

FCC Part 15C Measurement and Test Report

For

WELLSN TECHNOLOGY (HONGKONG) LIMITED

**28/D, 2# Rainbow New City, Caitian South Road, Futian District, Shenzhen,
China.**

FCC ID: ZHBUKB-160

FCC Rules: FCC Part 15.249

Product Description: 2.4G Wireless Keyboard

Tested Model: UKB-160

Report No.: STR12128117I

Tested Date: 2012-12-11 to 2012-12-19

Issued Date: 2013-01-07

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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: WELLSN TECHNOLOGY (HONGKONG) LIMITED
Address of applicant: 28/D, 2# Rainbow New City, Caitian South Road,
Futian District, Shenzhen, China
Manufacturer: QNICA LIMITED
Address of manufacturer: 28/D, 2# Rainbow New City, Caitian South Road,
Futian District, Shenzhen, China

General Description of EUT	
Product Name:	2.4G Wireless Keyboard
Trade Name:	WELLSN
Model No.:	UKB-160
Adding Model(s):	UKB-1*, N59*, ir-1*, LG-4*, PP-9*, AR-1*, AKR-31*0 ("*" symbol represents single letter or number)
Rated Voltage:	DC 3.7V Li-ion Battery
Power Adapter Model:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance and model name of others models listed in the report are different from main-test model UKB-160, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Frequency Range:	2404-2436MHz
Max. Field Strength:	76.53 dBuV/m (at 3m distance)
Data Rate:	1Mbps
Modulation:	GFSK
Quantity of Channels:	8
Channel Separation:	1MHz
Antenna Type:	PCB Antenna
Antenna Gain:	4 dBi
Lowest Internal Frequency of EUT:	16MHz
Device Category:	Portable Device

1.2 Test Standards

The following report is prepared on behalf of the WELLSN TECHNOLOGY (HONGKONG) LIMITED in accordance with FCC Part 15, Subpart B, Subpart C, and section 15.107, 15.203, 15.205, 15.207, 15.209 and 15.249 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.107, 15.203, 15.205, 15.207, 15.209 and 15.249 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which results in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

1.4 Test Facility

- **FCC – Registration No.: 994117**

SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	Low Channel	2404MHz
TM2	Middle Channel	2421MHz
TM3	High Channel	2436MHz
TM4	Charging	Connect to PC

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Line	0.8	Shielded	Without Ferrite

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
PC	Lenovo	R2007	/

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.203	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.209(a)(f)	Radiated Supirous Emissions	Compliant
§15.249(a)	Field Strength of Emissions	Compliant
§15.249(d)	Out of Band Emission	Compliant
§15.215 (c)	Emission Bandwidth	Compliant

3. Antenna Requirements

3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Test Result

This product has an PCB antenna, fulfill the requirement of this section.

4. Radiated Emissions

4.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ± 5.10 dB.

4.2 Standard Applicable

According to §15.249(a), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field strength of fundamental (milli-volts/meter)	Field strength of fundamental (micro-volts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

4.3 Test Equipment List and Details

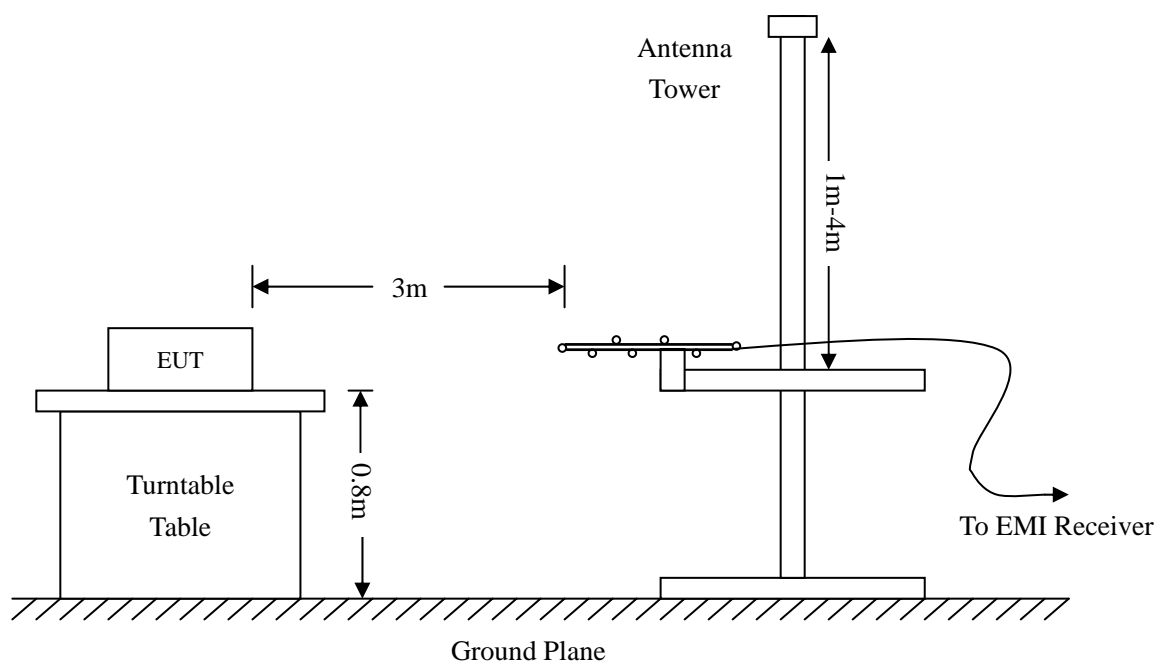
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2012-02-25	2013-02-24

4.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.249(a) and FCC Part 15.209 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.



4.5 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15C Limit}$$

4.6 Environmental Conditions

Temperature:	24 °C
Relative Humidity:	60 %
ATM Pressure:	1012 mbar

4.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.249 standards, and had the worst margin of:

-10.08 dB at 633.9073 MHz in the Horizontal polarization, when Charging, 9 kHz to 25 GHz, 3Meters
-3.32 dB at 893.8567 MHz in the Vertical polarization, in the Low channel when Transmitting, 9 kHz to 25 GHz, 3Meters

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

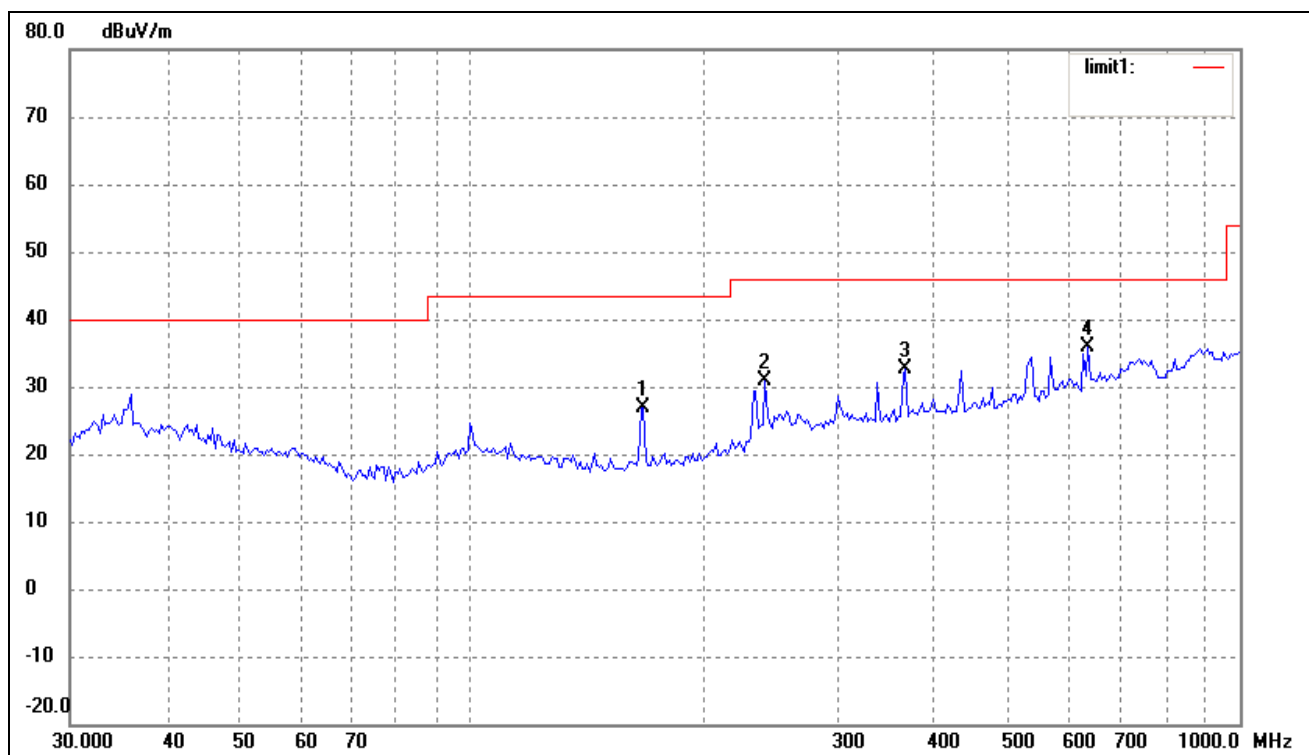
EUT: 2.4G Wireless Keyboard

Tested Model: UKB-160

Operating Condition: Charging(Connect to PC)

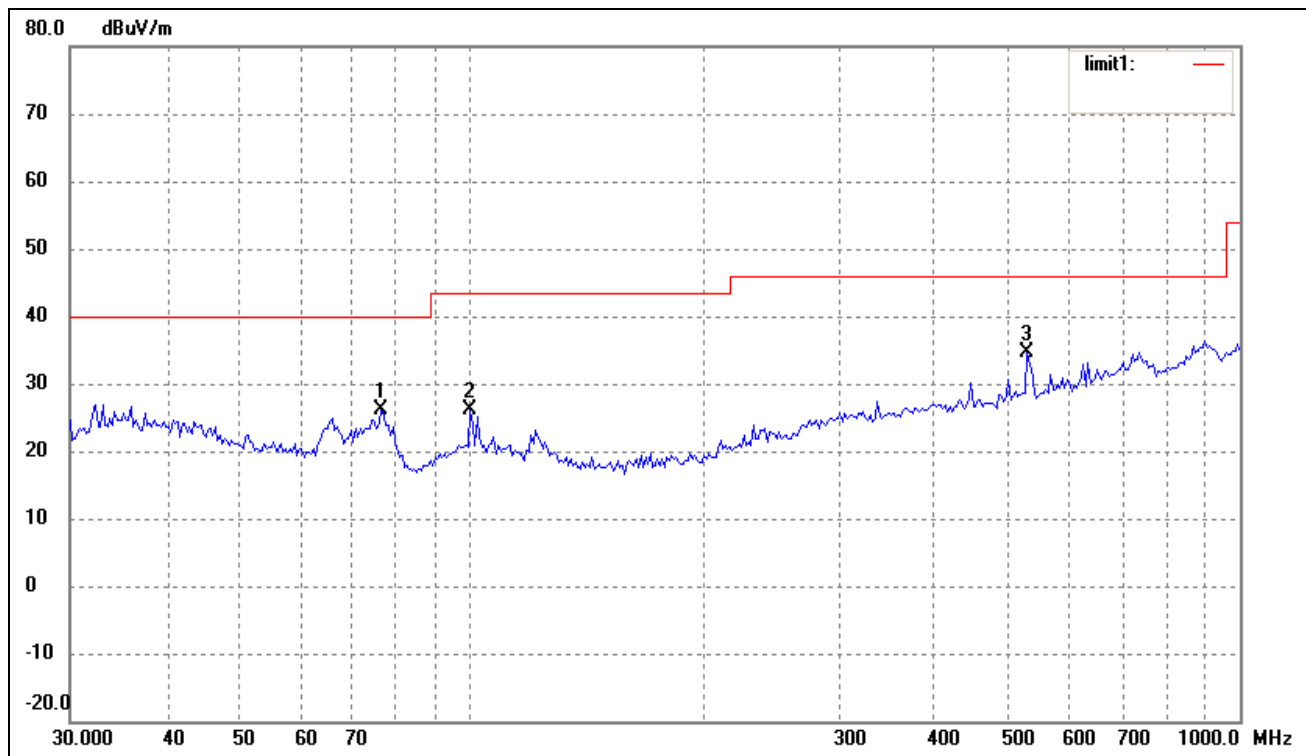
Comment:

Test Specification: Horizontal

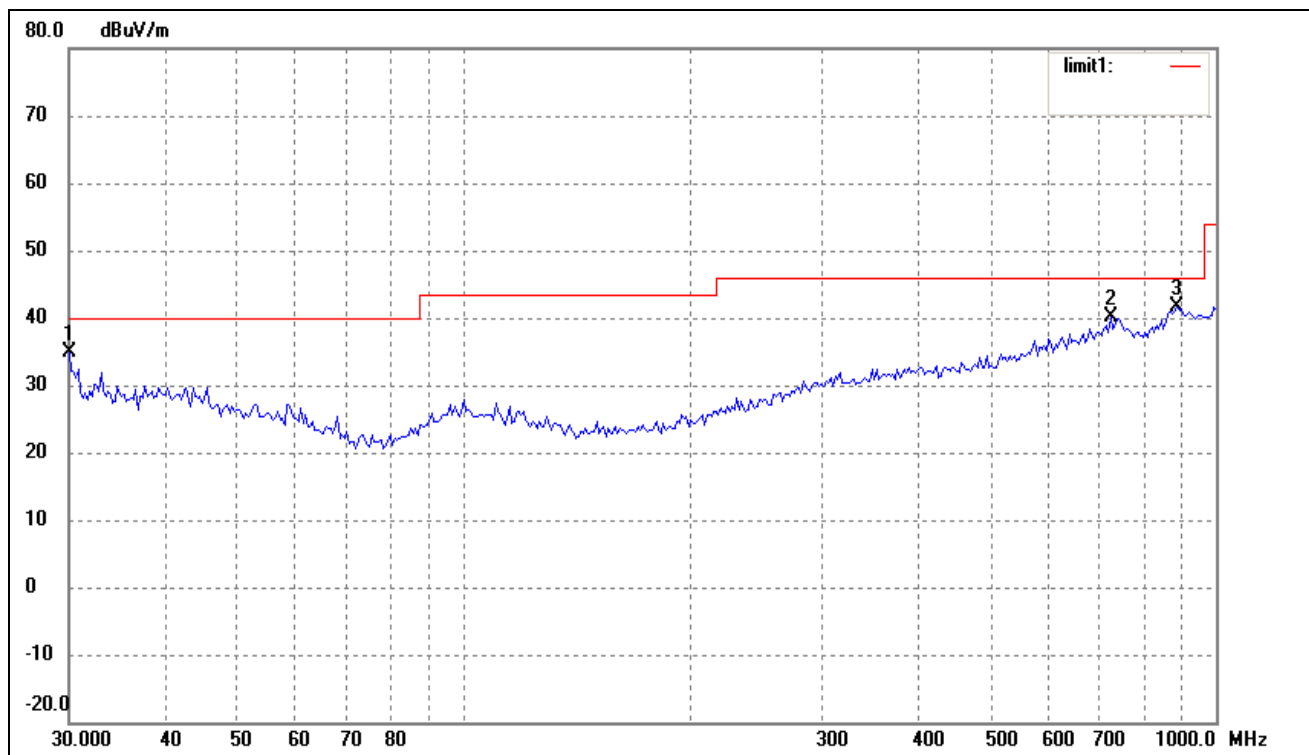


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	167.2368	23.18	3.68	26.86	43.50	-16.64	360	100	peak
2	240.8304	23.93	7.02	30.95	46.00	-15.05	360	100	peak
3	366.8231	22.00	10.67	32.67	46.00	-13.33	360	100	peak
4	633.9073	21.15	14.77	35.92	46.00	-10.08	360	100	peak

Test Specification: Vertical

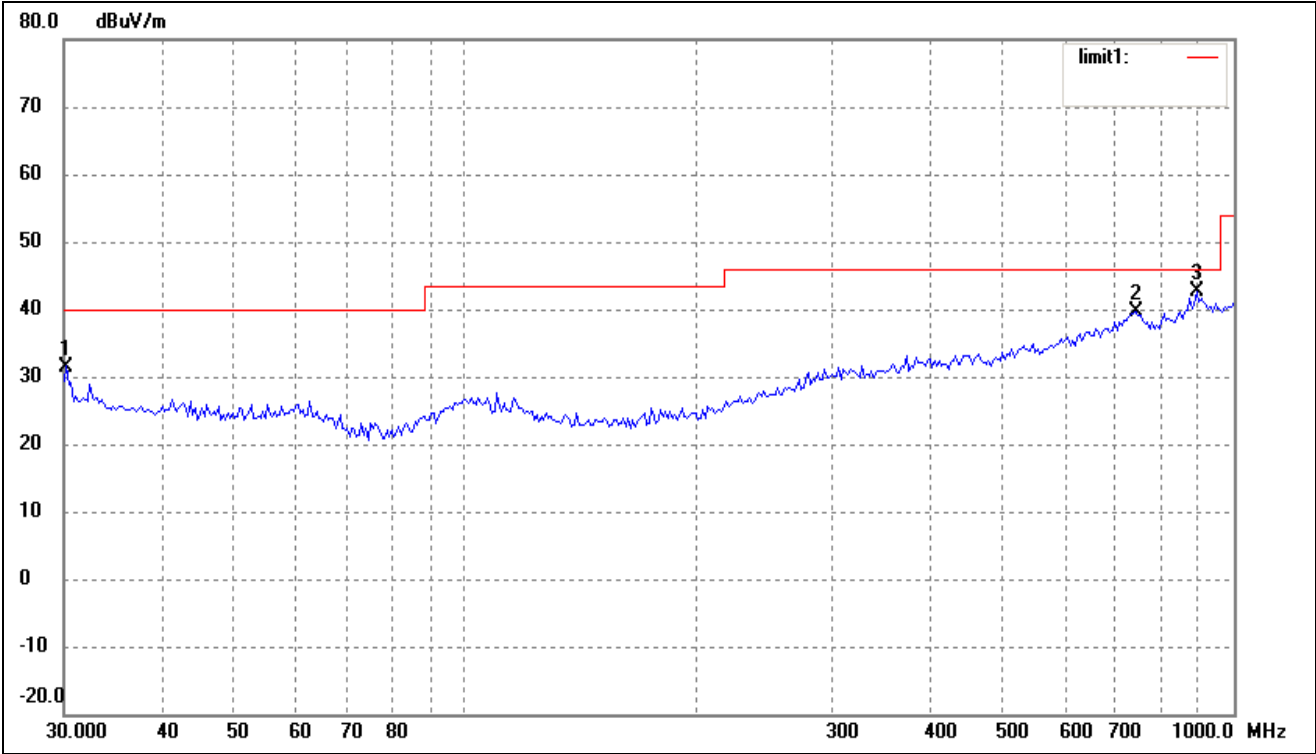


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	76.2442	24.20	1.88	26.08	40.00	-13.92	360	100	peak
2	99.5281	19.36	6.72	26.08	43.50	-17.42	360	100	peak
3	528.2458	21.58	12.97	34.55	46.00	-11.45	360	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)*EUT:* 2.4G Wireless Keyboard*Tested Model:* UKB-160*Operating Condition:* Transmitting Low Channel (2404MHz)*Comment:**Test Specification:* Horizontal

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.0000	26.95	8.04	34.99	40.00	-5.01	360	100	peak
2	724.2611	23.19	16.93	40.12	46.00	-5.88	360	100	peak
3	887.6099	22.56	19.15	41.71	46.00	-4.29	360	100	peak

Test Specification: Vertical

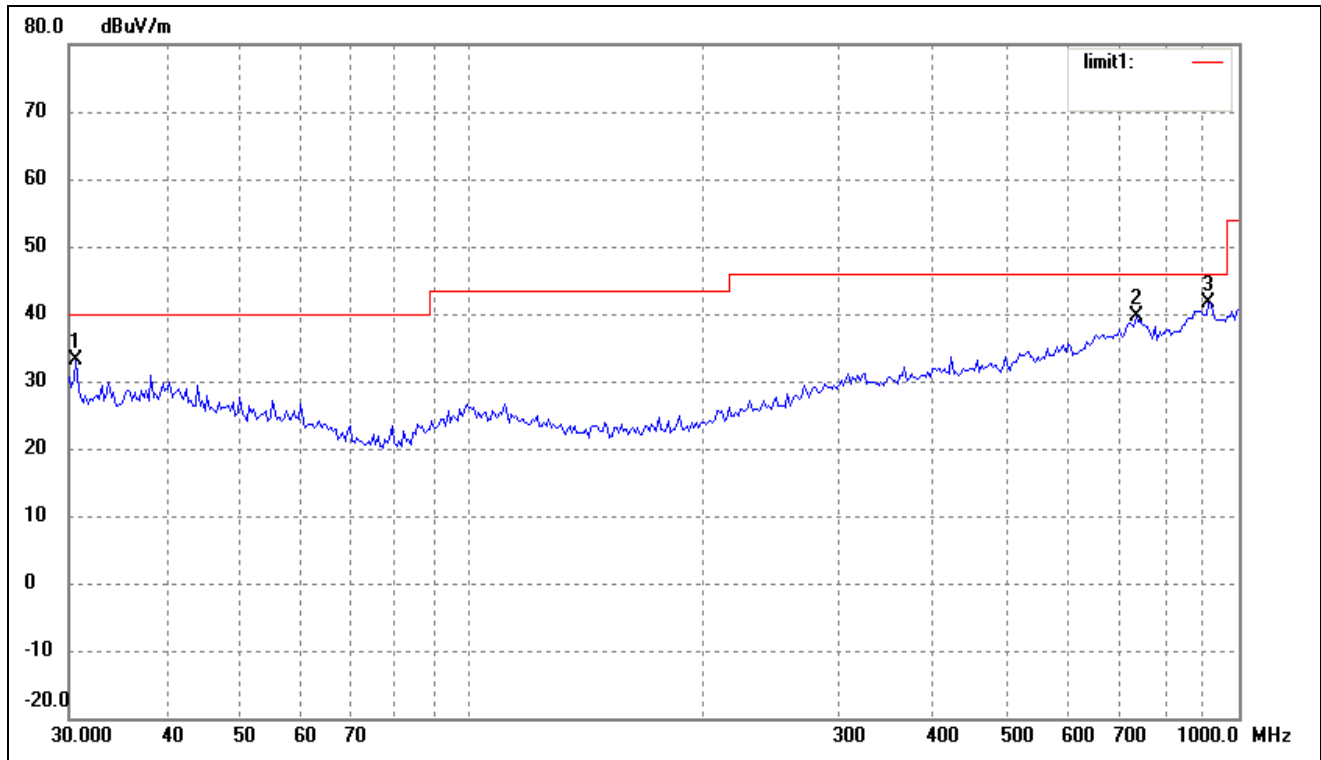


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	30.2111	23.43	8.07	31.50	40.00	-8.50	360	100	peak
2	744.8661	21.69	17.95	39.64	46.00	-6.36	360	100	peak
3	893.8567	23.41	19.27	42.68	46.00	-3.32	360	100	peak

Operating Condition: Transmitting Middle Channel (2421MHz)

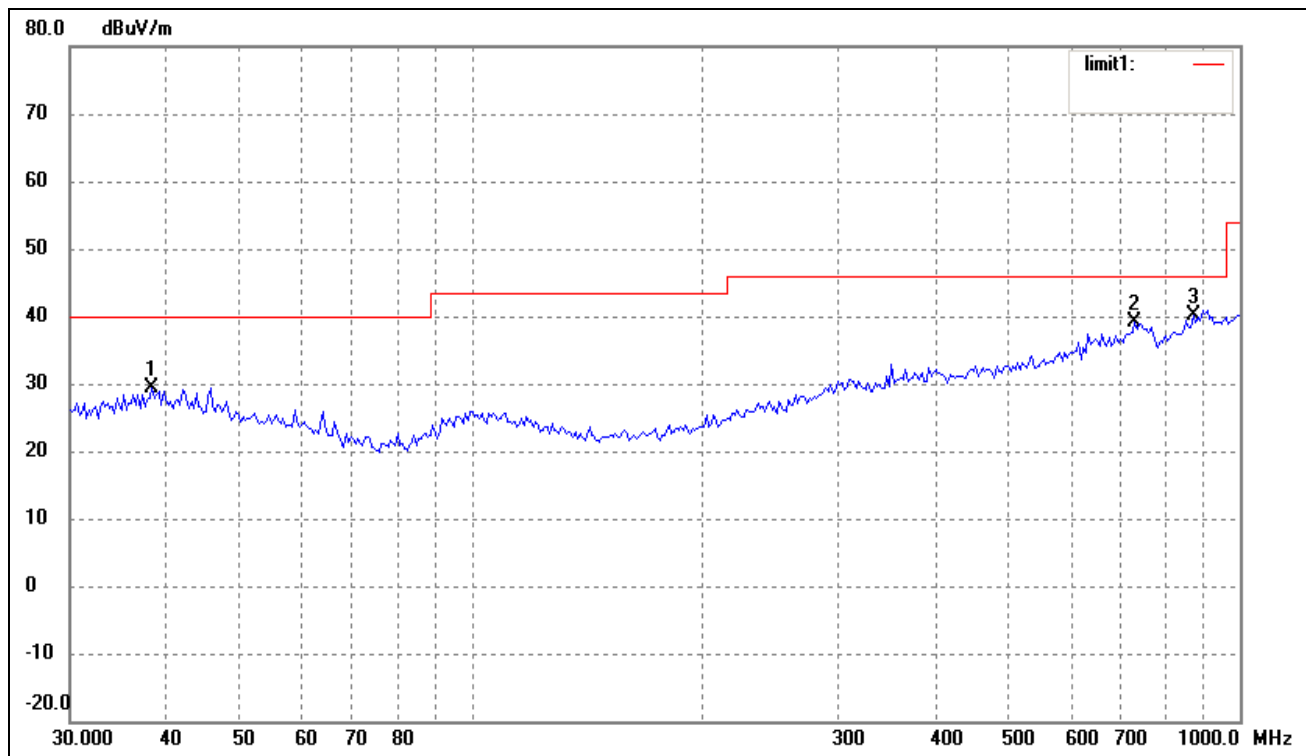
Comment:

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.6379	25.05	8.15	33.20	40.00	-6.80	360	100	peak
2	734.4913	21.90	17.68	39.58	46.00	-6.42	360	100	peak
3	912.8620	22.81	18.93	41.74	46.00	-4.26	360	100	peak

Test Specification: Vertical

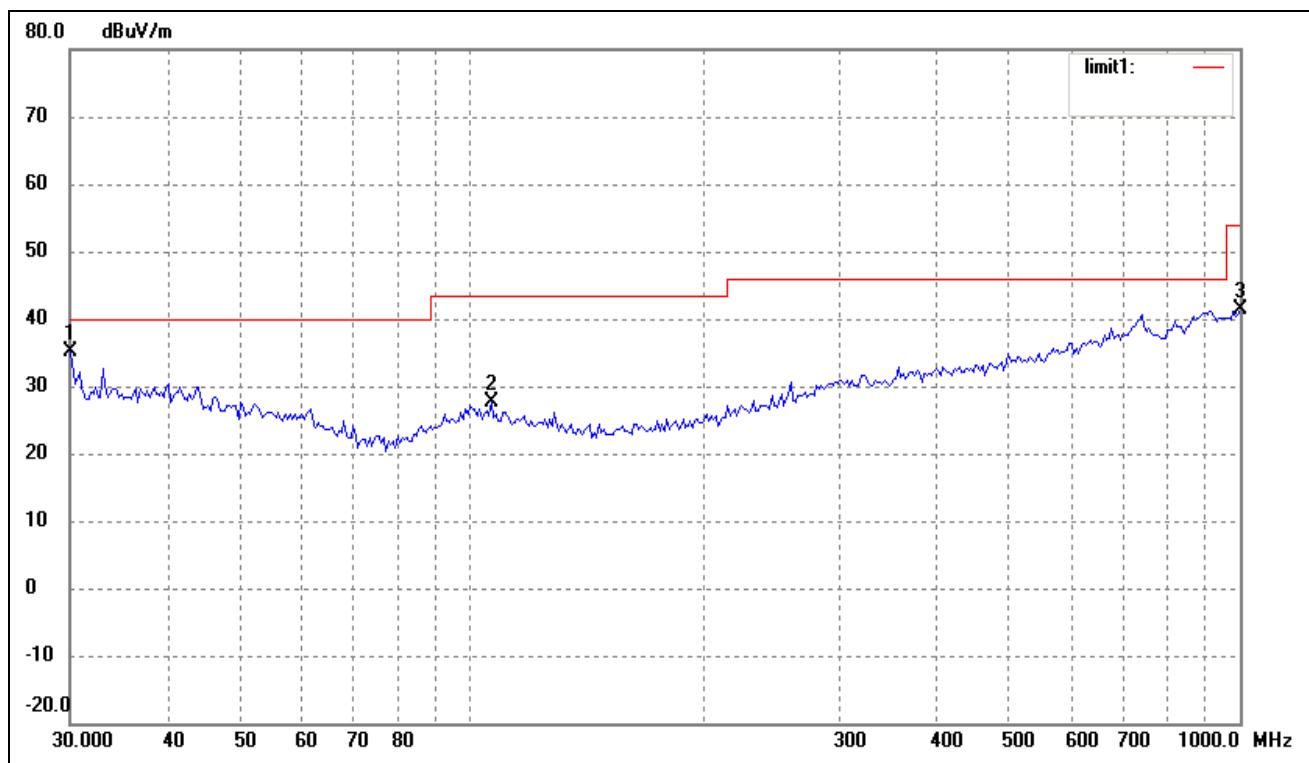


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	38.3462	19.95	9.42	29.37	40.00	-10.63	360	100	peak
2	729.3583	21.78	17.31	39.09	46.00	-6.91	360	100	peak
3	869.1302	21.56	18.54	40.10	46.00	-5.90	360	100	peak

Operating Condition: Transmitting High Channel (2436MHz)

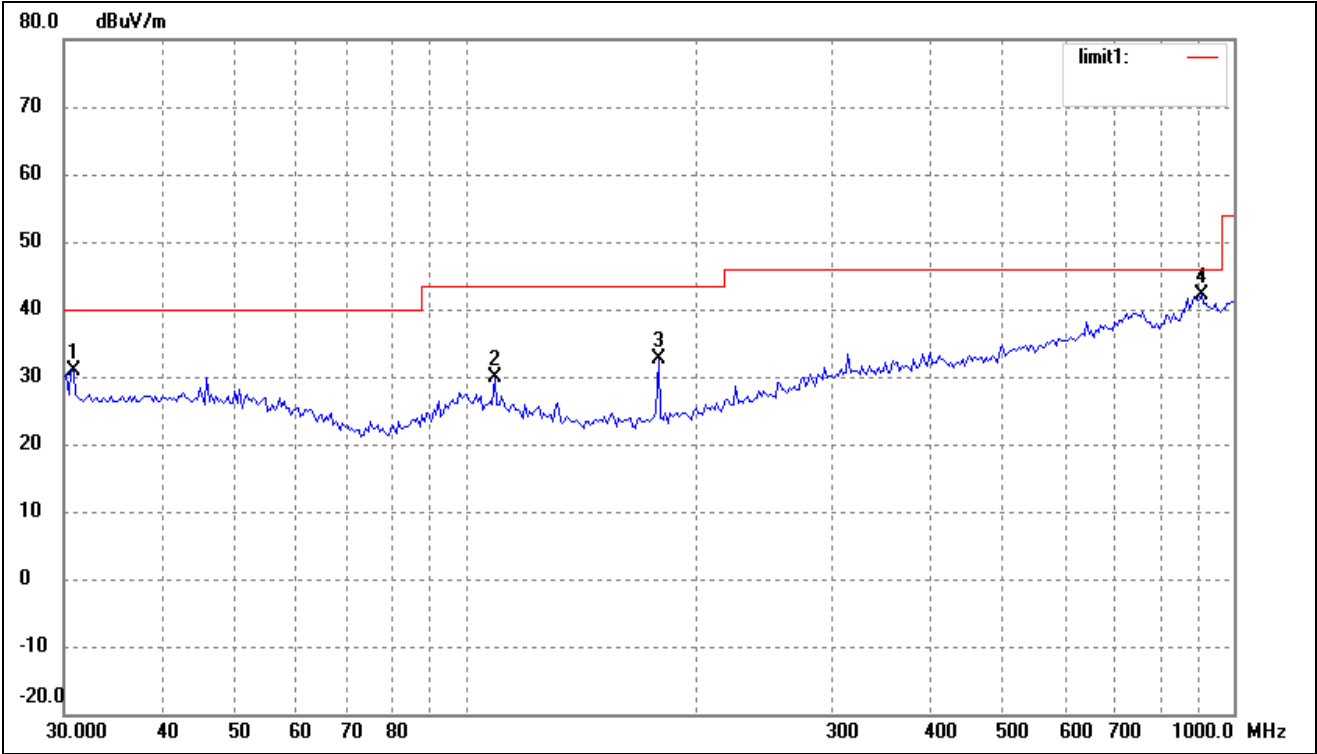
Comment:

Test Specification: Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	30.0000	27.13	8.04	35.17	40.00	-4.83	360	100	peak
2	106.0126	21.27	6.24	27.51	43.50	-15.99	360	100	peak
3	1000.0000	21.53	19.90	41.43	54.00	-12.57	360	100	peak

Test Specification: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	30.8535	22.66	8.19	30.85	40.00	-9.15	360	100	peak
2	109.0286	23.93	5.95	29.88	43.50	-13.62	360	100	peak
3	178.1327	28.86	3.74	32.60	43.50	-10.90	360	100	peak
4	906.4824	22.95	19.15	42.10	46.00	-3.90	360	100	

Spurious Emissions Above 1GHz

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2404MHz							
2404.000	81.56	-11.75	69.81	114.00	-44.19	H	PK
2404.000	64.58	-11.75	52.83	94.00	-41.17	H	AV
4808.000	47.60	-3.92	43.68	74.00	-30.32	H	PK
4808.000	35.47	-3.92	31.55	54.00	-22.45	H	AV
7212.000	45.45	1.04	46.49	74.00	-27.51	H	PK
7212.000	33.51	1.04	34.55	54.00	-19.45	H	AV
2404.000	87.27	-11.75	75.52	114.00	-38.48	V	PK
2404.000	70.23	-11.75	58.48	94.00	-35.52	V	AV
4808.000	48.60	-3.92	44.68	74.00	-29.32	V	PK
4808.000	35.77	-3.92	31.85	54.00	-22.15	V	AV
7212.000	45.04	1.04	46.08	74.00	-27.92	V	PK
7212.000	33.17	1.04	34.21	54.00	-19.79	V	AV
Middle Channel-2421MHz							
2421.000	75.19	-11.76	63.43	114.00	-50.57	H	PK
2421.000	57.26	-11.76	45.50	94.00	-48.50	H	AV
4842.000	46.84	-3.83	43.01	74.00	-30.99	H	PK
4842.000	35.26	-3.83	31.43	54.00	-22.57	H	AV
7263.000	45.11	1.25	46.36	74.00	-27.64	H	PK
7263.000	34.39	1.25	35.64	54.00	-18.36	H	AV
2421.000	84.29	-11.76	72.53	114.00	-41.47	V	PK
2421.000	66.19	-11.76	54.43	94.00	-39.57	V	AV
4842.000	48.72	-3.83	44.89	74.00	-29.11	V	PK
4842.000	36.07	-3.83	32.24	54.00	-21.76	V	AV
7263.000	46.20	1.25	47.45	74.00	-26.55	V	PK
7263.000	33.83	1.25	35.08	54.00	-18.92	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2436MHz							
2436.000	74.06	-11.76	62.30	114.00	-51.70	H	PK
2436.000	57.13	-11.76	45.37	94.00	-48.63	H	AV
4872.000	46.83	-3.74	43.09	74.00	-30.91	H	PK
4872.000	35.18	-3.74	31.44	54.00	-22.56	H	AV
7308.000	45.80	1.46	47.26	74.00	-26.74	H	PK
7308.000	33.98	1.46	35.44	54.00	-18.56	H	AV
2436.000	87.09	-11.76	75.33	114.00	-38.67	V	PK
2436.000	70.03	-11.76	58.27	94.00	-35.73	V	AV
4872.000	46.55	-3.74	42.81	74.00	-31.19	V	PK
4872.000	35.67	-3.74	31.93	54.00	-22.07	V	AV
7308.000	45.66	1.46	47.12	74.00	-26.88	V	PK
7308.000	33.96	1.46	35.42	54.00	-18.58	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5th Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

The measurements greater than 20dB below the limit from 9kHz to 30MHz..

5. Out of Band Emissions

5.1 Standard Applicable

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24

5.3 Test Procedure

As the radiation test, set the Lowest and Highest Transmitting Channel, observed the outside band of 2400MHz to 2483.5MHz, than mark the higher-level emission for comparing with the FCC rules.

5.4 Environmental Conditions

Temperature:	24 °C
Relative Humidity:	60 %
ATM Pressure:	1012 mbar

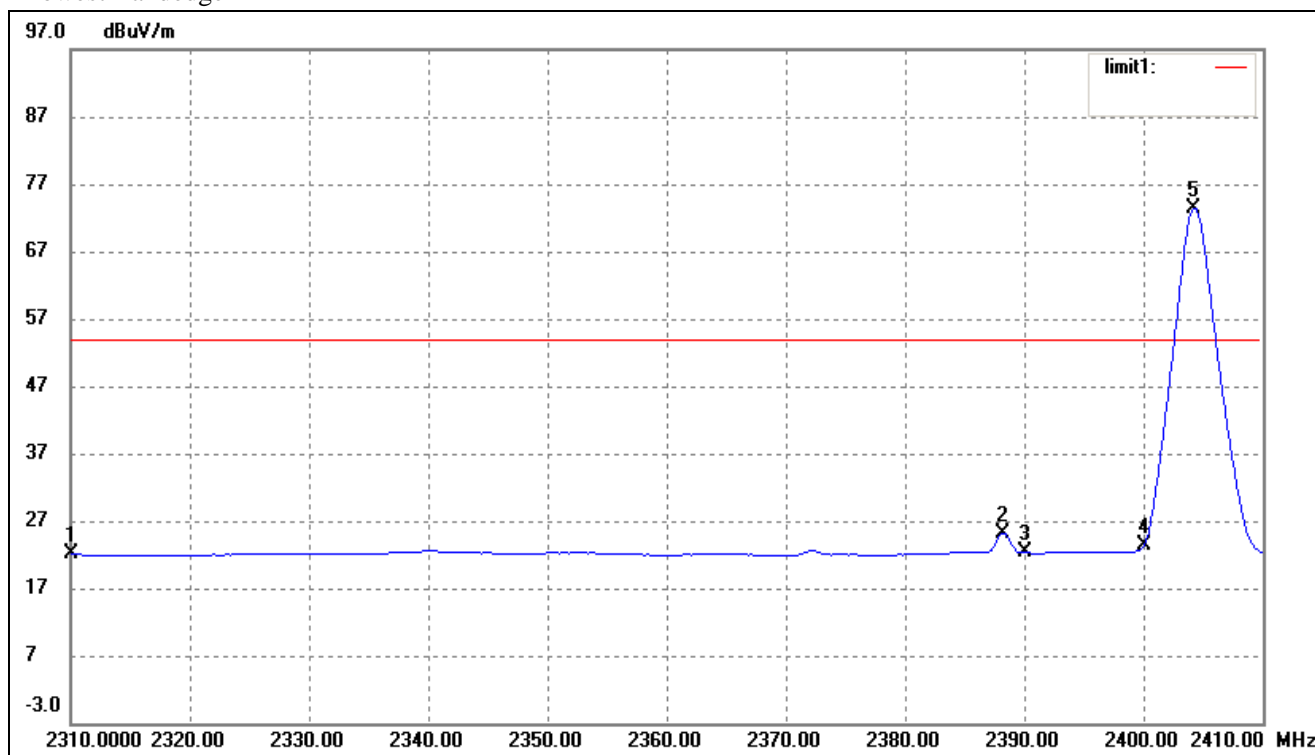
5.5 Summary of Test Results/Plots

Test mode	Frequency	Limit	Result
	MHz	dBuV / dBc	
Lowest	2310.00	<54 dBuV	Pass
	2390.00	<54 dBuV	Pass
	2400.00	>50 dBc	Pass
Highest	2483.50	<54 dBuV	Pass
	2500.00	<54 dBuV	Pass

The edge emissions are below the FCC 15.209 Limits or complies with the 15.249 requirements.

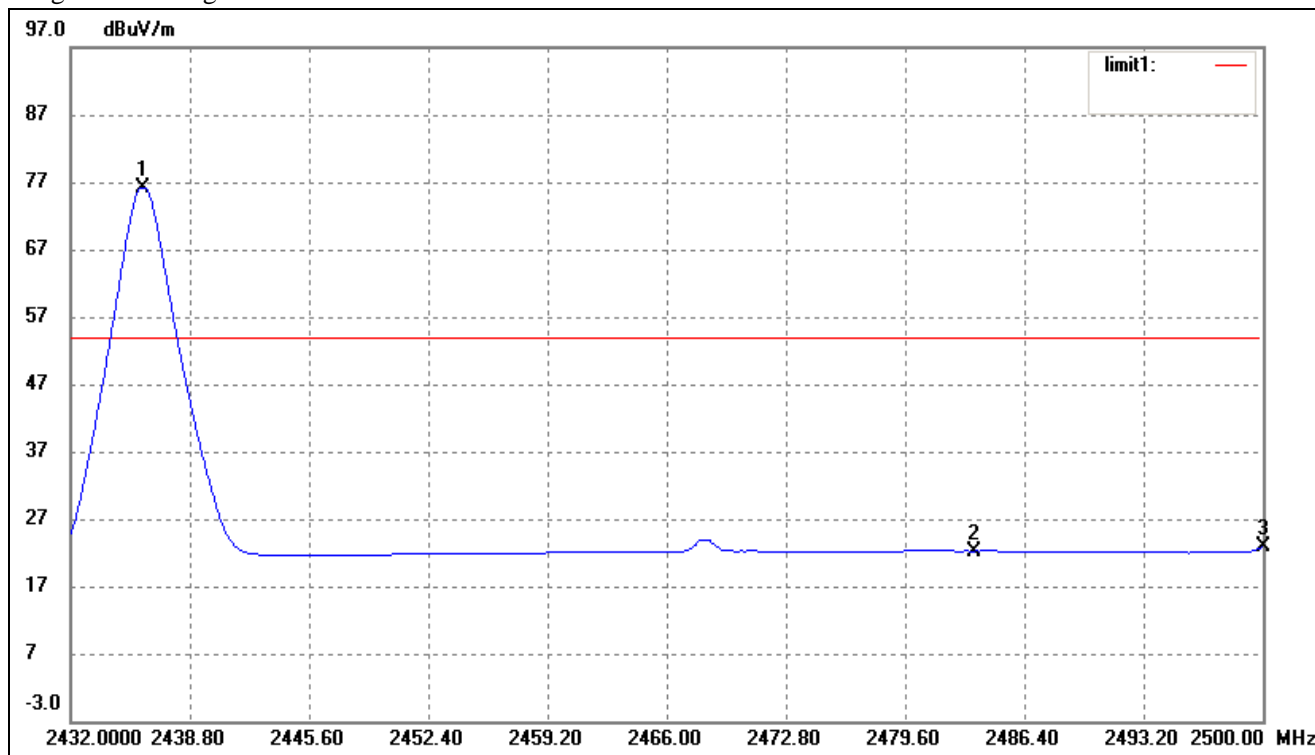
Please refer to the test plots as below.

Lowest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2310.000	33.76	-11.72	22.04	54.00	-31.96	Ave Detector
	2310.000	47.92	-11.72	36.20	74.00	-37.80	Peak Detector
2	2388.200	36.98	-11.75	25.23	54.00	-28.77	Ave Detector
	2388.200	49.09	-11.75	37.34	74.00	-36.66	Ave Detector
3	2390.000	34.02	-11.75	22.27	54.00	-31.73	Ave Detector
	2390.000	47.43	-11.75	35.68	74.00	-38.32	Peak Detector
4	2400.000	35.16	-11.75	23.41	Delta = 50.54 dBc		Ave Detector
5	2404.200	85.70	-11.75	73.95			Ave Detector

Highest Bandedge



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2436.080	87.99	-11.76	76.23	/	/	Average Detector
	2436.080	88.29	-11.76	76.53	/	/	Peak Detector
2	2483.500	Delta = 53.98 dBc		22.25	54.00	-31.75	Average Detector
	2483.500			26.43	74.00	-47.57	Peak Detector
3	2500.000	34.64	-11.78	22.86	54.00	-31.14	Average Detector
	2500.000	47.94	-11.78	36.16	74.00	-37.84	Peak Detector

6. Emission Bandwidth

6.1 Standard Applicable

According to 15.215 (c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

6.3 Test Procedure

According to the ANSI 63.4-2003, the emission bandwidth test method as follows.

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

Set span = 1MHz, centered on a transmitting channel

RBW \geq 1% 20dB Bandwidth, VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

All the trace to stabilize, use the marker-to-peak function to set the marker to the peak of the emission, use the marker-delta function to measure and record the 20dB down and 99% bandwidth of the emission.

6.4 Environmental Conditions

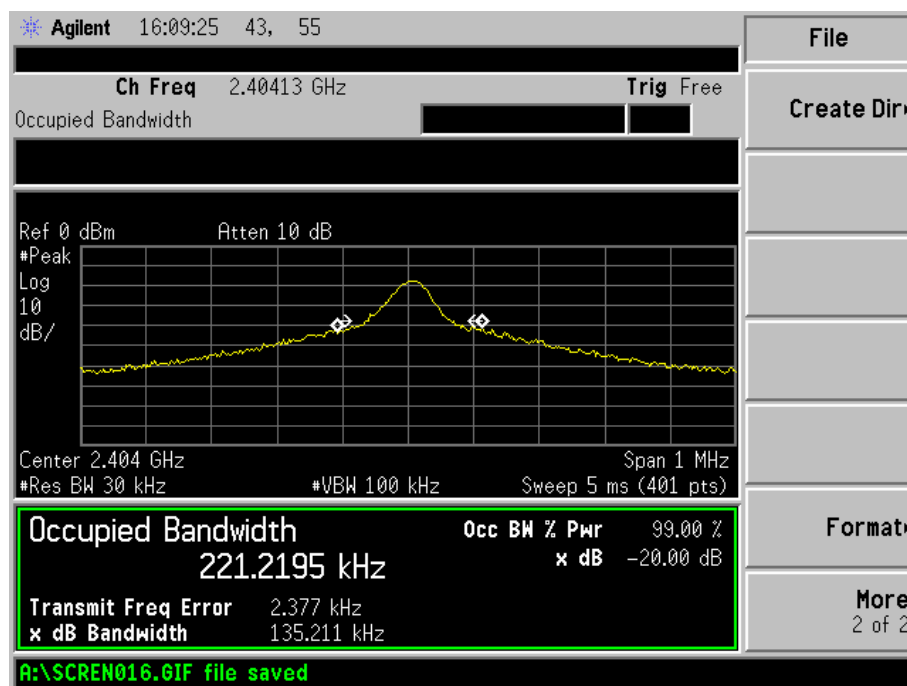
Temperature:	25 °C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.5 Summary of Test Results/Plots

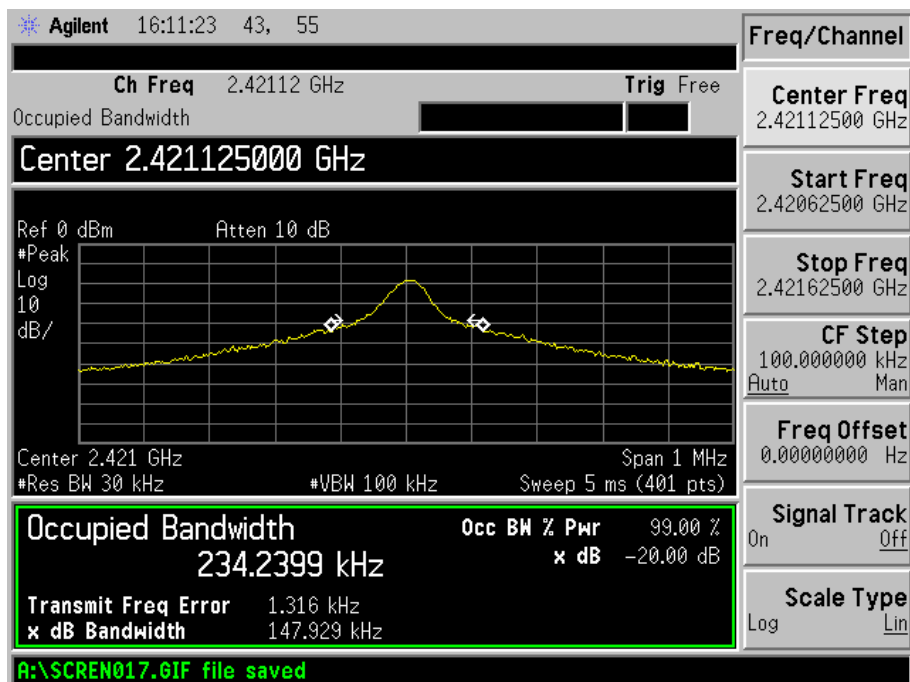
Channel	Frequency MHz	20dB Bandwidth kHz	99% Bandwidth kHz
Low Channel	2404	135.2110	221.2195
Middle Channel	2421	147.9290	234.2399
High Channel	2436	142.5900	238.9093

Please refer to the following test plots

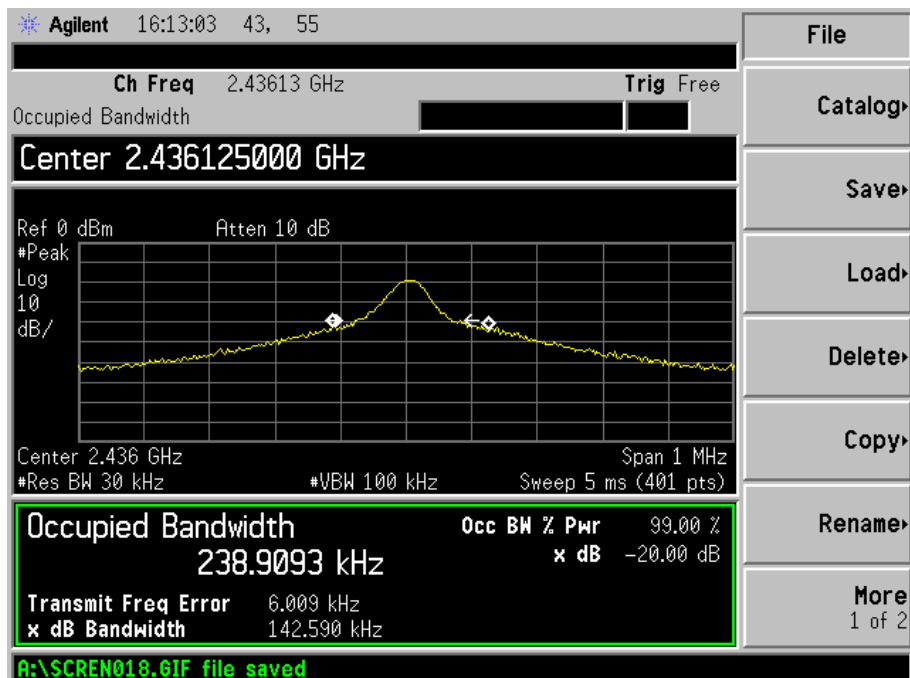
Low Channel:



Middle Channel:



High Channel:



7. Conducted Emissions

7.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

7.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2012-03-28	2013-03-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2012-03-28	2013-03-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2012-03-28	2013-03-27

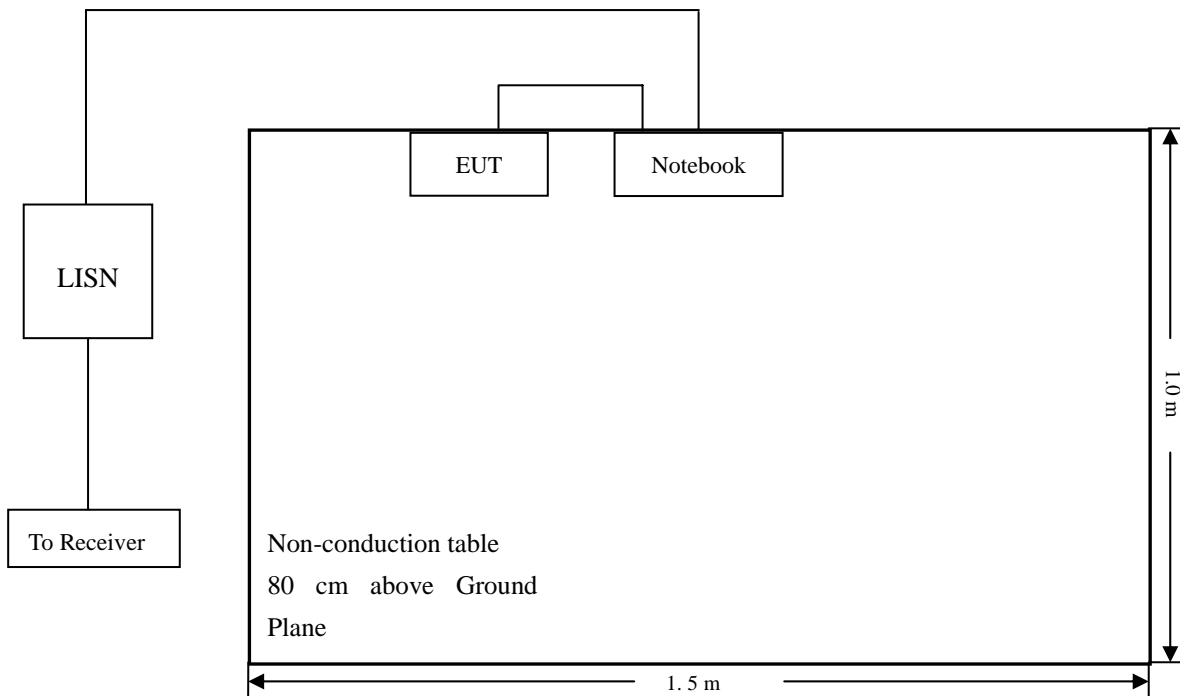
7.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

7.4 Basic Test Setup Block Diagram



7.5 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

7.6 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency 150 kHz
Stop Frequency..... 30 MHz
Sweep Speed Auto
IF Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth 9 kHz
Quasi-Peak Adapter Mode Normal

7.7 Summary of Test Results/Plots

According to the data in section 7.8, the EUT complied with the FCC Part 15.207 Conducted margin for a Class B device, with the *worst* margin reading of:

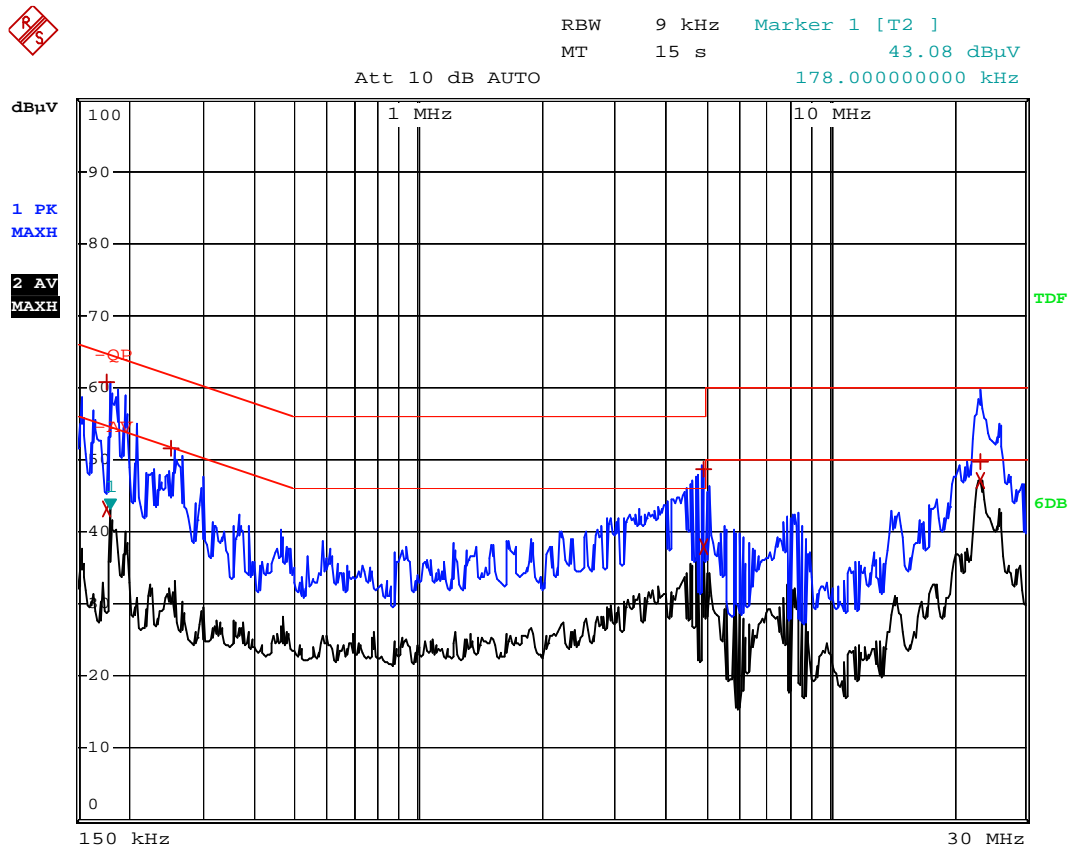
-2.45 dB at 24.49 MHz in the Line mode, Peak detector, 0.15-30MHz

7.8 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

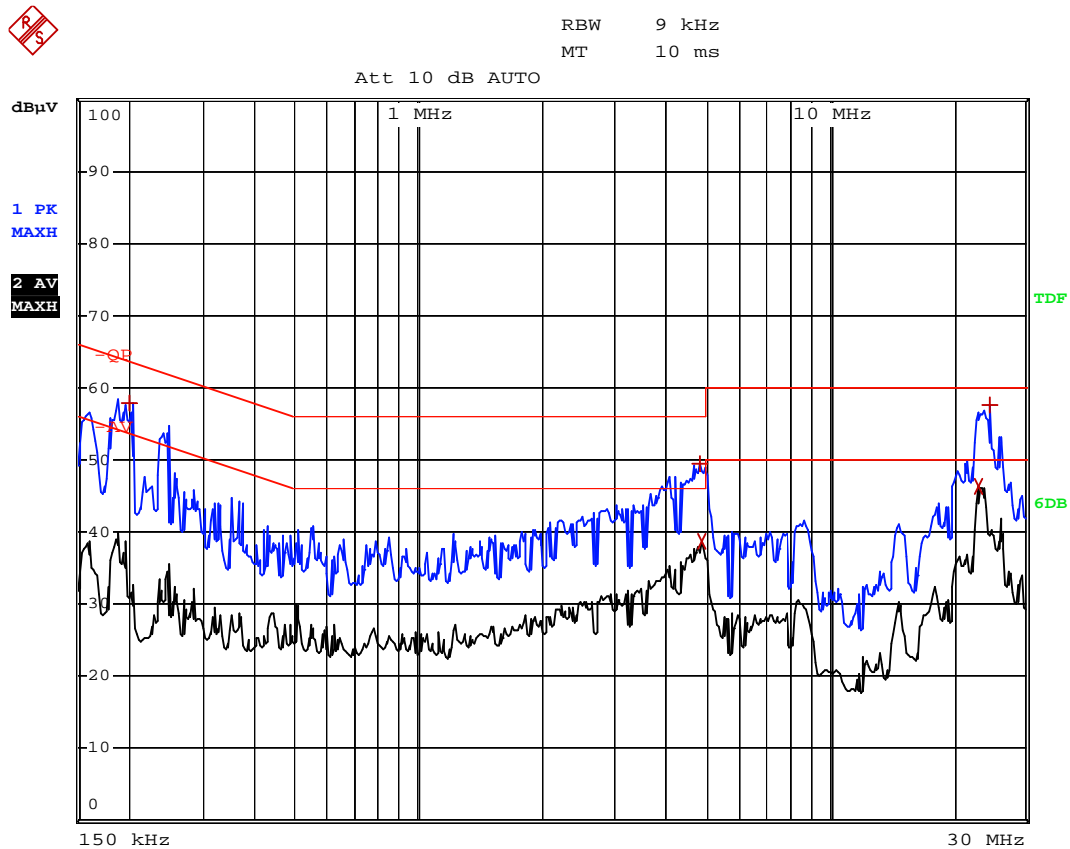
EUT: 2.4G Wireless Keyboard
Tested Model: UKB-160
Operating Condiation: Charging & Transmitting
Comment: Connect to PC

Test Specification: Neutral



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	178 kHz	60.79	-3.78
2 Average	178 kHz	43.07	-11.50
1 Max Peak	254 kHz	51.50	-10.12
2 Average	4.926 MHz	37.92	-8.07
1 Max Peak	4.926 MHz	48.66	-7.33
1 Quasi Peak	23.278 MHz	49.74	-10.25
2 Average	23.31 MHz	46.98	-3.01

Test Specification: Line



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Max Peak	202 kHz	57.99	-5.53
1 Max Peak	4.826 MHz	49.43	-6.56
2 Average	4.91 MHz	38.67	-7.32
2 Average	23.066 MHz	46.28	-3.71
1 Max Peak	24.49 MHz	57.54	-2.45

***** END OF REPORT *****