

SECTION 2

2.1 TRANSCEIVER SPECIFICATIONS

2.2 GENERAL INFORMATION

Section 2 contains technical specifications in Table 2-1, semiconductors in Table 2-2, the block diagram (Figure 2-1), and the module location diagrams (Figures 2-2 and 2-3).

TABLE 2-1. Technical Specifications.

GENERAL	FREQUENCY RANGE: 1.6 - 30MHz in 100Hz synthesized steps. FREQUENCY ENTRY: Keypad controlled microprocessor. CHANNELS: 100 Simplex and Half-duplex. CHANNEL PROGRAMMING: Mode 1 Front Panel. Mode 2/3 Internal. CONTINUOUS ENTRY: Channel 00 by keypad entry. Mode 1: Transmit & Receive. Mode 2: Receive Only. Mode 3: Disabled. FREQUENCY DISPLAY: 6 Digit by keystroke (locked out in Mode 3). PROTECTION AGAINST UNAUTHORIZED FREQUENCY CHANGE: Coding device may be removed to lock transceiver in Mode 2 or Mode 3. TUNING: Up & Down Pushbutton Switches (receive only), 100Hz Steps. SCANNING: Automatic on up to 10 channels. ANTENNA IMPEDANCE: 50 Ohms. TEMPERATURE RANGE: -30° to +55°C. FREQUENCY CONTROL: Temperature controlled master oscillator $\pm 0.0001\%$, ± 20Hz maximum. MODES: Simplex and Half-duplex. OPERATION MODES: A3J, (USB/LSB*), A3A* (SSB reduced carrier), A3H (compatible AM), A1 (CW), F1 (teletypes).* *Optional SIZE: (AC & DC) Ht. 10.7cm Width 34.5cm Depth 44.5cm. WEIGHT: AC - 13kg, DC - 11.6kg.
POWER SUPPLY	13.6V DC: Receive 550mA, Transmit 12A Average SSB. 28V DC: Receive: 350mA, Transmit 7A average SSB. Internal AC power supply 110/230V, 50/60Hz for SSB operation. External power supply 110/230V, 50/60Hz for FSK operation, complete with built-in FSK modem.

TABLE 2-1. Technical Specifications, Continued.

TRANSMITTER	POWER OUTPUT: 125W PEP, 100W Average, ± 1 dB at Ambient.
	GAIN LEVELING/TEMPERATURE: 125W PEP, 100W Average +2, -3dB over temperature.
	ANTENNA MISMATCH: Protected against mismatch including open and shorted antennas.
	CARRIER SUPPRESSION: Greater than -50dB.
	UNWANTED SIDEBAND: -60dB at 1kHz, typical.
	SPURIOUS SUPPRESSION (including harmonics): Greater than -63dB over 97% of the frequency range, except 2nd harmonic of frequencies below 2MHz.
	AUDIO INPUT: 150 Ohms, VOGAD for constant audio level.
	AUDIO BANDWIDTH: 2.4kHz.
	INTERMODULATION DISTORTION: Greater than -32dB over 75% of the frequency range.
	ALC: Less than 1dB increase for 20dB increase in audio input.
	METERING: Relative RF output, VSWR (internal connection).
RECEIVER	SENSITIVITY: 0.35uV for 10dB S + N/N.
	SELECTIVITY: 300 to 2700Hz -6dB, -60dB at 5kHz, typical.
	IMAGE REJECTION: Greater than 80dB.
	IF REJECTION: Greater than 80dB.
	CONDUCTED RADIATION: -70dBm.
	AGC CHARACTERISTICS: Less than 6dB audio increase from 3uV to 300,000uV.
	INTERCEPT POINT: +11dBm.
	INTERMODULATION: -85dB.
	CLARIFIER: ± 125 Hz.
	SQUELCH: Audio derived, noise immune.
	AUDIO OUTPUT: 4W into 3 ohms, internal loudspeaker.
	METERING: RX signal strength.

Specifications subject to change without notice.

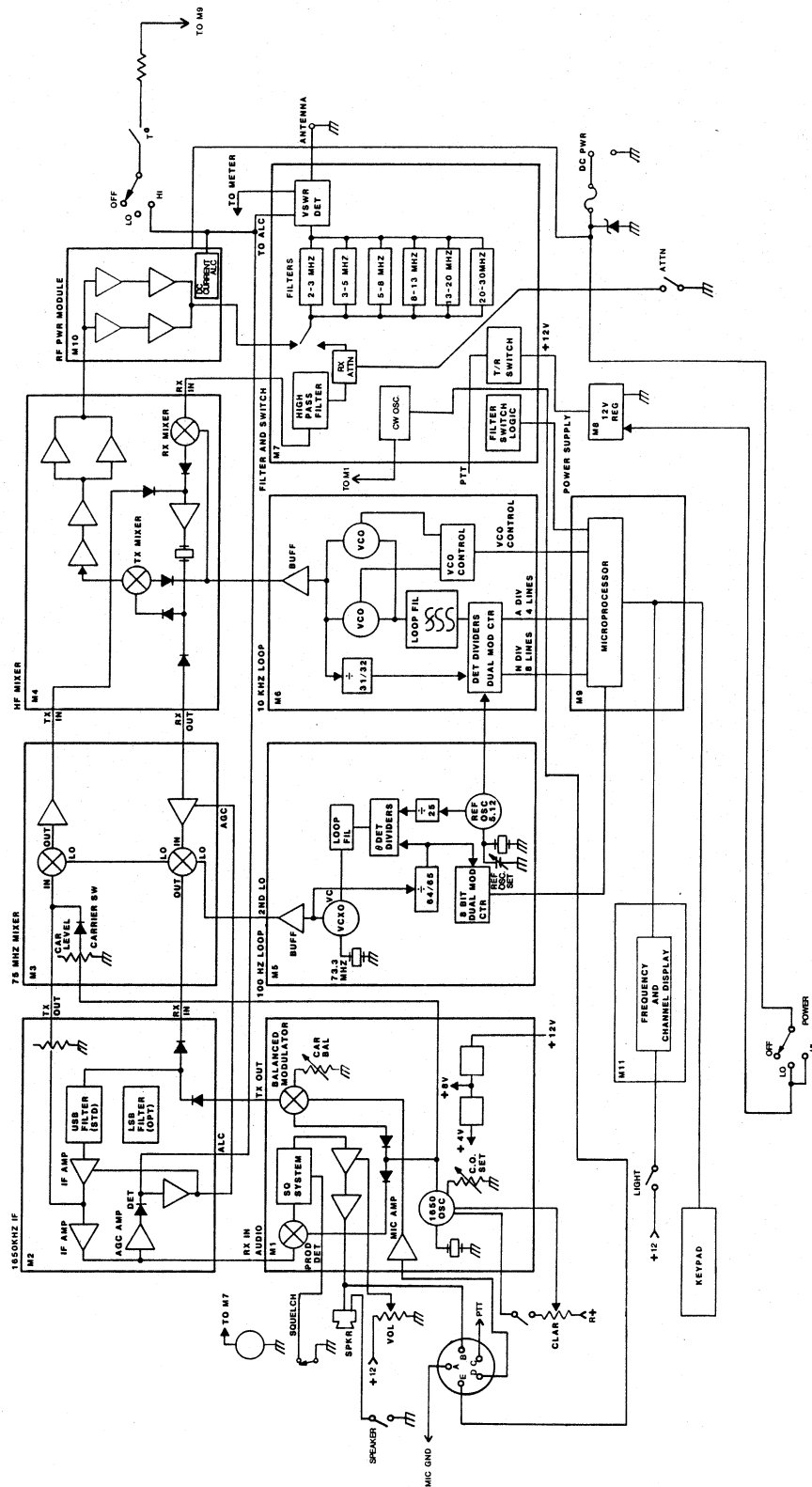


FIGURE 2-1. Block Diagram.