ADDENDUM TO NMB TECHNOLOGIES INC. TEST REPORT FC07-003

FOR THE

MICROSOFT® WIRELESS ENTERTAINMENT KEYBOARD 7000, MICROSOFT® MODEL NO. 1073

FCC PART 15 SUBPART C SECTIONS 15.209, 15.247, AND RSS-210 ISSUE 6

COMPLIANCE

DATE OF ISSUE: FEBRUARY 1, 2007

PREPARED FOR:

Microsoft Inc.
One Microsoft Way
Redmond, WA 98052

PREPARED BY:

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

P.O. No.: PQ22699
W.O. No.: 85497

Date of test: July 25, 2006 – January 31, 2007

Report No.: FC07-003A

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ADMINISTRATIVE INFORMATION

DATE OF TEST:	July 25, 2006 – January 31, 2007
DATE OF RECEIPT:	July 25, 2006
MANUFACTURER:	Microsoft Corporation One Microsoft Way Redmond, WA 98052
REPRESENTATIVE:	Jamin Pandana of NMB Stephen Stegner of Microsoft
TEST LOCATION:	CKC Laboratories, Inc. 110 Olinda Place Brea, CA 92823
TEST METHOD:	ANSI C63.4 (2003), RSS-210 & RSS-GEN
PURPOSE OF TEST:	**Original Report** is to demonstrate the compliance of the Microsoft® Wireless Entertainment Keyboard 7000, Microsoft® Model No. 1073 with the requirements for FCC Part 15 Subpart C Section 15.209, 15.247, and RSS-210 devices. **Addendum A** is to correct the test equipment lists, clarify that bandedge testing was performed on an OATS site, clarify 15.31(e) testing and replace the OATS testing with new data and photos.

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	A8.2(1)	47CFR	15.247(a)(2)	Minimum 6dB Bandwidth
RSS 210	A8.2(2)	47CFR	15.247(e)	Peak Power Spectral Density
RSS 210	A8.3(1)	47CFR	15.247(f)	Hybrid Systems - Time of Occupancy
RSS 210	A8.3(1)	47CFR	15.247(f)	Hybrid Systems - Power Spectral Density
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(4)	47CFR	15.247(b)(3)	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-A		90473		File Site No.
IC 3172-D		100638		

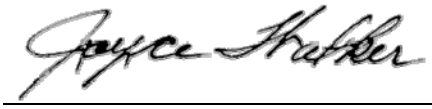
CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply. Conducted emissions not required for this device because it is battery powered.

APPROVALS

Steve Behm, Director of Engineering Services

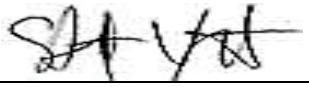
QUALITY ASSURANCE:



Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

Septimiu Apahidean, EMC Engineer



Stuart Yamamoto, EMC Engineer

FCC 15.31(e) Voltage Variations
Not applicable to this device because it is battery powered and all testing was performed with new batteries installed.

FCC 15.31(m) Number of Channels
EUT was tested on low (2402 MHz), middle (2441 MHz), and high (2480 MHz) channels.

FCC 15.33(a) Frequency Ranges Tested
15.209 Emissions: 30 – 1000 MHz
15.247 Emissions: 9kHz – 25 GHz

FCC SECTION 15.35: ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	13 GHz	1 MHz

FCC 15.203 Antenna Requirements
The antenna is an integral part of the EUT and is non-removable; therefore the EUT complies with Section 15.203 of the FCC rules.

FCC 15.205 Restricted Bands
The fundamental operating frequency lies outside the restricted bands and therefore complies with the requirements of Section 15.205 of the FCC rules. Any spurious emission coming from the EUT was investigated to determine if any portion lies inside the restricted band. If any portion of a spurious emissions signal was found to be within a restricted band, investigation was performed to ensure compliance with Section 15.209.

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

The EUT is a frequency hopping device operating in the 2400 – 2483.5 MHz.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit. The following EUT name was used during testing by CKC Laboratories:
Bluetooth Keyboard, 1073 (Pasadena Rev 06)

Since the time of testing the manufacturer has chosen to use the following EUT name in its place. Any differences between the names does not affect their EMC characteristics and therefore complies to the level of testing equivalent to the tested model name shown on the data sheets:
Microsoft® Wireless Entertainment Keyboard 7000, Microsoft® Model No. 1073

EQUIPMENT UNDER TEST

Microsoft® Wireless Entertainment Keyboard 7000

Manuf:	Microsoft Corporation
Model:	Microsoft® Model No. 1073 (Pasadena)
Serial:	EV2-001, 00125AA1033C, 8161600000087, 8161600000092, 8161600000137
FCC ID:	C3K1073

PERIPHERAL DEVICES

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

Bluetooth Transceiver

Manuf:	Microsoft Corporation
Model:	1003
Serial:	NA

Laptop Computer

Manuf:	Dell
Model:	Inspiron 6000
Serial:	7W2GS61

REPORT OF MEASUREMENTS

The following table reports the six highest worst case levels recorded during the tests performed on the EUT. All readings taken are peak readings unless otherwise noted. The data sheets from which these tables were compiled are contained in Appendix C.

Table 1: FCC 15.209 - Six Highest Spurious Emission Levels: Receiver

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	Dist dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
527.992	40.8	19.0	-27.8	5.6		37.6	46.0	-8.4	V
528.001	40.5	19.0	-27.8	5.6		37.3	46.0	-8.7	H
528.005	40.5	19.0	-27.8	5.6		37.3	46.0	-8.7	H
564.002	39.1	19.8	-27.8	5.8		36.9	46.0	-9.1	H
599.994	39.0	19.9	-27.9	6.0		37.0	46.0	-9.0	V
600.004	38.9	19.9	-27.9	6.0		36.9	46.0	-9.1	V

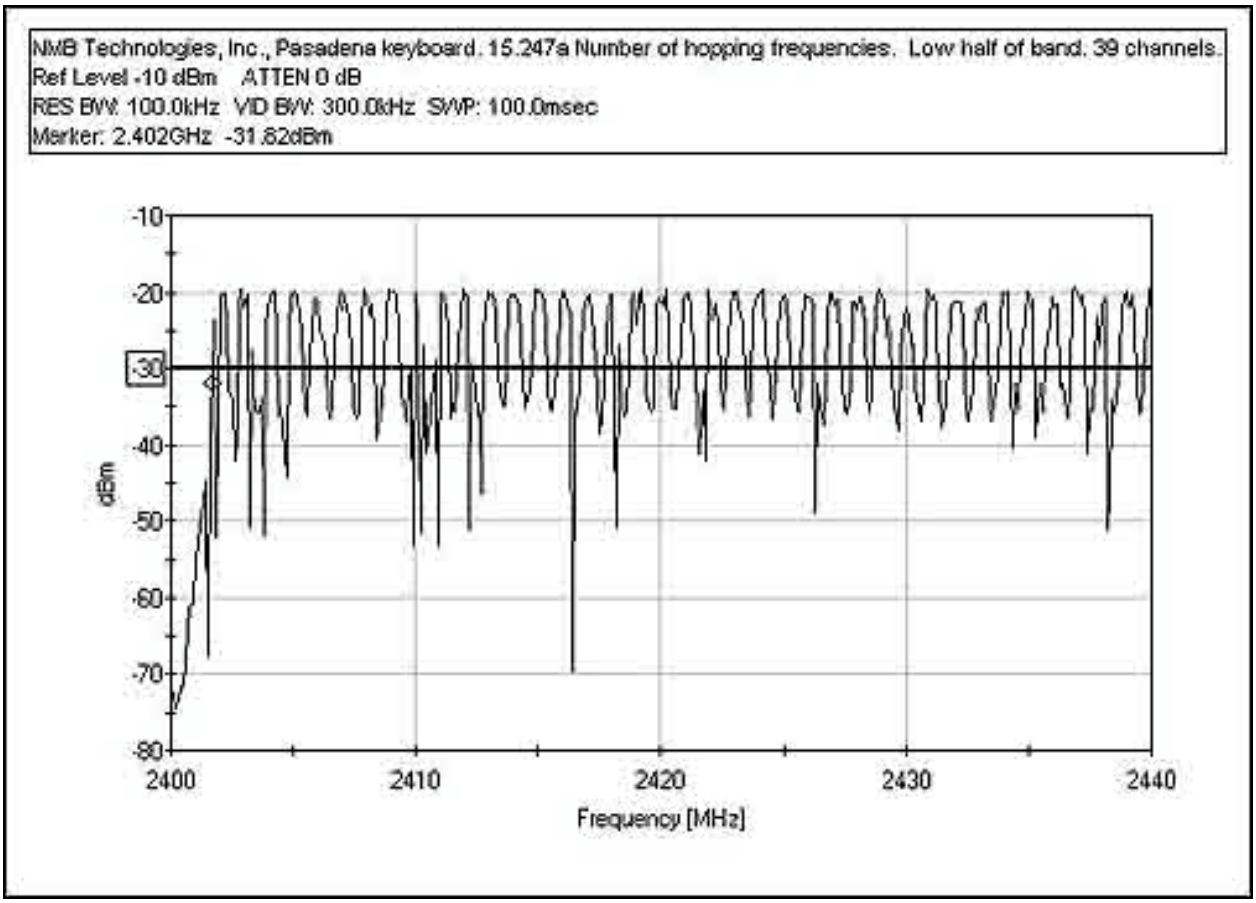
Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.209
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization

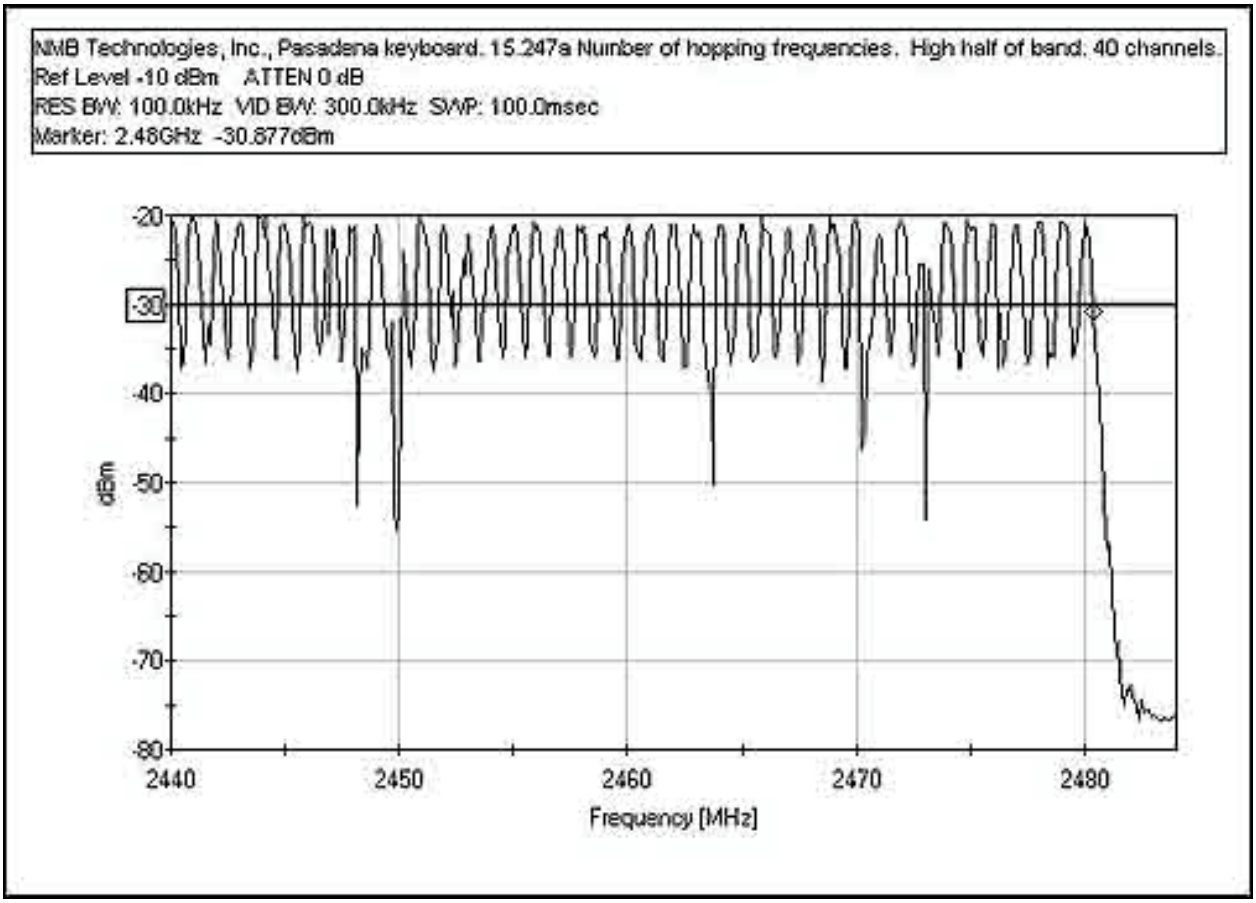
COMMENTS: The EUT is a bluetooth keyboard. The keyboard is transmitting continuously. Test Mode. Low, Middle and High Channels. PCB Rev06. Temperature: 19°C, Humidity: 60%, Pressure: 100kPa. Frequency tested: 30-1000 MHz.

FCC Part 15.247(a) Number of Hopping Frequencies

Test Conditions:
The EUT was setup stand alone on the wooden table top. 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.

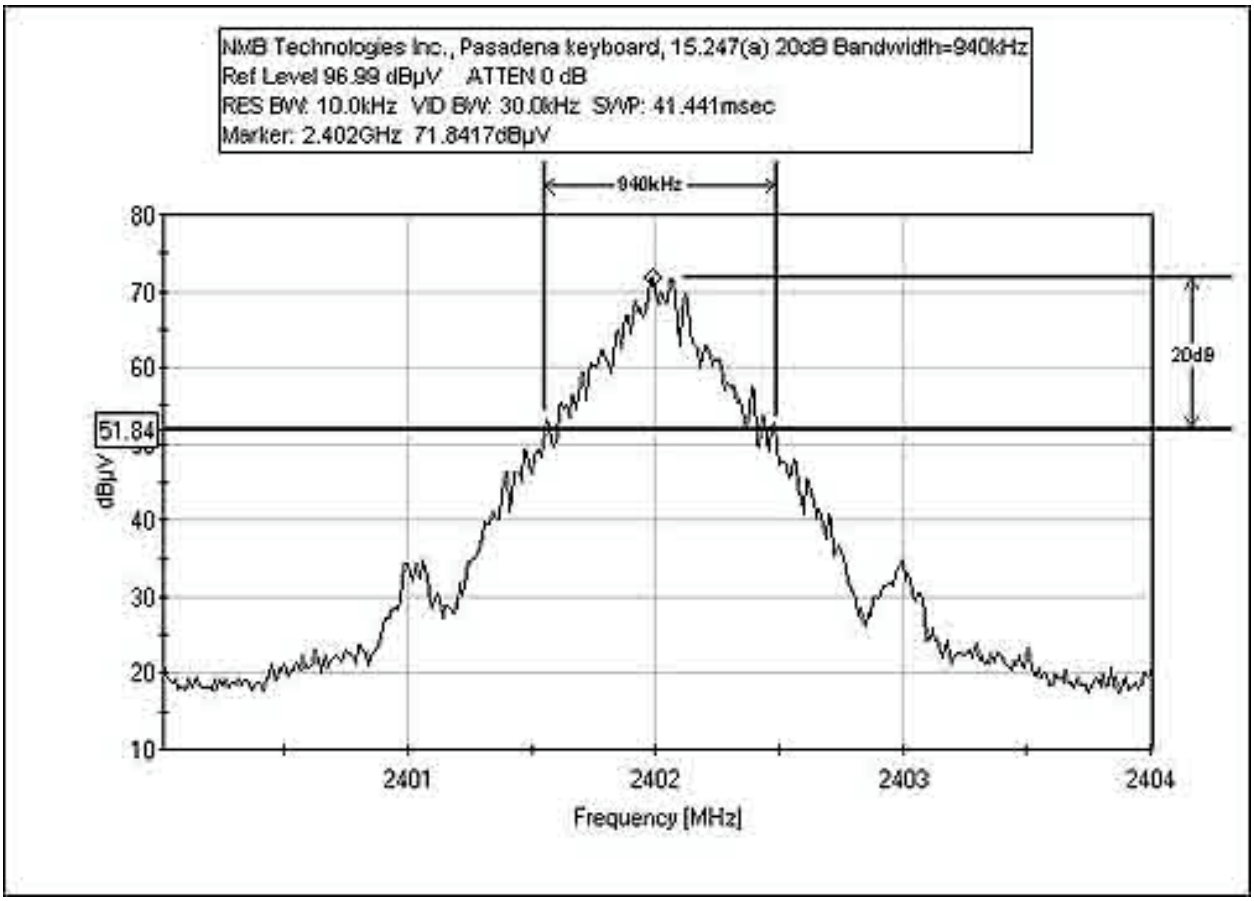


FCC Part 15.247(a) Number of Hopping Frequencies



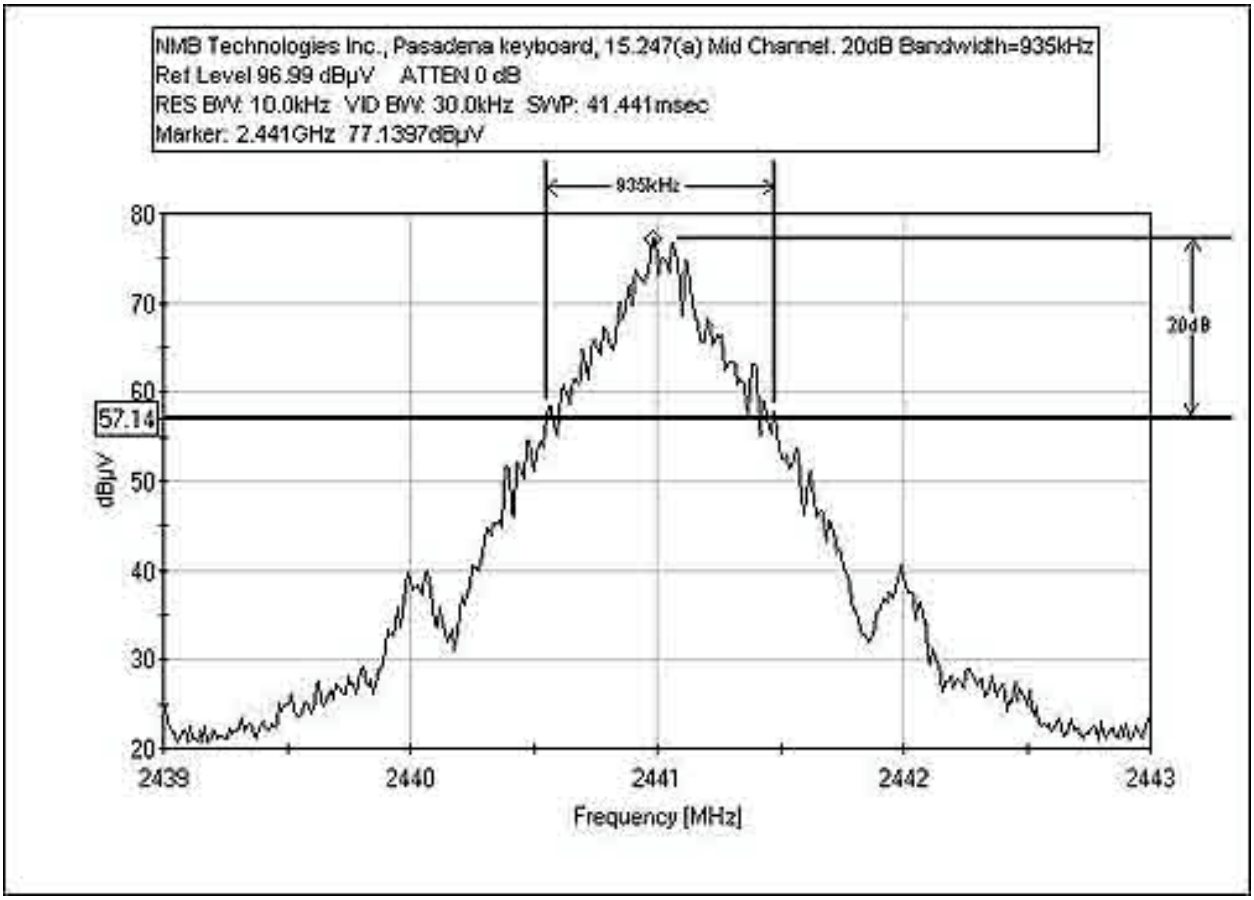
FCC Part 15.247(a) 20dB Bandwidth Plot – Frequency Hopping

Test Conditions:
The EUT was setup stand alone on the wooden table top. 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.



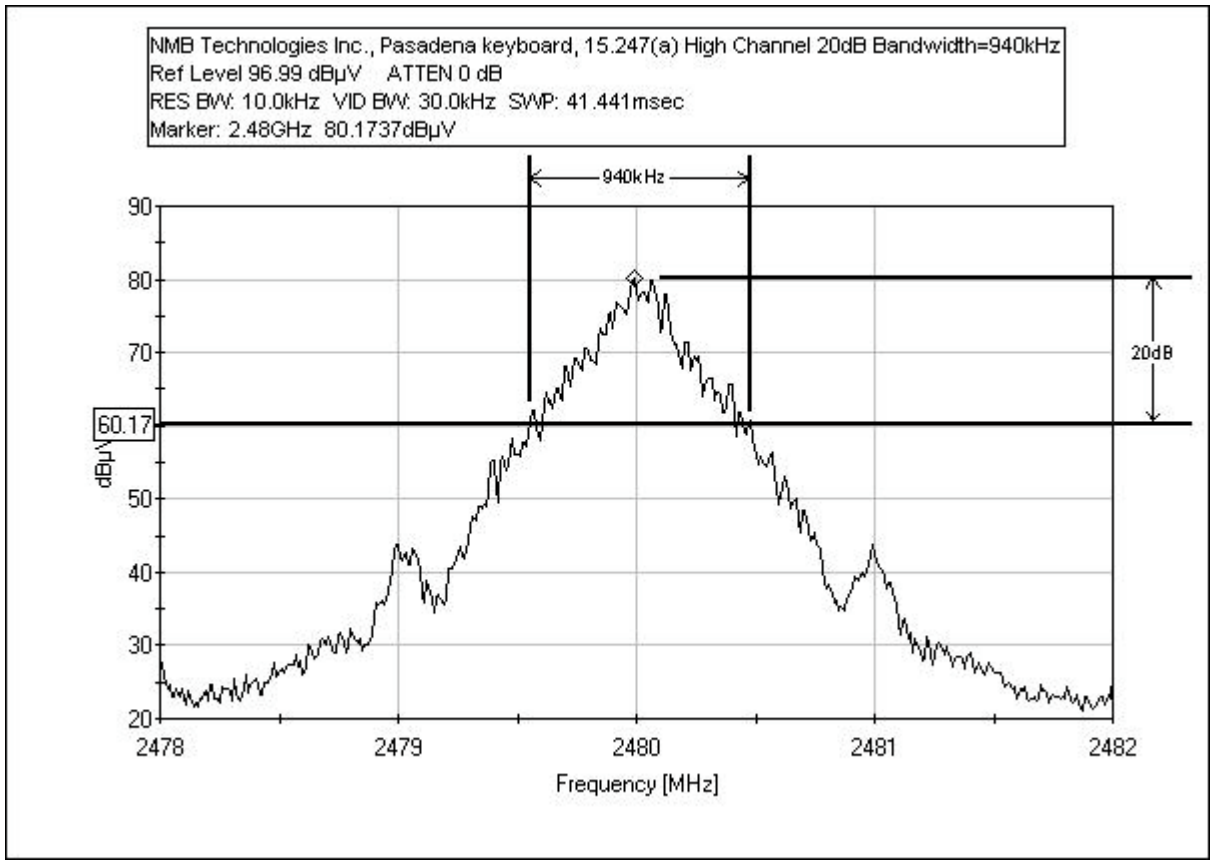
Low

FCC Part 15.247(a) 20dB Bandwidth Plot – Frequency Hopping



Middle

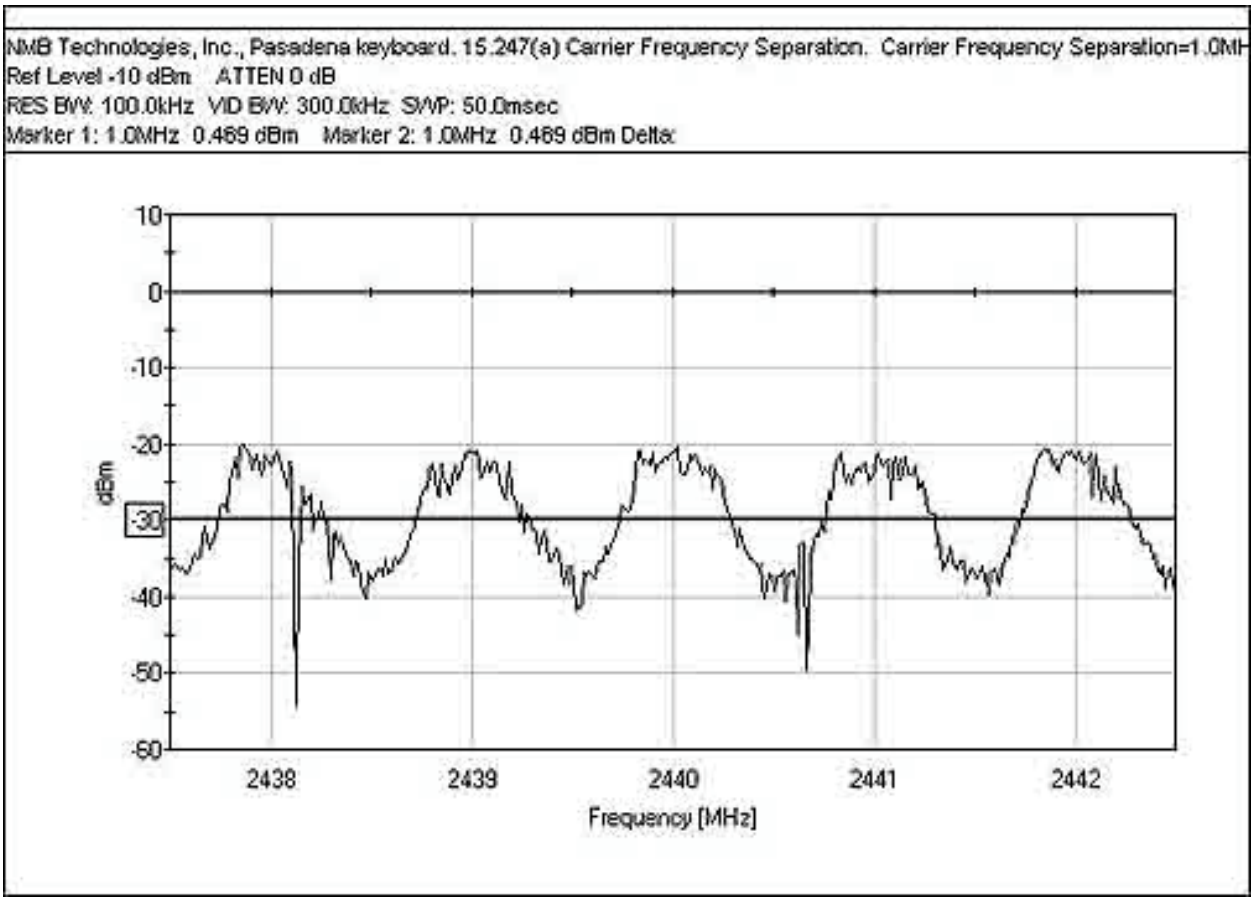
FCC Part 15.247(a) 20dB Bandwidth Plot – Frequency Hopping



High

FCC Part 15.247(a) Carrier Frequency Separation

Test Conditions:
The EUT was setup stand alone on the wooden table top. 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.

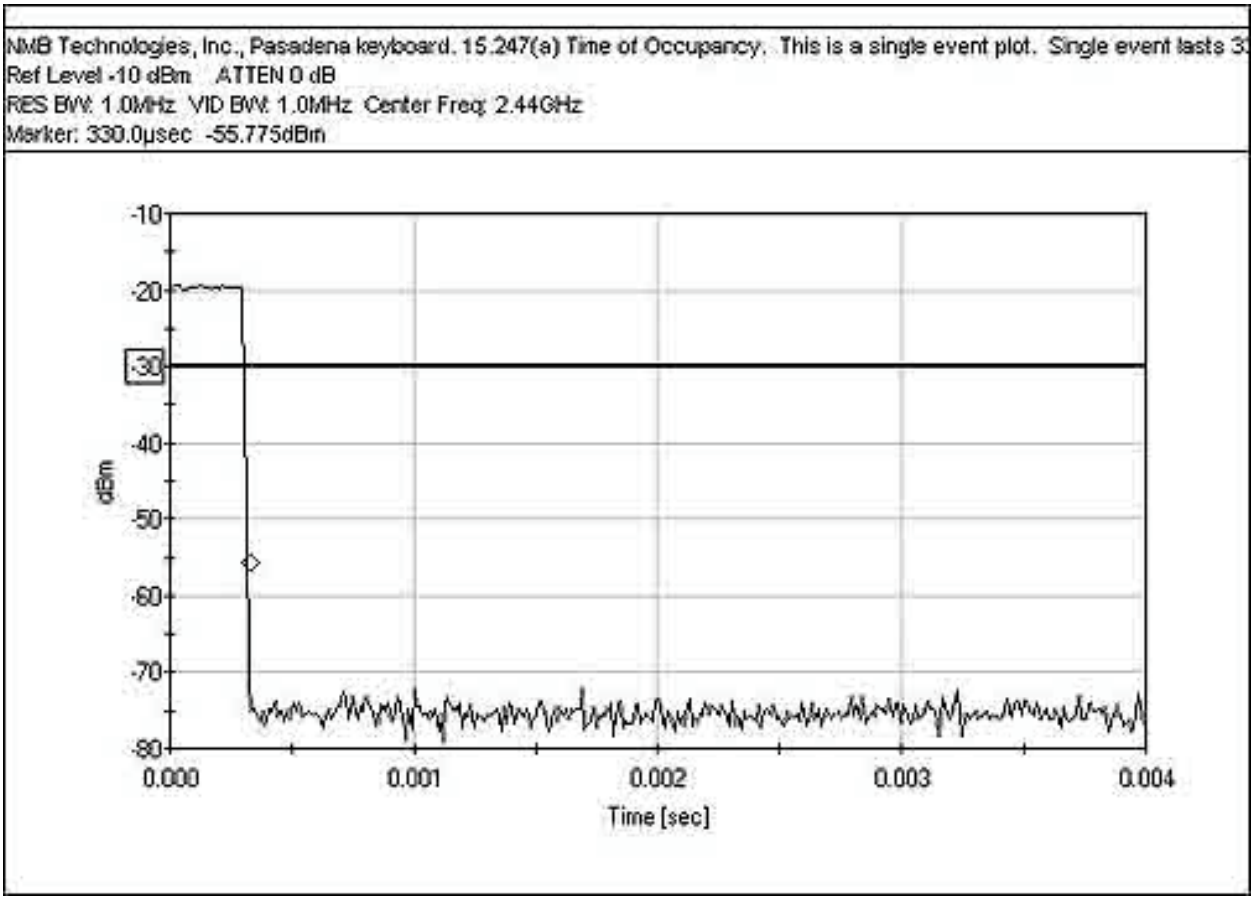


FCC Part 15.247(a) (iii) Average Time of Occupancy

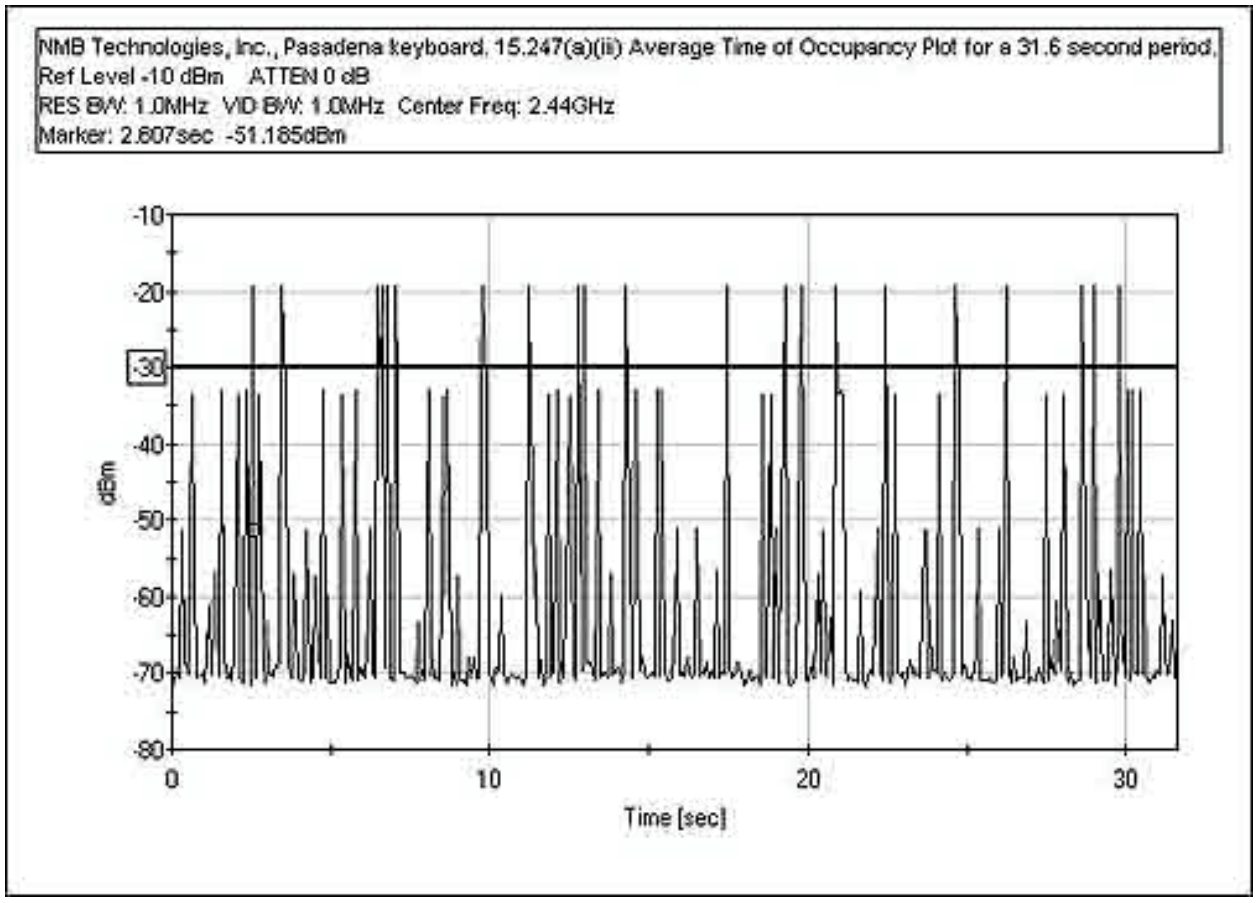
Test Conditions:
The EUT was setup stand alone on the wooden table top. The EUT was put in a hopping mode so that the transmission would hop as it normally does from 2402 MHz to 2480 MHz. The EUT transmission was continuous.

The number of hopping channels employed was determined to be 79. Therefore, the limit for the average time of occupancy is less than 0.4 seconds within a 31.6 second period. Please reference the eleven jpg plots made for the middle (2.44GHz) channels. One of the jpg plots shows that a single event lasts for 330 microseconds. The worst case scenario for a 31.6 second period is 87 occurrences. The worst case scenario for the maximum time of occupancy (dwell time) in one 31.6 second period is 0.02871 seconds. The maximum time of occupancy limit is 0.4 seconds therefore the unit passed.

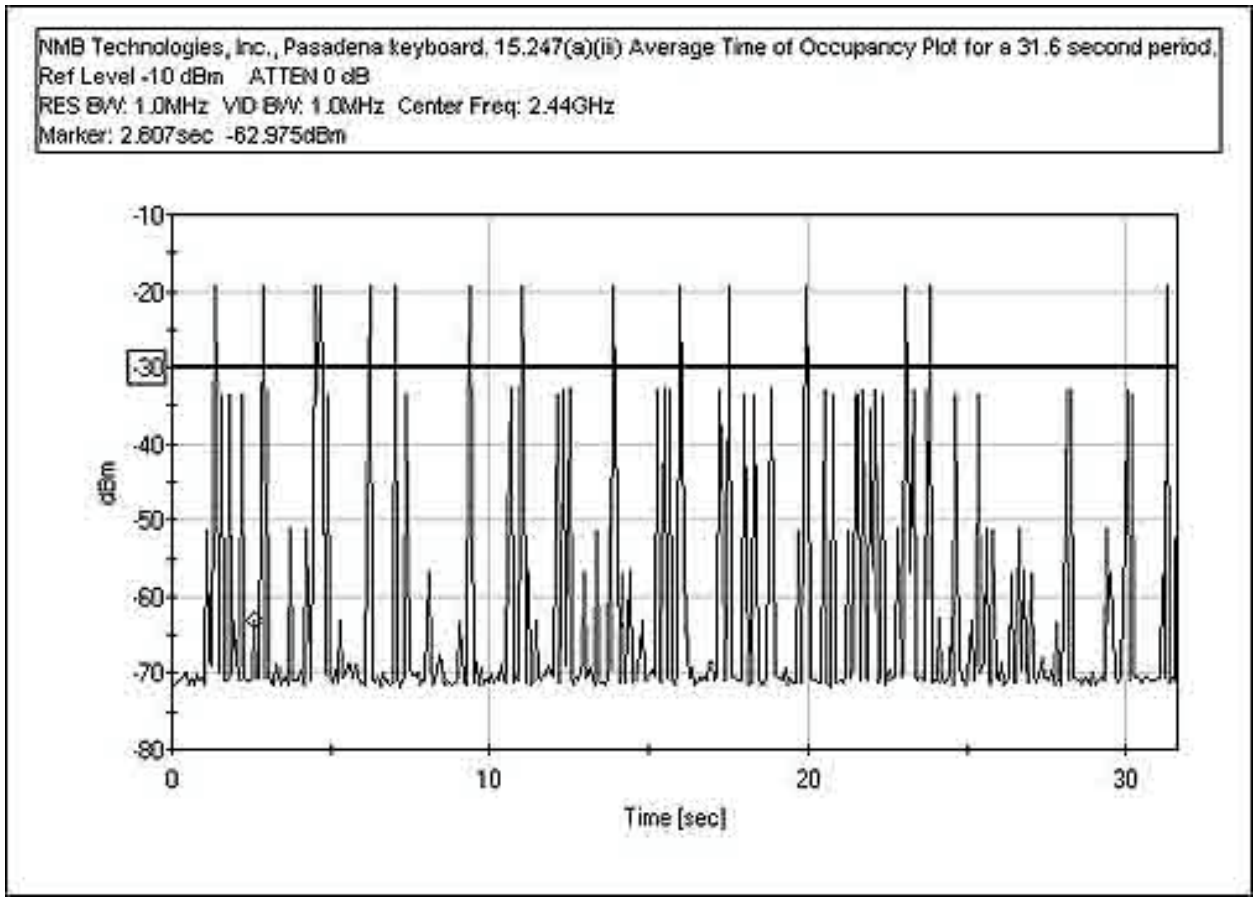
Limit: The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.



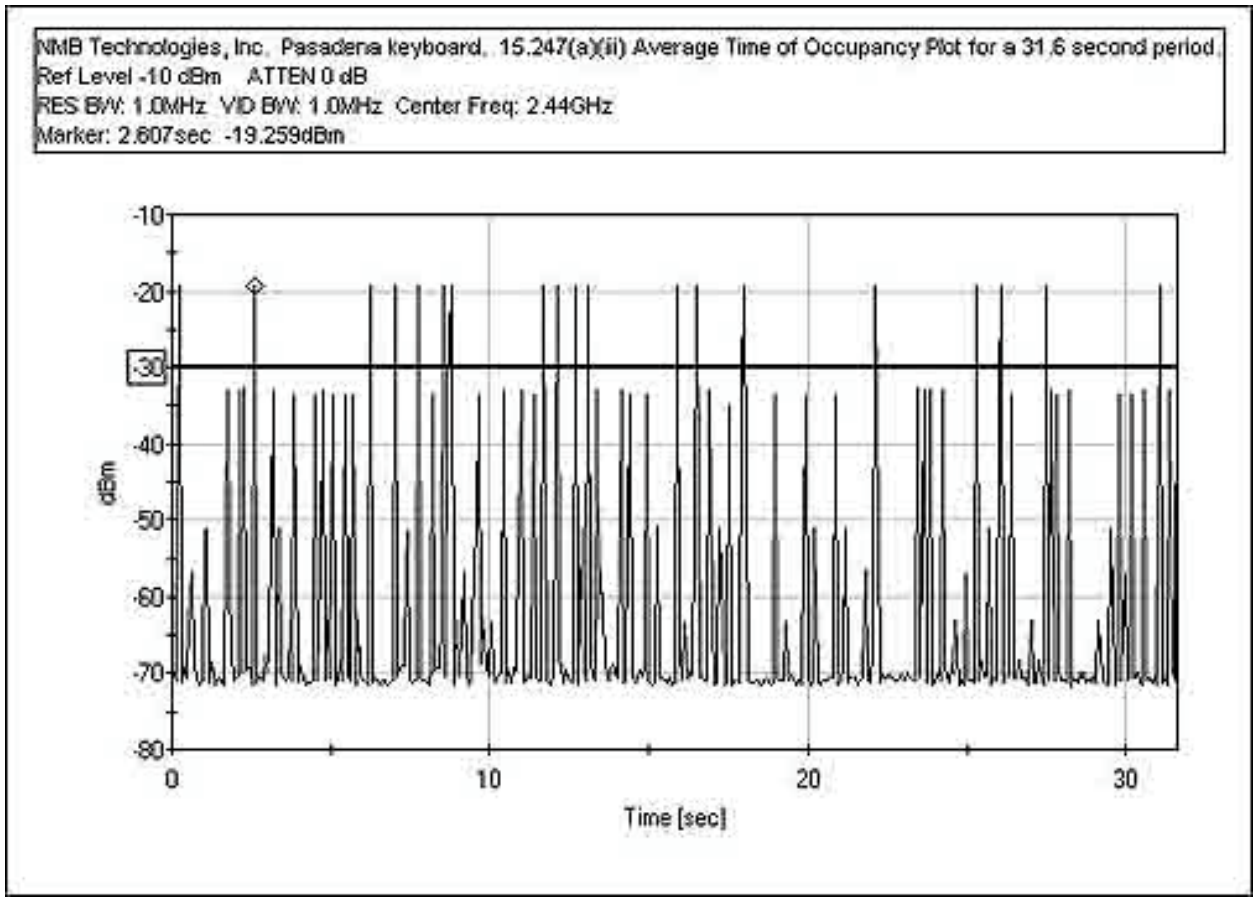
FCC Part 15.247(a) (iii) Average Time of Occupancy



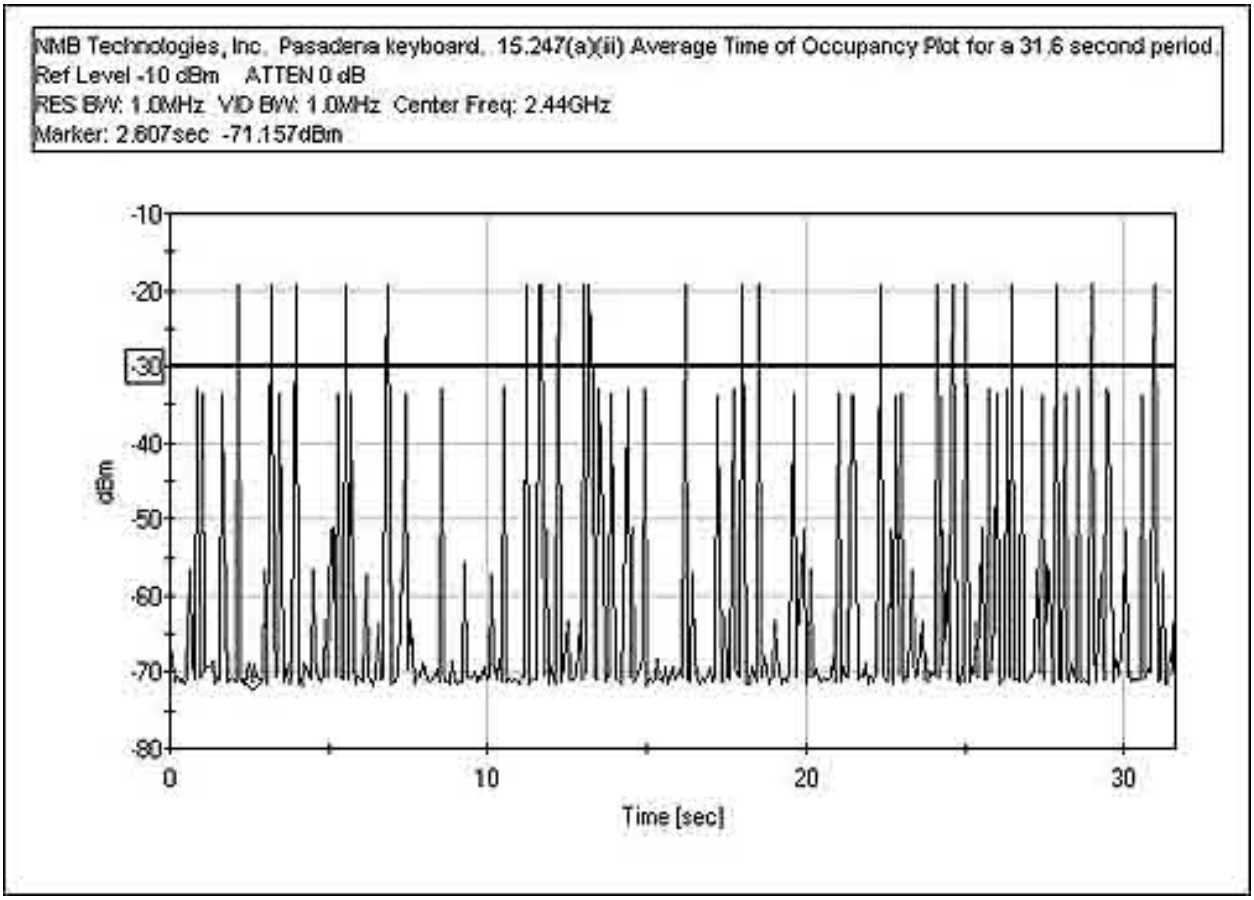
FCC Part 15.247(a) (iii) Average Time of Occupancy



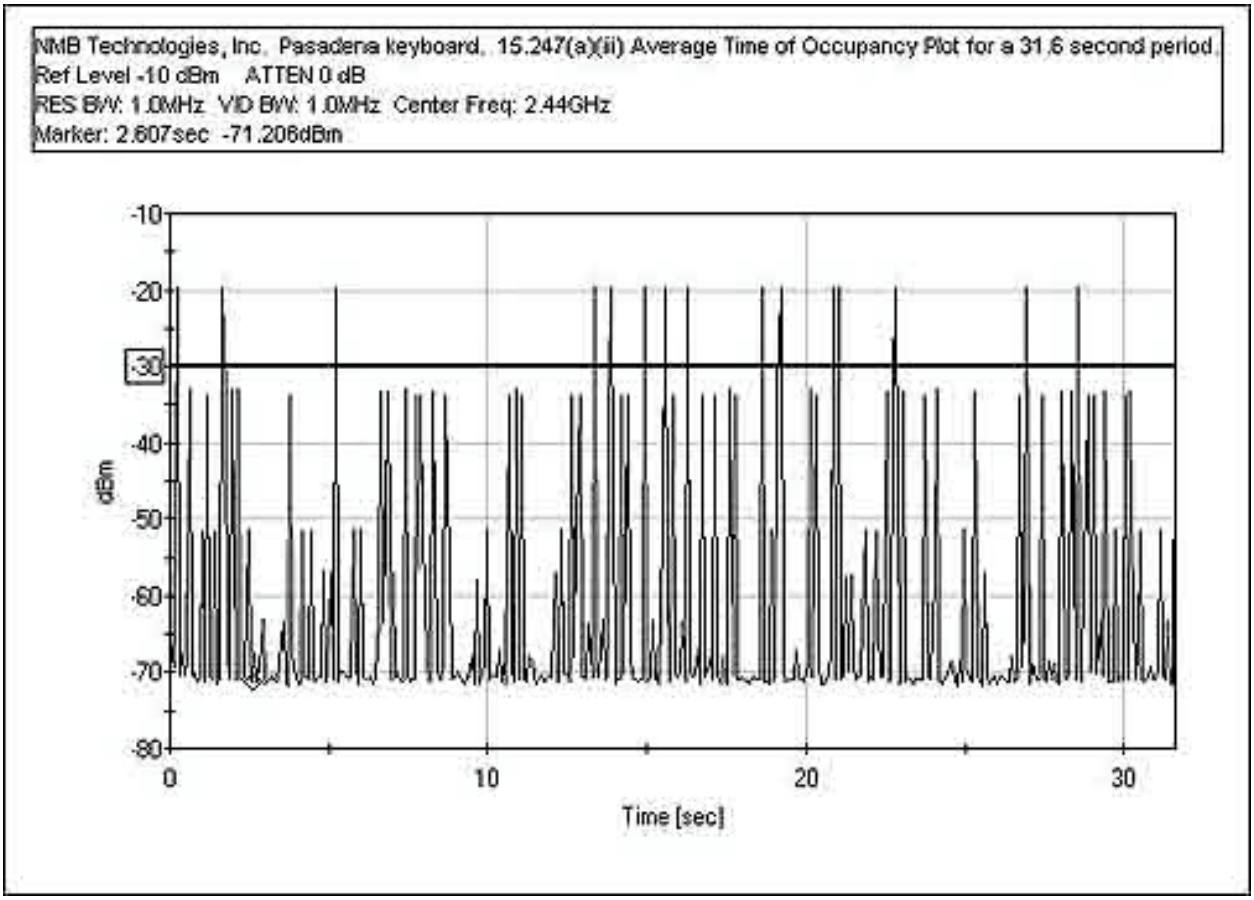
FCC Part 15.247(a) (iii) Average Time of Occupancy



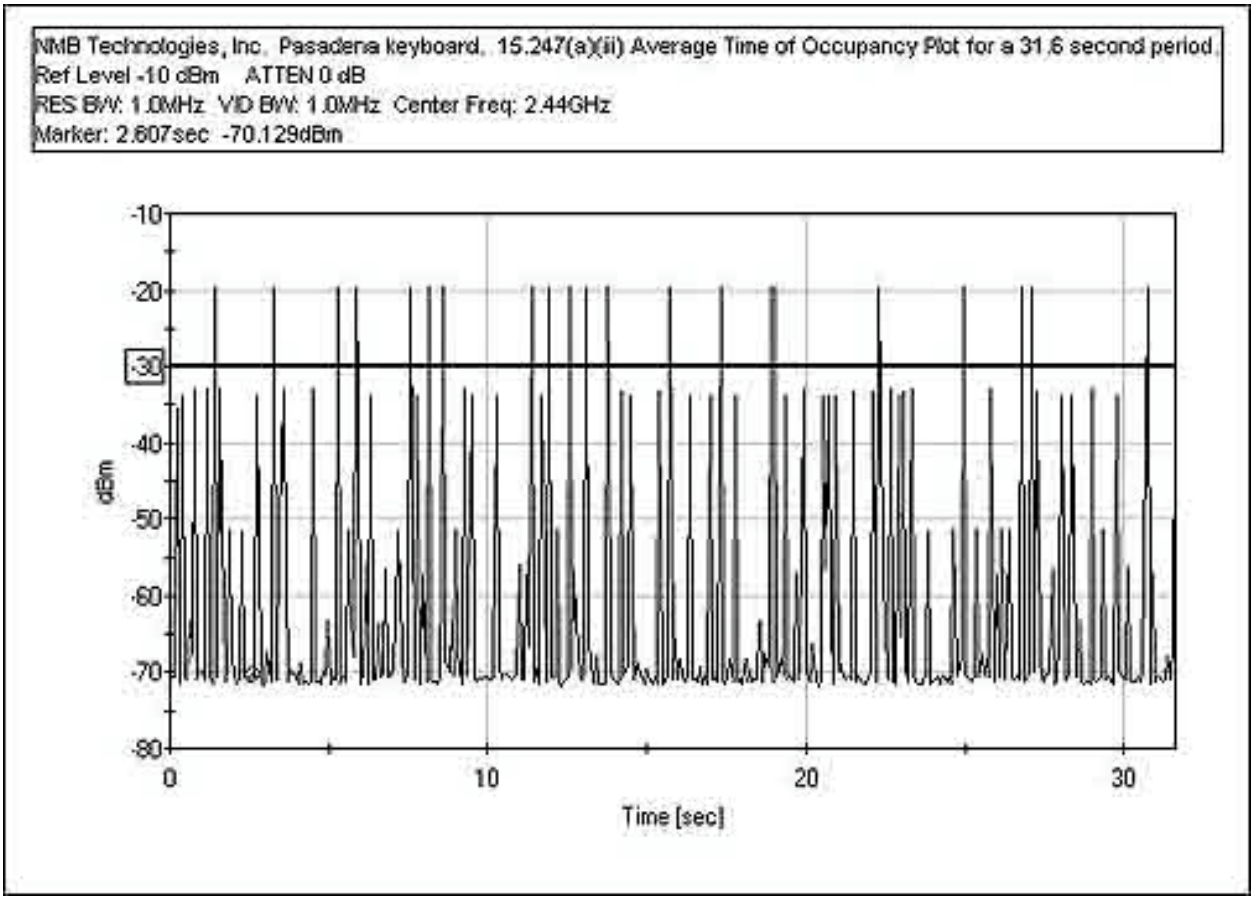
FCC Part 15.247(a) (iii) Average Time of Occupancy



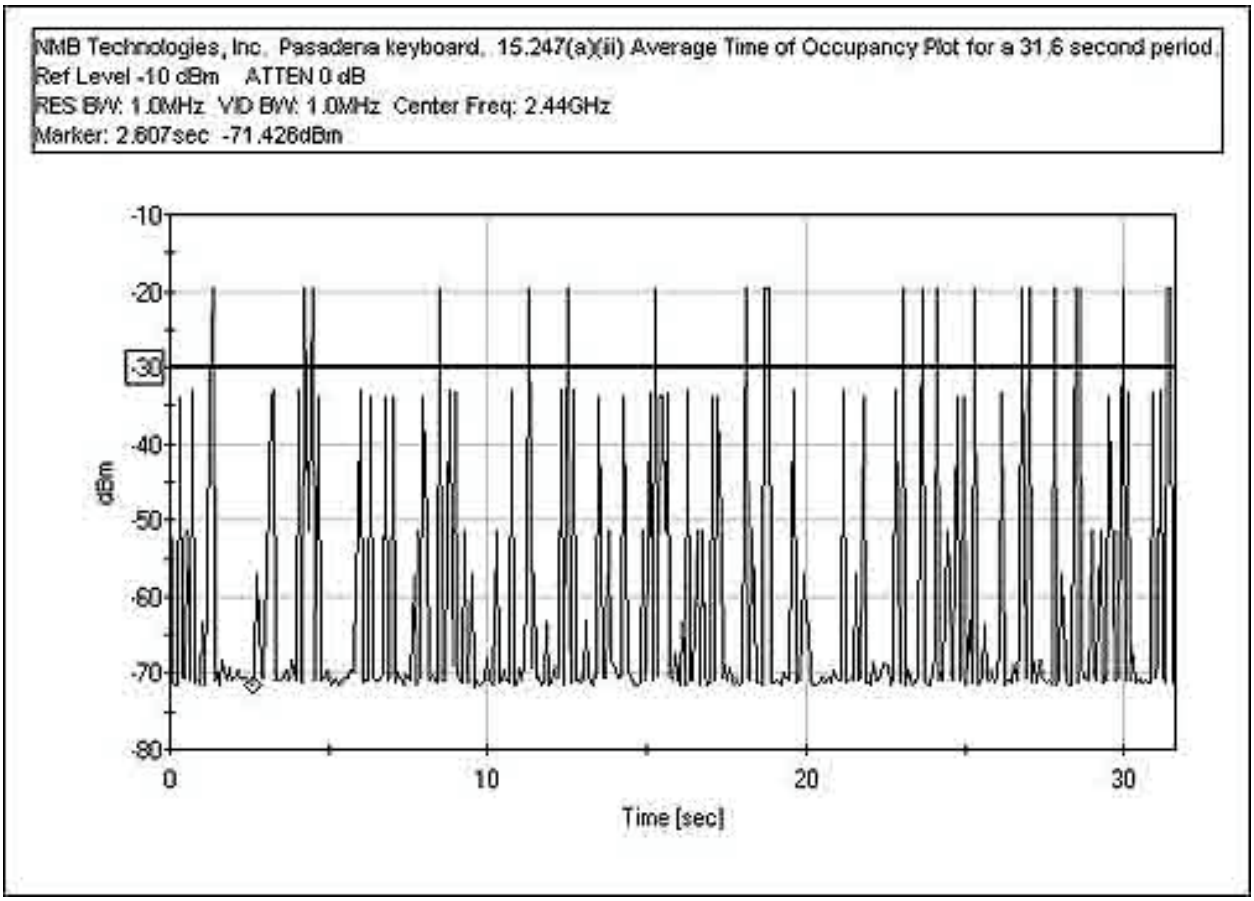
FCC Part 15.247(a) (iii) Average Time of Occupancy



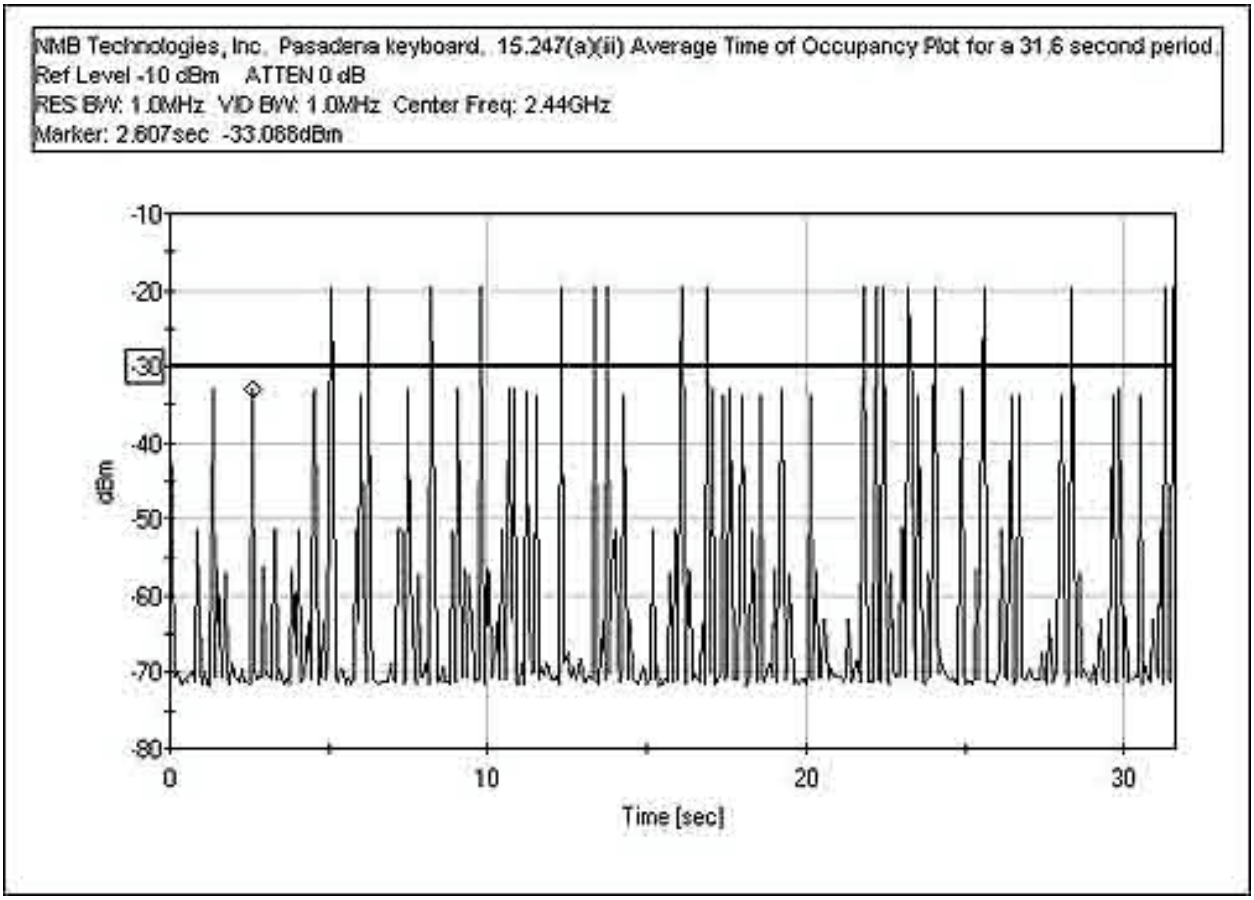
FCC Part 15.247(a) (iii) Average Time of Occupancy



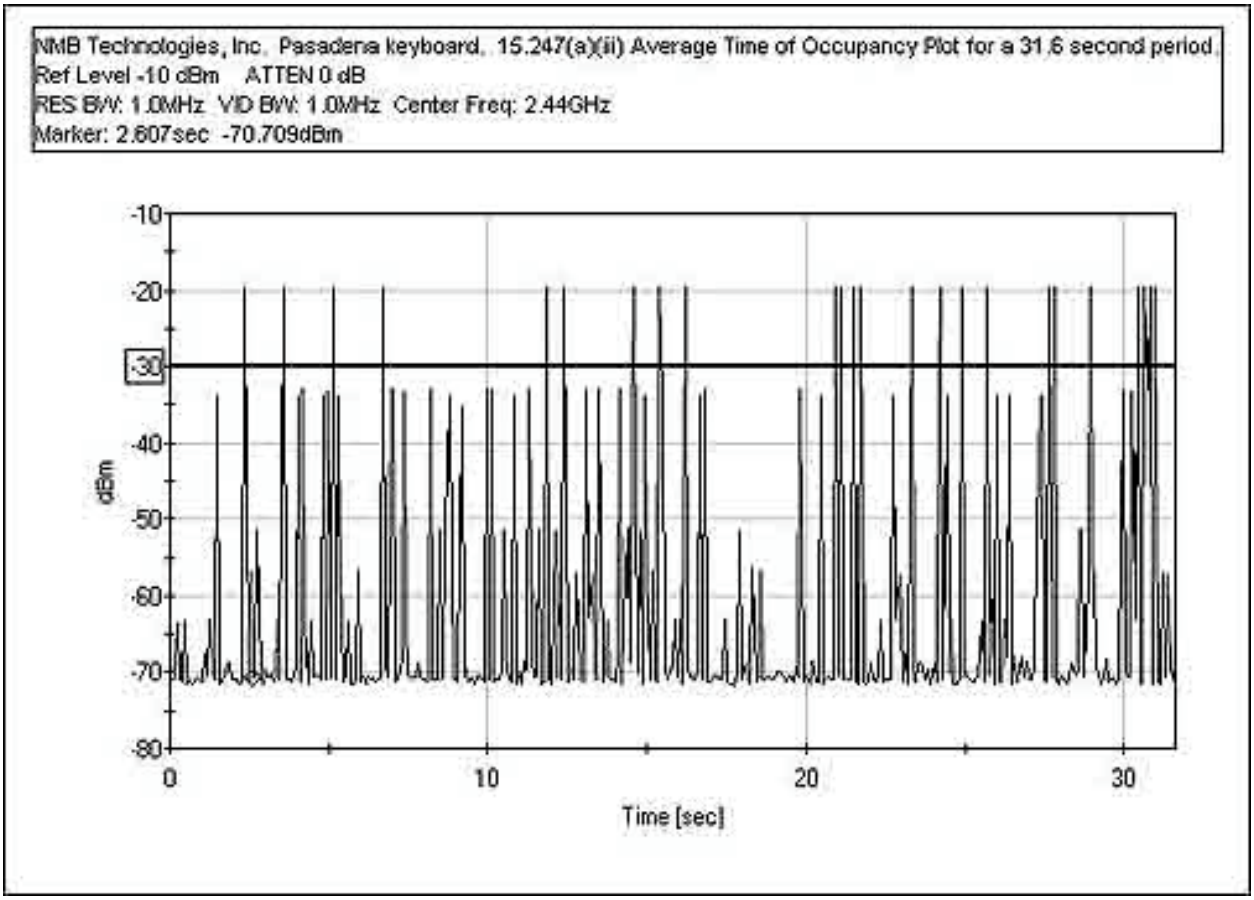
FCC Part 15.247(a) (iii) Average Time of Occupancy



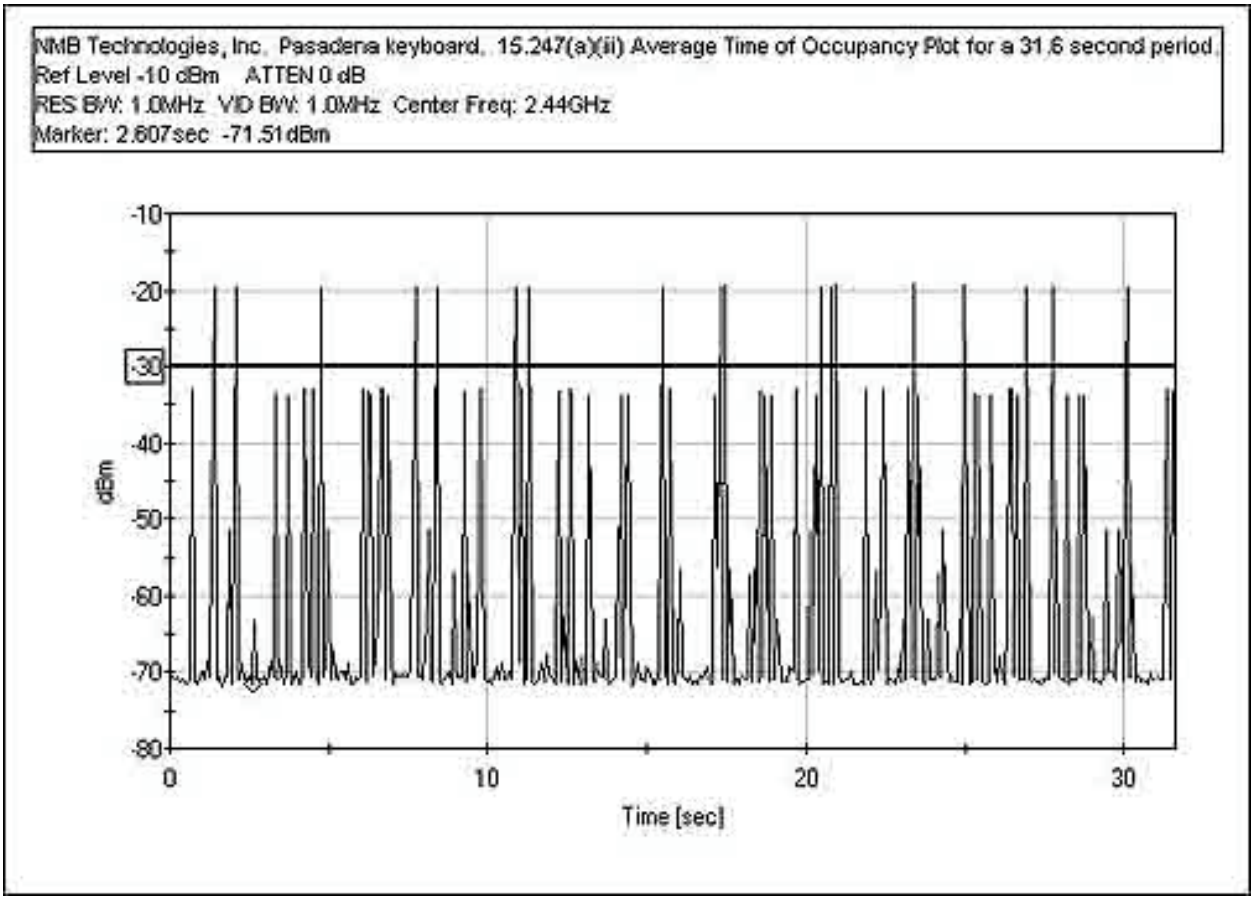
FCC Part 15.247(a) (iii) Average Time of Occupancy



FCC Part 15.247(a) (iii) Average Time of Occupancy



FCC Part 15.247(a) (iii) Average Time of Occupancy



FCC Part 15.247(b) Maximum Peak Conducted Output Power

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

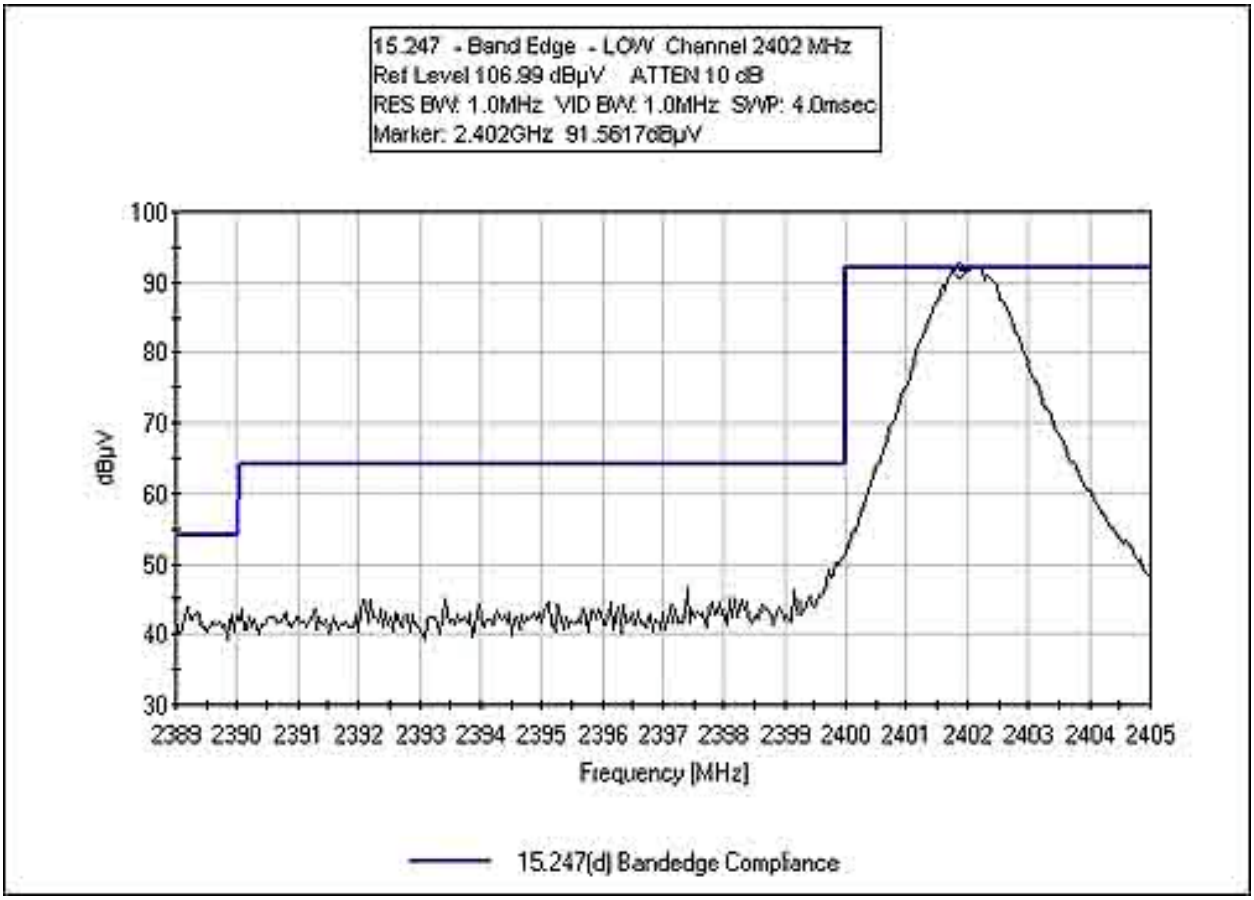
15.247(b) LIMIT

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

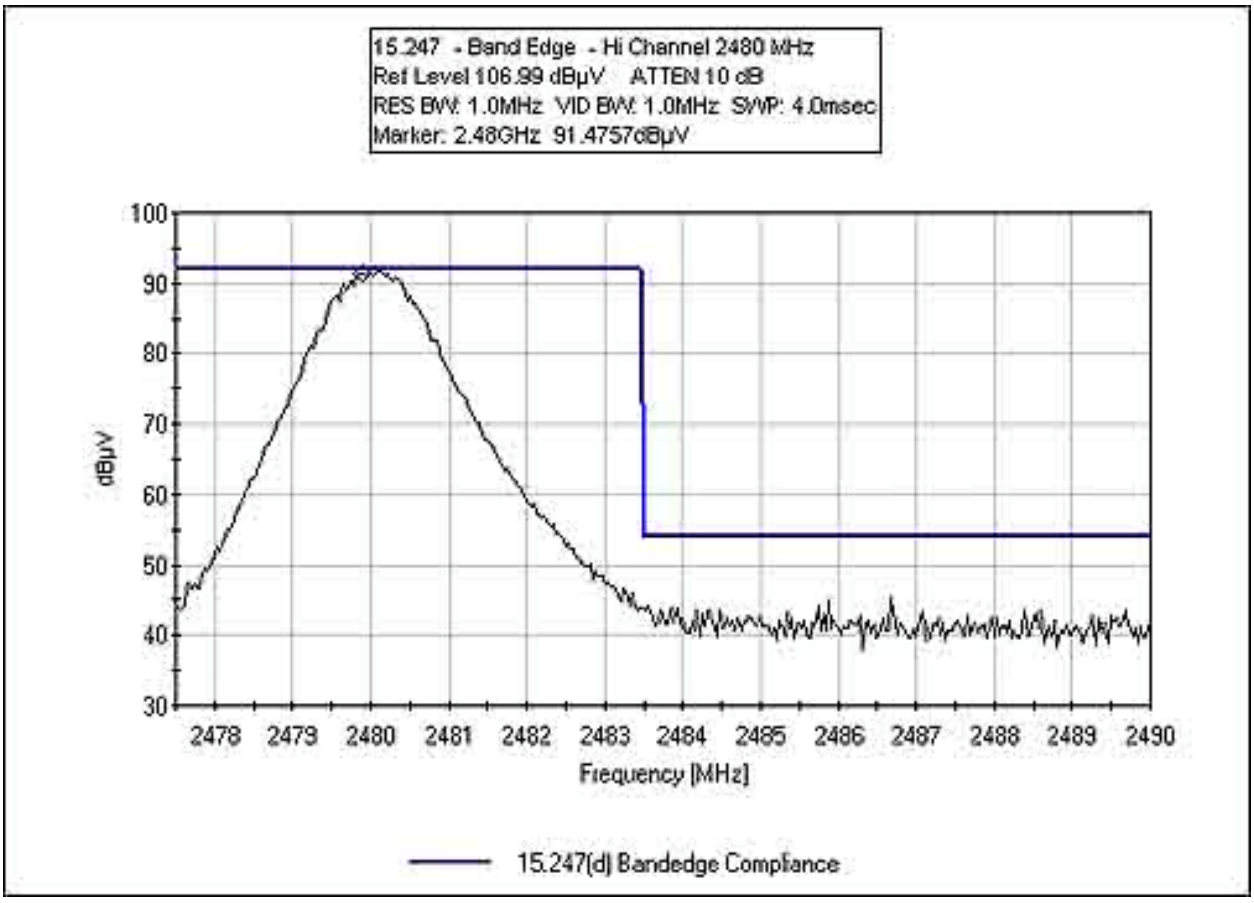
Tested By: Sep Apahidean

FCC Part 15.247(d) Bandedge Plots

Test Conditions:
The EUT was setup stand alone on the wooden 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. Radiated testing was performed on an OATS site.



FCC Part 15.247(d) Bandedge Plots



The following tables report the six highest worst case levels recorded during the tests performed on the EUT. All readings taken are peak readings unless otherwise noted. The data sheets from which these tables were compiled are contained in Appendix C.

Table 2: FCC 15.247(d) - Six Highest Conducted Spurious Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	Dist dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
7276.652	45.8			2.4		48.2	68.4	-20.2	N-1
8783.410	45.4			2.7		48.1	68.4	-20.3	N-1
9415.987	46.2			2.8		49.0	68.4	-19.4	N-1
9436.037	45.8			2.8		48.6	68.4	-19.8	N-1
9809.970	45.4			2.9		48.3	68.4	-20.1	N-1
12688.360	45.2			3.3		48.5	68.4	-19.9	N-1

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.247(d)

NOTES: N = No Antenna Polarization
1 = Low Channel
2 = Middle Channel
3 = High Channel

COMMENTS: 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 Inc. All data taken with this configuration. Bluetooth channels set to 2402 MHz - Low Channel, 2441 MHz - Middle Channel and 2480 MHz - High Channel.
Frequency tested 9 kHz - 13 GHz.

Table 3: FCC 15.247(d) - Six Highest Radiated Spurious Emission Levels									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Dist dB	READING dBµV/m	LIMIT dBµV/m	MARGIN dB	NOTES
12010.040	16.3	39.1	-38.9	25.4		41.9	54.0	-12.1	VA-1
12010.080	16.4	39.1	-38.9	25.4		42.0	54.0	-12.0	HA-1
12205.030	16.6	39.0	-38.7	25.5		42.4	54.0	-11.6	HA-2
12205.070	16.5	39.0	-38.7	25.5		42.3	54.0	-11.7	VA2
12399.990	16.6	38.9	-38.5	25.6		42.6	54.0	-11.4	VA-3
12400.030	16.3	38.9	-38.5	25.6		42.3	54.0	-11.7	HA-3

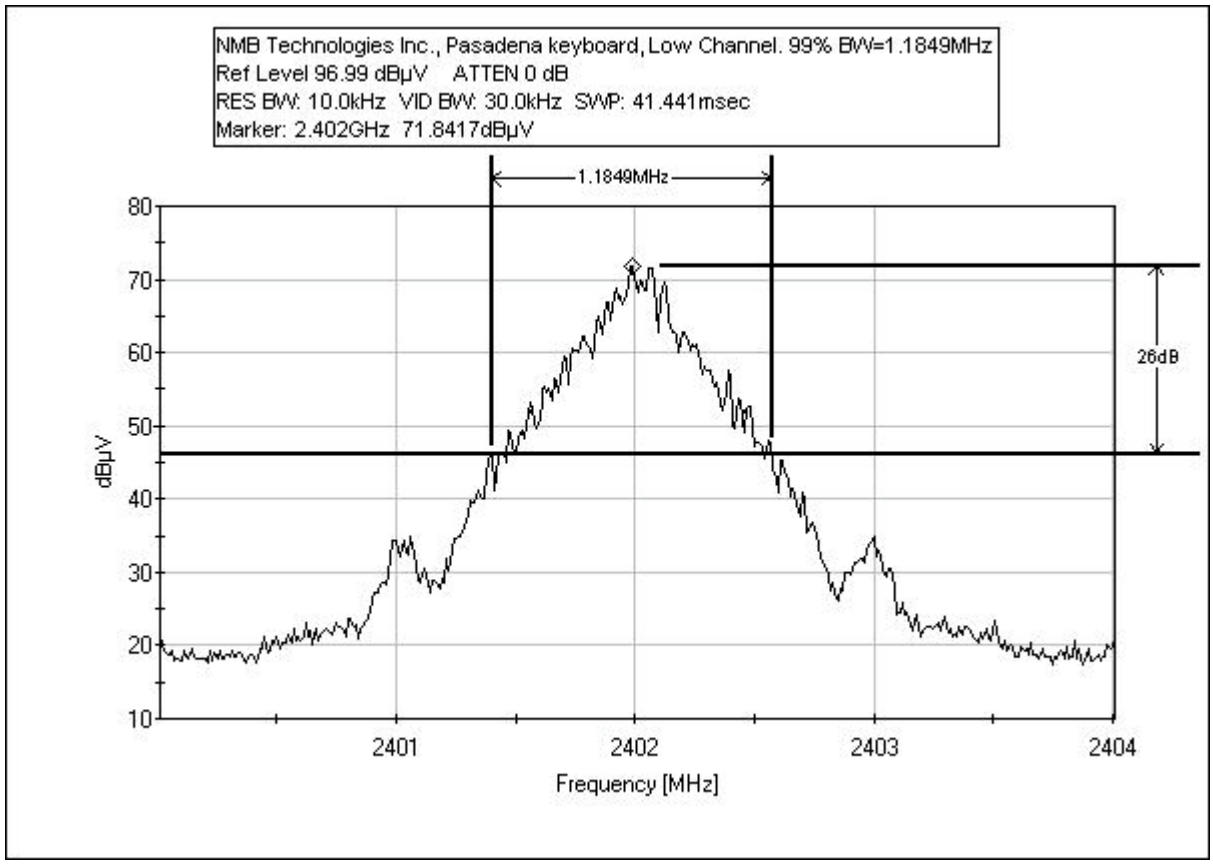
Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.247(d)
Test Distance: 3 Meters

NOTES:
H = Horizontal Polarization
V = Vertical Polarization
A = Average Reading
1 = Low Channel
2 = Middle Channel
3 = High Channel

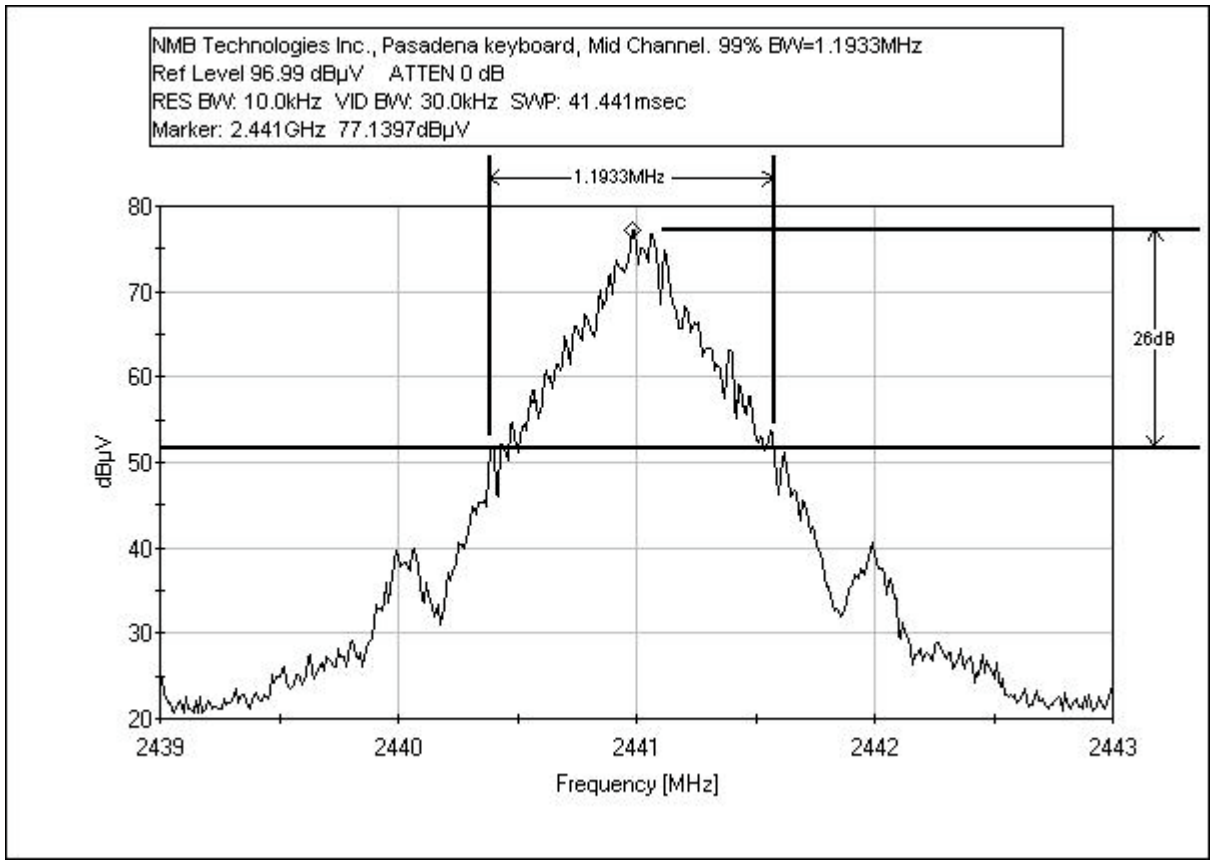
COMMENTS: The equipment under test (EUT) is a bluetooth keyboard. The EUT is placed on a 5cm thick sheet of styrofoam, which is placed on top of a wooden table. The keyboard is in the test mode and is transmitting continuously. The EUT is set to the low channel 2402 MHz, 2441 MHz and 2480 MHz. New batteries are installed in the EUT. Temperature: 17°C, Humidity: 51%, Pressure: 100kPa. Frequency range of test 9kHz to 25GHz.

RSS-210 99% Bandwidth Plot

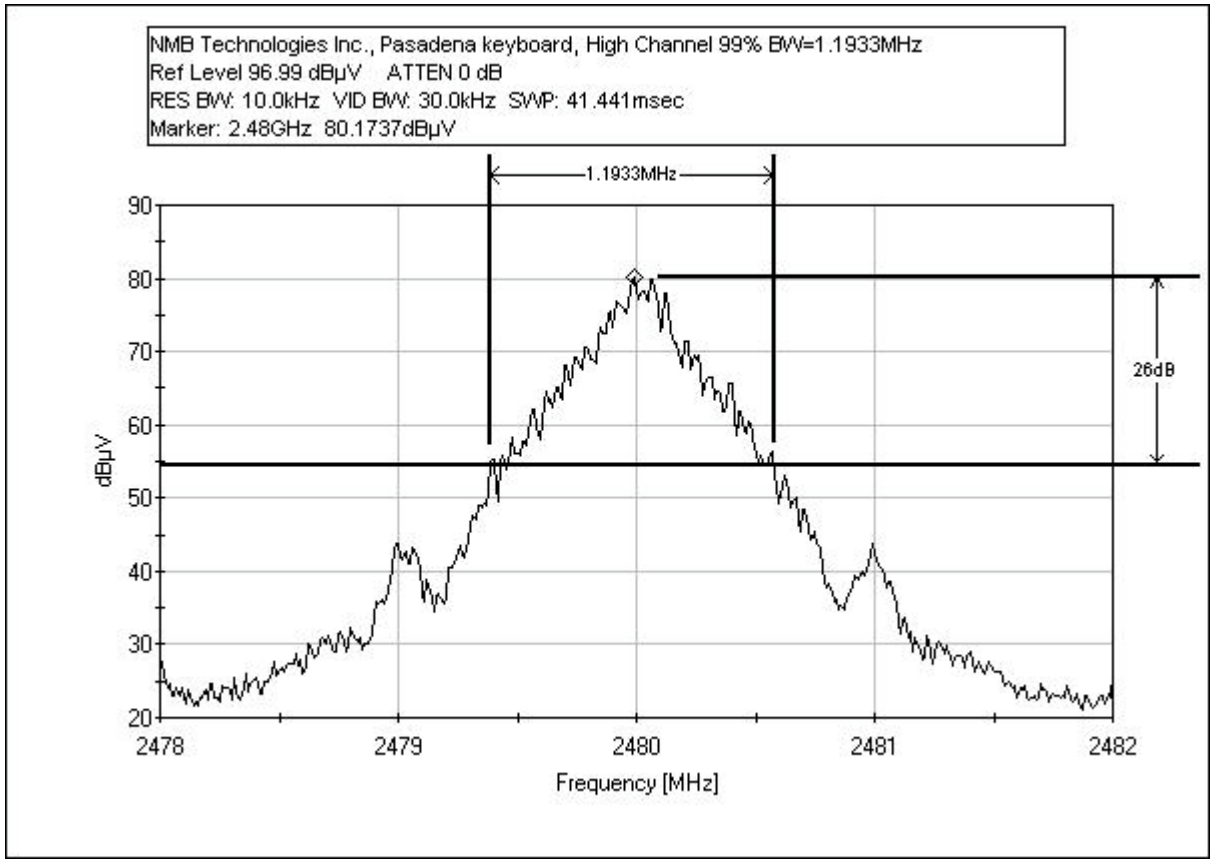
Test Conditions:
The EUT was setup stand alone on the wooden tabletop. The EUT was put in a hopping mode so that the transmission would hop as it normally does from 2402 MHz to 2480 MHz. The EUT transmission was continuous.



RSS-210 99% Bandwidth Plot



RSS-210 99% Bandwidth Plot



TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

EUT SETUP

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the photographs in Appendix A. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables. The corrected data was then compared to the applicable emission limits to determine compliance.

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

The radiated emissions data of the EUT was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in Table A.

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 in Table A. This reading was then compared to the applicable specification limit to determine compliance.

TABLE A: 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 in Table A were used to collect the radiated emissions data for the EUT. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. For radiated measurements from 30 to 1000 MHz, the biconilog antenna was used. The horn antenna was used for frequencies above 1000 MHz.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dBµV, and a vertical scale of 10 dB per division.

SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the 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 six highest readings, this is indicated as a "Q" or an "A" in the appropriate table. 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 or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer 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 HP Quasi-Peak Adapter for the HP Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

Average

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

EUT TESTING

Antenna Conducted Emissions

For measuring the signal strength on the RF output port of the EUT, the spectrum analyzer was connected directly to the EUT. The sweep time of the analyzer was adjusted so that the spectrum analyzer readings were always in a calibrated range. All readings within 20 dB of the limit were recorded.

Radiated Emissions

The EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters.

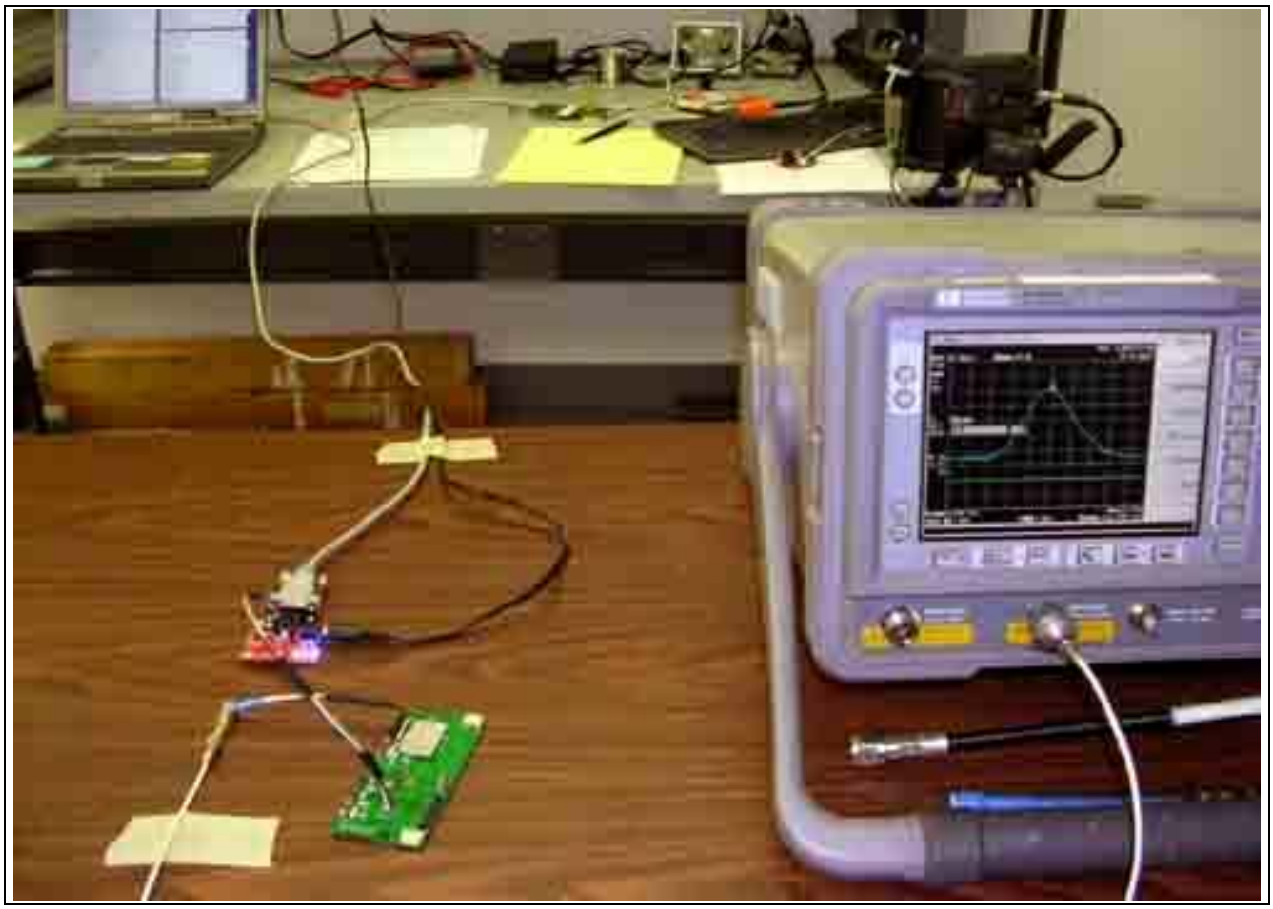
During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. The frequency range of 30 MHz to 1000 MHz was scanned with the biconilog antenna located about 1.5 meter above the ground plane in the vertical polarity. During this scan, the turntable was rotated and all peaks at or near the limit were recorded. A scan of the FM band from 88 to 110 MHz was then made using a reduced resolution bandwidth and frequency span. The biconilog antenna was changed to the horizontal polarity and the above steps were repeated. For frequencies exceeding 1000 MHz, the horn antenna was used. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission

A thorough scan of all frequencies was made manually using a small frequency span, rotating the turntable and raising and lowering the antenna from one to four meters as needed. The test engineer maximized the readings with respect to the table rotation, antenna height and configuration of EUT. Maximizing of the EUT was achieved by monitoring the spectrum analyzer on a closed circuit television monitor.

APPENDIX A

TEST SETUP PHOTOGRAPHS

PHOTOGRAPH SHOWING DIRECT CONNECT TESTING



PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Back View

APPENDIX B

TEST EQUIPMENT LIST

Test Equipment List for All Radiated Emissions and Radiated Spurious Emissions Testing on OATS

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
Bilog Antenna	00851	Schaffner-Chase EMC	CBL6111C	2629	020206	020208
Antenna cable (10 meter site D)	P04382	Andrew	LDF1-50	Cable#17	091906	091908
Antenna cable from bulkhead to antenna	N/A	Pasternack	RG-214/U	Cable #33	040105	040107
Preamp to SA Cable (3 feet)	NA	Pasternack	E100316-I	Cable #22	080904	081008
Pre-amp	00010	HP	8447D	2727A05392	060606	060608
Antenna cable (Heliax)	NA	Andrew	LDF1-50	P05348 (Cable#19)	092805	092807
SMA Cable (White)	P5455	Pasternack		1-40GHz_white	011706	011708
Horn Antenna	01646	EMCO	3115	9603-4683	062906	062908
Microwave Pre-amp	00787	HP	83017A	3123A00282	052705	052707
Magnetic Loop Antenna	00314	Emco	6502	2014	061406	061408
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	032505	032507
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407

Test Equipment for, Bandedge

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	032505	032507
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 Equipment for Conducted Output Power, 20dB BW, and RSS-210 BW

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02467	Agilent	E7405A	US40240225	032505	032507

Test Equipment Used for Conducted Spurious Emissions

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	032505	032507

Test Equipment Used for Carrier Separation, Number of Hopping Channels, and Average Time of Occupancy

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	032505	032507
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

APPENDIX C
MEASUREMENT DATA SHEETS

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

Customer: **NMB Technologies Corporation**
Specification: **FCC 15.209**
Work Order #: **85497** Date: 11/13/2006
Test Type: **Maximized Emissions** Time: 14:03:17
Equipment: **Bluetooth Keyboard** Sequence#: 30
Manufacturer: NMB Technologies Corporation Tested By: Stuart Yamamoto
Model: 1073 (Pasadena Rev 06)
S/N: 8161600000137

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Corporation	1073 (Pasadena Rev 06)	8161600000137

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61
Bluetooth transceiver	Microsoft	1003	

Test Conditions / Notes:

The EUT is a bluetooth keyboard. The keyboard is transmitting continuously. Test Mode. Low, Middle and High Channels. PCB Rev06. Temperature: 21°C, Humidity: 54%, Pressure: 100kPa. Frequency tested: 30-1000 MHz.

Transducer Legend:

T1=Bilog AN00851 020208 Chase	T2=84' Heliax Cable P04382
T3=Cable #22 Preamp to SA 081008	T4=Cable #33 44ft RG-214(ant to Bulkhead)
T5=Preamp 8447D Asset 00010	

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	528.001M	40.5	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	37.3	46.0	-8.7	Horiz
									Test Mode. High Channel.		
2	528.001M	39.9	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.7	46.0	-9.3	Horiz
									Test Mode. Middle Channel.		
3	527.999M	39.4	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.2	46.0	-9.8	Horiz
									Test Mode. Low Channel.		
4	600.000M	38.2	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	36.2	46.0	-9.8	Vert
									Test Mode. Low Channel.		
5	527.992M	39.4	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.2	46.0	-9.8	Vert
									Test Mode. Low Channel.		

6	600.000M	38.1	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	36.1	46.0	-9.9	Vert Test Mode. High Channel.
7	600.000M	37.6	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	35.6	46.0	-10.4	Vert Test Mode. Middle Channel.
8	540.017M	37.0	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	34.3	46.0	-11.7	Horiz Test Mode. High Channel.
9	539.981M	37.0	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	34.3	46.0	-11.7	Horiz Test Mode. Low Channel.
10	840.016M	31.4	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	34.2	46.0	-11.8	Vert Test Mode. Middle Channel.
11	539.994M	36.9	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	34.2	46.0	-11.8	Horiz Test Mode. Middle Channel.
12	552.007M	36.5	+19.7 -27.8	+2.6	+0.5	+2.6	+0.0	34.1	46.0	-11.9	Horiz Test Mode. High Channel.
13	479.988M	38.0	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	33.5	46.0	-12.5	Horiz Test Mode. Low Channel.
14	840.002M	30.6	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	33.4	46.0	-12.6	Vert Test Mode. High Channel.
15	840.000M	30.4	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	33.2	46.0	-12.8	Horiz Test Mode. Low Channel.
16	515.979M	36.8	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	33.1	46.0	-12.9	Horiz Test Mode. High Channel.
17	587.973M	35.0	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	33.0	46.0	-13.0	Horiz Test Mode. High Channel.
18	587.992M	35.0	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	33.0	46.0	-13.0	Horiz Test Mode. Low Channel.
19	480.006M	37.4	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	32.9	46.0	-13.1	Horiz Test Mode. High Channel.
20	528.000M	36.1	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	32.9	46.0	-13.1	Vert Test Mode. Middle Channel.
21	528.000M	36.0	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	32.8	46.0	-13.2	Vert Test Mode. High Channel.

22	588.002M	34.5	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	32.5	46.0	-13.5	Horiz Test Mode. Middle Channel.
23	515.994M	36.1	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	32.4	46.0	-13.6	Horiz Test Mode. Low Channel.
24	479.998M	36.8	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	32.3	46.0	-13.7	Horiz Test Mode. Middle Channel.
25	839.998M	29.5	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	32.3	46.0	-13.7	Vert Test Mode. Low Channel.
26	719.974M	32.0	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	32.0	46.0	-14.0	Horiz Test Mode. High Channel.
27	515.980M	35.7	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	32.0	46.0	-14.0	Horiz Test Mode. Middle Channel.
28	720.002M	32.0	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	32.0	46.0	-14.0	Horiz Test Mode. Low Channel.
29	624.001M	33.8	+20.1 -27.9	+2.7	+0.5	+2.8	+0.0	32.0	46.0	-14.0	Vert Test Mode. Low Channel.
30	420.004M	37.1	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	31.1	46.0	-14.9	Horiz Test Mode. Middle Channel.
31	432.000M	36.6	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	30.9	46.0	-15.1	Horiz Test Mode. Middle Channel.
32	588.026M	32.9	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	30.9	46.0	-15.1	Vert Test Mode. Low Channel.
33	719.993M	30.6	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.6	46.0	-15.4	Vert Test Mode. Middle Channel.
34	720.015M	30.5	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.5	46.0	-15.5	Vert Test Mode. High Channel.
35	480.009M	35.0	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	30.5	46.0	-15.5	Vert Test Mode. High Channel.
36	720.037M	30.5	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.5	46.0	-15.5	Vert Test Mode. Low Channel.
37	480.025M	34.8	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	30.3	46.0	-15.7	Vert Test Mode. Low Channel.

38	419.978M	36.2	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	30.2	46.0	-15.8	Horiz Test Mode. High Channel.
39	516.013M	33.8	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	30.1	46.0	-15.9	Vert Test Mode. Low Channel.
40	480.008M	34.4	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	29.9	46.0	-16.1	Vert Test Mode. Middle Channel.
41	540.038M	32.4	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.7	46.0	-16.3	Vert Test Mode. High Channel.
42	347.998M	37.6	+14.5 -26.8	+2.0	+0.3	+2.1	+0.0	29.7	46.0	-16.3	Horiz Test Mode. Middle Channel.
43	540.021M	32.2	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.5	46.0	-16.5	Vert Test Mode. Middle Channel.
44	323.988M	38.3	+13.8 -26.6	+1.8	+0.3	+1.9	+0.0	29.5	46.0	-16.5	Horiz Test Mode. Low Channel.
45	540.026M	32.1	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.4	46.0	-16.6	Vert Test Mode. Low Channel.
46	432.014M	34.9	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	29.2	46.0	-16.8	Vert Test Mode. Low Channel.
47	323.987M	37.9	+13.8 -26.6	+1.8	+0.3	+1.9	+0.0	29.1	46.0	-16.9	Horiz Test Mode. High Channel.
48	419.998M	35.1	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	29.1	46.0	-16.9	Vert Test Mode. High Channel.
49	420.015M	34.9	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	28.9	46.0	-17.1	Vert Test Mode. Middle Channel.
50	384.000M	36.0	+15.3 -27.0	+2.1	+0.4	+2.1	+0.0	28.9	46.0	-17.1	Horiz Test Mode. Middle Channel.
51	323.998M	37.6	+13.8 -26.6	+1.8	+0.3	+1.9	+0.0	28.8	46.0	-17.2	Horiz Test Mode. Middle Channel.
52	311.989M	37.7	+13.5 -26.6	+1.8	+0.3	+1.9	+0.0	28.6	46.0	-17.4	Horiz Test Mode. Middle Channel.
53	420.017M	34.6	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	28.6	46.0	-17.4	Vert Test Mode. Low Channel.

54	384.002M	35.0	+15.3 -27.0	+2.1	+0.4	+2.1	+0.0	27.9	46.0	-18.1	Horiz Test Mode. Low Channel.
55	432.019M	33.4	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	27.7	46.0	-18.3	Vert Test Mode. High Channel.
56	348.008M	35.4	+14.5 -26.8	+2.0	+0.3	+2.1	+0.0	27.5	46.0	-18.5	Vert Test Mode. Low Channel.
57	400.905M	34.2	+15.7 -27.1	+2.1	+0.4	+2.1	+0.0	27.4	46.0	-18.6	Horiz Test Mode. Low Channel.
58	408.001M	33.1	+15.9 -27.1	+2.1	+0.4	+2.2	+0.0	26.6	46.0	-19.4	Vert Test Mode. Low Channel.
59	372.012M	33.4	+15.0 -26.9	+2.0	+0.3	+2.1	+0.0	25.9	46.0	-20.1	Vert Test Mode. Low Channel.
60	383.998M	32.7	+15.3 -27.0	+2.1	+0.4	+2.1	+0.0	25.6	46.0	-20.4	Vert Test Mode. Low Channel.
61	396.021M	32.1	+15.6 -27.1	+2.1	+0.4	+2.1	+0.0	25.2	46.0	-20.8	Vert Test Mode. Low Channel.
62	275.999M	34.2	+12.8 -26.5	+1.7	+0.3	+1.8	+0.0	24.3	46.0	-21.7	Vert Test Mode. Low Channel.
63	300.004M	31.8	+13.2 -26.5	+1.7	+0.3	+1.8	+0.0	22.3	46.0	-23.7	Vert Test Mode. Low Channel.

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

Customer: **NMB Technologies Corporation**
Specification: **FCC 15.209**
Work Order #: **85497** Date: 11/14/2006
Test Type: **Maximized Emissions** Time: 08:39:18
Equipment: **Bluetooth Keyboard** Sequence#: 31
Manufacturer: NMB Technologies Corporation Tested By: Stuart Yamamoto
Model: 1073 (Pasadena Rev 06)
S/N: 8161600000092

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Corporation	1073 (Pasadena Rev 06)	8161600000092

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61
Bluetooth transceiver	Microsoft	1003	

Test Conditions / Notes:

The EUT is a bluetooth keyboard. The keyboard is transmitting continuously. Test Mode. Low, Middle and High Channels. PCB Rev06. Temperature: 19°C, Humidity: 60%, Pressure: 100kPa. Frequency tested: 30-1000 MHz.

Transducer Legend:

T1=Bilog AN00851 020208 Chase	T2=84' Heliax Cable P04382
T3=Cable #22 Preamp to SA 081008	T4=Cable #33 44ft RG-214(ant to Bulkhead)
T5=Preamp 8447D Asset 00010	

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	528.005M	40.5	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	37.3	46.0	-8.7	Horiz
									Test Mode. Low Channel.		
2	600.004M	38.9	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	36.9	46.0	-9.1	Vert
									Test Mode. Low Channel.		
3	528.006M	39.9	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.7	46.0	-9.3	Horiz
									Test Mode. High Channel.		
4	528.003M	39.9	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.7	46.0	-9.3	Horiz
									Test Mode. Middle Channel.		
5	600.003M	38.4	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	36.4	46.0	-9.6	Vert
									Test Mode. Middle Channel.		

6	599.999M	37.3	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	35.3	46.0	-10.7	Vert Test Mode. High Channel.
7	528.004M	38.0	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	34.8	46.0	-11.2	Vert Test Mode. High Channel.
8	840.027M	31.6	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	34.4	46.0	-11.6	Vert Test Mode. Low Channel.
9	840.024M	31.3	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	34.1	46.0	-11.9	Vert Test Mode. Middle Channel.
10	528.005M	37.3	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	34.1	46.0	-11.9	Vert Test Mode. Middle Channel.
11	840.018M	31.2	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	34.0	46.0	-12.0	Vert Test Mode. High Channel.
12	539.987M	36.7	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	34.0	46.0	-12.0	Horiz Test Mode. Middle Channel.
13	539.974M	36.6	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	33.9	46.0	-12.1	Horiz Test Mode. Low Channel.
14	539.987M	36.2	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	33.5	46.0	-12.5	Horiz Test Mode. High Channel.
15	528.021M	36.3	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	33.1	46.0	-12.9	Vert Test Mode. Low Channel.
16	551.978M	35.5	+19.7 -27.8	+2.6	+0.5	+2.6	+0.0	33.1	46.0	-12.9	Horiz Test Mode. Low Channel.
17	587.976M	34.6	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	32.6	46.0	-13.4	Horiz Test Mode. High Channel.
18	587.989M	34.5	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	32.5	46.0	-13.5	Horiz Test Mode. Low Channel.
19	587.995M	34.3	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	32.3	46.0	-13.7	Horiz Test Mode. Middle Channel.
20	564.003M	34.2	+19.8 -27.8	+2.6	+0.5	+2.7	+0.0	32.0	46.0	-14.0	Horiz Test Mode. Low Channel.
21	492.009M	36.2	+17.9 -27.6	+2.4	+0.4	+2.5	+0.0	31.8	46.0	-14.2	Horiz Test Mode. High Channel.

22	491.980M	36.2	+17.9 -27.6	+2.4	+0.4	+2.5	+0.0	31.8	46.0	-14.2	Horiz Test Mode. Middle Channel.
23	311.977M	40.8	+13.5 -26.6	+1.8	+0.3	+1.9	+0.0	31.7	46.0	-14.3	Horiz Test Mode. Middle Channel.
24	480.010M	35.8	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	31.3	46.0	-14.7	Horiz Test Mode. Middle Channel.
25	515.993M	34.8	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	31.1	46.0	-14.9	Horiz Test Mode. High Channel.
26	516.011M	34.8	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	31.1	46.0	-14.9	Horiz Test Mode. Middle Channel.
27	516.006M	34.6	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	30.9	46.0	-15.1	Horiz Test Mode. Low Channel.
28	479.976M	35.3	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	30.8	46.0	-15.2	Horiz Test Mode. Low Channel.
29	719.988M	30.6	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.6	46.0	-15.4	Vert Test Mode. High Channel.
30	720.003M	30.6	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.6	46.0	-15.4	Vert Test Mode. Low Channel.
31	311.980M	39.6	+13.5 -26.6	+1.8	+0.3	+1.9	+0.0	30.5	46.0	-15.5	Horiz Test Mode. High Channel.
32	480.020M	34.8	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	30.3	46.0	-15.7	Horiz Test Mode. High Channel.
33	720.019M	30.0	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.0	46.0	-16.0	Vert Test Mode. Middle Channel.
34	540.047M	32.6	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.9	46.0	-16.1	Vert Test Mode. High Channel.
35	540.003M	32.5	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.8	46.0	-16.2	Vert Test Mode. Middle Channel.
36	540.004M	32.5	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.8	46.0	-16.2	Vert Test Mode. Low Channel.
37	420.007M	35.2	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	29.2	46.0	-16.8	Vert Test Mode. High Channel.

38	420.010M	34.7	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	28.7	46.0	-17.3	Vert Test Mode. Middle Channel.
39	419.978M	34.4	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	28.4	46.0	-17.6	Vert Test Mode. Low Channel.
40	432.011M	33.8	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	28.1	46.0	-17.9	Vert Test Mode. High Channel.
41	228.003M	39.4	+10.9 -26.6	+1.5	+0.2	+1.6	+0.0	27.0	46.0	-19.0	Horiz Test Mode. Middle Channel.
42	300.036M	35.7	+13.2 -26.5	+1.7	+0.3	+1.8	+0.0	26.2	46.0	-19.8	Vert Test Mode. Low Channel.
43	228.001M	37.3	+10.9 -26.6	+1.5	+0.2	+1.6	+0.0	24.9	46.0	-21.1	Horiz Test Mode. High Channel.

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

Customer: **NMB Technologies Corporation**
Specification: **FCC 15.209**
Work Order #: **85497** Date: 11/14/2006
Test Type: **Maximized Emissions** Time: 13:46:37
Equipment: **Bluetooth Keyboard** Sequence#: 32
Manufacturer: NMB Technologies Corporation Tested By: Stuart Yamamoto
Model: 1073 (Pasadena Rev 06)
S/N: 8161600000087

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Corporation	1073 (Pasadena Rev 06)	8161600000087

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61
Bluetooth transceiver	Microsoft	1003	

Test Conditions / Notes:

The EUT is a bluetooth keyboard. The keyboard is transmitting continuously. Test Mode. Low, Middle and High Channels. PCB Rev06. Temperature: 19°C, Humidity: 60%, Pressure: 100kPa. Frequency tested: 30-1000 MHz.

Transducer Legend:

T1=Bilog AN00851 020208 Chase	T2=84' Heliax Cable P04382
T3=Cable #22 Preamp to SA 081008	T4=Cable #33 44ft RG-214(ant to Bulkhead)
T5=Preamp 8447D Asset 00010	

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	527.992M	40.8	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	37.6	46.0	-8.4	Vert
									Test Mode. Low Channel.		
2	599.994M	39.0	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	37.0	46.0	-9.0	Vert
									Test Mode. Middle Channel.		
3	564.002M	39.1	+19.8 -27.8	+2.6	+0.5	+2.7	+0.0	36.9	46.0	-9.1	Horiz
									Test Mode. Middle Channel.		
4	528.017M	39.8	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.6	46.0	-9.4	Horiz
									Test Mode. Low Channel.		
5	528.000M	39.3	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.1	46.0	-9.9	Horiz
									Test Mode. Middle Channel.		

6	600.002M	38.0	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	36.0	46.0	-10.0	Horiz Test Mode. High Channel.
7	528.000M	39.2	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	36.0	46.0	-10.0	Horiz Test Mode. High Channel.
8	600.002M	37.7	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	35.7	46.0	-10.3	Vert Test Mode. High Channel.
9	528.002M	38.8	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	35.6	46.0	-10.4	Vert Test Mode. High Channel.
10	840.005M	32.8	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	35.6	46.0	-10.4	Vert Test Mode. Middle Channel.
11	600.002M	37.5	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	35.5	46.0	-10.5	Horiz Test Mode. Low Channel.
12	564.003M	37.6	+19.8 -27.8	+2.6	+0.5	+2.7	+0.0	35.4	46.0	-10.6	Horiz Test Mode. Low Channel.
13	839.985M	32.5	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	35.3	46.0	-10.7	Vert Test Mode. Low Channel.
14	600.002M	36.9	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	34.9	46.0	-11.1	Vert Test Mode. Low Channel.
15	480.022M	38.9	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	34.4	46.0	-11.6	Horiz Test Mode. Middle Channel.
16	480.024M	38.8	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	34.3	46.0	-11.7	Horiz Test Mode. High Channel.
17	444.000M	39.5	+16.9 -27.2	+2.3	+0.4	+2.4	+0.0	34.3	46.0	-11.7	Horiz Test Mode. High Channel.
18	839.983M	31.5	+23.1 -27.5	+3.2	+0.5	+3.5	+0.0	34.3	46.0	-11.7	Vert Test Mode. High Channel.
19	587.985M	36.2	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	34.2	46.0	-11.8	Horiz Test Mode. Middle Channel.
20	588.019M	36.1	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	34.1	46.0	-11.9	Horiz Test Mode. High Channel.
21	959.971M	29.4	+24.6 -27.5	+3.4	+0.5	+3.7	+0.0	34.1	46.0	-11.9	Vert Test Mode. High Channel.

22	491.999M	38.2	+17.9 -27.6	+2.4	+0.4	+2.5	+0.0	33.8	46.0	-12.2	Horiz Test Mode. High Channel.
23	455.989M	38.8	+17.2 -27.3	+2.3	+0.4	+2.4	+0.0	33.8	46.0	-12.2	Horiz Test Mode. High Channel.
24	443.979M	39.0	+16.9 -27.2	+2.3	+0.4	+2.4	+0.0	33.8	46.0	-12.2	Horiz Test Mode. Middle Channel.
25	587.983M	35.8	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	33.8	46.0	-12.2	Horiz Test Mode. Low Channel.
26	528.016M	36.9	+19.0 -27.8	+2.5	+0.5	+2.6	+0.0	33.7	46.0	-12.3	Vert Test Mode. Middle Channel.
27	491.994M	38.1	+17.9 -27.6	+2.4	+0.4	+2.5	+0.0	33.7	46.0	-12.3	Horiz Test Mode. Middle Channel.
28	456.001M	38.5	+17.2 -27.3	+2.3	+0.4	+2.4	+0.0	33.5	46.0	-12.5	Horiz Test Mode. Middle Channel.
29	492.020M	37.9	+17.9 -27.6	+2.4	+0.4	+2.5	+0.0	33.5	46.0	-12.5	Horiz Test Mode. Low Channel.
30	480.014M	37.9	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	33.4	46.0	-12.6	Horiz Test Mode. Low Channel.
31	431.987M	39.0	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	33.3	46.0	-12.7	Horiz Test Mode. Middle Channel.
32	539.995M	35.8	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	33.1	46.0	-12.9	Horiz Test Mode. Middle Channel.
33	539.999M	35.6	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	32.9	46.0	-13.1	Horiz Test Mode. Low Channel.
34	539.999M	35.5	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	32.8	46.0	-13.2	Horiz Test Mode. High Channel.
35	431.992M	38.4	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	32.7	46.0	-13.3	Horiz Test Mode. High Channel.
36	552.024M	34.7	+19.7 -27.8	+2.6	+0.5	+2.6	+0.0	32.3	46.0	-13.7	Horiz Test Mode. Low Channel.
37	552.004M	34.6	+19.7 -27.8	+2.6	+0.5	+2.6	+0.0	32.2	46.0	-13.8	Horiz Test Mode. Middle Channel.

38	467.983M	37.1	+17.4 -27.4	+2.3	+0.4	+2.4	+0.0	32.2	46.0	-13.8	Horiz Test Mode. Middle Channel.
39	564.002M	33.9	+19.8 -27.8	+2.6	+0.5	+2.7	+0.0	31.7	46.0	-14.3	Vert Test Mode. Low Channel.
40	588.034M	33.6	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	31.6	46.0	-14.4	Vert Test Mode. Low Channel.
41	420.020M	37.5	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	31.5	46.0	-14.5	Horiz Test Mode. Middle Channel.
42	516.018M	35.1	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	31.4	46.0	-14.6	Horiz Test Mode. Middle Channel.
43	587.989M	33.3	+19.9 -27.9	+2.7	+0.5	+2.8	+0.0	31.3	46.0	-14.7	Vert Test Mode. High Channel.
44	516.014M	34.9	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	31.2	46.0	-14.8	Horiz Test Mode. Low Channel.
45	720.041M	31.2	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	31.2	46.0	-14.8	Vert Test Mode. Low Channel.
46	515.984M	34.8	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	31.1	46.0	-14.9	Horiz Test Mode. High Channel.
47	467.988M	36.0	+17.4 -27.4	+2.3	+0.4	+2.4	+0.0	31.1	46.0	-14.9	Horiz Test Mode. High Channel.
48	419.987M	37.1	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	31.1	46.0	-14.9	Horiz Test Mode. High Channel.
49	719.980M	30.7	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.7	46.0	-15.3	Vert Test Mode. Middle Channel.
50	539.986M	33.4	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	30.7	46.0	-15.3	Vert Test Mode. Low Channel.
51	504.004M	34.7	+18.1 -27.7	+2.4	+0.4	+2.5	+0.0	30.4	46.0	-15.6	Horiz Test Mode. High Channel.
52	719.969M	30.4	+21.3 -27.8	+2.9	+0.5	+3.1	+0.0	30.4	46.0	-15.6	Vert Test Mode. High Channel.
53	540.012M	33.1	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	30.4	46.0	-15.6	Vert Test Mode. Middle Channel.

54	419.989M	36.2	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	30.2	46.0	-15.8	Horiz Test Mode. Low Channel.
55	516.001M	33.7	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	30.0	46.0	-16.0	Vert Test Mode. Low Channel.
56	443.996M	35.1	+16.9 -27.2	+2.3	+0.4	+2.4	+0.0	29.9	46.0	-16.1	Vert Test Mode. High Channel.
57	540.009M	32.6	+19.4 -27.8	+2.6	+0.5	+2.6	+0.0	29.9	46.0	-16.1	Vert Test Mode. High Channel.
58	432.011M	35.3	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	29.6	46.0	-16.4	Vert Test Mode. High Channel.
59	516.031M	33.3	+18.6 -27.7	+2.5	+0.4	+2.5	+0.0	29.6	46.0	-16.4	Vert Test Mode. High Channel.
60	431.994M	35.2	+16.6 -27.2	+2.2	+0.4	+2.3	+0.0	29.5	46.0	-16.5	Vert Test Mode. Low Channel.
61	419.998M	35.2	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	29.2	46.0	-16.8	Vert Test Mode. Low Channel.
62	444.016M	34.1	+16.9 -27.2	+2.3	+0.4	+2.4	+0.0	28.9	46.0	-17.1	Vert Test Mode. Middle Channel.
63	419.995M	34.4	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	28.4	46.0	-17.6	Vert Test Mode. High Channel.
64	480.039M	32.8	+17.7 -27.5	+2.4	+0.4	+2.5	+0.0	28.3	46.0	-17.7	Vert Test Mode. Low Channel.
65	420.014M	33.9	+16.3 -27.1	+2.2	+0.4	+2.2	+0.0	27.9	46.0	-18.1	Vert Test Mode. Middle Channel.
66	960.032M	29.3	+24.6 -27.5	+3.4	+0.5	+3.7	+0.0	34.0	54.0	-20.0	Vert Test Mode. Middle Channel.

Test Location:	CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112		
Customer:	**NMB Technologies Inc.**		
Specification:	**FCC 15.247(d) Conducted Spurious Emission**		
Work Order #:	**85497**	Date:	7/27/2006
Test Type:	**Conducted Emissions**	Time:	1:23:54 PM
Equipment:	**Bluetooth Keyboard**	Sequence#:	1
Manufacturer:	NMB Technologies Inc.	Tested By:	Septimiu Apahidean
Model:	Pasadena		3.2Vdc
S/N:	EV2-001		

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Inc.	Pasadena	EV2-001

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
Frequency range tested 9 kHz – 13 GHz.

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

Test Location:	CKC Laboratories, Inc. •110 N Olinda Place • Brea, CA 92823 • 714-993-6112		
Customer:	**NMB Technologies Inc.**		
Specification:	**FCC 15.247(d) Conducted Spurious Emission**		
Work Order #:	**85497**	Date:	7/27/2006
Test Type:	**Conducted Emissions**	Time:	1:40:03 PM
Equipment:	**Bluetooth Keyboard**	Sequence#:	8
Manufacturer:	NMB Technologies Inc.	Tested By:	Septimiu Apahidean
Model:	Pasadena		3.2Vdc
S/N:	EV2-001		

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Inc.	Pasadena	EV2-001

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
Frequency range tested 9 kHz – 13 GHz.

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:	**NMB Technologies Inc.**		
Specification:	**FCC 15.247(d) Conducted Spurious Emission**		
Work Order #:	**85497**	Date:	7/27/2006
Test Type:	**Conducted Emissions**	Time:	1:52:09 PM
Equipment:	**Bluetooth Keyboard**	Sequence#:	9
Manufacturer:	NMB Technologies Inc.	Tested By:	Septimiu Apahidean
Model:	Pasadena		3.2Vdc
S/N:	EV2-001		

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Inc.	Pasadena	EV2-001

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
Frequency tested 9 kHz – 13 GHz.

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

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

Customer: **NMB Technologies Corporation**
Specification: **15.247(d) Radiated Spurious Emissions**
Work Order #: **85497** Date: 1/30/2007
Test Type: **Maximized Emissions** Time: 15:20:43
Equipment: **Bluetooth Keyboard** Sequence#: 7
Manufacturer: NMB Technologies Corporation Tested By: Stuart Yamamoto
Model: 1073 (Pasadena Rev 06)
S/N: 8161600000087

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Corporation	1073 (Pasadena Rev 06)	8161600000087

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61
Bluetooth transceiver	Microsoft	1003	

Test Conditions / Notes:

The equipment under test (EUT) is a bluetooth keyboard. The EUT is placed on a 5cm thick sheet of styrofoam, which is placed on top of a wooden table. The keyboard is in the test mode and is transmitting continuously. The EUT is set to the low channel 2402 MHz. New batteries are installed in the EUT. Temperature: 17°C, Humidity: 51%, Pressure: 100kPa. Frequency range of test 9kHz to 25GHz.

Transducer Legend:

T1=Horn 01646_062908	T2=HF Preamp Cal. HP-83017A,S/N- 3123A00282
T3=1-40 GHz Cable_AN5455_011708	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	T6=Filter 3GHz HPF AN02744

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

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	12010.080M	16.4	+39.1	-38.9	+1.5	+8.6	+0.0	42.0	54.0	-12.0	Horiz
	Ave		+15.3	+0.0							
2	12010.040M	16.3	+39.1	-38.9	+1.5	+8.6	+0.0	41.9	54.0	-12.1	Vert
	Ave		+15.3	+0.0							
3	4804.000M	32.5	+33.1	-39.1	+1.0	+4.8	+0.0	41.0	54.0	-13.0	Vert
	Ave		+8.4	+0.3							
4	4804.045M	32.2	+33.1	-39.1	+1.0	+4.8	+0.0	40.7	54.0	-13.3	Horiz
	Ave		+8.4	+0.3							
5	9608.015M	31.0	+37.8	-37.7	+1.5	+7.1	+0.0	53.5	74.1	-20.6	Vert
			+13.5	+0.3							
6	9608.070M	30.1	+37.8	-37.7	+1.5	+7.1	+0.0	52.6	74.1	-21.5	Horiz
			+13.5	+0.3							
7	7206.000M	35.0	+35.7	-38.5	+1.2	+6.0	+0.0	50.6	74.1	-23.5	Vert
			+11.1	+0.1							
8	7206.045M	34.0	+35.7	-38.5	+1.2	+6.0	+0.0	49.6	74.1	-24.5	Horiz
			+11.1	+0.1							

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

Customer: **NMB Technologies Corporation**
Specification: **15.247(d) Radiated Spurious Emissions**
Work Order #: **85497** Date: 1/30/2007
Test Type: **Maximized Emissions** Time: 15:27:36
Equipment: **Bluetooth Keyboard** Sequence#: 8
Manufacturer: NMB Technologies Corporation Tested By: Stuart Yamamoto
Model: 1073 (Pasadena Rev 06)
S/N: 8161600000087

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Corporation	1073 (Pasadena Rev 06)	8161600000087

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61
Bluetooth transceiver	Microsoft	1003	

Test Conditions / Notes:

The equipment under test (EUT) is a bluetooth keyboard. The EUT is placed on a 5cm thick sheet of styrofoam, which is placed on top of a wooden table. The keyboard is in the test mode and is transmitting continuously. The EUT is set to the low channel 2441 MHz. New batteries are installed in the EUT. Temperature: 17°C, Humidity: 51%, Pressure: 100kPa. Frequency range of test 9kHz to 25GHz.

Transducer Legend:

T1=Horn 01646_062908	T2=HF Preamp Cal. HP-83017A,S/N- 3123A00282
T3=1-40 GHz Cable_AN5455_011708	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	T6=Filter 3GHz HPF AN02744

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

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	12205.030M	16.6	+39.0	-38.7	+1.5	+8.6	+0.0	42.4	54.0	-11.6	Horiz
	Ave		+15.4	+0.0							
2	12205.070M	16.5	+39.0	-38.7	+1.5	+8.6	+0.0	42.3	54.0	-11.7	Vert
	Ave		+15.4	+0.0							
3	4882.025M	31.9	+33.3	-39.1	+1.0	+4.9	+0.0	40.8	54.0	-13.2	Vert
	Ave		+8.5	+0.3							
4	4882.000M	31.1	+33.3	-39.1	+1.0	+4.9	+0.0	40.0	54.0	-14.0	Horiz
	Ave		+8.5	+0.3							
5	7323.025M	23.6	+36.0	-38.4	+1.2	+6.0	+0.0	39.6	54.0	-14.4	Vert
	Ave		+11.1	+0.1							
6	7323.000M	21.0	+36.0	-38.4	+1.2	+6.0	+0.0	37.0	54.0	-17.0	Horiz
	Ave		+11.1	+0.1							
7	9764.000M	32.1	+37.9	-37.7	+1.5	+7.2	+0.0	54.9	74.1	-19.2	Horiz
			+13.7	+0.2							
8	9764.070M	29.9	+37.9	-37.7	+1.5	+7.2	+0.0	52.7	74.1	-21.4	Vert
			+13.7	+0.2							

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

Customer: **NMB Technologies Corporation**
Specification: **15.247(d) Radiated Spurious Emissions**
Work Order #: **85497** Date: 1/30/2007
Test Type: **Maximized Emissions** Time: 15:34:34
Equipment: **Bluetooth Keyboard** Sequence#: 9
Manufacturer: NMB Technologies Corporation Tested By: Stuart Yamamoto
Model: 1073 (Pasadena Rev 06)
S/N: 8161600000087

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

Function	Manufacturer	Model #	S/N
Bluetooth Keyboard*	NMB Technologies Corporation	1073 (Pasadena Rev 06)	8161600000087

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Dell	Inspiron 6000	7W2GS61
Bluetooth transceiver	Microsoft	1003	

Test Conditions / Notes:

The equipment under test (EUT) is a bluetooth keyboard. The EUT is placed on a 5cm thick sheet of styrofoam, which is placed on top of a wooden table. The keyboard is in the test mode and is transmitting continuously. The EUT is set to the low channel 2480 MHz. New batteries are installed in the EUT. Temperature: 17°C, Humidity: 51%, Pressure: 100kPa. Frequency range of test 9kHz to 25GHz.

Transducer Legend:

T1=Horn 01646_062908	T2=HF Preamp Cal. HP-83017A,S/N- 3123A00282
T3=1-40 GHz Cable_AN5455_011708	T4=48' Heliax Cable 091808 P05563
T5=84' Heliax Cable P04382	T6=Filter 3GHz HPF AN02744

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

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	12399.990M	16.6	+38.9	-38.5	+1.6	+8.5	+0.0	42.6	54.0	-11.4	Vert
	Ave		+15.5	+0.0							
2	12400.030M	16.3	+38.9	-38.5	+1.6	+8.5	+0.0	42.3	54.0	-11.7	Horiz
	Ave		+15.5	+0.0							
3	4959.990M	30.2	+33.4	-39.1	+1.0	+5.0	+0.0	39.3	54.0	-14.7	Horiz
	Ave		+8.5	+0.3							
4	7440.000M	21.8	+36.3	-38.3	+1.2	+6.1	+0.0	38.3	54.0	-15.7	Vert
	Ave		+11.1	+0.1							
5	4960.000M	28.9	+33.4	-39.1	+1.0	+5.0	+0.0	38.0	54.0	-16.0	Vert
	Ave		+8.5	+0.3							
6	7439.990M	20.6	+36.3	-38.3	+1.2	+6.1	+0.0	37.1	54.0	-16.9	Horiz
	Ave		+11.1	+0.1							
7	9920.020M	31.0	+38.0	-37.7	+1.5	+7.4	+0.0	54.2	74.1	-19.9	Vert
			+13.8	+0.2							
8	9920.000M	30.0	+38.0	-37.7	+1.5	+7.4	+0.0	53.2	74.1	-20.9	Horiz
			+13.8	+0.2							