ENGINEERING STATEMENT

In Regard to Measurements on

Designtech International Inc.

MODEL: 30073

FCC ID: ELGSHR1

A. INTRODUCTION

Hyak Laboratories, Inc. has been authorized by Designtech International, Inc., to determine compliance with FCC rules, Part 15, Subpart B.

The device operates in the 318 MHz band and is intended for use as a remote control/remote indicator.

B. DESCRIPTION OF DEVICE

The device incorporates a super-heterodyne design.

The following information is supplied as requested in FCC Bulletin OCE 24:

1. Service in which the device will be used: Part 15.

2. Function of device: R/C Receiver

3. Tuning range: 317.5 – 318.5 MHz.

4. IF used: 1.3 MHz.

5. Fundamental frequency of principal oscillators in the device.

   First local oscillator: (F_o-1.3) MHz (PLL).

C. DESCRIPTION OF MEASUREMENT FACILITIES

A description of the Hyak Laboratories' radiation test facility is a matter of record with the FCC. The facility was accepted for radiation measurements from 30 to 1000 MHz on October 1, 1976, and is currently listed as an accepted site.

D. DESCRIPTION OF MEASUREMENT PROCEDURE: RADIATED EMISSIONS

Measurements of radiated field strength were made using ANSI C63.4 (1992) as the basic procedure. Measurements were made with 3-meter spacing between the device under test and the test equipment antenna. The antenna(s) connected to the device under test consisted of the integral short antenna supplied with the receiver.

The device under test was placed on a rotatable table 80 cm in height.

Measurement of field strength was made through use of Tektronix 494P spectrum analyzer in conjunction with Singer DM-105A series or EMCO 3221 calibrated dipoles or EMCO 3115 DRG horn.

For each spurious emission identified between 30 to 2000 MHz (per Para 15.33(b)(1)), the test sample was rotated for maximum pickup, the test antenna varied in elevation, and the test antenna polarization shifted between horizontal to vertical in order to maximize observed signals.

E. REPORT OF RADIATED EMISSIONS

All emissions from 30 to 2000 MHz were more than 20 dB below the limits of paragraph 15.109 of the FCC Rules.

F. PROCEDURE - AC LINE CONDUCTED SPURIOUS

Using a 50uH LISN, AC power line conducted radio frequency voltage was measured using an Advantest R3361A spectrum analyzer. Measurements were made from .45 to 30 MHz using CISPR quasi-peak detector with 9 kHz resolution bandwidth. Data in dBuV, are shown in Figures 1 and 2 for right and left LISN port respectively.

A 120 second scan time was used.

G. FORBIDDEN BAND MEASUREMENTS

All forbidden bands of 15.205 from 73 MHz to 2 GHz were searched and any signals above ambient noise or interference

levels were below FCC limits.

H. STATEMENT

Technical test data 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.

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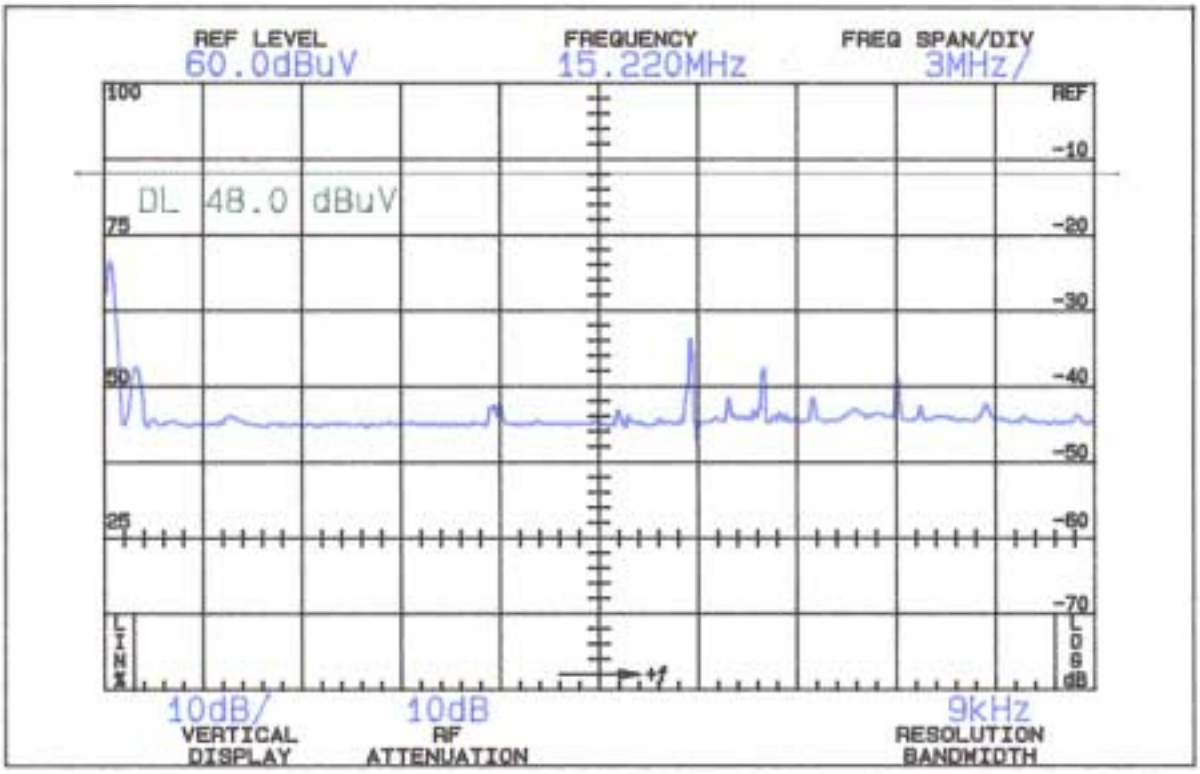
Rowland S. Johnson

Dated: December 6, 2001

FIGURE 1



AC LINE CONDUCTED
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FIGURE 1 (RIGHT LISN)

FIGURE 2

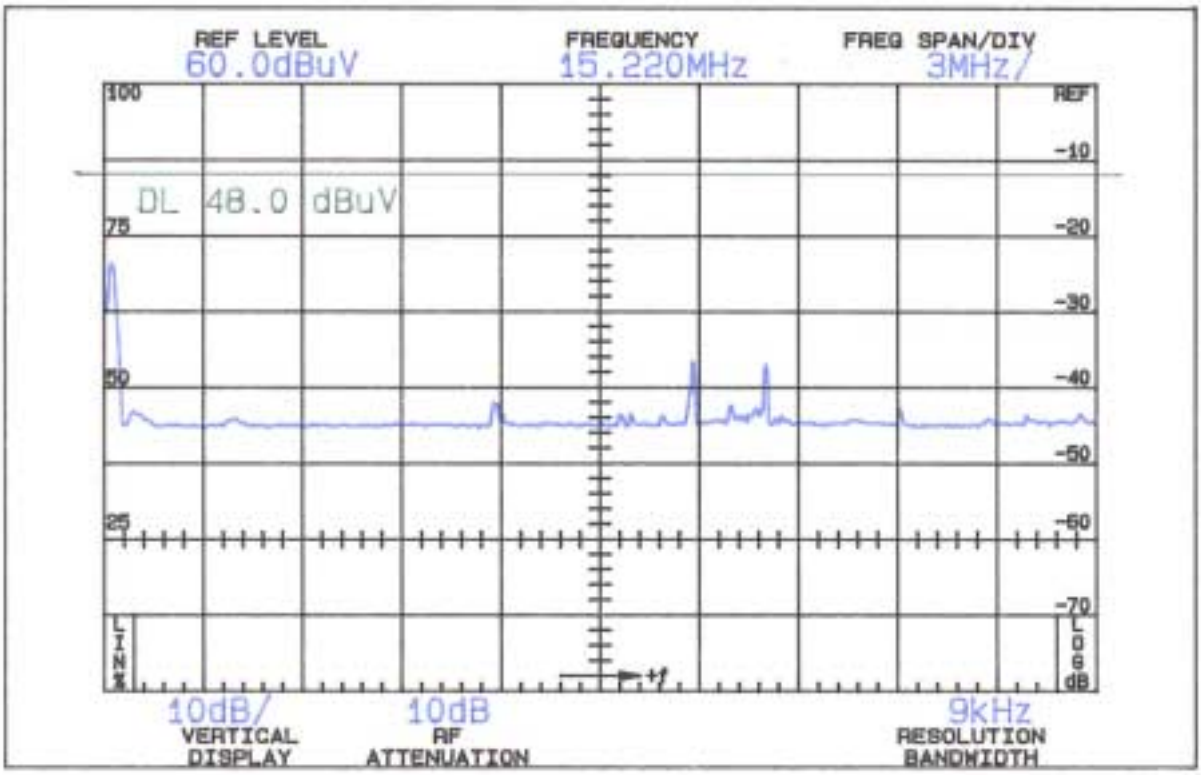

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FIGURE 2 (LEFT LISN)