ADDENDUM TO MICROSOFT CORPORATION TEST REPORT FC07-037

FOR THE

MICROSOFT® WIRELESS ENTERTAINMENT KEYBOARD 8000,
MICROSOFT® MODEL NO. 1071

FCC PART 15 SUBPART C SECTION 15.247 AND RSS-210 ISSUE 6

COMPLIANCE

DATE OF ISSUE: MAY 24, 2007

PREPARED FOR:

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052

P.O. No.: PQ23100
W.O. No.: 86162

PREPARED BY:

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CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Date of test: July 25, 2006 - May 2, 2007

Report No.: FC07-037A

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ADMINISTRATIVE INFORMATION

DATE OF TEST: July 25, 2006 - May 2, 2007

DATE OF RECEIPT: July 25, 2006

MANUFACTURER: Microsoft Corporation
One Microsoft Way
Redmond, WA 98052

REPRESENTATIVE: Jamin Pandana – NMB Technologies Corporation
Stephen Stegner – Microsoft Corporation

TEST LOCATION: CKC Laboratories, Inc.
110 Olinda Place
Brea, CA 92823

TEST METHOD: ANSI C63.4 (2003), RSS-210 Issue 6 and RSS-GEN

PURPOSE OF TEST: **Original Report:** To demonstrate the compliance of the Microsoft® Wireless Entertainment Keyboard 8000, Microsoft® Model No. 1071 with the requirements for FCC Part 15 Subpart C Sections 15.247 and RSS-210 devices.
Addendum A: To add FCC 15.207 data.

APPROVALS

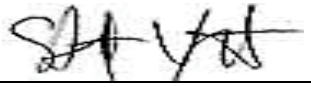
Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

Septimiu Apahidean, EMC Engineer



Stuart Yamamoto, EMC Engineer

FCC TO CANADA STANDARD CORRELATION MATRIX

Canadian Standard	Canadian Section	FCC Standard	FCC Section	Test Description
RSS GEN	7.1.4	47CFR	15.203	Antenna Connector Requirements
RSS GEN	7.2.1	47CFR	15.35(c)	Pulsed Operation
RSS GEN	7.2.2	47CFR	15.207	AC Mains Conducted Emissions Requirement
RSS 210	2.1	47CFR	15.215(c)	Frequency Stability Recommendation
RSS 210	2.2	47CFR	15.205	Restricted Bands of Operation
RSS 210	2.6	47CFR	15.209	General Radiated Emissions Requirement
RSS 210	A8.1	47CFR	15.247(a)(1)	Definition of FHSS
RSS 210	A8.1	47CFR	15.247(h)	Incorporation of Intelligence
RSS 210	A8.1(1)	47CFR	15.247(a)(1)	Minimum Channel Bandwidth
RSS 210	A8.1(1)	47CFR	15.247(g)	Hopping Sequence
RSS 210	A8.1(2)	47CFR	15.247(a)(1)	Carrier Separation
RSS 210	A8.1(2)	47CFR	15.247(a)(1)	Carrier Separation 2400 Alternative
RSS 210	A8.1(3)	47CFR	15.247(a)(1)(i)	Carrier Separation
RSS 210	A8.1(3)	47CFR	15.247(a)(1)(i)	Average Time of Occupancy
RSS 210	A8.1(3)	47CFR	15.247(a)(1)(i)	Number of Hopping Channels
RSS 210	A8.1(4)	47CFR	15.247(a)(1)(iii)	Average Time of Occupancy
RSS 210	A8.1(4)	47CFR	15.247(a)(1)(iii)	Number of Hopping Channels
RSS 210	A8.1(5)	47CFR	15.247(a)(1)(ii)	Max 20dB Bandwidth
RSS 210	A8.1(5)	47CFR	15.247(a)(1)(ii)	Average Time of Occupancy
RSS 210	A8.1(5)	47CFR	15.247(a)(1)(ii)	Number of Hopping Channels
RSS 210	A8.4(1)	47CFR	15.247(b)(2)	RF Power Output
RSS 210	A8.4(2)	47CFR	15.247(b)(1)	RF Power Output
RSS 210	A8.4(3)	47CFR	15.247(b)(1)	RF Power Output
RSS 210	A8.4(5)	47CFR	15.247(c)(1)	Directional Gain Requirements
RSS 210	A8.4(6)	47CFR	15.247(c)(2)	Beam Steering Antennas
RSS 210	A8.5	47CFR	15.247(d)	Spurious Emissions
	IC 3172-D		100638	Site File No.

Notes: Rule Sections for RSS 210 are taken from RSS 210 Issue 6

CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

FCC 15.31(m) Number Of Channels
This device was tested on three channels.

FCC 15.33(a) Frequency Ranges Tested
15.247 Spurious Emissions: 9 kHz – 25 GHz

EUT Operating Frequency
The EUT was operating at 2402 MHz – 2480 MHz.

Temperature And Humidity During Testing
The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION
The customer declares the EUT tested by CKC Laboratories was representative of a production unit.

EQUIPMENT UNDER TEST

Microsoft® Wireless Entertainment Keyboard 8000
Manuf: Microsoft Corporation
Model: Microsoft® Model No. 1071
Serial: 0017fa5c5311 and 0017fa5c262a
FCC ID: C3K1071 (pending)

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Laptop Computer
Manuf: Dell Corporation
Model: Inspiron 6000
Serial: 7W2GSG1

REPORT OF EMISSIONS MEASUREMENTS

TESTING PARAMETERS

The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits to determine compliance. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula. This reading was then compared to the applicable specification limit to determine compliance.

SAMPLE CALCULATIONS		
	Meter reading	(dBµV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. The following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. When conducted emissions testing was performed, a 10 dB external attenuator was used with internal offset correction in the analyzer.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the highest readings, this is indicated as a "QP" or an "Ave" on the appropriate row of the data sheets. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer/receiver readings were recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the measuring device called "peak hold," the measuring device had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the quasi-peak detector.

Average

For certain frequencies, average measurements may be made using the spectrum analyzer/receiver. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.

FCC 15.277 CONDUCTED EMISSIONS

Test Setup Photos

Test Data Sheets

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer:	**NMB Technologies Corporation**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**86162**	Date:	3/30/2007
Test Type:	**Conducted Emissions**	Time:	10:22:38
Equipment:	**Wireless Entertainment Keyboard 8000**	Sequence#:	5
Manufacturer:	NMB Technologies Corporation	Tested By:	Stuart Yamamoto
Model:	1071		120V 60Hz
S/N:	0017fa5cb2ad		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
LISN	1090	05/14/2007	05/14/2009	02128
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer Display Section	3001A18430	09/14/2006	09/14/2008	02472
Spectrum Analyzer RF Section	2928A04874	09/14/2006	09/14/2008	02462

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless Entertainment Keyboard 8000*	NMB Technologies Corporation	1071	0017fa5cb2ad

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 6000	7W2GSG1
USB Mouse	Logitech	M-U69	
USB Mouse	Logitech	M-U69	
USB Mouse	Logitech	M-U69	
Wireless Laser Mouse	NMB Technologies Corporation	1062	
Bluetooth Transceiver	Microsoft Corporation	1063	
AC to 5Vdc Power Adapter	eUrasia Power	HK-HH-A05	
Docking Station	NMB Technologies Corporation	1072	

Test Conditions / Notes:

The equipment under test (EUT) is a wireless keyboard. The EUT is connected to the docking station. The EUT is operating while connected to the docking station. Voltage to the docking stations AC to 5Vdc adapter is 120Vac 60Hz. Temperature: 20°C, Humidity: 39%, Pressure: 100kPa.

Transducer Legend:

T1=HP Filter AN 02343_013108	T2=6dB Attenuator P05613
T3=Cable #8 Conducted Site D	T4=(L1) LISN Insertion Loss 02128

Measurement Data: Reading listed by margin. Test Lead: Black

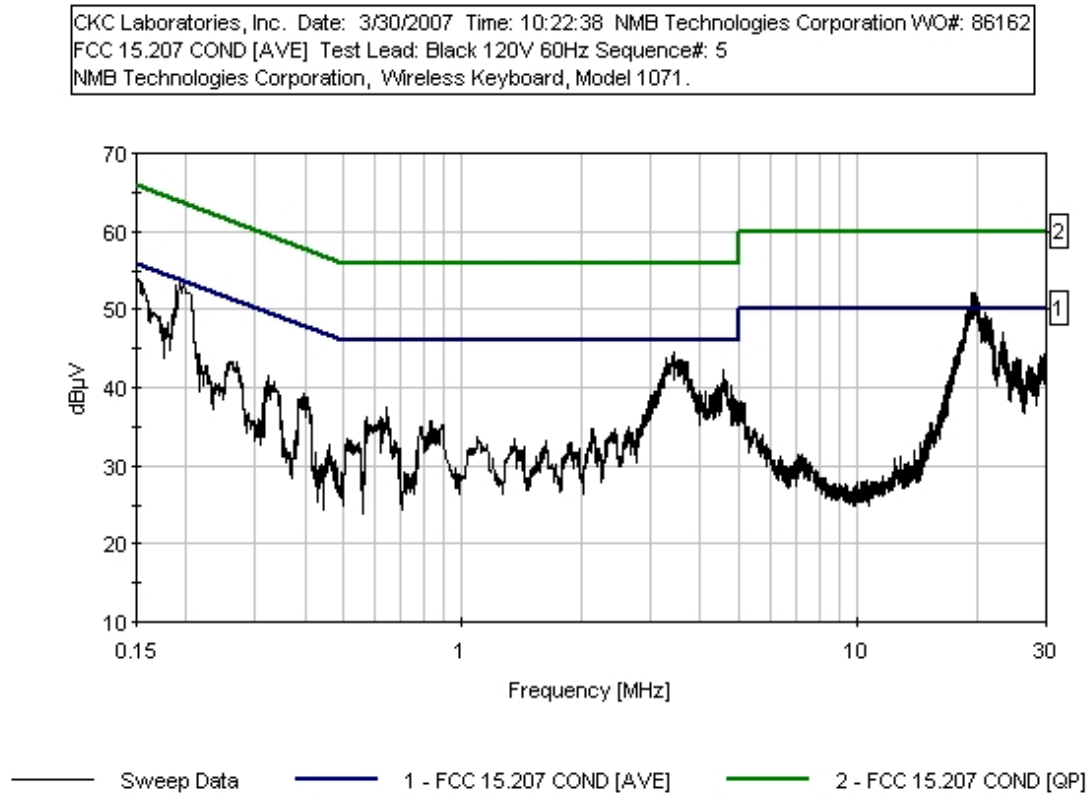
#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	23.271M	37.1	+0.2	+6.1	+0.3	+1.2	+0.0	44.9	50.0	-5.1	Black
2	22.319M	36.9	+0.2	+6.1	+0.4	+1.2	+0.0	44.8	50.0	-5.2	Black
3	23.730M	36.9	+0.2	+6.1	+0.3	+1.3	+0.0	44.8	50.0	-5.2	Black
4	17.869M	37.2	+0.2	+6.1	+0.3	+0.9	+0.0	44.7	50.0	-5.3	Black
5	23.970M	36.7	+0.2	+6.1	+0.3	+1.3	+0.0	44.6	50.0	-5.4	Black
6	29.514M	36.0	+0.3	+6.2	+0.5	+1.4	+0.0	44.4	50.0	-5.6	Black
7	4.420M	33.4	+0.3	+6.2	+0.2	+0.2	+0.0	40.3	46.0	-5.7	Black
8	22.373M	36.3	+0.2	+6.1	+0.3	+1.2	+0.0	44.1	50.0	-5.9	Black
9	29.096M	35.7	+0.3	+6.2	+0.5	+1.4	+0.0	44.1	50.0	-5.9	Black
10	25.382M	35.8	+0.3	+6.1	+0.3	+1.3	+0.0	43.8	50.0	-6.2	Black
11	29.788M	35.3	+0.4	+6.2	+0.5	+1.4	+0.0	43.8	50.0	-6.2	Black
12	17.508M	36.1	+0.3	+6.1	+0.3	+0.9	+0.0	43.7	50.0	-6.3	Black
13	29.329M	35.3	+0.3	+6.2	+0.5	+1.4	+0.0	43.7	50.0	-6.3	Black
14 Ave	19.662M	31.9	+0.2	+6.1	+0.4	+1.1	+0.0	39.7	50.0	-10.3	Black
^	19.662M	44.3	+0.2	+6.1	+0.4	+1.1	+0.0	52.1	50.0 see average data above	+2.1	Black
16 Ave	19.842M	31.8	+0.2	+6.1	+0.4	+1.1	+0.0	39.6	50.0	-10.4	Black
^	19.842M	44.3	+0.2	+6.1	+0.4	+1.1	+0.0	52.1	50.0 see average data above	+2.1	Black
18 Ave	19.526M	31.6	+0.3	+6.1	+0.4	+1.1	+0.0	39.5	50.0	-10.5	Black
^	19.526M	44.0	+0.3	+6.1	+0.4	+1.1	+0.0	51.9	50.0 see average data above	+1.9	Black

20	19.481M Ave	31.6	+0.3	+6.1	+0.4	+1.1	+0.0	39.5	50.0	-10.5	Black
^	19.481M	43.5	+0.3	+6.1	+0.4	+1.1	+0.0	51.4	50.0 see average data above	+1.4	Black
22	19.427M Ave	31.4	+0.3	+6.1	+0.4	+1.1	+0.0	39.3	50.0	-10.7	Black
^	19.427M	44.1	+0.3	+6.1	+0.4	+1.1	+0.0	52.0	50.0 see average data above	+2.0	Black
24	19.364M Ave	31.3	+0.3	+6.1	+0.4	+1.1	+0.0	39.2	50.0	-10.8	Black
^	19.364M	42.9	+0.3	+6.1	+0.4	+1.1	+0.0	50.8	50.0 see average data above	+0.8	Black
26	20.301M Ave	31.2	+0.2	+6.1	+0.4	+1.1	+0.0	39.0	50.0	-11.0	Black
^	20.301M	43.0	+0.2	+6.1	+0.4	+1.1	+0.0	50.8	50.0 see average data above	+0.8	Black
28	20.274M Ave	31.1	+0.2	+6.1	+0.4	+1.1	+0.0	38.9	50.0	-11.2	Black
^	20.274M	42.9	+0.2	+6.1	+0.4	+1.1	+0.0	50.7	50.0 see average data above	+0.7	Black
30	19.013M Ave	30.1	+0.2	+6.1	+0.4	+1.0	+0.0	37.8	50.0	-12.2	Black
^	19.013M	42.3	+0.2	+6.1	+0.4	+1.0	+0.0	50.0	50.0 see average data above	+0.0	Black
32	20.752M Ave	29.9	+0.2	+6.1	+0.4	+1.1	+0.0	37.7	50.0	-12.3	Black
^	20.752M	41.0	+0.2	+6.1	+0.4	+1.1	+0.0	48.8	50.0 see average data above	-1.2	Black
34	21.175M Ave	29.0	+0.2	+6.1	+0.4	+1.2	+0.0	36.9	50.0	-13.1	Black
^	21.175M	40.3	+0.2	+6.1	+0.4	+1.2	+0.0	48.2	50.0 see average data above	-1.8	Black
36	21.292M Ave	29.0	+0.2	+6.1	+0.4	+1.2	+0.0	36.9	50.0	-13.1	Black
^	21.292M	41.2	+0.2	+6.1	+0.4	+1.2	+0.0	49.1	50.0 see average data above	-0.9	Black
38	21.094M Ave	29.1	+0.2	+6.1	+0.4	+1.1	+0.0	36.9	50.0	-13.1	Black
^	21.094M	41.7	+0.2	+6.1	+0.4	+1.1	+0.0	49.5	50.0 see average data above	-0.5	Black

40	21.238M Ave	29.0	+0.2	+6.1	+0.4	+1.2	+0.0	36.9	50.0	-13.2	Black
^	21.238M	40.8	+0.2	+6.1	+0.4	+1.2	+0.0	48.7	50.0 see average data above	-1.3	Black
42	18.815M Ave	29.1	+0.2	+6.1	+0.4	+1.0	+0.0	36.8	50.0	-13.2	Black
^	18.815M	41.6	+0.2	+6.1	+0.4	+1.0	+0.0	49.3	50.0 see average data above	-0.7	Black
44	3.425M Ave	25.8	+0.2	+6.2	+0.2	+0.2	+0.0	32.6	46.0	-13.4	Black
^	3.425M	37.7	+0.2	+6.2	+0.2	+0.2	+0.0	44.5	46.0 see average data above	-1.5	Black
46	18.589M Ave	28.3	+0.2	+6.1	+0.3	+1.0	+0.0	35.9	50.0	-14.2	Black
^	18.589M	40.0	+0.2	+6.1	+0.3	+1.0	+0.0	47.6	50.0 see average data above	-2.4	Black
48	21.716M Ave	27.9	+0.2	+6.1	+0.4	+1.2	+0.0	35.8	50.0	-14.2	Black
^	21.716M	41.0	+0.2	+6.1	+0.4	+1.2	+0.0	48.9	50.0 see average data above	-1.1	Black
50	18.535M Ave	27.5	+0.2	+6.1	+0.3	+1.0	+0.0	35.1	50.0	-14.9	Black
^	18.535M	39.7	+0.2	+6.1	+0.3	+1.0	+0.0	47.3	50.0 see average data above	-2.7	Black
52	21.941M Ave	26.4	+0.3	+6.1	+0.4	+1.2	+0.0	34.4	50.0	-15.6	Black
^	21.941M	39.2	+0.3	+6.1	+0.4	+1.2	+0.0	47.2	50.0 see average data above	-2.8	Black
54	4.594M Ave	23.5	+0.3	+6.2	+0.2	+0.2	+0.0	30.4	46.0	-15.6	Black
^	4.594M	35.4	+0.3	+6.2	+0.2	+0.2	+0.0	42.3	46.0 see average data above	-3.7	Black
56	23.230M Ave	26.0	+0.3	+6.1	+0.3	+1.2	+0.0	33.9	50.0	-16.1	Black
^	23.230M	39.2	+0.3	+6.1	+0.3	+1.2	+0.0	47.1	50.0 see average data above	-2.9	Black
58	23.130M Ave	26.0	+0.3	+6.1	+0.3	+1.2	+0.0	33.9	50.0	-16.1	Black
^	23.130M	37.8	+0.3	+6.1	+0.3	+1.2	+0.0	45.7	50.0 see average data above	-4.3	Black

60	23.169M Ave	25.9	+0.3	+6.1	+0.3	+1.2	+0.0	33.8	50.0	-16.2	Black
^	23.169M	37.7	+0.3	+6.1	+0.3	+1.2	+0.0	45.6	50.0 see average data above	-4.4	Black
62	18.139M Ave	25.9	+0.2	+6.1	+0.3	+1.0	+0.0	33.5	50.0	-16.5	Black
^	18.139M	38.1	+0.2	+6.1	+0.3	+1.0	+0.0	45.7	50.0 see average data above	-4.3	Black
64	23.285M Ave	25.6	+0.2	+6.1	+0.3	+1.2	+0.0	33.4	50.0	-16.6	Black
^	23.285M	37.4	+0.2	+6.1	+0.3	+1.2	+0.0	45.2	50.0 see average data above	-4.8	Black
66	23.354M Ave	25.6	+0.2	+6.1	+0.3	+1.2	+0.0	33.4	50.0	-16.6	Black
^	23.354M	38.7	+0.2	+6.1	+0.3	+1.2	+0.0	46.5	50.0 see average data above	-3.5	Black
68	23.312M Ave	25.5	+0.2	+6.1	+0.3	+1.2	+0.0	33.3	50.0	-16.7	Black
^	23.312M	37.4	+0.2	+6.1	+0.3	+1.2	+0.0	45.2	50.0 see average data above	-4.8	Black
70	22.076M Ave	25.2	+0.3	+6.1	+0.4	+1.2	+0.0	33.2	50.0	-16.9	Black
^	22.076M	38.8	+0.3	+6.1	+0.4	+1.2	+0.0	46.8	50.0 see average data above	-3.2	Black
72	23.381M Ave	25.3	+0.2	+6.1	+0.3	+1.2	+0.0	33.1	50.0	-16.9	Black
^	23.381M	37.5	+0.2	+6.1	+0.3	+1.2	+0.0	45.3	50.0 see average data above	-4.7	Black
74	23.463M Ave	25.2	+0.2	+6.1	+0.3	+1.2	+0.0	33.0	50.0	-17.0	Black
^	23.463M	38.0	+0.2	+6.1	+0.3	+1.2	+0.0	45.8	50.0 see average data above	-4.2	Black
76	23.504M Ave	24.9	+0.2	+6.1	+0.3	+1.2	+0.0	32.7	50.0	-17.3	Black
^	23.504M	38.0	+0.2	+6.1	+0.3	+1.2	+0.0	45.8	50.0 see average data above	-4.2	Black
78	22.103M Ave	24.6	+0.3	+6.1	+0.4	+1.2	+0.0	32.6	50.0	-17.4	Black
^	22.103M	37.3	+0.3	+6.1	+0.4	+1.2	+0.0	45.3	50.0 see average data above	-4.7	Black

80	22.202M Ave	24.1	+0.3	+6.1	+0.4	+1.2	+0.0	32.1	50.0	-17.9	Black
^	22.202M	37.3	+0.3	+6.1	+0.4	+1.2	+0.0	45.3	50.0 see average data above	-4.7	Black
82	17.842M Ave	24.4	+0.2	+6.1	+0.3	+0.9	+0.0	31.9	50.0	-18.1	Black
^	17.842M	37.6	+0.2	+6.1	+0.3	+0.9	+0.0	45.1	50.0 see average data above	-4.9	Black
84	194.000k Ave	25.0	+0.3	+6.1	+0.0	+0.0	+0.0	31.4	53.9	-22.6	Black
^	193.632k	46.9	+0.3	+6.1	+0.0	+0.0	+0.0	53.3	53.9 see average data above	-0.6	Black
86	151.000k Ave	19.7	+3.1	+6.1	+0.0	+0.0	+0.0	28.9	55.9	-27.0	Black
^	150.727k	44.8	+3.2	+6.1	+0.0	+0.0	+0.0	54.1	56.0 see average data above	-1.9	Black



Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer:	**NMB Technologies Corporation**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**86162**	Date:	3/30/2007
Test Type:	**Conducted Emissions**	Time:	10:37:28
Equipment:	**Wireless Entertainment Keyboard 8000**	Sequence#:	6
Manufacturer:	NMB Technologies Corporation	Tested By:	Stuart Yamamoto
Model:	1071		120V 60Hz
S/N:	0017fa5cb2ad		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
LISN	1102	05/11/2007	05/11/2009	00848
LISN	1090	05/14/2007	05/14/2009	02128
High Pass Filter	D5201	01/31/2007	01/31/2009	02343
6dB Attenuator		11/21/2006	11/21/2008	P05613
Coaxial Cable	Cable #8	05/31/2006	05/31/2008	P01910
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer Display Section	3001A18430	09/14/2006	09/14/2008	02472
Spectrum Analyzer RF Section	2928A04874	09/14/2006	09/14/2008	02462

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless Entertainment Keyboard 8000*	NMB Technologies Corporation	1071	0017fa5cb2ad

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell Corporation	Inspiron 6000	7W2GSG1
USB Mouse	Logitech	M-U69	
USB Mouse	Logitech	M-U69	
USB Mouse	Logitech	M-U69	
Wireless Laser Mouse	NMB Technologies Corporation	1062	
Bluetooth Transceiver	Microsoft Corporation	1063	
Docking Station	NMB Technologies Corporation	1072	
AC to 5Vdc Power Adapter	eUrasia Power	HK-HH-A05	

Test Conditions / Notes:

The equipment under test (EUT) is a wireless keyboard. The EUT is connected to the docking station. The EUT is operating while connected to the docking station. Voltage to the docking stations AC to 5Vdc adapter is 120Vac 60Hz. Temperature: 20°C, Humidity: 39%, Pressure: 100kPa.

Transducer Legend:

T1=HP Filter AN 02343_013108	T2=6dB Attenuator P05613
T3=Cable #8 Conducted Site D	T4=(L2) LISN Insertion Loss 02128

Measurement Data: Reading listed by margin. Test Lead: White

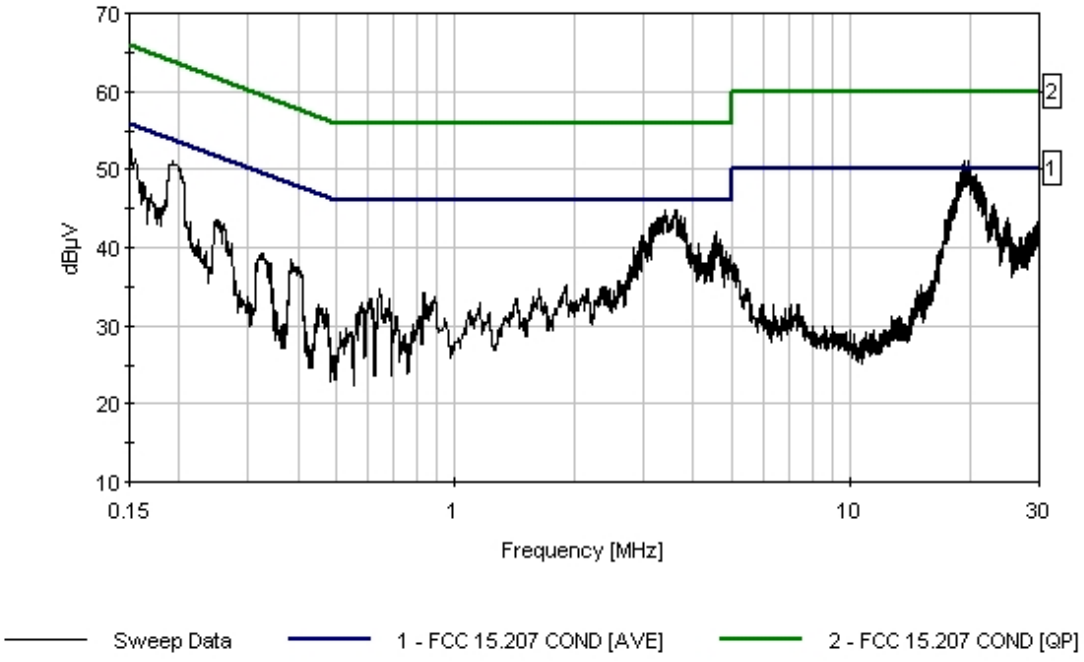
#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	22.707M	37.0	+0.2	+6.1	+0.3	+1.4	+0.0	45.0	50.0	-5.0	White

2	23.022M	36.8	+0.3	+6.1	+0.3	+1.4	+0.0	44.9	50.0	-5.1	White
3	23.189M	36.8	+0.3	+6.1	+0.3	+1.4	+0.0	44.9	50.0	-5.1	White
4	23.103M	36.7	+0.3	+6.1	+0.3	+1.4	+0.0	44.8	50.0	-5.2	White
5	2.940M	34.1	+0.1	+6.2	+0.2	+0.2	+0.0	40.8	46.0	-5.2	White
6	17.725M	36.9	+0.3	+6.1	+0.3	+1.1	+0.0	44.7	50.0	-5.3	White
7	4.471M	33.6	+0.3	+6.2	+0.2	+0.2	+0.0	40.5	46.0	-5.5	White
8	23.278M	36.4	+0.2	+6.1	+0.3	+1.4	+0.0	44.4	50.0	-5.6	White
9	4.126M	33.6	+0.2	+6.2	+0.2	+0.2	+0.0	40.4	46.0	-5.6	White
10	22.418M	36.3	+0.2	+6.1	+0.3	+1.4	+0.0	44.3	50.0	-5.7	White
11	29.884M	35.3	+0.4	+6.2	+0.5	+1.7	+0.0	44.1	50.0	-5.9	White
12	4.450M	33.0	+0.3	+6.2	+0.2	+0.2	+0.0	39.9	46.0	-6.1	White
13	24.888M	35.7	+0.3	+6.1	+0.3	+1.5	+0.0	43.9	50.0	-6.1	White
14	17.752M	36.1	+0.2	+6.1	+0.3	+1.1	+0.0	43.8	50.0	-6.2	White
15	19.301M Ave	30.5	+0.3	+6.1	+0.4	+1.2	+0.0	38.5	50.0	-11.5	White
^	19.301M	43.0	+0.3	+6.1	+0.4	+1.2	+0.0	51.0	50.0 see average data above	+1.0	White
17	19.346M Ave	30.5	+0.3	+6.1	+0.4	+1.2	+0.0	38.5	50.0	-11.5	White
^	19.346M	42.3	+0.3	+6.1	+0.4	+1.2	+0.0	50.3	50.0 see average data above	+0.3	White
19	19.941M Ave	30.6	+0.1	+6.1	+0.4	+1.2	+0.0	38.4	50.0	-11.7	White
^	19.941M	43.3	+0.1	+6.1	+0.4	+1.2	+0.0	51.1	50.0 see average data above	+1.1	White
21	20.040M Ave	30.3	+0.1	+6.1	+0.4	+1.2	+0.0	38.1	50.0	-11.9	White
^	20.040M	42.1	+0.1	+6.1	+0.4	+1.2	+0.0	49.9	50.0 see average data above	-0.1	White
23	20.337M Ave	29.0	+0.2	+6.1	+0.4	+1.2	+0.0	36.9	50.0	-13.1	White
^	20.337M	41.3	+0.2	+6.1	+0.4	+1.2	+0.0	49.2	50.0 see average data above	-0.8	White

25	20.589M Ave	28.8	+0.2	+6.1	+0.4	+1.2	+0.0	36.7	50.0	-13.3	White
^	20.589M	41.1	+0.2	+6.1	+0.4	+1.2	+0.0	49.0	50.0 see average data above	-1.0	White
27	18.887M Ave	28.8	+0.2	+6.1	+0.4	+1.1	+0.0	36.6	50.0	-13.4	White
^	18.887M	41.6	+0.2	+6.1	+0.4	+1.1	+0.0	49.4	50.0 see average data above	-0.6	White
29	20.085M Ave	28.1	+0.1	+6.1	+0.4	+1.2	+0.0	35.9	50.0	-14.1	White
^	20.085M	41.3	+0.1	+6.1	+0.4	+1.2	+0.0	49.1	50.0 see average data above	-0.9	White
31	20.995M Ave	27.7	+0.2	+6.1	+0.4	+1.3	+0.0	35.7	50.0	-14.3	White
^	20.995M	40.4	+0.2	+6.1	+0.4	+1.3	+0.0	48.4	50.0 see average data above	-1.6	White
33	18.950M Ave	27.5	+0.2	+6.1	+0.4	+1.1	+0.0	35.3	50.0	-14.7	White
^	18.950M	41.4	+0.2	+6.1	+0.4	+1.1	+0.0	49.2	50.0 see average data above	-0.8	White
35	20.734M Ave	26.9	+0.2	+6.1	+0.4	+1.2	+0.0	34.8	50.0	-15.2	White
^	20.734M	41.5	+0.2	+6.1	+0.4	+1.2	+0.0	49.4	50.0 see average data above	-0.6	White
37	3.386M Ave	23.9	+0.2	+6.2	+0.2	+0.2	+0.0	30.7	46.0	-15.4	White
^	3.386M	38.0	+0.2	+6.2	+0.2	+0.2	+0.0	44.8	46.0 see average data above	-1.2	White
39	4.560M Ave	23.6	+0.3	+6.2	+0.2	+0.2	+0.0	30.5	46.0	-15.5	White
^	4.560M	35.2	+0.3	+6.2	+0.2	+0.2	+0.0	42.1	46.0 see average data above	-3.9	White
41	21.283M Ave	26.0	+0.2	+6.1	+0.4	+1.3	+0.0	34.0	50.0	-16.0	White
^	21.283M	40.4	+0.2	+6.1	+0.4	+1.3	+0.0	48.4	50.0 see average data above	-1.6	White
43	151.000k Ave	29.6	+3.1	+6.1	+0.0	+0.1	+0.0	38.9	55.9	-17.0	White
^	150.727k	43.3	+3.2	+6.1	+0.0	+0.1	+0.0	52.7	56.0 see average data above	-3.3	White

45 Ave	21.598M	24.7	+0.2	+6.1	+0.4	+1.3	+0.0	32.7	50.0	-17.4	White
^	21.598M	39.7	+0.2	+6.1	+0.4	+1.3	+0.0	47.7	50.0 see average data above	-2.3	White
47 Ave	18.391M	24.7	+0.2	+6.1	+0.3	+1.1	+0.0	32.4	50.0	-17.6	White
^	18.391M	38.6	+0.2	+6.1	+0.3	+1.1	+0.0	46.3	50.0 see average data above	-3.7	White
49 Ave	23.058M	24.1	+0.3	+6.1	+0.3	+1.4	+0.0	32.2	50.0	-17.8	White
^	23.058M	37.4	+0.3	+6.1	+0.3	+1.4	+0.0	45.5	50.0 see average data above	-4.5	White
51 Ave	21.743M	23.5	+0.2	+6.1	+0.4	+1.3	+0.0	31.5	50.0	-18.5	White
^	21.743M	39.0	+0.2	+6.1	+0.4	+1.3	+0.0	47.0	50.0 see average data above	-3.0	White
53 Ave	18.094M	23.5	+0.2	+6.1	+0.3	+1.1	+0.0	31.2	50.0	-18.8	White
^	18.094M	38.4	+0.2	+6.1	+0.3	+1.1	+0.0	46.1	50.0 see average data above	-3.9	White
55 Ave	2.965M	20.3	+0.1	+6.2	+0.2	+0.2	+0.0	27.0	46.0	-19.0	White
^	2.965M	34.8	+0.1	+6.2	+0.2	+0.2	+0.0	41.5	46.0 see average data above	-4.5	White
57 Ave	22.842M	22.0	+0.3	+6.1	+0.3	+1.4	+0.0	30.1	50.0	-20.0	White
^	22.842M	37.1	+0.3	+6.1	+0.3	+1.4	+0.0	45.2	50.0 see average data above	-4.8	White
59 Ave	3.097M	18.7	+0.1	+6.2	+0.2	+0.2	+0.0	25.4	46.0	-20.6	White
^	3.097M	35.7	+0.1	+6.2	+0.2	+0.2	+0.0	42.4	46.0 see average data above	-3.6	White
61 Ave	18.616M	19.3	+0.2	+6.1	+0.4	+1.1	+0.0	27.1	50.0	-23.0	White
^	18.616M	40.5	+0.2	+6.1	+0.4	+1.1	+0.0	48.3	50.0 see average data above	-1.7	White
63 Ave	194.000k	23.9	+0.3	+6.1	+0.0	+0.1	+0.0	30.4	53.9	-23.5	White
^	193.632k	44.6	+0.3	+6.1	+0.0	+0.1	+0.0	51.1	53.9 see average data above	-2.8	White

CKC Laboratories, Inc. Date: 3/30/2007 Time: 10:37:28 NMB Technologies Corporation WO#: 86162
FCC 15.207 COND [AVE] Test Lead: White 120V 60Hz Sequence#: 6
NMB Technologies Corporation, Wireless Keyboard, Model 1071.

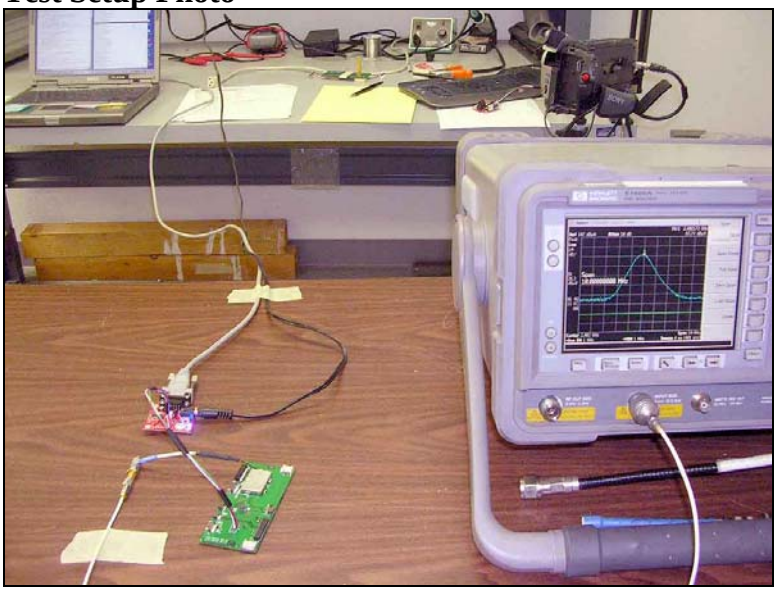


FCC 15.247(b) CONDUCTED OUTPUT POWER

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	091406	091408
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	091406	091408
QP Adapter	01437	HP	85650A	3303A01884	091406	091408
24" SMA Cable (White)	P5455	Pasterneck	35591-48	1-40GHz_white	011706	011708
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509

Test Setup Photo



Test Conditions: The EUT is a bluetooth Keyboard. The keyboard is working and continuously sending an 'H' to a remotely located laptop computer. The keyboard is communicating with the laptop via a usb bluetooth adapter. The H key of the USB keyboard is continuously pressed and the H pattern is being displayed in Notepad. All data taken with this configuration. Bandwidth settings: 1MHz.

Test Data

Measured Transmitter power Watts (W)		
Low Channel 2402 MHz 0.0000145 W	Middle Channel 2441 MHz 0.0000170 W	High Channel 2480 MHz 0.0000138 W

Tested by: Septimiu Apahidean

15.247(b) LIMIT

Class	Frequency range MHz	Power level Watts (W)
FHSS, Greater than 75 non-overlapping channels	2400 to 2483.5	1.0

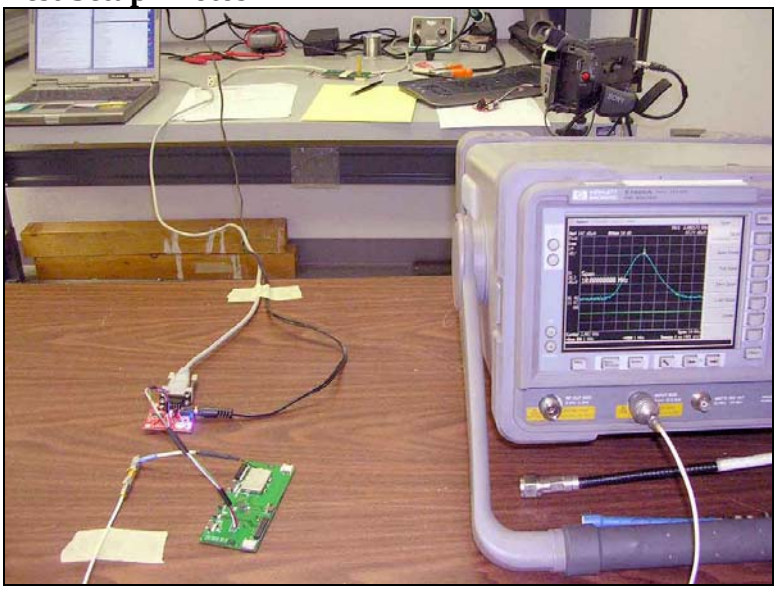
FCC 15.247(d) ANTENNA CONDUCTED SPURIOUS EMISSIONS

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	091406	091408
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	091406	091408
QP Adapter	01437	HP	85650A	3303A01884	091406	091408
24" SMA Cable (White)	P5455	Pasterneck	35591-48	1-40GHz_white	011706	011708
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509

Bandwidth settings:
9kHz-150kHz, 200Hz; 150kHz-30MHz, 9kHz; 30MHz-1000MHz, 120kHz; above 1000MHz, 1MHz

Test Setup Photos



Test Data Sheets

Test Location:	CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112		
Customer:	**Microsoft Corporation**		
Specification:	**FCC 15.247(d) Conducted Spurious Emissions**		
Work Order #:	**85497**	Date:	7/27/2006
Test Type:	**Conducted Emissions**	Time:	1:23:54 PM
Equipment:	**Wireless Entertainment Keyboard 8000**	Sequence#:	1
Manufacturer:	Microsoft Corporation	Tested By:	Septimiu Apahidean
Model:	1071		3.2Vdc
S/N:	0017fa5c5311		

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless Entertainment Keyboard 8000*	Microsoft Corporation	1071	0017fa5c5311

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61

Test Conditions / Notes:

The EUT is a bluetooth Keyboard. The keyboard is working and continuously sending an 'H' to a remotely located laptop computer. The keyboard is communicating with the laptop via a usb bluetooth adapter. The H key of the USB keyboard is continuously pressed and the H pattern is being displayed in Notepad. All data taken with this configuration. Bluetooth channel set to 2402 MHz - LOW Channel. Conducted Spurious emissions. Frequency range tested 9kHz to 25GHz.

Transducer Legend:

T1=1-40 GHz Cable_AN 5183_122306

Measurement Data: Reading listed by margin. Test Lead: Antenna port

#	Freq MHz	Rdng dBµV	T1 dB	dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	9415.987M	46.2	+2.8				+0.0	49.0	68.4	-19.4	None
2	9436.037M	45.8	+2.8				+0.0	48.6	68.4	-19.8	None
3	12688.360M	45.2	+3.3				+0.0	48.5	68.4	-19.9	None
4	9809.970M	45.4	+2.9				+0.0	48.3	68.4	-20.1	None
5	7276.652M	45.8	+2.4				+0.0	48.2	68.4	-20.2	None
6	8783.410M	45.4	+2.7				+0.0	48.1	68.4	-20.3	None
7	9008.973M	45.3	+2.8				+0.0	48.1	68.4	-20.3	None
8	12738.450M	44.8	+3.3				+0.0	48.1	68.4	-20.3	None
9	12919.310M	44.6	+3.4				+0.0	48.0	68.4	-20.4	None

10	8401.457M	45.2	+2.7		+0.0	47.9	68.4	-20.5	None
11	10267.110M	44.9	+3.0		+0.0	47.9	68.4	-20.5	None
12	12987.010M	44.5	+3.4		+0.0	47.9	68.4	-20.5	None
13	12426.500M	44.5	+3.3		+0.0	47.8	68.4	-20.6	None
14	12801.510M	44.5	+3.3		+0.0	47.8	68.4	-20.6	None
15	11511.210M	44.6	+3.1		+0.0	47.7	68.4	-20.7	None
16	12391.410M	44.4	+3.3		+0.0	47.7	68.4	-20.7	None
17	9413.982M	44.8	+2.8		+0.0	47.6	68.4	-20.8	None
18	9679.645M	44.7	+2.9		+0.0	47.6	68.4	-20.8	None
19	10165.860M	44.6	+3.0		+0.0	47.6	68.4	-20.8	None
20	10718.240M	44.6	+3.0		+0.0	47.6	68.4	-20.8	None
21	6906.730M	45.1	+2.4		+0.0	47.5	68.4	-20.9	None
22	7010.990M	45.1	+2.4		+0.0	47.5	68.4	-20.9	None
23	7550.335M	44.9	+2.6		+0.0	47.5	68.4	-20.9	None
24	8324.265M	44.8	+2.7		+0.0	47.5	68.4	-20.9	None
25	9838.040M	44.6	+2.9		+0.0	47.5	68.4	-20.9	None
26	10828.510M	44.5	+3.0		+0.0	47.5	68.4	-20.9	None
27	11722.740M	44.4	+3.1		+0.0	47.5	68.4	-20.9	None
28	11912.210M	44.3	+3.2		+0.0	47.5	68.4	-20.9	None
29	12777.400M	44.2	+3.3		+0.0	47.5	68.4	-20.9	None
30	7167.380M	45.0	+2.4		+0.0	47.4	68.4	-21.0	None
31	7335.800M	44.9	+2.5		+0.0	47.4	68.4	-21.0	None
32	7401.965M	44.9	+2.5		+0.0	47.4	68.4	-21.0	None
33	7740.810M	44.8	+2.6		+0.0	47.4	68.4	-21.0	None
34	7772.890M	44.8	+2.6		+0.0	47.4	68.4	-21.0	None

35	9228.520M	44.6	+2.8		+0.0	47.4	68.4	-21.0	None
36	12628.000M	44.1	+3.3		+0.0	47.4	68.4	-21.0	None
37	12647.550M	44.1	+3.3		+0.0	47.4	68.4	-21.0	None
38	2817.532M	45.8	+1.5		+0.0	47.3	68.4	-21.1	None
39	6875.652M	45.0	+2.3		+0.0	47.3	68.4	-21.1	None
40	7356.853M	44.8	+2.5		+0.0	47.3	68.4	-21.1	None
41	9302.705M	44.5	+2.8		+0.0	47.3	68.4	-21.1	None
42	10389.420M	44.3	+3.0		+0.0	47.3	68.4	-21.1	None
43	11927.250M	44.1	+3.2		+0.0	47.3	68.4	-21.1	None
44	12264.090M	44.0	+3.3		+0.0	47.3	68.4	-21.1	None
45	12555.820M	44.0	+3.3		+0.0	47.3	68.4	-21.1	None
46	12718.970M	44.0	+3.3		+0.0	47.3	68.4	-21.1	None
47	2820.540M	45.7	+1.5		+0.0	47.2	68.4	-21.2	None
48	6617.007M	44.9	+2.3		+0.0	47.2	68.4	-21.2	None
49	6859.612M	44.9	+2.3		+0.0	47.2	68.4	-21.2	None
50	7679.658M	44.6	+2.6		+0.0	47.2	68.4	-21.2	None
51	8272.135M	44.5	+2.7		+0.0	47.2	68.4	-21.2	None
52	9151.327M	44.4	+2.8		+0.0	47.2	68.4	-21.2	None
53	9778.893M	44.3	+2.9		+0.0	47.2	68.4	-21.2	None
54	12296.170M	43.9	+3.3		+0.0	47.2	68.4	-21.2	None
55	12608.950M	43.9	+3.3		+0.0	47.2	68.4	-21.2	None
56	6952.845M	44.7	+2.4		+0.0	47.1	68.4	-21.3	None
57	7653.592M	44.5	+2.6		+0.0	47.1	68.4	-21.3	None
58	8551.832M	44.4	+2.7		+0.0	47.1	68.4	-21.3	None
59	8609.978M	44.4	+2.7		+0.0	47.1	68.4	-21.3	None

60	9340.800M	44.3	+2.8	+0.0	47.1	68.4	-21.3	None
61	9425.010M	44.3	+2.8	+0.0	47.1	68.4	-21.3	None
62	9603.455M	44.2	+2.9	+0.0	47.1	68.4	-21.3	None
63	9699.695M	44.2	+2.9	+0.0	47.1	68.4	-21.3	None
64	10503.700M	44.1	+3.0	+0.0	47.1	68.4	-21.3	None
65	12522.740M	43.8	+3.3	+0.0	47.1	68.4	-21.3	None
66	12625.990M	43.8	+3.3	+0.0	47.1	68.4	-21.3	None
67	12148.800M	43.7	+3.3	+0.0	47.0	68.4	-21.4	None
68	12372.360M	43.7	+3.3	+0.0	47.0	68.4	-21.4	None
69	12394.420M	43.7	+3.3	+0.0	47.0	68.4	-21.4	None
70	12416.470M	43.7	+3.3	+0.0	47.0	68.4	-21.4	None
71	194.931M	36.5	+0.5	+0.0	37.0	68.4	-31.4	None
72	58.150M	35.3	+0.4	+0.0	35.7	68.4	-32.7	None
73	76.556M	35.3	+0.4	+0.0	35.7	68.4	-32.7	None
74	86.300M	35.0	+0.4	+0.0	35.4	68.4	-33.0	None
75	57.068M	34.8	+0.4	+0.0	35.2	68.4	-33.2	None
76	77.037M	34.8	+0.4	+0.0	35.2	68.4	-33.2	None
77	85.097M	34.8	+0.4	+0.0	35.2	68.4	-33.2	None
78	49.609M	34.5	+0.4	+0.0	34.9	68.4	-33.5	None
79	69.458M	34.5	+0.4	+0.0	34.9	68.4	-33.5	None
80	40.827M	34.5	+0.3	+0.0	34.8	68.4	-33.6	None
81	55.744M	34.4	+0.4	+0.0	34.8	68.4	-33.6	None
82	77.639M	34.3	+0.4	+0.0	34.7	68.4	-33.7	None
83	72.105M	34.1	+0.4	+0.0	34.5	68.4	-33.9	None
84	34.932M	34.0	+0.3	+0.0	34.3	68.4	-34.1	None

85	44.797M	34.0	+0.3	+0.0	34.3	68.4	-34.1	None
86	50.331M	33.8	+0.4	+0.0	34.2	68.4	-34.2	None
87	80.285M	33.8	+0.4	+0.0	34.2	68.4	-34.2	None
88	37.579M	33.8	+0.3	+0.0	34.1	68.4	-34.3	None
89	43.113M	33.8	+0.3	+0.0	34.1	68.4	-34.3	None
90	80.887M	33.7	+0.4	+0.0	34.1	68.4	-34.3	None
91	34.451M	33.7	+0.3	+0.0	34.0	68.4	-34.4	None
92	81.729M	33.6	+0.4	+0.0	34.0	68.4	-34.4	None
93	52.015M	33.5	+0.4	+0.0	33.9	68.4	-34.5	None
94	46.000M	33.5	+0.3	+0.0	33.8	68.4	-34.6	None
95	30.000M	33.4	+0.3	+0.0	33.7	68.4	-34.7	None
96	32.286M	33.4	+0.3	+0.0	33.7	68.4	-34.7	None
97	54.782M	33.2	+0.4	+0.0	33.6	68.4	-34.8	None
98	51.173M	32.8	+0.4	+0.0	33.2	68.4	-35.2	None
99	86.661M	32.8	+0.4	+0.0	33.2	68.4	-35.2	None

Location:	CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112		
Customer:	**Microsoft Corporation**		
Specification:	**FCC 15.247(d) Conducted Spurious Emissions**		
Work Order #:	**85497**	Date:	7/27/2006
Test Type:	**Conducted Emissions**	Time:	1:40:03 PM
Equipment:	**Wireless Entertainment Keyboard 8000**	Sequence#:	8
Manufacturer:	Microsoft Corporation	Tested By:	Septimiu Apahidean
Model:	1071		3.2Vdc
S/N:	0017fa5c5311		

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless Entertainment Keyboard 8000*	Microsoft Corporation	1071	0017fa5c5311

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61

Test Conditions / Notes:

The EUT is a bluetooth Keyboard. The keyboard is working and continuously sending an 'H' to a remotely located laptop computer. The keyboard is communicating with the laptop via a usb bluetooth adapter. The H key of the USB keyboard is continuously pressed and the H pattern is being displayed in Notepad. All data taken with this configuration. Bluetooth channel set to 2441 MHz - MIDDLE Channel. Conducted Spurious emissions. Frequency range tested 9kHz to 25GHz.

Transducer Legend:

T1=1-40 GHz Cable_AN 5183_122306

Measurement Data: Reading listed by margin. Test Lead: Antenna port

#	Freq MHz	Rdng dBµV	T1 dB	dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	8120.757M	45.0	+2.7				+0.0	47.7	68.4	-20.7	None
2	10045.560M	44.7	+2.9				+0.0	47.6	68.4	-20.8	None
3	9389.923M	44.5	+2.8				+0.0	47.3	68.4	-21.1	None
4	8795.440M	44.5	+2.7				+0.0	47.2	68.4	-21.2	None
5	11134.270M	44.1	+3.1				+0.0	47.2	68.4	-21.2	None
6	11806.950M	44.1	+3.1				+0.0	47.2	68.4	-21.2	None
7	12185.890M	43.9	+3.3				+0.0	47.2	68.4	-21.2	None
8	7491.188M	44.6	+2.5				+0.0	47.1	68.4	-21.3	None

9	9563.355M	44.1	+2.9		+0.0	47.0	68.4	-21.4	None
10	10896.680M	44.0	+3.0		+0.0	47.0	68.4	-21.4	None
11	7578.405M	44.3	+2.6		+0.0	46.9	68.4	-21.5	None
12	12984.230M	43.5	+3.4		+0.0	46.9	68.4	-21.5	None
13	2971.917M	45.3	+1.5		+0.0	46.8	68.4	-21.6	None
14	7314.748M	44.3	+2.5		+0.0	46.8	68.4	-21.6	None
15	7373.895M	44.2	+2.5		+0.0	46.7	68.4	-21.7	None
16	7408.982M	44.2	+2.5		+0.0	46.7	68.4	-21.7	None
17	7632.540M	44.1	+2.6		+0.0	46.7	68.4	-21.7	None
18	11516.220M	43.6	+3.1		+0.0	46.7	68.4	-21.7	None
19	12489.650M	43.4	+3.3		+0.0	46.7	68.4	-21.7	None
20	12842.330M	43.4	+3.3		+0.0	46.7	68.4	-21.7	None
21	4231.058M	44.8	+1.8		+0.0	46.6	68.4	-21.8	None
22	7457.103M	44.1	+2.5		+0.0	46.6	68.4	-21.8	None
23	7988.428M	44.0	+2.6		+0.0	46.6	68.4	-21.8	None
24	8067.625M	44.0	+2.6		+0.0	46.6	68.4	-21.8	None
25	11572.370M	43.5	+3.1		+0.0	46.6	68.4	-21.8	None
26	12468.600M	43.3	+3.3		+0.0	46.6	68.4	-21.8	None
27	12735.660M	43.3	+3.3		+0.0	46.6	68.4	-21.8	None
28	11249.560M	43.4	+3.1		+0.0	46.5	68.4	-21.9	None
29	7219.510M	44.0	+2.4		+0.0	46.4	68.4	-22.0	None
30	8033.540M	43.8	+2.6		+0.0	46.4	68.4	-22.0	None
31	9575.385M	43.5	+2.9		+0.0	46.4	68.4	-22.0	None
32	10372.370M	43.4	+3.0		+0.0	46.4	68.4	-22.0	None
33	11425.000M	43.3	+3.1		+0.0	46.4	68.4	-22.0	None

34	9625.510M	43.4	+2.9		+0.0	46.3	68.4	-22.1	None
35	10689.160M	43.3	+3.0		+0.0	46.3	68.4	-22.1	None
36	7248.583M	43.8	+2.4		+0.0	46.2	68.4	-22.2	None
37	7724.770M	43.6	+2.6		+0.0	46.2	68.4	-22.2	None
38	9597.440M	43.3	+2.9		+0.0	46.2	68.4	-22.2	None
39	9947.313M	43.3	+2.9		+0.0	46.2	68.4	-22.2	None
40	11282.640M	43.1	+3.1		+0.0	46.2	68.4	-22.2	None
41	11441.040M	43.1	+3.1		+0.0	46.2	68.4	-22.2	None
42	11711.710M	43.1	+3.1		+0.0	46.2	68.4	-22.2	None
43	11885.140M	43.0	+3.2		+0.0	46.2	68.4	-22.2	None
44	12012.460M	43.0	+3.2		+0.0	46.2	68.4	-22.2	None
45	12928.580M	42.8	+3.4		+0.0	46.2	68.4	-22.2	None
46	12989.800M	42.8	+3.4		+0.0	46.2	68.4	-22.2	None
47	6944.825M	43.7	+2.4		+0.0	46.1	68.4	-22.3	None
48	7718.755M	43.5	+2.6		+0.0	46.1	68.4	-22.3	None
49	8323.263M	43.4	+2.7		+0.0	46.1	68.4	-22.3	None
50	8460.605M	43.4	+2.7		+0.0	46.1	68.4	-22.3	None
51	8537.798M	43.4	+2.7		+0.0	46.1	68.4	-22.3	None
52	8895.690M	43.4	+2.7		+0.0	46.1	68.4	-22.3	None
53	8948.822M	43.3	+2.8		+0.0	46.1	68.4	-22.3	None
54	10055.580M	43.2	+2.9		+0.0	46.1	68.4	-22.3	None
55	10946.800M	43.1	+3.0		+0.0	46.1	68.4	-22.3	None
56	11073.120M	43.1	+3.0		+0.0	46.1	68.4	-22.3	None
57	11765.850M	43.0	+3.1		+0.0	46.1	68.4	-22.3	None
58	12173.870M	42.8	+3.3		+0.0	46.1	68.4	-22.3	None

59	12250.050M	42.8	+3.3		+0.0	46.1	68.4	-22.3	None
60	12365.340M	42.8	+3.3		+0.0	46.1	68.4	-22.3	None
61	2811.518M	44.5	+1.5		+0.0	46.0	68.4	-22.4	None
62	4412.510M	44.1	+1.9		+0.0	46.0	68.4	-22.4	None
63	7270.638M	43.6	+2.4		+0.0	46.0	68.4	-22.4	None
64	7889.180M	43.4	+2.6		+0.0	46.0	68.4	-22.4	None
65	8451.582M	43.3	+2.7		+0.0	46.0	68.4	-22.4	None
66	9492.178M	43.2	+2.8		+0.0	46.0	68.4	-22.4	None
67	10286.160M	43.0	+3.0		+0.0	46.0	68.4	-22.4	None
68	11011.970M	43.0	+3.0		+0.0	46.0	68.4	-22.4	None
69	12095.670M	42.8	+3.2		+0.0	46.0	68.4	-22.4	None
70	12252.060M	42.7	+3.3		+0.0	46.0	68.4	-22.4	None
71	51.293M	36.1	+0.4		+0.0	36.5	68.4	-31.9	None
72	215.864M	35.6	+0.5		+0.0	36.1	68.4	-32.3	None
73	35.173M	35.7	+0.3		+0.0	36.0	68.4	-32.4	None
74	59.113M	35.5	+0.4		+0.0	35.9	68.4	-32.5	None
75	80.285M	35.5	+0.4		+0.0	35.9	68.4	-32.5	None
76	162.571M	35.2	+0.5		+0.0	35.7	68.4	-32.7	None
77	211.052M	35.1	+0.5		+0.0	35.6	68.4	-32.8	None
78	33.128M	35.3	+0.3		+0.0	35.6	68.4	-32.8	None
79	202.510M	35.0	+0.5		+0.0	35.5	68.4	-32.9	None
80	54.782M	34.8	+0.4		+0.0	35.2	68.4	-33.2	None
81	74.752M	34.8	+0.4		+0.0	35.2	68.4	-33.2	None
82	44.556M	34.8	+0.3		+0.0	35.1	68.4	-33.3	None
83	48.887M	34.7	+0.4		+0.0	35.1	68.4	-33.3	None

84	53.579M	34.7	+0.4	+0.0	35.1	68.4	-33.3	None
85	56.947M	34.7	+0.4	+0.0	35.1	68.4	-33.3	None
86	39.023M	34.4	+0.3	+0.0	34.7	68.4	-33.7	None
87	53.819M	34.3	+0.4	+0.0	34.7	68.4	-33.7	None
88	86.060M	34.3	+0.4	+0.0	34.7	68.4	-33.7	None
89	46.241M	34.3	+0.3	+0.0	34.6	68.4	-33.8	None
90	75.594M	34.1	+0.4	+0.0	34.5	68.4	-33.9	None
91	43.594M	34.0	+0.3	+0.0	34.3	68.4	-34.1	None
92	47.684M	33.8	+0.4	+0.0	34.2	68.4	-34.2	None
93	77.037M	33.8	+0.4	+0.0	34.2	68.4	-34.2	None
94	39.985M	33.8	+0.3	+0.0	34.1	68.4	-34.3	None
95	48.286M	33.3	+0.4	+0.0	33.7	68.4	-34.7	None
96	86.541M	33.2	+0.4	+0.0	33.6	68.4	-34.8	None
97	78.722M	33.1	+0.4	+0.0	33.5	68.4	-34.9	None
98	83.052M	32.7	+0.4	+0.0	33.1	68.4	-35.3	None
99	83.534M	32.0	+0.4	+0.0	32.4	68.4	-36.0	None

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Microsoft Corporation**
Specification: **FCC 15.247(d) Conducted Spurious Emissions**
Work Order #: **85497** Date: 7/27/2006
Test Type: **Conducted Emissions** Time: 1:52:09 PM
Equipment: **Wireless Entertainment Keyboard 8000** Sequence#: 9
Manufacturer: Microsoft Corporation Tested By: Septimiu Apahidean
Model: 1071 3.2Vdc
S/N: 0017fa5c5311

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless Entertainment Keyboard 8000*	Microsoft Corporation	1071	0017fa5c5311

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61

Test Conditions / Notes:

The EUT is a bluetooth Keyboard. The keyboard is working and continuously sending an 'H' to a remotely located laptop computer. The keyboard is communicating with the laptop via a usb bluetooth adapter. The H key of the USB keyboard is continuously pressed and the H pattern is being displayed in Notepad. All data taken with this configuration. Bluetooth channel set to 2480 MHz - HI Channel. Conducted Spurious emissions. Frequency tested 9kHz to 25GHz.

Transducer Legend:

T1=1-40 GHz Cable_AN 5183_122306

Measurement Data: Reading listed by margin. Test Lead: Antenna port

#	Freq MHz	Rdng dBµV	T1 dB	dB	dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	12800.590M	44.4	+3.3				+0.0	47.7	68.4	-20.7	None
2	7358.857M	44.9	+2.5				+0.0	47.4	68.4	-21.0	None
3	7449.083M	44.9	+2.5				+0.0	47.4	68.4	-21.0	None
4	7319.760M	44.8	+2.5				+0.0	47.3	68.4	-21.1	None
5	11083.140M	44.0	+3.0				+0.0	47.0	68.4	-21.4	None
6	12871.080M	43.7	+3.3				+0.0	47.0	68.4	-21.4	None
7	11329.760M	43.8	+3.1				+0.0	46.9	68.4	-21.5	None
8	11929.250M	43.7	+3.2				+0.0	46.9	68.4	-21.5	None
9	6827.533M	44.5	+2.3				+0.0	46.8	68.4	-21.6	None

10	8465.617M	44.1	+2.7	+0.0	46.8	68.4	-21.6	None
11	11264.600M	43.7	+3.1	+0.0	46.8	68.4	-21.6	None
12	7404.973M	44.2	+2.5	+0.0	46.7	68.4	-21.7	None
13	8860.603M	44.0	+2.7	+0.0	46.7	68.4	-21.7	None
14	9992.425M	43.8	+2.9	+0.0	46.7	68.4	-21.7	None
15	11634.520M	43.6	+3.1	+0.0	46.7	68.4	-21.7	None
16	11891.160M	43.5	+3.2	+0.0	46.7	68.4	-21.7	None
17	12852.530M	43.4	+3.3	+0.0	46.7	68.4	-21.7	None
18	7408.982M	44.1	+2.5	+0.0	46.6	68.4	-21.8	None
19	8127.775M	43.9	+2.7	+0.0	46.6	68.4	-21.8	None
20	8779.400M	43.9	+2.7	+0.0	46.6	68.4	-21.8	None
21	8887.670M	43.9	+2.7	+0.0	46.6	68.4	-21.8	None
22	9065.112M	43.8	+2.8	+0.0	46.6	68.4	-21.8	None
23	10491.670M	43.6	+3.0	+0.0	46.6	68.4	-21.8	None
24	11144.300M	43.5	+3.1	+0.0	46.6	68.4	-21.8	None
25	11201.440M	43.5	+3.1	+0.0	46.6	68.4	-21.8	None
26	3018.032M	45.0	+1.5	+0.0	46.5	68.4	-21.9	None
27	6737.308M	44.2	+2.3	+0.0	46.5	68.4	-21.9	None
28	8258.100M	43.8	+2.7	+0.0	46.5	68.4	-21.9	None
29	10693.170M	43.5	+3.0	+0.0	46.5	68.4	-21.9	None
30	12950.840M	43.1	+3.4	+0.0	46.5	68.4	-21.9	None
31	7196.453M	44.0	+2.4	+0.0	46.4	68.4	-22.0	None
32	7388.933M	43.9	+2.5	+0.0	46.4	68.4	-22.0	None
33	8873.635M	43.7	+2.7	+0.0	46.4	68.4	-22.0	None
34	9231.527M	43.6	+2.8	+0.0	46.4	68.4	-22.0	None

35	9578.393M	43.5	+2.9	+0.0	46.4	68.4	-22.0	None
36	11332.770M	43.3	+3.1	+0.0	46.4	68.4	-22.0	None
37	11393.920M	43.3	+3.1	+0.0	46.4	68.4	-22.0	None
38	3495.222M	44.7	+1.6	+0.0	46.3	68.4	-22.1	None
39	7052.092M	43.9	+2.4	+0.0	46.3	68.4	-22.1	None
40	7235.550M	43.9	+2.4	+0.0	46.3	68.4	-22.1	None
41	8305.218M	43.6	+2.7	+0.0	46.3	68.4	-22.1	None
42	9255.588M	43.5	+2.8	+0.0	46.3	68.4	-22.1	None
43	12219.980M	43.0	+3.3	+0.0	46.3	68.4	-22.1	None
44	12275.120M	43.0	+3.3	+0.0	46.3	68.4	-22.1	None
45	6959.862M	43.8	+2.4	+0.0	46.2	68.4	-22.2	None
46	7186.428M	43.8	+2.4	+0.0	46.2	68.4	-22.2	None
47	7989.430M	43.6	+2.6	+0.0	46.2	68.4	-22.2	None
48	8979.900M	43.4	+2.8	+0.0	46.2	68.4	-22.2	None
49	11973.370M	43.0	+3.2	+0.0	46.2	68.4	-22.2	None
50	12111.710M	43.0	+3.2	+0.0	46.2	68.4	-22.2	None
51	12521.730M	42.9	+3.3	+0.0	46.2	68.4	-22.2	None
52	8437.548M	43.4	+2.7	+0.0	46.1	68.4	-22.3	None
53	9604.457M	43.2	+2.9	+0.0	46.1	68.4	-22.3	None
54	10256.080M	43.1	+3.0	+0.0	46.1	68.4	-22.3	None
55	10795.430M	43.1	+3.0	+0.0	46.1	68.4	-22.3	None
56	11476.130M	43.0	+3.1	+0.0	46.1	68.4	-22.3	None
57	12567.850M	42.8	+3.3	+0.0	46.1	68.4	-22.3	None
58	12913.740M	42.7	+3.4	+0.0	46.1	68.4	-22.3	None
59	108.797M	36.3	+0.4	+0.0	36.7	68.4	-31.7	None

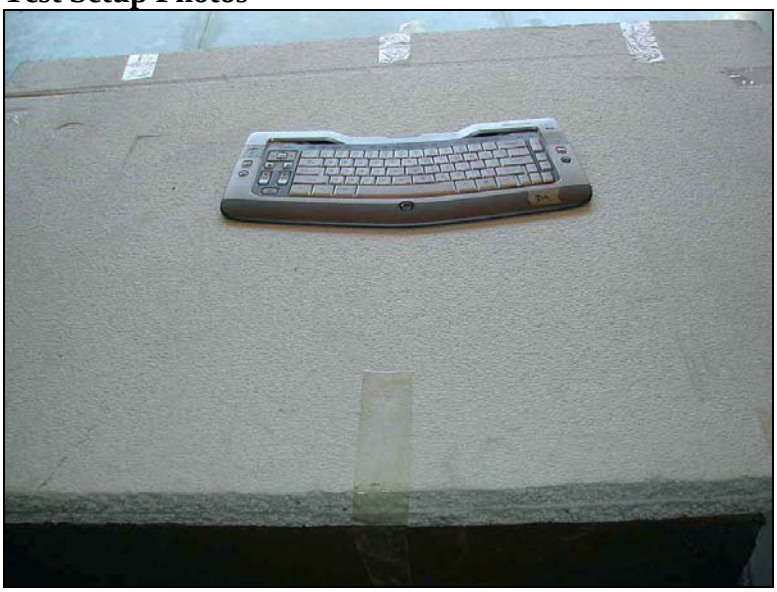
60	206.360M	35.8	+0.5		+0.0	36.3	68.4	-32.1	None
61	200.465M	35.6	+0.5		+0.0	36.1	68.4	-32.3	None
62	199.382M	35.5	+0.5		+0.0	36.0	68.4	-32.4	None
63	57.308M	35.5	+0.4		+0.0	35.9	68.4	-32.5	None
64	63.804M	35.5	+0.4		+0.0	35.9	68.4	-32.5	None
65	76.676M	35.4	+0.4		+0.0	35.8	68.4	-32.6	None
66	185.548M	35.2	+0.5		+0.0	35.7	68.4	-32.7	None
67	203.954M	35.2	+0.5		+0.0	35.7	68.4	-32.7	None
68	40.346M	35.3	+0.3		+0.0	35.6	68.4	-32.8	None
69	38.421M	35.2	+0.3		+0.0	35.5	68.4	-32.9	None
70	81.970M	35.1	+0.4		+0.0	35.5	68.4	-32.9	None
71	47.684M	35.0	+0.4		+0.0	35.4	68.4	-33.0	None
72	49.729M	34.8	+0.4		+0.0	35.2	68.4	-33.2	None
73	51.173M	34.8	+0.4		+0.0	35.2	68.4	-33.2	None
74	63.083M	34.7	+0.4		+0.0	35.1	68.4	-33.3	None
75	42.992M	34.7	+0.3		+0.0	35.0	68.4	-33.4	None
76	52.857M	34.6	+0.4		+0.0	35.0	68.4	-33.4	None
77	68.135M	34.6	+0.4		+0.0	35.0	68.4	-33.4	None
78	52.135M	34.5	+0.4		+0.0	34.9	68.4	-33.5	None
79	54.180M	34.5	+0.4		+0.0	34.9	68.4	-33.5	None
80	80.767M	34.4	+0.4		+0.0	34.8	68.4	-33.6	None
81	32.406M	34.4	+0.3		+0.0	34.7	68.4	-33.7	None
82	48.887M	34.3	+0.4		+0.0	34.7	68.4	-33.7	None
83	70.661M	34.2	+0.4		+0.0	34.6	68.4	-33.8	None
84	54.782M	34.1	+0.4		+0.0	34.5	68.4	-33.9	None

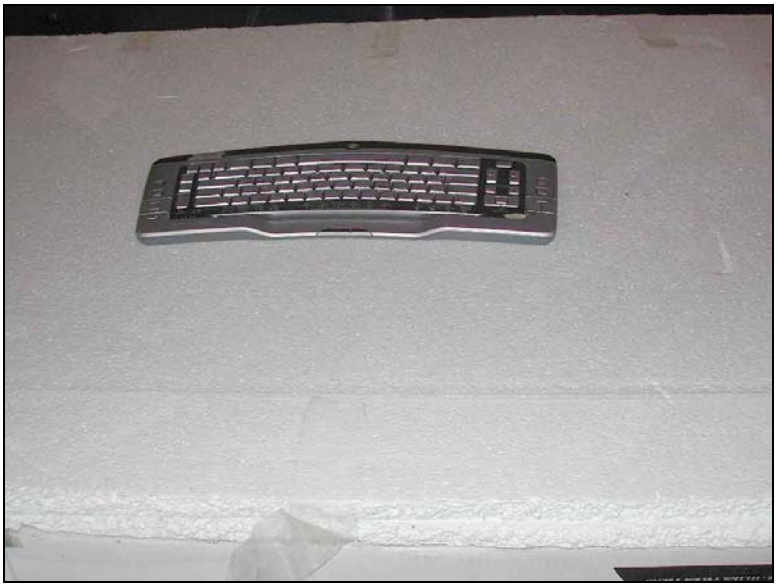
85	74.752M	34.1	+0.4	+0.0	34.5	68.4	-33.9	None
86	60.316M	34.0	+0.4	+0.0	34.4	68.4	-34.0	None
87	41.910M	34.0	+0.3	+0.0	34.3	68.4	-34.1	None
88	43.835M	34.0	+0.3	+0.0	34.3	68.4	-34.1	None
89	77.879M	33.8	+0.4	+0.0	34.2	68.4	-34.2	None
90	71.864M	33.7	+0.4	+0.0	34.1	68.4	-34.3	None
91	64.526M	33.6	+0.4	+0.0	34.0	68.4	-34.4	None
92	63.564M	33.5	+0.4	+0.0	33.9	68.4	-34.5	None
93	78.361M	33.5	+0.4	+0.0	33.9	68.4	-34.5	None
94	79.564M	33.5	+0.4	+0.0	33.9	68.4	-34.5	None
95	48.647M	33.4	+0.4	+0.0	33.8	68.4	-34.6	None
96	84.977M	33.4	+0.4	+0.0	33.8	68.4	-34.6	None
97	46.241M	33.1	+0.3	+0.0	33.4	68.4	-35.0	None
98	87.022M	33.0	+0.4	+0.0	33.4	68.4	-35.0	None
99	70.421M	32.9	+0.4	+0.0	33.3	68.4	-35.1	None

FCC 15.247(d) OATS RADIATED SPURIOUS EMISSIONS

Bandwidth settings: 9kHz-150kHz, 200Hz; 150kHz-30MHz, 9kHz; 30MHz-1000MHz, 120kHz; above 1000MHz, 1MHz

Test Setup Photos





Test Data Sheets

Test Location: CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Microsoft Corporation**
Specification: **FCC 15.247(d) Radiated Spurious Emissions**
Work Order #: **85497** Date: 4/25/2007
Test Type: **Maximized Emissions** Time: 15:24:59
Equipment: **Bluetooth Keyboard** Sequence#: 18
Manufacturer: Microsoft Corporation Tested By: Stuart Yamamoto
Model: 1071 Burbank
S/N: 0017fa5c262a

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Antenna Cable	Cable #33	02/02/2007	02/22/2009	P05569
Loop Antenna	2014	06/14/2006	06/14/2008	00314
Preamplifier	2727A05392	06/06/2006	06/06/2008	00010
Preamplifier Cable	Cable #22	08/10/2006	08/10/2008	P05555
10m Position Cable	Cable #17	09/19/2006	09/19/2008	P04382
Bilog Antenna	2629	02/02/2006	02/02/2008	00851
Quasi Peak Adapter	3303A01884	09/14/2006	09/14/2008	01437
Spectrum Analyzer Display Section	3001A18430	09/14/2006	09/14/2008	02472
Spectrum Analyzer RF Section	2928A04874	09/14/2006	09/14/2008	02462
Spectrum Analyzer	MY46186290	02/12/2007	02/12/2009	02869
Spectrum Analyzer	US44300438	01/03/2007	01/03/2009	02672
Horn Antenna	9603-4683	06/29/2006	06/29/2008	01646
Microwave Preamplifier	3123A00282	05/27/2005	05/27/2007	00787
Preamplifier Cable	35591-48	01/17/2006	01/17/2008	P05455
Antenna Cable	L1-PNMNM-48	09/18/2006	09/18/2008	P05563
18 to 26.5 GHz Horn Antenna	(none)	11/27/2006	11/27/2008	01413

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	Microsoft Corporation	1071 Burbank	0017fa5c262a

Support Devices:

Function	Manufacturer	Model #	S/N

Test Conditions / Notes:

The equipment under test (EUT) is a bluetooth keyboard. The keyboard is transmitting continuously in test mode. This data sheet represents spurious emissions from the EUT when transmitting on its low (2402 MHz), middle (2441 MHz), and high (2480 MHz) channels. Frequency range scanned and maximized 9kHz to 25GHz. Temperature: 20°C, Humidity: 54%, Pressure: 100kPa. The only emissions data found from the EUT for this testing was above 1 GHz and below 5 GHz.

Transducer Legend:

T1=84' Heliax Cable P04382	T2=48' Heliax Cable 091808 P05563
T3=Horn 01646_062908	T4=HF Preamp Cal. HP-83017A,S/N- 3123A00282
T5=1-40 GHz Cable_AN5455_011708	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4960.016M	38.9	+8.5 +1.0	+5.0	+33.4	-39.1	+0.0	47.7	68.1	-20.4	Horiz
2	4882.000M	36.9	+8.5 +1.0	+4.9	+33.3	-39.1	+0.0	45.5	68.1	-22.6	Vert
3	4804.177M	37.0	+8.4 +1.0	+4.8	+33.1	-39.1	+0.0	45.2	68.1	-22.9	Vert
4	4960.002M	36.2	+8.5 +1.0	+5.0	+33.4	-39.1	+0.0	45.0	68.1	-23.1	Vert
5	4804.116M	34.8	+8.4 +1.0	+4.8	+33.1	-39.1	+0.0	43.0	68.1	-25.1	Horiz
6	1653.336M	48.9	+4.5 +0.5	+2.7	+25.4	-39.5	+0.0	42.5	68.1	-25.6	Horiz
7	4881.923M	33.1	+8.5 +1.0	+4.9	+33.3	-39.1	+0.0	41.7	68.1	-26.4	Horiz
8	1601.279M	47.9	+4.4 +0.5	+2.6	+25.2	-39.5	+0.0	41.1	68.1	-27.0	Vert
9	1627.326M	47.2	+4.5 +0.5	+2.7	+25.3	-39.5	+0.0	40.7	68.1	-27.4	Horiz
10	1601.333M	47.4	+4.4 +0.5	+2.6	+25.2	-39.5	+0.0	40.6	68.1	-27.5	Horiz
11	1627.330M	45.8	+4.5 +0.5	+2.7	+25.3	-39.5	+0.0	39.3	68.1	-28.8	Vert
12	1627.326M	45.6	+4.5 +0.5	+2.7	+25.3	-39.5	+0.0	39.1	68.1	-29.0	Horiz
13	1191.033M	48.1	+3.8 +0.4	+2.2	+24.8	-40.5	+0.0	38.8	68.1	-29.3	Vert
14	1653.329M	44.7	+4.5 +0.5	+2.7	+25.4	-39.5	+0.0	38.3	68.1	-29.8	Vert
15	2306.045M	40.3	+5.6 +0.6	+3.2	+27.9	-39.4	+0.0	38.2	68.1	-29.9	Horiz
16	4882.000M	29.3	+8.5 +1.0	+4.9	+33.3	-39.1	+0.0	37.9	68.1	-30.2	Vert
17	2546.200M	38.3	+5.9 +0.7	+3.2	+29.0	-39.4	+0.0	37.7	68.1	-30.4	Horiz
18	2497.992M	37.9	+5.9 +0.7	+3.2	+28.8	-39.4	+0.0	37.1	68.1	-31.0	Horiz
19	2488.440M	37.2	+5.9 +0.7	+3.2	+28.8	-39.4	+0.0	36.4	68.1	-31.7	Horiz
20	1191.000M	45.3	+3.8 +0.4	+2.2	+24.8	-40.5	+0.0	36.0	68.1	-32.1	Horiz
21	2488.355M	36.6	+5.9 +0.7	+3.2	+28.7	-39.4	+0.0	35.7	68.1	-32.4	Vert

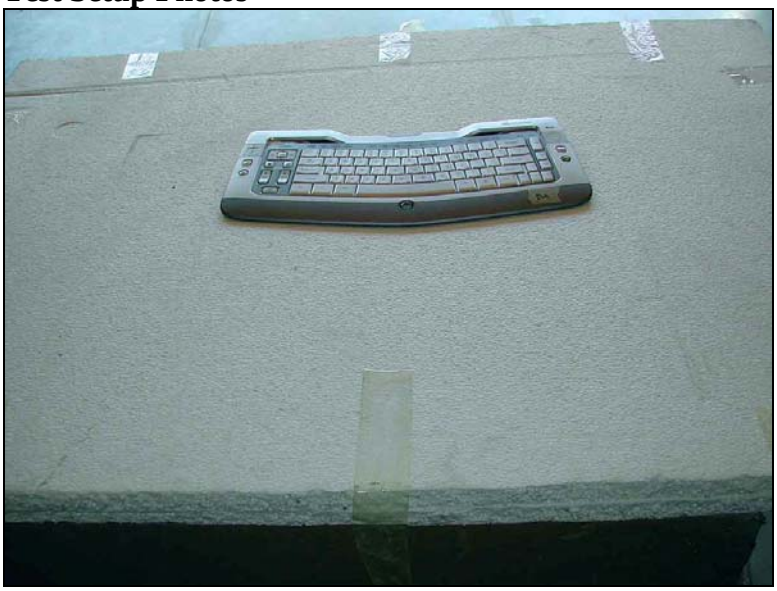
FCC 15.247(a) 20dB BANDWIDTH

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509

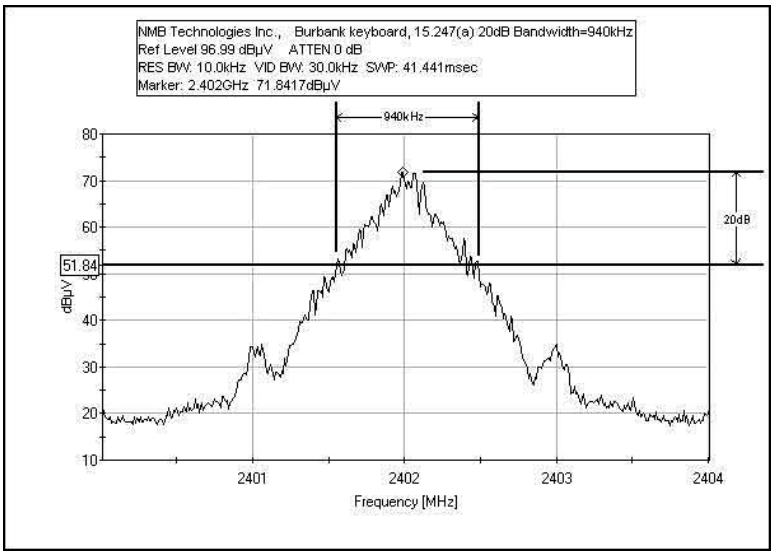
Test Conditions: The EUT was setup stand alone on a styrofoam tabletop. The EUT was put in a test mode so that it could transmit continuously on a selected channel. The EUT was setup and tested when set to transmit on its low (2402 MHz), middle (2441 MHz), and high (2480 MHz) channels. Bandwidth settings: 10kHz.

Test Setup Photos



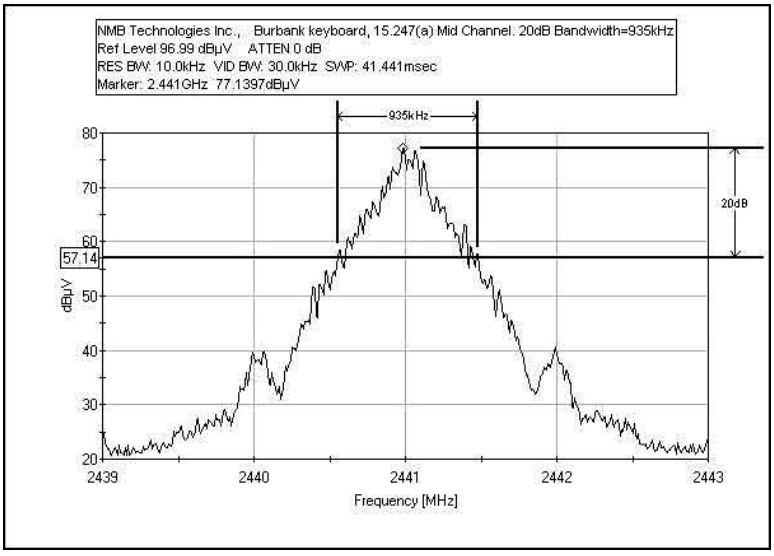
Test Plots

FCC 15.247(a) 20dB BANDWIDTH LOW CHANNEL



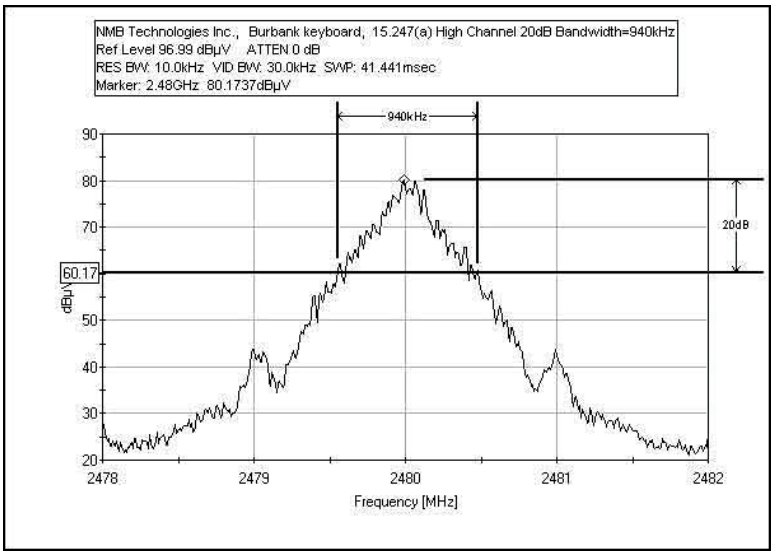
Tested by: Stuart Yamamoto

FCC 15.247(A) 20dB BANDWIDTH MID CHANNEL



Tested by: Stuart Yamamoto

FCC 15.247(a) 20dB BANDWIDTH HIGH CHANNEL



Tested by: Stuart Yamamoto

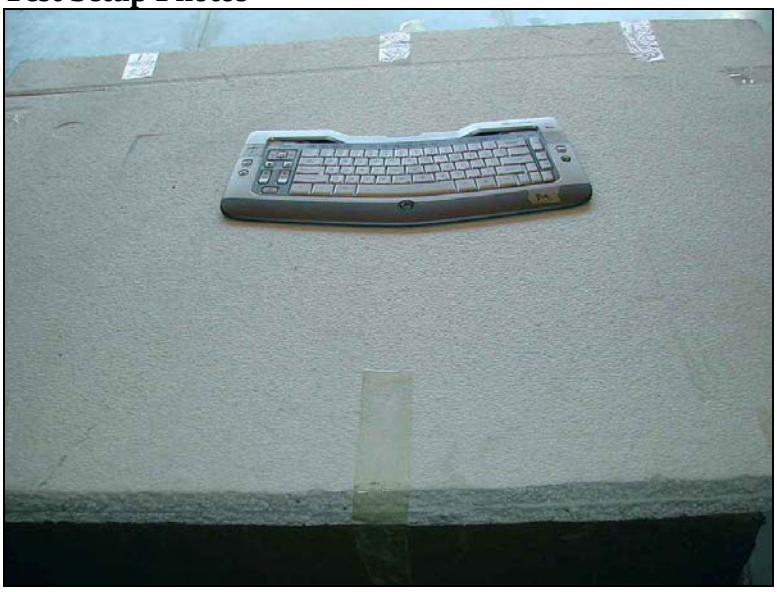
FCC 15.247(a) CARRIER FREQUENCY SEPARATION

Test Equipment

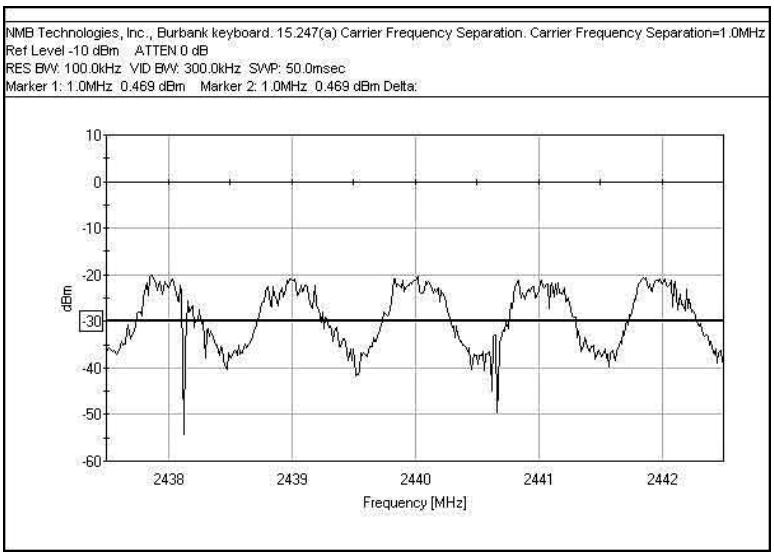
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	091406	091408
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	091406	091408
QP Adapter	01437	HP	85650A	3303A01884	091406	091408
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509
Antenna cable (10 meter site D)	P04382	Andrew	LDF1-50	Cable#17	091906	091908
Antenna cable (Heliax)	P05563	Andrew	LDF1-50	L1-PNMNM-48	091806	091808
24” SMA Cable (White)	P5455	Pasterneck	35591-48	1-40GHz_white	011706	011708
Horn Antenna	01646	EMCO	3115	9603-4683	062906	062908
Microwave Pre-amp	00787	HP	83017A	3123A00282	052705	052707

Test Conditions: The EUT was setup stand alone on the styrofoam tabletop. The EUT was put in a hopping mode so that the transmission would hop as it normally does from 2402 MHz to 2480 MHz. The EUT transmission was continuous. Bandwidth settings: 100kHz.

Test Setup Photos



Test Plots



Tested by: Stuart Yamamoto

FCC 15.247(a) NUMBER OF HOPPING FREQUENCIES

Test Equipment

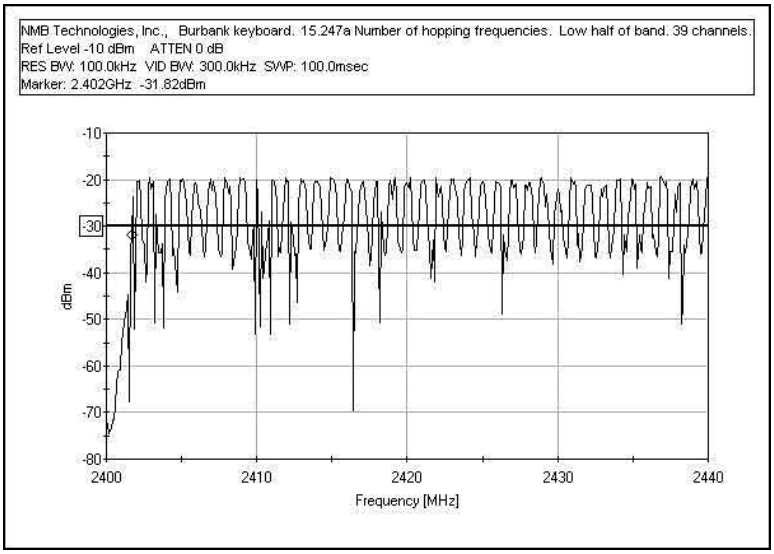
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	091406	091408
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	091406	091408
QP Adapter	01437	HP	85650A	3303A01884	091406	091408
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509
Antenna cable (10 meter site D)	P04382	Andrew	LDF1-50	Cable#17	091906	091908
Antenna cable (Heliax)	P05563	Andrew	LDF1-50	L1-PNMNM-48	091806	091808
24" SMA Cable (White)	P5455	Pasterneck	35591-48	1-40GHz_white	011706	011708
Horn Antenna	01646	EMCO	3115	9603-4683	062906	062908
Microwave Pre-amp	00787	HP	83017A	3123A00282	052705	052707

Test Conditions: The EUT was setup stand alone on the styrofoam tabletop. The EUT was put in a hopping mode so that the transmission would hop as it normally does from 2402 MHz to 2480 MHz. The EUT transmission was continuous. Bandwidth settings: 100kHz.

Test Setup Photos

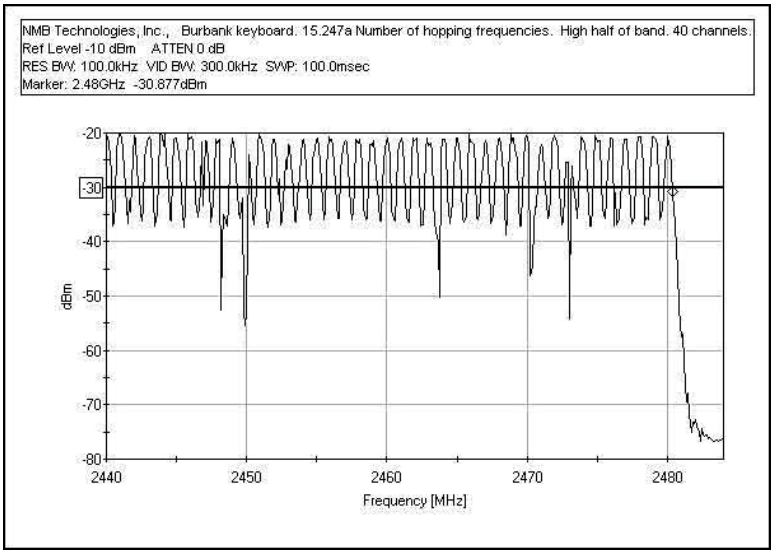
Test Plots

FCC 15.247(a) NUMBER OF HOPPING FREQUENCIES – LOW HALF OF BAND



Tested by: Stuart Yamamoto

FCC 15.247(a) NUMBER OF HOPPING FREQUENCIES – HIGH HALF OF BAND



Tested by: Stuart Yamamoto

FCC 15.247(a) TIME OF OCCUPANCY

Test Equipment

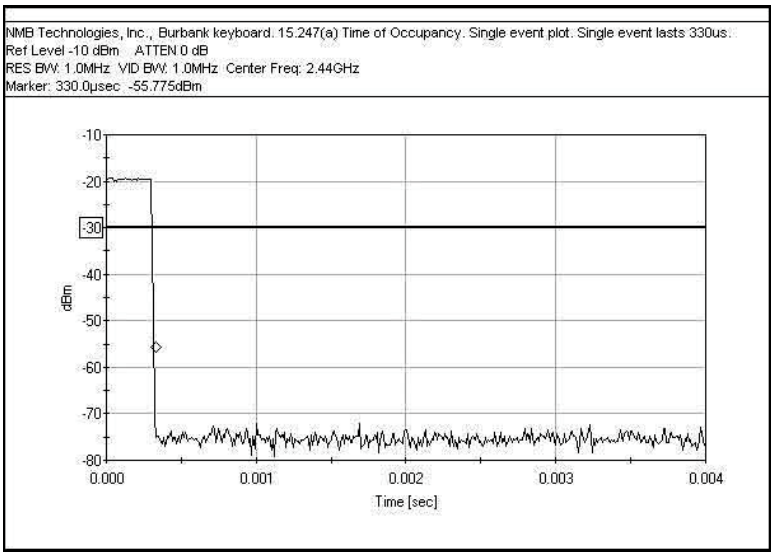
Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer RF Section	02462	HP	8568B	2928A04874	091406	091408
Spectrum Analyzer Display Section	02472	HP	85662A	3001A18430	091406	091408
QP Adapter	01437	HP	85650A	3303A01884	091406	091408
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509
Antenna cable (10 meter site D)	P04382	Andrew	LDF1-50	Cable#17	091906	091908
Antenna cable (Heliax)	P05563	Andrew	LDF1-50	L1-PNMNM-48	091806	091808
24” SMA Cable (White)	P5455	Pasterneck	35591-48	1-40GHz_white	011706	011708
Horn Antenna	01646	EMCO	3115	9603-4683	062906	062908
Microwave Pre-amp	00787	HP	83017A	3123A00282	052705	052707

Test Conditions: The EUT was setup stand alone on the styrofoam tabletop. The EUT was put in a hopping mode so that the transmission would hop as it normally does from 2402 MHz to 2480 MHz. The EUT transmission was continuous. Bandwidth settings: 1MHz.

Test Setup Photos

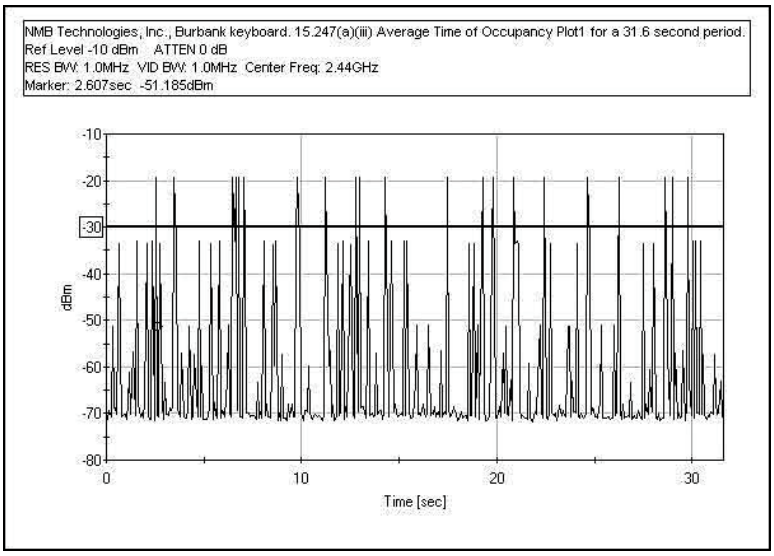
Test Plots

FCC 15.247(a) TIME OF OCCUPANCY SINGLE EVENT PLOT



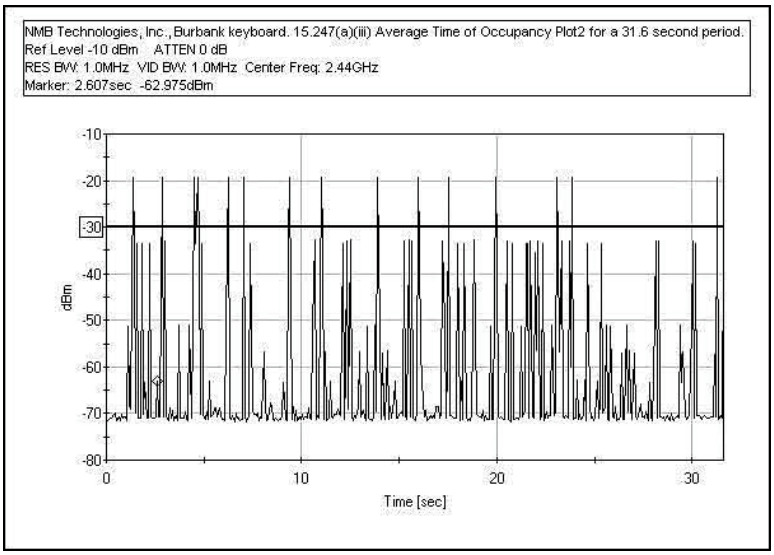
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 1



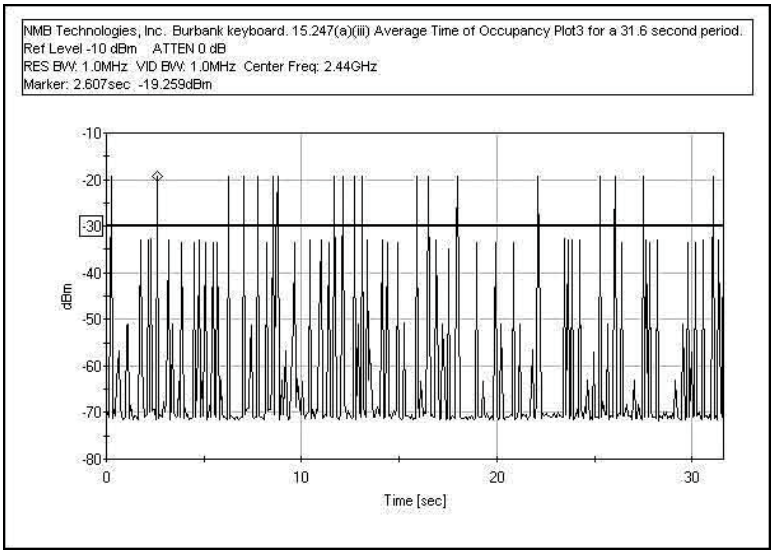
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 2



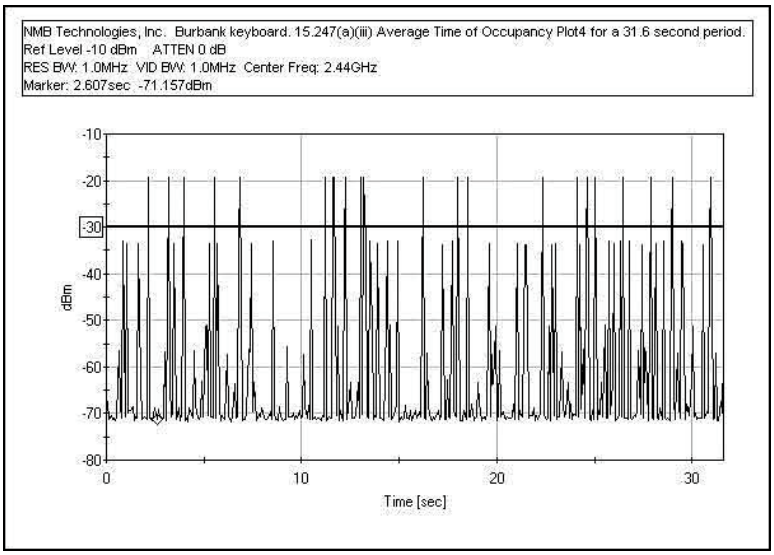
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 3



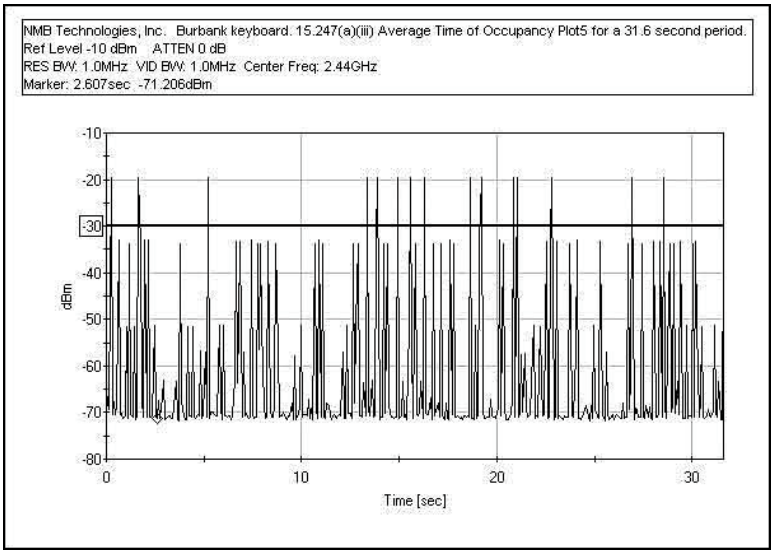
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 4



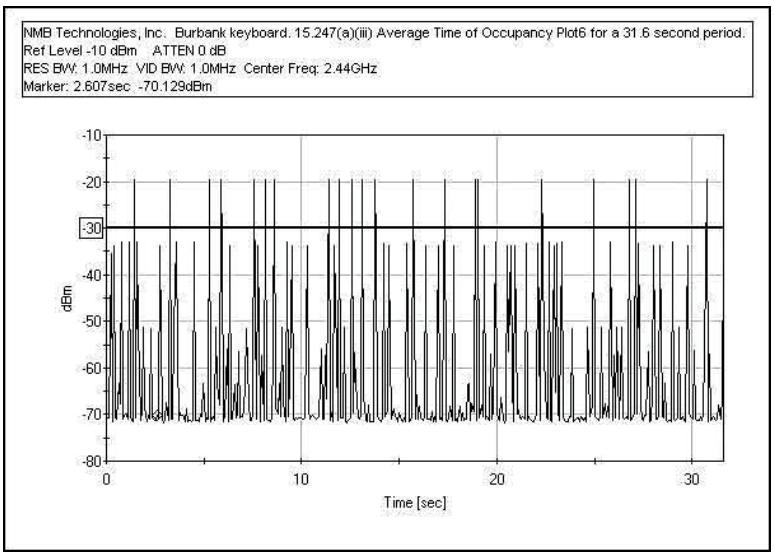
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 5



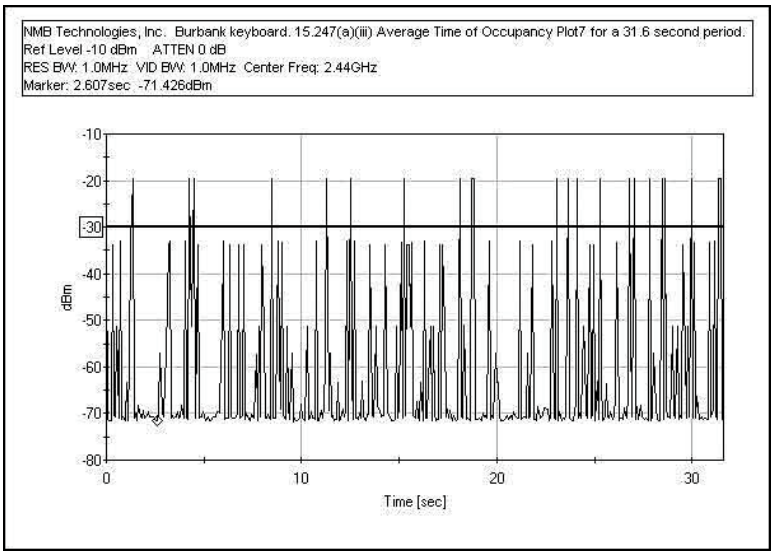
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 6



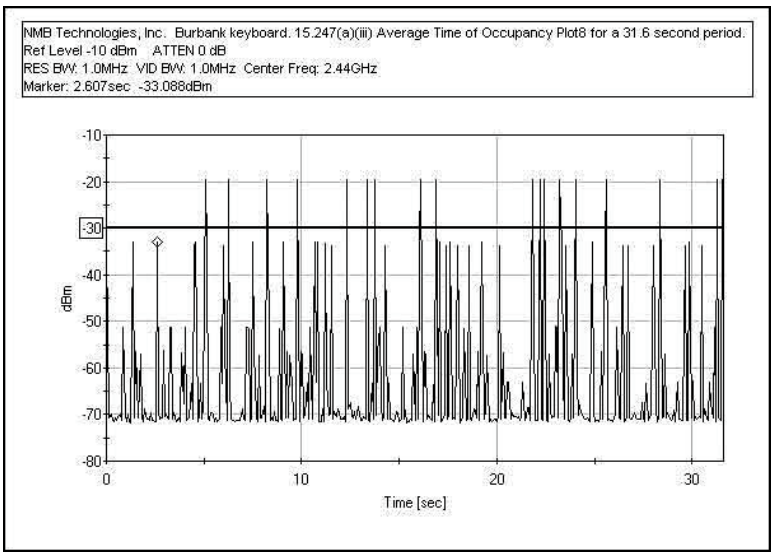
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 7



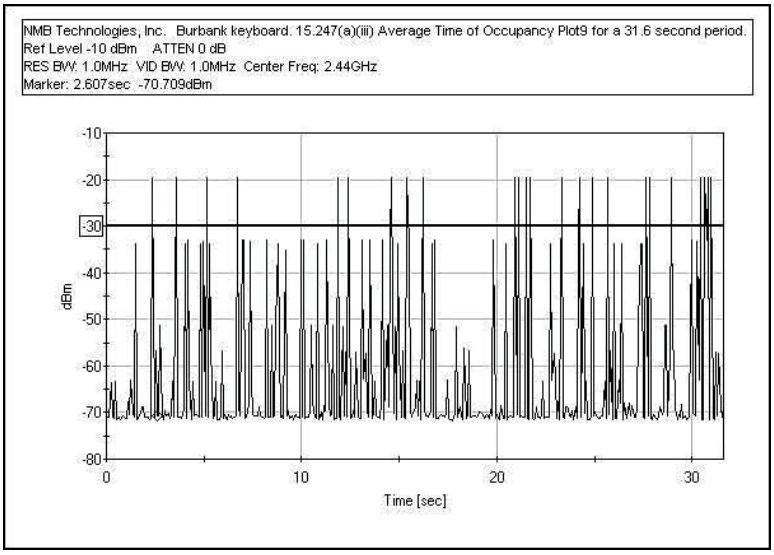
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 8



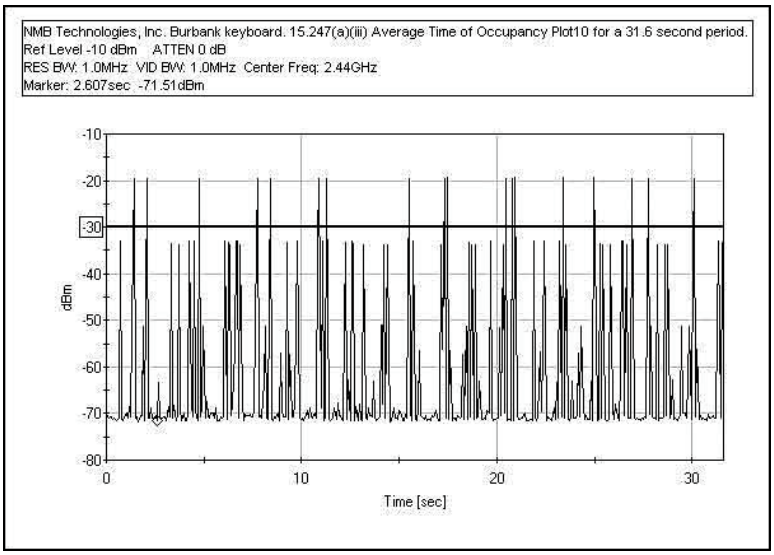
Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 9



Tested by: Stuart Yamamoto

FCC 15.247(a)(iii) AVERAGE TIME OF OCCUPANCY PLOT 10



Tested by: Stuart Yamamoto

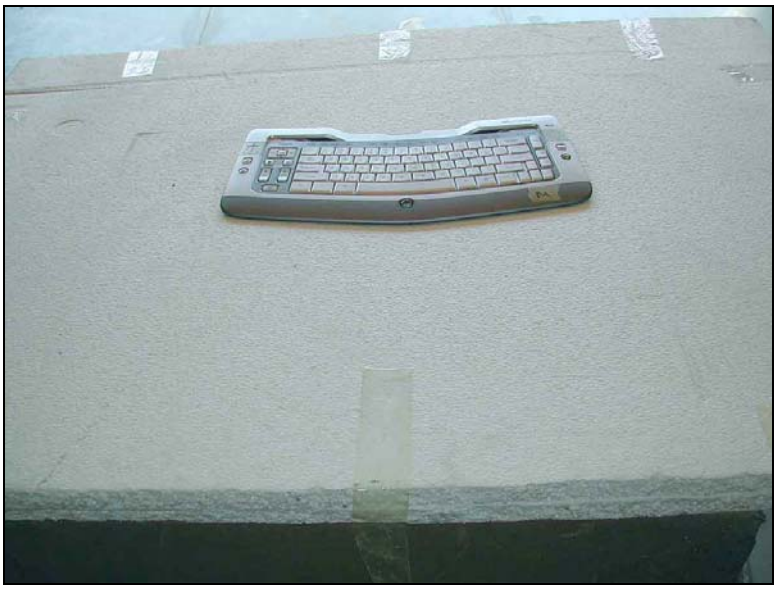
FCC 15.247 BANDEDGE

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509
Antenna cable (10 meter site D)	P04382	Andrew	LDF1-50	Cable#17	091906	091908
Antenna cable (Heliax)	P05563	Andrew	LDF1-50	L1-PNMNM-48	091806	091808
24" SMA Cable (White)	P5455	Pasterneck	35591-48	1-40GHz_white	011706	011708
Horn Antenna	01646	EMCO	3115	9603-4683	062906	062908
Microwave Pre-amp	00787	HP	83017A	3123A00282	052705	052707

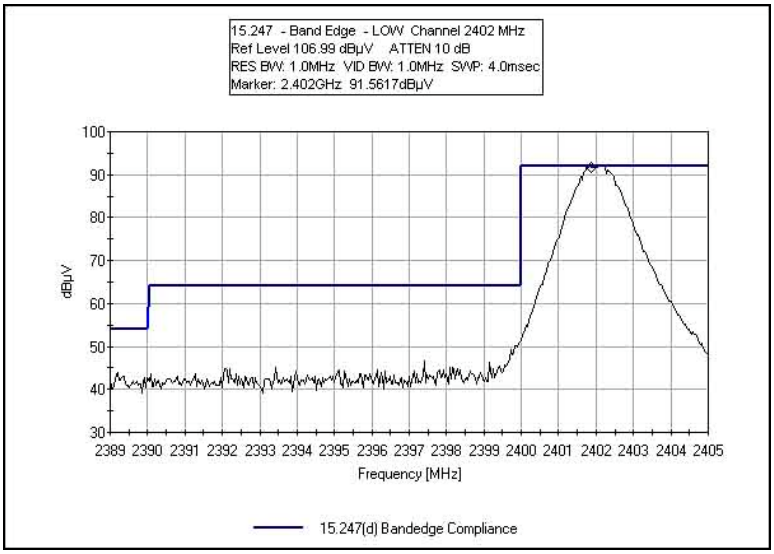
Test Conditions: The EUT was setup stand alone on a styrofoam tabletop. The EUT was put in a test mode so that it could transmit continuously on a selected channel. The EUT was setup and tested when set to transmit on its low (2402 MHz), middle (2441 MHz), and high (2480 MHz) channels. Bandwidth settings: 1MHz.

Test Setup Photos



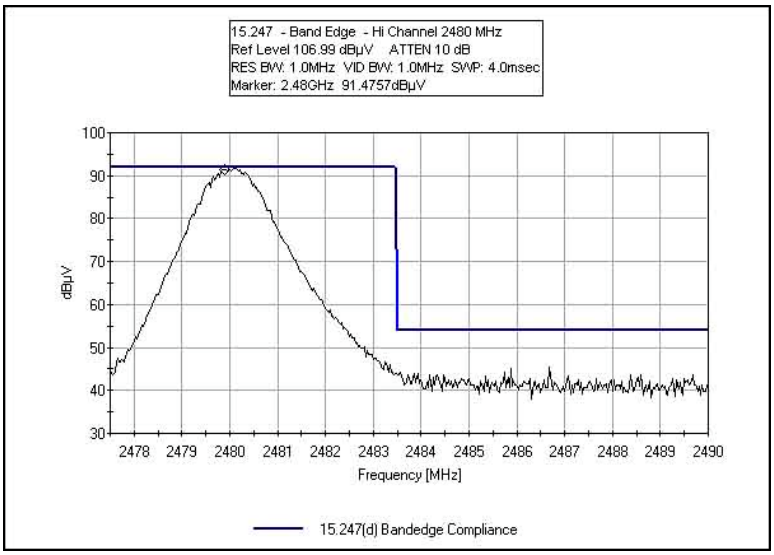
Test Plots

FCC 15.247 BANDEDGE - LOW CHANNEL



Tested by: Septimiu Apahidean

FCC 15.247 BANDEDGE - HIGH CHANNEL



Tested by: Septimiu Apahidean

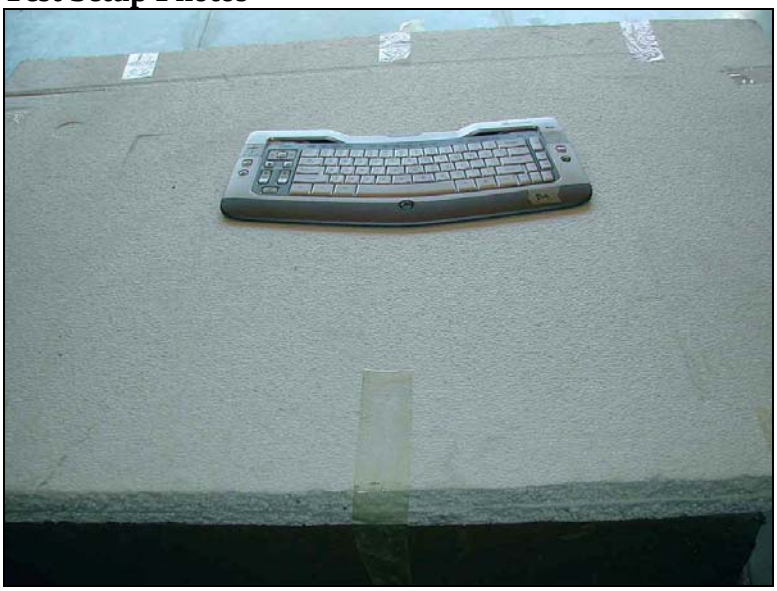
RSS-210 99% BANDWIDTH

Test Equipment

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	031507	031509

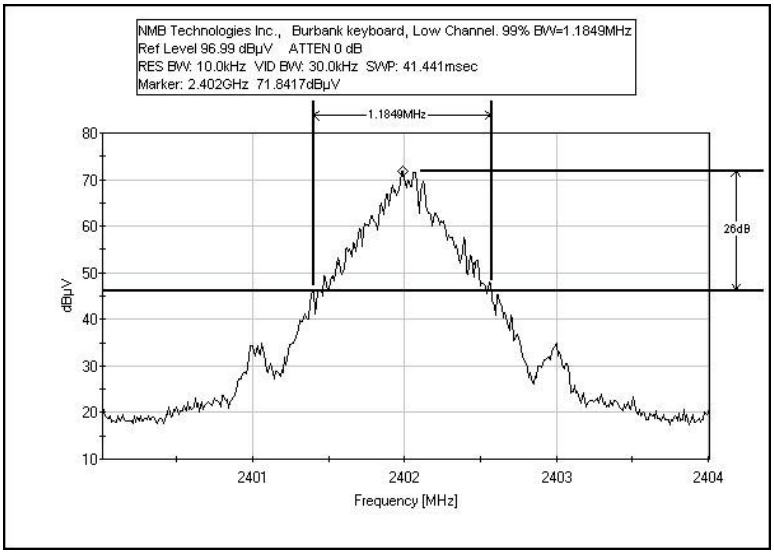
Test Conditions: The EUT was setup stand alone on a styrofoam tabletop. The EUT was put in a test mode so that it could transmit continuously on a selected channel. The EUT was setup and tested when set to transmit on its low (2402 MHz), middle (2441 MHz), and high (2480 MHz) channels. Bandwidth settings: 10kHz.

Test Setup Photos



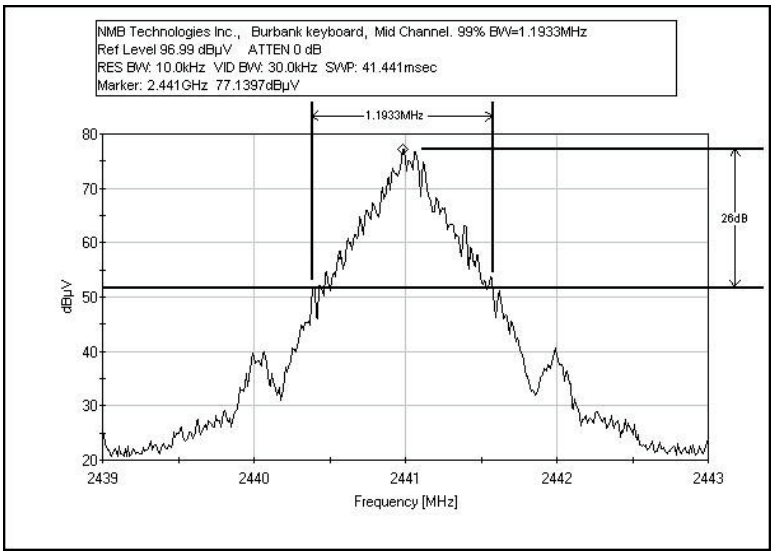
Test Plots

RSS-210 99% BANDWIDTH LOW CHANNEL



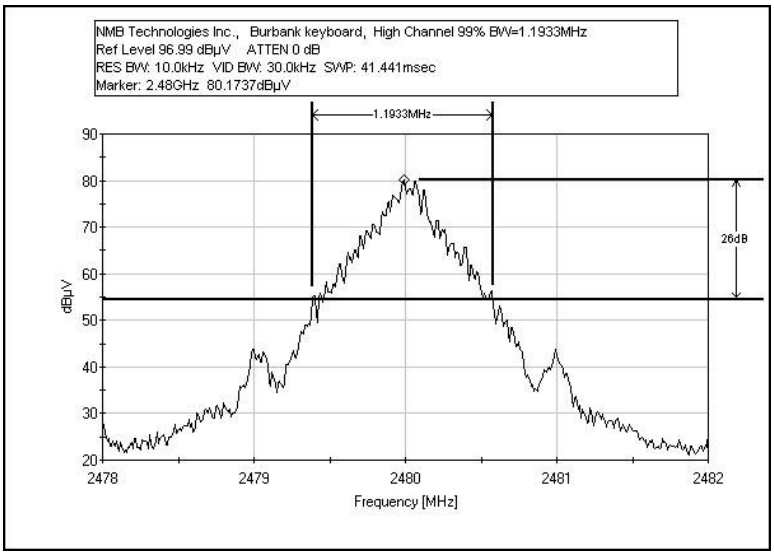
Tested by: Stuart Yamamoto

RSS-210 99% BANDWIDTH MID CHANNEL



Tested by: Stuart Yamamoto

RSS-210 99% BANDWIDTH HIGH CHANNEL



Tested by: Stuart Yamamoto