FCC Part 15C

Measurement and Test Report

For

SHENZHEN HOYOME TECHNOLOGY CO., LTD

F/3, Block C, Chuangfuyuan Industrial Zone, Shiyan, Baoan, Shenzhen, China

FCC ID: ZYZHK0861

Report Concerns: Original Report		Equipment Type: Bluetooth Keyboard		
Item No.:	HK-0861(EUT), HK-0851, HK-0881, HK-0891, KG2			
Report No.:	CTR110708078F			
Test / Witness Engineer:	David Lee			
Test Date:	June 27, 2011 t	o July 08, 2011		
Issued Date:	July 08, 2011			
Prepared By:				
	CTC Compliance Service Co., Ltd.			
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Approved & Authorized By:	flick	undchow		
	Richard Cho	w / Assistant Manager		

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 CTC Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: SHENZHEN HOYOME TECHNOLOGY CO., LTD

Address of applicant: F/3, Block C, Chuangfuyuan Industrial Zone, Shiyan, Baoan,

Shenzhen, China

Manufacturer: SHENZHEN HOYOME TECHNOLOGY CO., LTD

Address of manufacturer: F/3, Block C, Chuangfuyuan Industrial Zone, Shiyan, Baoan,

Shenzhen, China

General Description of E.U.T

Items	Description
EUT Description	Bluetooth Keyboard
Trade Names	HOYOME
Model No.	HK-0861(EUT), HK-0851, HK-0881, HK-0891, KG2
Operating Voltage	DC3-5V
Transmitting Power	Class 2
Working Current	<5.0mA
Standby Current	2.5mA
Frequency Range	2402MHz-2480MHz
Modulation System	FHSS 2.4G
Type of Antenna	Integral Antenna

Note: HK-0861 was selected as representative model for full test; the other models have same electric principle and construction as HK-0861 except for appearance.

1.2 Test Standards

The following report is prepared on behalf of the **SHENZHEN HOYOME TECHNOLOGY CO., LTD** in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 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.

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1.3 Related Submittal(s)/Grant(s)

No Related Submittal(s).

1.4 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.

The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted with Low Channel, Middle Channel and High Channel, accordingly in reference to the Operating Instructions.

Test is carried out under the requirements of IEC/ISO 17025.

1.5 EUT Exercise Software

The EUT exercise program used during the testing was designed to exercise the system components. The test software, provided by the customer, is started while the whole system is running.

1.6 Test Facility

All measurement facilities used to collect the measurement data are located at:

SinTek Laboratory Co., Ltd.

No.7, Xinshidai Industrial, Guantian Village, Shiyan Town, Bao'an District, Shenzhen, Guangdong, 518108 China

The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2003.

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2. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.203; §15.247(b)(4)(i)	Antenna Requirement	PASS
§15.247(a)(1)(iii)	Quantity of Hopping Channel	PASS
§15.247(a)(1)	Frequency Separation	PASS
§15.247(a)(1)(iii)	Time of Occupancy (Dwell time)	PASS
§15.247(a)	20dB Bandwidth	PASS
§15.247(b)(1)	Power Output	PASS
§15.209(a)(f)	Radiated Emission	PASS
§15.247(c)	Band Edge Emission	PASS

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3. §15.203 ANTENNA REQUIREMENT

3.1 Standard Applicable

According to FCC 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 a permanent antenna, fulfill the requirement of this section.

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4. NUMBER OF HOPPING CHANNEL

4.1 Standard Applicable

FCC Part15 (15.247), Subpart C					
Section Test Item Frequency Range (MHz) Result					
15.247 (a)(1)(iii)	Number of Hopping Channel	2400-2483.5	Pass		

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2011-1-26	2012-1-25
Receiver Antenna	ETS	2175	57337	2011-1-26	2012-1-25
50 ohm Coaxial Cable	ETS	SUCOFLEX 104	25498514	2011-1-26	2012-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

4.3 Test Procedure

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

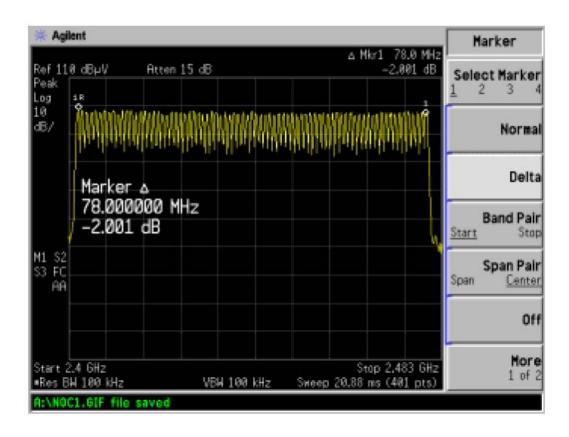
4.4 Environmental Conditions

Temperature	26℃
Relative Humidity	55%
ATM Pressure	1011 mbar

4.5 Summary of Test Results/Plots

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No. of Channel=79



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5. DWELL TIME OF A HOPPING CHANNEL

5.1 Standard Applicable

According to 15.247(a)(1)(iii), Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. 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.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2011-1-26	2012-1-25
50 ohm Coaxial Cable	ETS	SUCOFLEX 104	25498514	2011-1-26	2012-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

5.3 Test Procedure

- 1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 2. Set center frequency of spectrum analyzer = operating frequency.
- 3. Set the spectrum analyzer as RBW, VBW=100KHz, Span = 0Hz.
- 4. Repeat above procedures until all frequency measured was complete.

5.4 Environmental Conditions

Temperature	26℃
Relative Humidity	55%
ATM Pressure	1011 mbar

5.5 Summary of Test Results/Plots

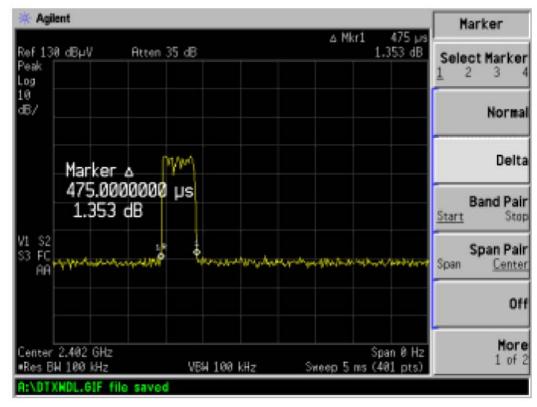
The dwell time within a 31.6 second period in data mode is independent from the packet type (packet length). The calculation for a 31.6 second period is a follows:

Dwell time = time slot length * hop rate / number of hopping channels *31.6s

Test data is corrected with the worse case, refer to the plots

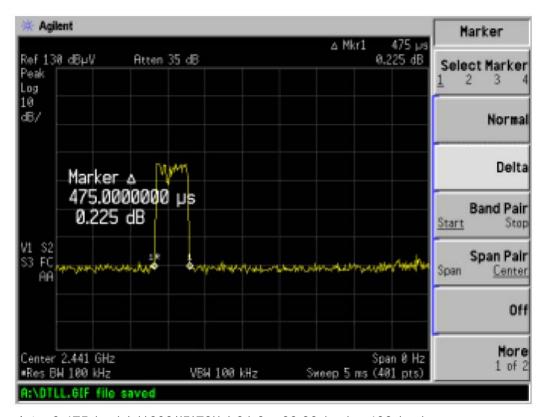
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CH Low:



Dwell time slot = 0.475 (ms) * (1600/(5*79)) * 31.6 = 60.80 (ms) < 400 (ms)

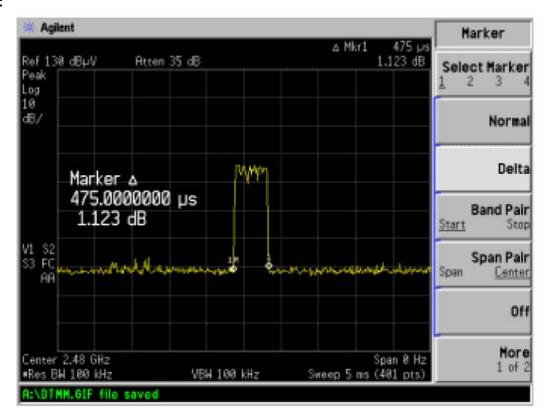
CH Mid:



Dwell time slot = 0.475 (ms) * (1600/(5*79)) * 31.6 = 60.80 (ms) < 400 (ms)

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CH High:



Dwell time slot = 0.475 (ms) * (1600/(5*79)) * 31.6 = 60.80 (ms) < 400 (ms)

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6. FREQUENCY SEPARATION

6.1 Standard Applicable

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2011-1-26	2012-1-25
50 ohm Coaxial Cable	ETS	SUCOFLEX 104	25498514	2011-1-26	2012-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

6.3 Test Procedure

- 1. Place the EUT on the table and set it in transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer.
- 3. Set Span = wide enough to capture the peaks of two adjacent channels Resolution (or IF) Bandwidth (RBW) \geq 1% of the span Video (or Average) Bandwidth (VBW) \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold.

6.4 Environmental Conditions

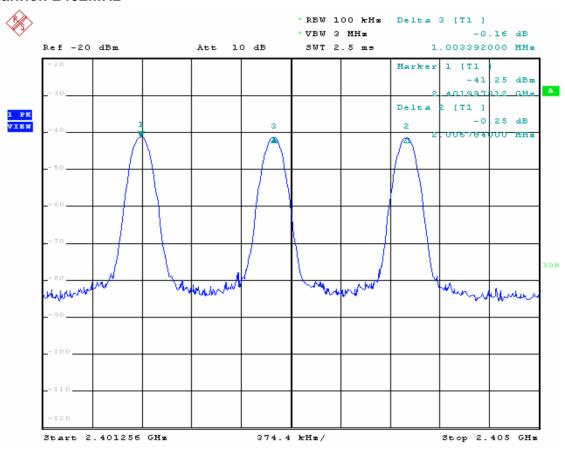
Temperature	26℃
Relative Humidity	55%
ATM Pressure	1011 mbar

6.5 Summary of Test Results/Plots

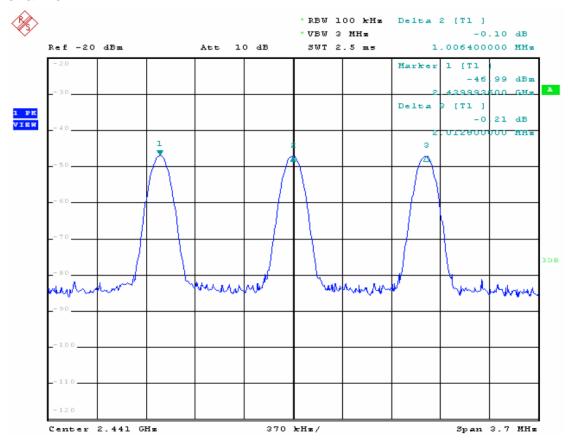
Channel	Frequency (MHz)	Channel Separation (MHz)	Limit	Result
Low	2402	1.00	05141	Pass
Middle	2441	1.00	>=25KHz or 2/3 20dB BW	Pass
High	2480	1.00		Pass

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Low channel: 2402MHz

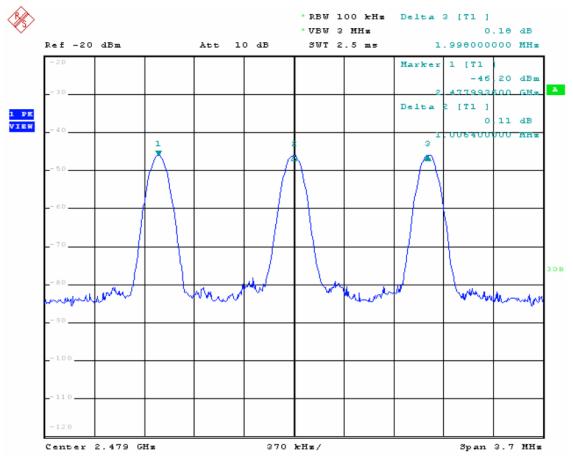


Middle channel: 2441MHz



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High channel: 2480MHz



7. 20-dB BANDWIDTH

7.1 Standard Applicable

According to 15.247(a)(1)(iii). For frequency hopping systems operating in the 2400MHz-2483.5MHz no limit for 20dB bandwidth.

7.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2011-1-26	2012-1-25
50 ohm Coaxial Cable	ETS	SUCOFLEX 104	25498514	2011-1-26	2012-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

7.3 Test Procedure

- 1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 2. Set center frequency of spectrum analyzer = operating frequency.
- 3. The spectrum analyzer as RBW=10KHz (1 % of Bandwidth.), Sweep=auto
- 4. Mark the peak frequency and -20dB (upper and lower) frequency.

7.4 Environmental Conditions

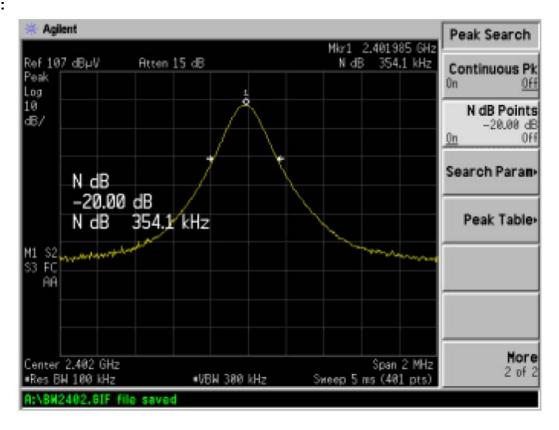
Temperature	26 ℃
Relative Humidity	55%
ATM Pressure	1011 mbar

7.5 Summary of Test Results/Plots

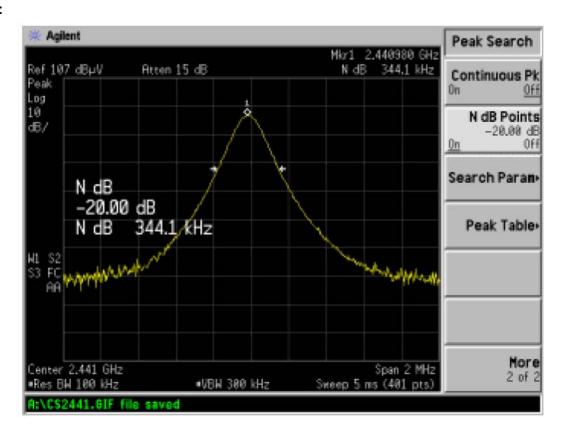
Frequency	20 dB Bandwidth	Limit		
MHz	kHz	dB		
2402	351.1	1		
2441	344.1	1		
2480	354.1	1		

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CH Low:

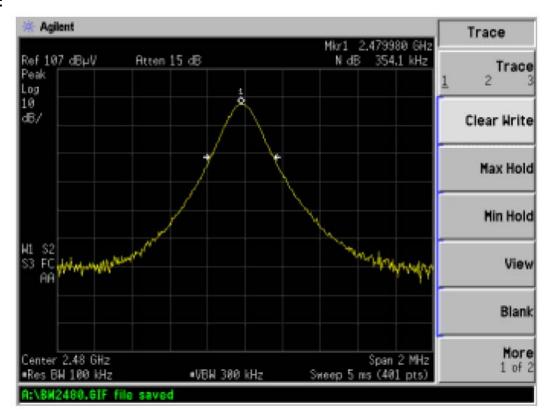


CH Mid:



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CH High:



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8. POWER OUTPUT

8.1 Standard Applicable

According to 15.247(b)(1). For frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

8.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2011-1-26	2012-1-25
50 ohm Coaxial Cable	ETS	SUCOFLEX 104	25498514	2011-1-26	2012-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

8.3 Test Procedure

The device under test has an integral antenna and the power was measured on a radiated basis.

8.4 Environmental Conditions

Temperature	26℃
Relative Humidity	55%
ATM Pressure	1011 mbar

8.5 Summary of Test Results/Plots

LIMITS AND MEASUREMENT RESULT									
Frequency (GHz)	Result (dBm)	Applicable Limits (dBm)	Pass or Fail						
2.402	2.68	30	Pass						
2.441	2.63	30	Pass						
2.480	2.51	30	Pass						

Note: the power output is EIRP power.

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9. RADIATED EMISSION

9.1 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 +3.0 dB.

9.2 Standard Applicable

According to §15.247(c), 15.205 15.209(b) &15.35 (b), the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

 FIELD STRENGTH
 FIELD STRENGTH
 Section 15.209:

 of Fundamental:
 of Harmonics:
 30 - 88 MHz 40 dBuV/m @3M

 902 - 928MHz
 88 - 216 MHz 43.5 dBuV/m @3M

 2.4 - 2.4835GHz
 127.37dBuV/m @3m
 216 - 960 MHz 46 dBuV/m @3M

 127.38dBuV/m @3m
 54 dBuV/m @3m
 Above 960 MHz 54dBuV/m @3M

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.

EMISSIONS RADIATED OUTSIDE OF THE SPECIFIED FREQUENCY BANDS, EXCEPT FOR HARMONICS, SHALL BE ATTENUATED BY AT LEAST 20 dB BELOW THE LEVEL OF THE FUNDAMENTAL OR TO THE GENERAL RADIATED EMISSION LIMITS IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

Emissions that fall in the restricted bands (15.205) must be less than 54dBuV/m otherwise the spurious and harmonics must be attenuated by at least 20dB.

9.3 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	FS126 830245/009		2011-1-26	2012-1-25
Multi_Device Controller	ETS 2090 57230		57230	2011-1-26	2012-1-25
Receiver Antenna	FIS.		57337	2011-1-26	2012-1-25
50 ohm Coaxial Cable			25498514	2011-1-26	2012-1-25
Horn Antenna	Pohde &		100014	2011-1-26	2012-1-25

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

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9.4 Test Procedure

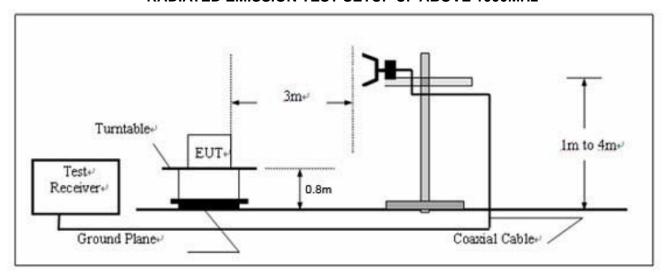
The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.

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.

Biconical or Log antenna Turntabl Amplifier and Baceiver Ground Coaxial

RADIATED MISSION TEST SETUP BELOW 1000MHz

RADIATED EMISSION TEST SETUP UP ABOVE 1000MHz



9.5 Environmental Conditions

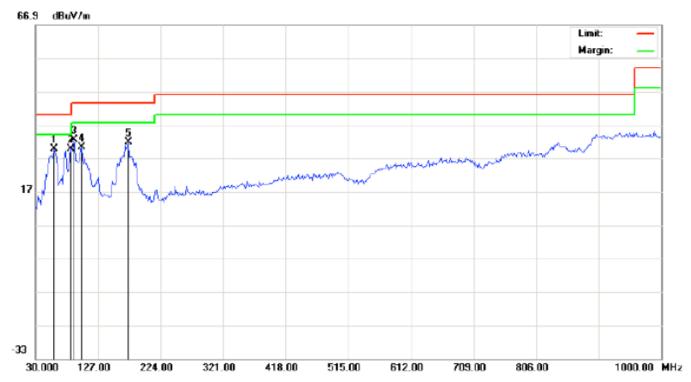
Temperature	26℃
Relative Humidity	55%
ATM Pressure	1011 mbar

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9.6 Summary of Test Results/Plots

RADIATED EMISSION BELOW 1GHZ

(POLARIZATION: HORIZONTAL)

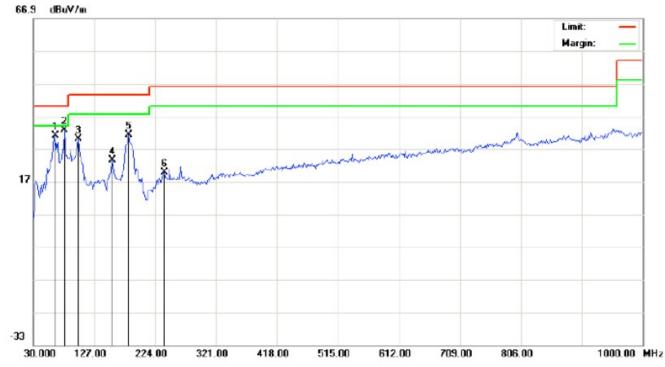


No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu\//m	dBu√/m	dB		cm	degree	
1		59.1000	19.09	10.64	29.73	40.00	-10.27	peak			
2	*	84.9666	18.55	11.25	29.80	40.00	-10.20	peak			
3		89.8167	20.14	12.28	32.42	43.50	-11.08	peak			
4		101.1333	14.45	15.77	30.22	43.50	-13.28	peak			
5		173.8833	14.95	16.78	31.73	43.50	-11.77	peak			

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RADIATED EMISSION BELOW 1GHZ

(POLARIZATION: VERTICAL)

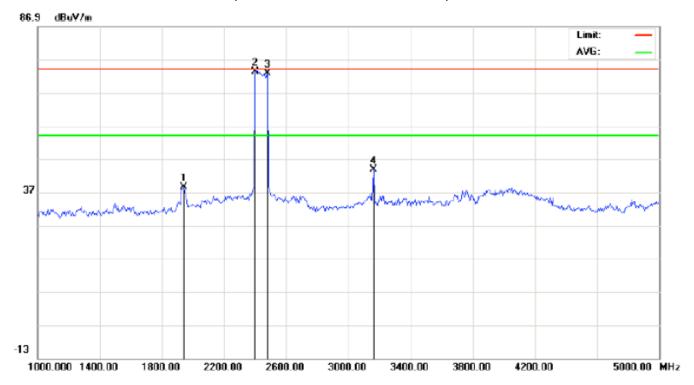


No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
	*	MHz	dBu∀	dB/m	dBuV/m	dBu√/m	dB		cm	degree	40.400 0000 00000000 00000
1		65.5667	27.88	3.26	31.14	40.00	-8.86	peak			
2	*	80.1167	27.53	5.27	32.80	40.00	-7.20	peak		8	
3		101.1333	19.26	10.71	29.97	43.50	-13.53	peak			
4		156.1000	10.16	13.49	23.65	43.50	-19.85	peak			
5		181.9667	12.87	18.36	31.23	43.50	-12.27	peak			
6		238.5500	2.89	16.98	19.87	46.00	-26.13	peak			

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RADIATED EMISSION ABOVE 1GHZ

(POLARIZATION: HORIZONTAL)

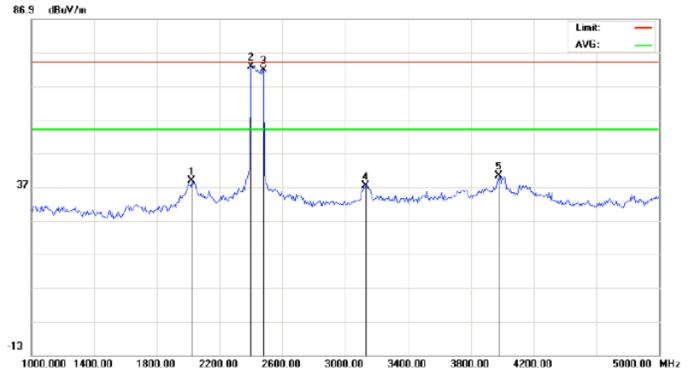


1	No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		-	MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
	1		1940.000	39.22	-0.75	38.47	74.00	-35.53	peak			
	2	*	2402.000	72.85	0.32	73.17	74.00	-0.83	peak			
Γ	3		2480.000	72.32	0.41	72.73	74.00	-1.27	peak			
	4		3160.000	42.08	1.79	43.87	74.00	-30.13	peak			

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RADIATED EMISSION ABOVE 1GHZ

(POLARIZATION: VERTICAL)



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu\//m	dBu∀/m	dB		cm	degree	
1		2020.000	38.88	-0.10	38.78	74.00	-35.22	peak			
2	*	2402.000	72.35	0.32	72.67	74.00	-1.33	peak			
3		2480.000	71.32	0.41	71.73	74.00	-2.27	peak			
4		3133.333	35.53	1.76	37.29	74.00	-36.71	peak		·	
5		3980.000	35.20	5.07	40.27	74.00	-33.73	peak			

Note: No emission found between lowest internal used/generated frequency to 30MHz.

5~25GHz at least have 20dB margin. No recording in the test report.

Factor = Antenna Factor + Cable Loss - Amplifier Gain, Margin = Measurement - Limit

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10. BAND EDGE EMISSIONS

10.1 Standard Applicable

According to §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

10.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date	
Spectrum Analyzer	Agilent	E4402B	US41192821	2011-1-26	2012-1-25	
Receiver Antenna	ETS	2175	57337	2011-1-26	2012-1-25	
50 ohm Coaxial Cable	ETS	SUCOFLEX 104	25498514	2011-1-26	2012-1-25	
Horn Antenna	Rohde & Schwarz	HF906	100014	2011-1-26	2012-1-25	

Statement of Traceability: All calibrations have been performed per the NVLAP requirements traceable to the NIST.

10.3 Test Procedure

- 1. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 2. Set the spectrum analyzer as RBW, VBW=100KHz, Span=25MHz, Sweep = auto
- 3. Set the Lowest and Highest Transmitting Channel, observed the outside band of 2400MHz to 2438.5MHz, then mark the higher-level emission for comparing with the FCC rules.
- 4. Test setup is the same as 8.4

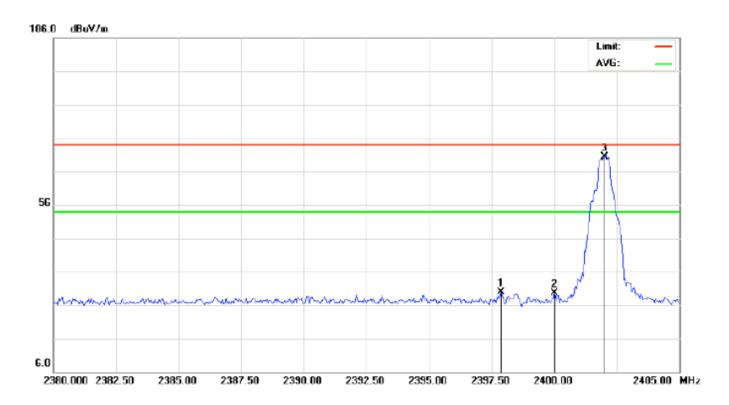
10.4 Environmental Conditions

Temperature	26℃
Relative Humidity	55%
ATM Pressure	1011 mbar

10.5 Summary of Test Results/Plots

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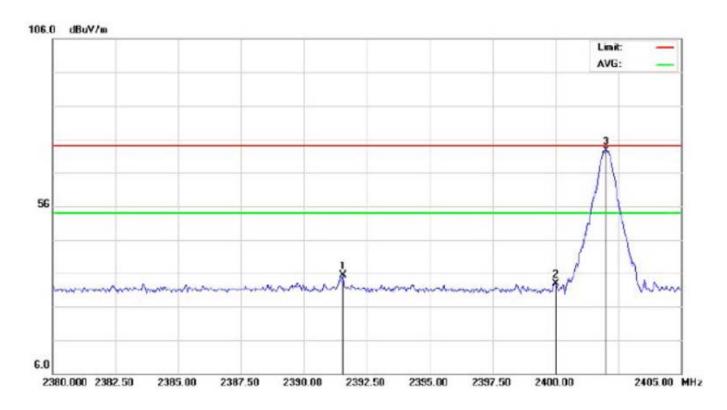
BAND EDGE EMISSIONS AT MODE: 2402TX (POLARIZATION: HORIZONTAL)



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB		cm	degree	
1		2397.875	29.52	0.32	29.84	74.00	-44.16	peak			
2		2400.000	29.28	0.32	29.60	74.00	-44.40	peak			
3	*	2402.000	70.09	0.32	70.41	74.00	-3.59	peak			

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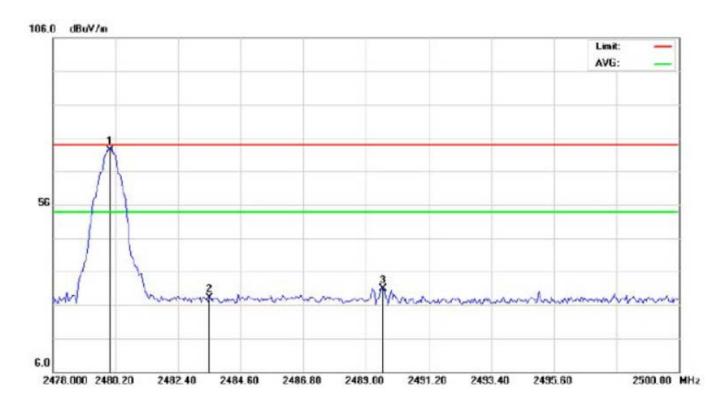
BAND EDGE EMISSIONS AT MODE: 2402TX (POLARIZATION: VERTICAL)



No.	Mk	Freq.	Deter	Detector	Antenna Height	Table Degree	Comment				
		MHz		dB/m	dBuV/m	dBu∀/m	dB		cm	degree	
1		2391.542	35.19	0.31	35.50	74.00	-38.50	peak			
2		2400.000	32.62	0.32	32.94	74.00	-41.06	peak			
3	*	2402.000	72.42	0.32	72.74	74.00	-1.26	peak			

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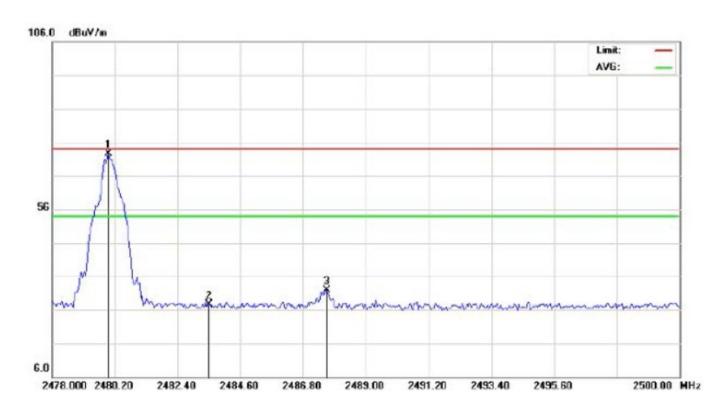
BAND EDGE EMISSIONS AT MODE: 2480TX (POLARIZATION: HORIZONTAL)



No.	No. Mk	Freq.	Reading dBuV	Factor		Limit Over	Detector	Antenna Height	Table Degree	Comment	
	24			dB/m			dB		cm	degree	
1	*	2480.000	72.01	0.41	72.42	74.00	-1.58	peak			
2		2483.500	27.81	0.41	28.22	74.00	-45.78	peak			
3		2489.587	30.47	0.42	30.89	74.00	-43.11	peak			

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BAND EDGE EMISSIONS AT MODE: 2480TX (POLARIZATION: VERTICAL)



No.	Mk	Freq.	Reading	Factor	Measurement	Limit	Over	Detector	Antenna Height	Table Degree	Comment
		MHz	dBu∀	dB/m	dBu∀/m	dBu∀/m	dB		cm	degree	
1	*	2479.980	72.20	0.41	72.61	74.00	-1.39	peak			
2		2483.500	27.10	0.41	27.51	74.00	-46.49	peak			
3		2487.643	31.48	0.42	31.90	74.00	-42.10	peak			

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EXHIBIT 1 – PRODUCT LABELING

Proposed FCC ID Label Format

Bluetooth Keyboard

Model: HK-0861

FCC ID: ZYZHK0861

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) This device must accept any interference that is received, including any interference that may cause undesired operation.

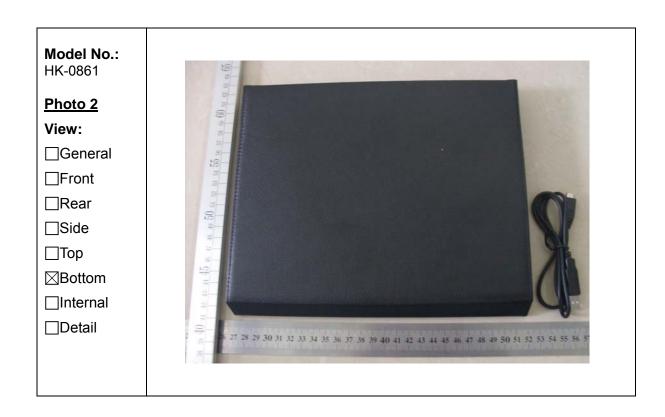
Specification: Text is Black in Color and is left justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. Also it is needed to mark in the user manual if the EUT is small exactly.

Proposed Label Location on EUT



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Model No.: HK-0861 Photo 1 View: □ General □ Front □ Rear □ Side □ Top □ Bottom □ Internal □ Detail 22 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 59



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Model No.:

HK-0861

Photo 3

View:

- □General
- Front
- □Rear
- □Side
- Птор
- □Bottom
- ⊠Internal
- □Detail



Model No.:

HK-0861

Photo 4

View:

- □General
- □Front
- □Rear
- □Side
- □Тор
- □Bottom
- □Internal
- ⊠Detail



Model No.: HK-0861 Photo 5 200 View: General 200 Front □Rear 92 47 □Side 9 ⊠Top □Bottom □Internal □Detail 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 5

Model No.: HK-0861 Photo 6 View: □General □Front □Rear □Side □Top □Bottom □Internal □Detail Model No.: Connect Co

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Model No.:

HK-0861

Photo 7

View:

- □General
- Front
- □Rear
- □Side
- □Тор
- □Bottom
- □Internal
- ⊠Detail



Model No.:

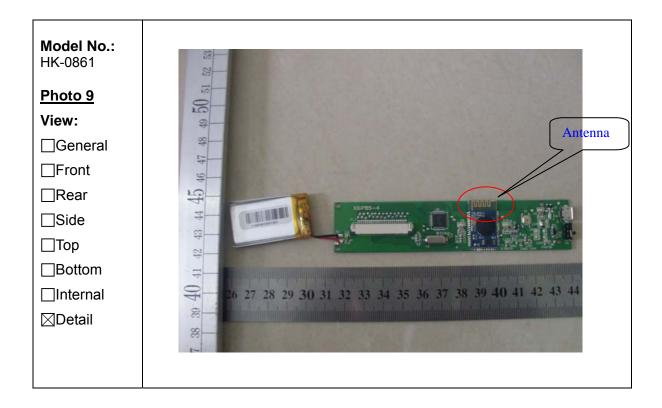
HK-0861

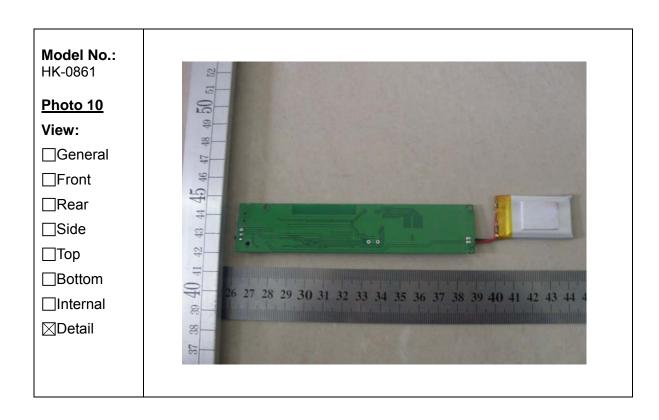
Photo 8

View:

- □General
- □Front
- □Rear
- □Side
- □Тор
- □Bottom
- \boxtimes Internal
- □Detail







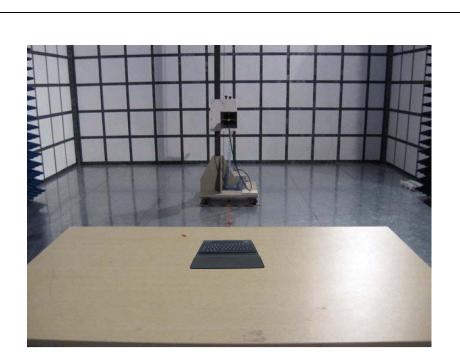
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EXHIBIT 3 – TEST SETUP PHOTOGRAPHS

Radiation Emission Test Setup
(30MHz to 1GHz)



Radiation Emission Test Setup
(Above 1GHz)



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EXHIBIT 4 – SCHEMATICS

EXHIBIT 5 – USERS MANUAL

% End of Report **%**