



FT-80C

HF SSB TRANSCEIVER



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DESCRIPTION

The ultimate in simplicity and convenience for commercial two-way hf communications, the FT-80C provides SSB/CW/AM and (optionally) FM modes with 100 watts of transmitter power output on up to 20 channels on any frequencies between 1.8 and 30 MHz.

Each channel stores its own mode, simplex or split frequencies and scanning status, and a clarifier is provided for fine tuning on received signals. A wideband AM IF filter is included as standard, and a switchable 20 dB receiver attenuator and noise blanker are provided to opti-

mize reception under varying conditions. The transmitter power amplifier is enclosed in its own diecast aluminum heat-sink chamber inside the transceiver, with forced-air cooling by an internal fan allowing even full power FM and AFSK operation when used with a heavy duty power supply.

A bright, backlit Liquid Crystal Display shows operating frequency and mode in addition to channel number, and a large selector knob makes channel selection a snap. All-mode squelch allows the receiver to be silenced between calls.

Optional accessories include your choice of the MD-1B8 Desktop Scanning Micro-

phone or the MH-1B8 Handy Scanning Microphone, the microprocessor controlled FC-1000 Automatic Antenna Tuner or FL-7000 500-watt Automatic Solid State Linear Amplifier, and a TCXO (Temperature Compensated Crystal Oscillator) for added frequency stability. Suitable power supplies available for the FT-80C include the FP-757HD Heavy Duty Series-Regulator Power Supply with forced-air cooling and automatic thermal fan control, or the FP-700 standard power supply for low power and light-duty applications. Both power supplies can be wired for 100/110/117/200/220 or 234 VAC.



OPTIONS

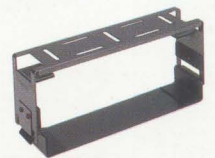
| Model | Part No. |
|-------------|---------------------------------|
| MD-1B8 | Desktop Scanning Mic. D1000039 |
| MH-1B8 | Hand Scanning Mic. D1000040 |
| MMB-38 | Mobile Bracket D6000032 |
| XF8.2M501-1 | CW filter D2000039 |
| FP-757HD | Heavy Duty Power Supply |
| FP-700 | Standard Duty Power Supply |
| YA-30 | Broadband Dipole Antenna |
| FC-1000 | Automatic Antenna Tuner (100W) |
| FL-7000 | 500W Automatic Linear Amplifier |
| SP-767 | Base Station Loudspeaker |
| SP-767P | Base Loudspeaker w/Phone Patch |
| SP-55 | Mobile Loudspeaker |



MD-1B8



MH-1B8



MMB-38



XF8.2M501-1



FP-757HD



FC-1000

SPECIFICATIONS

GENERAL

Frequency Range

1.5-29.999975 MHz, except 7.6-9 MHz
and 23.527 ±50 kHz

Number of Channel

20 channels

Channel Steps

SSB & CW: 25 Hz

AM : 1 kHz

FM*: 5 kHz

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 V DC ±10% (negative ground)

Maximum Current Consumption

19A (typical, @100W output)

Dimensions (WHD)

238 X 93 X 238 mm (without knobs)

Weight

Approx. 3.5 kg (7.72 lb)

TRANSMITTER

Emission Types

LSB, USB (J3E); CW (A1A); AM (A3E)
and optionally FM (F3E)

Power Output (+20/-10%)

SSB, CW & FM*: 100W PEP/DC,

AM: 15W 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 -46 dB
(within 1.8-2.5, 3-3.5, 5.5-8, 10-15
and 18-30 MHz)

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 Systems

SSB/CW: active balanced modulator

AM : early stage (low level)

FM*: variable reactance

Maximum FM* Deviation

±2.5 kHz

Microphone Impedance

500 to 600 ohms

RECEIVER

Circuit Type

CW, SSB, AM: double conversion

FM* : triple conversion

Clarifier Range

±9.975 kHz

Sensitivity (for 10 dB S+N/N, exc. FM)

SSB/CW: 0.5μV

AM : 2 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

* FM operation requires optional unit.

** Measured with optional CW filter.

Specifications may be subject to change without notice or obligation.



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