speaker is an option.

IC-F9511HT	
RECEIVER	
Sensitivity	Analog 0.25 μV typ. (at 12 dB SINAD) Digital 0.25 μV typ. (at 5% BER)
Adjacent channel selectivity	Analog 81/53 dB typ. (TIA/EIA603B, wide/narrow) Digital 85/77 dB typ. (TIA/EIA603, wide/narrow) 63 dB typ.
Spurious response	85 dB min.
Intermodulation	78 dB typ.
Hum and noise	Analog 55/51 dB typ. (Wide/narrow) Digital 52 dB typ.
Audio output power	15 W typ. (at 3% distortion, 4 Ω load with external speaker)
External speaker connector	2-conductor 3.5 (d) mm (1/8")/4 Ω

Measurements made in accordance with TIA-102 (Digital), TIA-603B (Wide/narrow). All stated specifications are subject to change without notice or obligation.

* 25 kHz bandwidth is no longer available for FCC Part 90 licensees for USA versions. Ask your dealer if you need 25kHz bandwidth.

Applicable U.S. Military Specifications

Standard	MIL 810 G	
	Method	Procedure
Low Pressure	500.5	I, II
High Temperature	501.5	I, II
Low Temperature	502.5	I, II
Temperature Shock	503.5	I-C
Solar Radiation	505.5	I
Rain	506.5	I, III
Humidity	507.5	II
Salt Fog*	509.5	-
Blowing Dust*	510.5	I
Vibration	514.6	I
Shock	516.6	I, IV

Also meets equivalent MIL-STD-810-C, -D -E and -F.

Ingress Protection Standard

Dust & Water IP54* (Dust-protection and water resistant)

* Salt fog, Blowing dust and IP54 tests were performed on the controller and RMK-2 only.

OPTIONS

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

DUAL-HEAD SEPARATION KIT



RMK-4
For dual-head configuration. Separation cable, microphone and speaker are required separately.

SEPARATION CABLES



OPC-609: 1.9 m; 6.2 ft
OPC-607: 3 m; 9.8 ft
OPC-726: 5 m; 16.4 ft
Same as supplied
OPC-608: 8 m; 26.2 ft

DESKTOP MICROPHONE



SM-26

HAND MICROPHONES



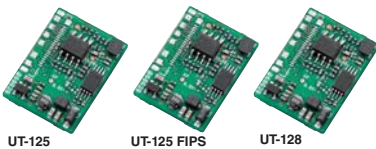
HM-211 Active noise cancelling microphone
HM-152
HM-148G Heavy duty microphone
HM-148T Heavy duty microphone with DTMF keypad

EXTERNAL SPEAKERS




SP-30
20 W rated input
SP-35: 2 m cable
SP-35L: 6 m cable

INTERNAL UNITS



UT-125 AES/DES ENCRYPTION UNIT
UT-125 FIPS AES/DES ENCRYPTION UNIT (FIPS version)
UT-128 DES ENCRYPTION UNIT

ZONE COPY CABLES



OPC-1532 Mobile to mobile cable
OPC-1871 Mobile to handheld

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