











DESCRIPTION

The FT-747GX is a compact SSB/CW/ AM and (optionally) FM transceiver providing 100 watts of PEP output on all hf amateur bands, and general coverage reception continuously from 100 kHz to 30 MHz.

Housed in metallized high-impact plastic, the FT-747GX is perhaps the lightest 100W hf transceiver ever produced. A front panel mounted loudspeaker and clear, unobstructed display and control layout make this set a real joy to use.

Convenient features include operator selectable coarse and fine tuning steps optimized for each mode: 25 Hz and 2.5 kHz for SSB and CW, 1 and 10 kHz for AM, and 5 and 12.5 kHz for FM with the optional FM Board.

Dual (A/B) vfos are provided, along with twenty memory channels which store mode and skip-scan status for auto resume scanning of selectable memories, controllable from the microphone UP/ DOWN keys. Eighteen of the memories can also store independent transmit and receive frequencies for easy recall of split-frequency operations.

Wideband (6 kHz) AM and narrowband (500 Hz) CW IF filters are included as standard, along with a clarifier, switchable 20 dB receiver attenuator and noise blanker to optimize reception under

OPTIONS

Optional accessories include your choice of the MD-1B8 Desktop Scanning Microphone or the MH-1B8 Handy Scanning Microphone, the microprocessor controlled FC-757AT or FC-1000 Automatic Antenna Tuners or FL-7000 500-watt Automatic Solid State Linear Amplifier, and a TCXO (Temperature Compensated Crystal Oscillator) for added frequency stability. Also available are the FRB-757 Relay Box for t/r switching of linear amplifiers, and the FAS-1-4R Remote Antenna Selector, which allows selection of up to four additional antennas when used with the FC-757AT or FL-7000. The FC-700 manual antenna tuner can also be used with the FT-747GX.

Special power supplies for the FT-747GX include the FP-757HD Heavy Duty Series Regulator Power Supply with forcedair cooling and automatic thermal fan control, or the FP-700 standard power supply for low power and light duty applications. Both supplies can be wired for 100/110/117/200/220 or 234 VAC.

Matching External Loudspeakers include the SP-767 and SP-767P (with phone patch). CAT System interface units available are the FIF-65A (for Apple II) and the FIF-232C for other computers equipped with an RS-232C serial port capable of 4800 baud.

For mobile installation you will want the MMB-38 Mounting Bracket.



varying conditions. User programming for more advanced control by an external computer is possible through the CAT (Computer Aided Transceiver) System.

The transmitter power amplifier is enclosed in its own diecast aluminum heatsink chamber inside the transceiver, with forced-air cooling by an internal fan allowing full power FM and packet, RTTY, SSTV and AMTOR operation when used with a heavy duty power supply.



SPECIFICATIONS

GENERAL

Tuning Steps (selectable) SSB & CW: 25 Hz or 2.5 kHz/step AM : 1 kHz or 10 kHz/step FM*: 12.5 kHz or 5 kHz/step Frequency Stability (0° to +40°C) SSB, CW, AM: ±200 Hz FM: ±300 Hz **Frequency Accuracy** SSB, CW, AM: ±200 Hz FM: ±300 Hz Antenna Impedance (nominal) 50 ohms, unbalanced **Supply Voltage** 13.5 VDC ±10% (negative ground) **Maximum Current Consumption** 19A (@ 100W output) **Dimensions** 238 (W) X 93 (H) X 238 (D) mm Weight Approx. 3.3 kg (7.25 lb)

RECEIVER

Frequency Range 100 kHz to 29.9999 MHz (continuous) **Circuit Type** CW, SSB, AM: double conversion FM*: triple conversion **Clarifier Range** ±9.975kHz Sensitivity (for 10dB S+N/N, exc. FM) 0.5~1.5 MHz > 1.5 MHz SSB/CW: 0.5µV 0.25µV AM : $2 \mu V$ 1.0 µV **FM***: 0.7µV for 12 dB SINAD (above 28 MHz) **Squelch Sensitivity** SSB/CW/AM: 2.0µV above 1.5 MHz 4.0µV within 0.5~1.5 MHz FM*: 0.32µV **Intermediate Frequencies** 47.055 MHz, 8.215 MHz, 455 kHz (FM only*) **Image Rejection** Better than 70 dB within 1.5~30 MHz **IF Rejection** Better than 60 dB within 1.5~30 MHz

Selectivity (-6/-60 dB) SSB, CW(W), AM(N): 2.2/5 kHz CW(N): 500 Hz /1.8 kHz AM(W): 6/14 kHz; FM(-6/-50 dB)*: 8/19 kHz Maximum Audio Power Output At least 1.5W into 8 ohms w/10% THD Audio Output Impedance 4 to 8 ohms

TRANSMITTER

Frequency Range 160 m band - 1.5 to 1.9999 MHz 80 m band - 3.5 to 3.9999 MHz 40 m band - 7.0 to 7.4999 MHz 30 m band - 10.0 to 10.4999 MHz 20 m band - 14.0 to 14.4999 MHz 17 m band - 18.0 to 18.4999 MHz 15 m band - 21.0 to 21.4999 MHz 12 m band - 24.5 to 24.9999 MHz 10 m band - 28.0 to 29.9999 MHz **Emission Types** LSB, USB (J3E); CW (A1A); AM (A3E) and optionally FM (F3E) **Power Output** SSB, CW & FM*: 100W PEP/DC. AM: 25W carrier **SSB Carrier Suppression** Better than 40 dB below peak output Unwanted Sideband Suppression (SSB) Better than 50 dB (1 kHz tone) **Spurious Radiation** Harmonic: better than -50 dB Non-Harmonic: better than -40 dB Audio Response Less than -6 dB from 400 to 2600 Hz **3rd Order Intermodulation Distortion** Better than -25 dB (@ 100W PEP) **Modulation System** SSB/CW: active balanced modulator AM: early stage (low level) EM. variable reactance **Maximum FM* Deviation** ± 2.5 kHz **Microphone Impedance** 500 to 600 ohms

*FM operation requires optional unit.

Specifications subject to change without notice.

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