ENGINEERING STATEMENT

For Type Certification of

Handykey Corporation

Model: Twiddler

FCC ID: I62-HKT2

I am an Electronics Engineer, a principal in the firm of Hyak Laboratories, Inc., 7011 Calamo St., Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission.

Hyak Laboratories, Inc. has been authorized by Handykey Corporation to make type certification measurements on the Twiddler. These tests were made by me or under my supervision in our Springfield laboratory.

Test data and documentation required by the FCC for type certification are included in this report. The data verifies that the above mentioned device meets FCC requirements and type certification is requested.

Dated: October 30, 2000 _____

Rowland S. Johnson

INTRODUCTION

A Handykey Twiddler, which incorporates digital devices, was tested to determine compliance with applicable FCC radiated

and line conducted spurious emissions under FCC Rules, Part 15, Subpart B, Class "B".

CONFIGURATION

Computer/Display/Modem:	Compaq 1670*
Printer:	HP 620
Peripheral:	Handkey “Twiddler”

Radiated emissions were measured with a 1 meter long unshielded cabling on each port arranged to maximize emissions.

RESULTS SUMMARY

The device tested met applicable FCC Rules Part 15, Subpart B, Class "B" (residential) limits for radiated emissions (Para. 15.109(a)), and ac line-conducted spurious (Para. 15.107(a).

ANOMOLIES

No operational anomolies were noted.

PROCEDURE - SPURIOUS RADIATION

The procedures of ANSI C63.4 (1992) were followed.

*AMD-K6-2 processor, 200 MHz.

DATA - RADIATION

Data are compiled in Table 1. Radiation data and FCC limits are in microvolts per meter at 3 meters.

All signals were within applicable FCC limits, and well within the ±3 dB uncertainty range of the measurement system.

The device met FCC criteria of 15.109(a) for Class "B" digital devices.

PROCEDURE - AC LINE CONDUCTED SPURIOUS

The techniques of ANSI C63.4 (1992) were followed.

DATA - AC LINE CONDUCTED SPURIOUS

Figure 1 is a plot of the spectrum analyzer display for worst-case LISN output port. A 9 kHz resolution bandwidth was used with CRT display storage. Data are CISPR quasi-peak responding detector values. A 120 second scan time was used.

FCC limit is shown on the plot as a light green line.

The device met FCC criteria of Para. 15.107(a) for Class "B" digital devices.

RADIATED SPURIOUS EMISSIONS
FCC Part 15, Subpart B
Class B (Para 15.109)

Spurious Frequency (MHz)	Meter Reading (dBm)	Antenna Factor (dB)	Field Intensity uV/m @ 3m	FCC Limit uV/m @ 3m	dB to Limit
166.870	-86.8	18.1	82.2	150	- 5.2

200.530	-93.2	13.6	23.4	150	- 16.1
350.550	-92.8	16.5	34.3	200	- 15.3
378.000	-89.2	15.1	44.2	200	- 13.1
675.205	-88.4	19.5	80.4	200	- 7.9
677.055	-89.2	19.5	73.3	200	- 8.7
678.255	-84.4	19.6	128.8	200	- 3.8
679.555	-87.2	19.6	93.3	200	- 6.6

RADIATED SPURIOUS EMISSIONS
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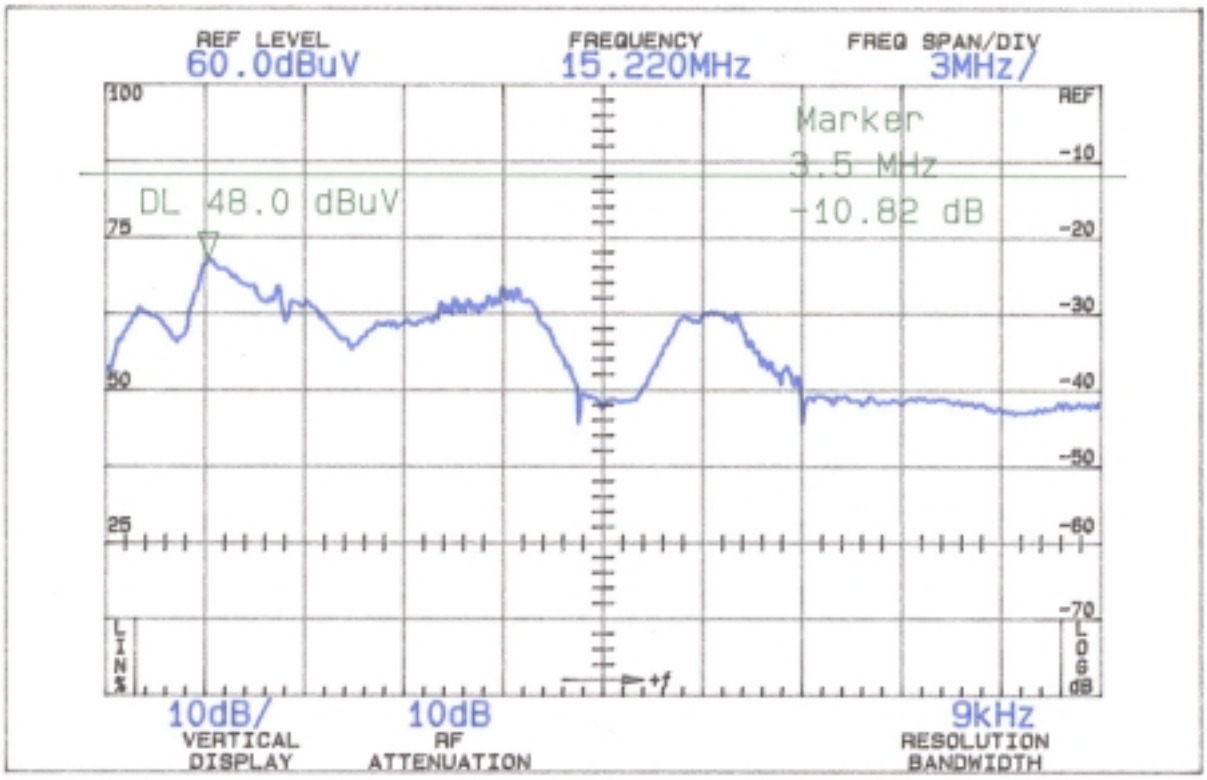
TABLE 1



Line Conducted Emissions
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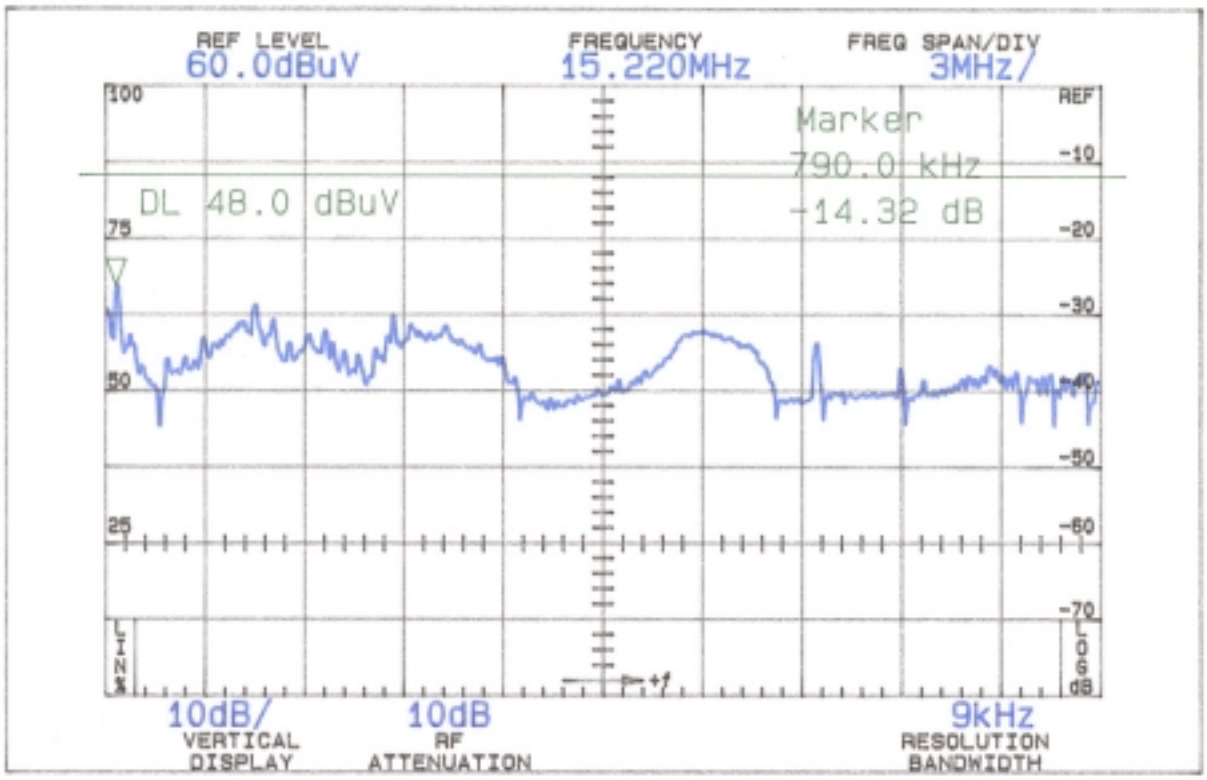
FIGURE 1 (Left LISN)



Line Conducted Emissions
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Figure 2 (Right LISN)