C. DESCRIPTION OF MEASUREMENT FACILITIES

A description of Hyak Laboratories, Inc.'s RF radiation measurement facility was filed with the Commission September 3, 1976 and approved October 1976. It is currently listed as an accepted site.

D. RECEIVER EMISSIONS AT THE ANTENNA TERMINAL

Emissions available at the receiver antenna terminal were measured with a Tektronix 494P spectrum analyzer.

All emissions from 25 MHz to 500 MHz were less than 0.1 nanowatt (-70 dBm) on all channels, per OCE 41(2).

Rated antenna circuit impedance is 50 ohms, which was terminated by the 50 ohm spectrum analyzer input.

E. RECEIVER CABINET RADIATION

Radiation measurements were made over the frequency range of 25 to 500 MHz (CB) ANSI C63.4 (1992). For these tests, the receiver was placed on a rotatable test stand, approximately 80 cm in height, with normal power lead and internal microphone connected. The power lead was extended vertically to a 13.6 Vdc supply.

During the tests, the unit was tuned to the channel having highest emission level measured at the antenna terminals. The test sample was rotated and antenna polarization shifted to obtain worst-case readings with both vertical and horizontal polarization of the test antennas.

Data on worst-case channel are shown in Table 1 and were taken using the Tektronix 494P spectrum analyzer with Singer DM-105A calibrated dipole antennas and a Hewlett-Packard 8447D wide-band amplifier.

No spurious emissions greater than 4 uV/m @ 3m were observed between 25 and 30 MHz.

No spurious emissions exceeded Para. 15.109 from 30 to 2000 MHz.

TABLE 1

RADIATED SPURIOUS EMISSIONS
Measured at 3 meters
PART 15(B) PARA. 15.109

Frequency To Which Tuned (MHz)	Frequency of Emission (MHz)	Meter Reading (dBm)	Antenna Factor (dB)	Field[1] Intensity uV/m @ 3m	FCC Limit uV/m @ 3m	dB to Limit
26.965	65.080	-99.2	8.9	7*	100	-23
26.965	65.080	-104.0	8.9	4*	100	-28
26.965	65.080	-104.0	8.9	4*	100	-28
26.965	65.080	-96.8	8.9	9*	100	-21
26.965	65.080	-103.6	8.9	4*	100	-28
26.965	97.620	-94.0	10.7	15	150	-20
26.965	97.620	-103.2	10.7	5*	150	-29
26.965	97.620	-104.4	10.7	5*	150	-30
26.965	97.620	-102.8	10.7	6*	150	-29

Note 1: $uV/m = Log^{-1}\frac{dBu/m}{20}$

dBu = dBm + antenna factor + 107

*Reference data, 20 dB or more below FCC limit.

F. RECEIVER POWER-LINE-CONDUCTED EMISSIONS

While the HH37ST is intended for use in an automobile, power line conducted tests were made to verify compliance should the unit be used with a typical CB 13.6 Vdc "battery eliminator" operating from a 117 Vac line.

Measurements of power-line-conducted emissions were made according to the procedures described in IEEE Standard 213, except as follows:

1. For the measurements, the unit was tuned to the worst-case channel observed in antenna terminal emissions tests. The receiver was fed an unmodulated signal of 100 microvolts on the test channel via coaxial cable from a Wavetek 3002 signal generator.

Measurements were made over the frequency range of 0.45 to 25 MHz, using the Tektronix 494P spectrum analyzer. All signals were 20 dB or lower than the permissible limit.

G. LABEL

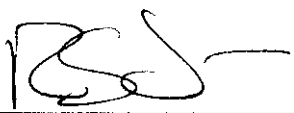
Unit serial number and required identification data will be displayed on a label (See Exhibit 1) riveted to the unit chassis in such a manner that it cannot be removed without probable damage to the equipment.

H. PHOTOGRAPHS

Photographs of the unit are shown in Exhibit 2.

I. STATEMENT

Technical test data herein are from tests performed by me or under my supervision. My qualifications are a matter of record with the Federal Communications Commission. I personally attest to the accuracy of the test data submitted as a part of this Engineering Statement.



Rowland S. Johnson

Dated: April 16, 1998