



Shenzhen Certification Technology Service Co., Ltd  
3F, Bldg27, Area A, Tanglang Industrial Zone, Xili Town,  
Nanshan District, ShenZhen, Guang dong, P.R.  
China.

# TEST REPORT

**FCC ID: YDXQX-K208**

**Applicant** : Goeasily Int'l Co., Ltd  
**Address** : 2F A Bldg., WenTao Tech-Park, ShiYan Town, BaoAn Zone, ShenZhen,  
GuangDong Province,

**Equipment under Test (EUT):**

**Name** : 2.4Ghz wireless multimedia keyboard with mouse function  
**Model** : QX-K208

**Standards** : FCC PART 15, SUBPART C : 2008 (Section 15.247)

**Report No.** : STE100422277

**Date of Test** : April 23-26, 2010

**Date of Issue** : April 28, 2010

<b>Test Result :</b>	<b>PASS *</b>
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\* In the configuration tested, the EUT complied with the standards specified above

Authorized Signature

(Mark Zhu)  
General Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report.

If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Certification Technology Service Co., Ltd. Or test done by Shenzhen Certification Technology Service Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Certification Technology Service Co., Ltd. Approvals in writing.

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## 1 General Information

### 1.1 Description of Device (EUT)

Trade Name : N/A

EUT : 2.4Ghz wireless multimedia keyboard with mouse function

Model No. : QX-K208

Type of Antenna : Integral Antenna

Antenna Specification : 0 dBi

Operation Frequency : 2402~2480MHZ

Channel number : 79

Modulation type : GFSK

Power Supply : DC 3V supply by battery with transmitter  
DC 5V supply by PC with receive

Rated PF  
output Power : -0.75 dBm

Applicant : Goeasily Int'l Co., Ltd

Address : 2F A Bldg., WenTao Tech-Park, ShiYan Town,  
BaoAn Zone, ShenZhen, GuangDong Province,

Manufacturer : Goeasily Int'l Co., Ltd

Address : 2F A Bldg., WenTao Tech-Park, ShiYan Town,  
BaoAn Zone, ShenZhen, GuangDong Province,

## 1.2 Description of Test Facility

Shenzhen Certification Technology Service Co.,Ltd.  
3F, Bldg.27, Area A, Tanglang Industrial Zone, Xili Town, Nanshan  
District, Shenzhen 518055, Guangdong, P.R. China  
FCC Registered No.:305283

## 2 EMC Equipment List

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
3m Semi-Anechoic	ETS-LINDGREN	N/A	SEL0017	16/06/2009	1Year
Spectrum analyzer	Agilent	E4443A	MY46185649	06/06/2009	1Year
Receiver	R&S	ESCI	100492	04/06/2009	1Year
Receiver	R&S	ESCI	101202	07/01/2010	1Year
Bilog Antenna	Sunol	JB3	A121206	04/06/2009	1Year
Horn Antenna	EMCO	3115	640201028-06	04/06/2009	1Year
Power Meter	Anritsu	ML2487A	6K00001491	23/02/2010	1Year
ETS Horn Antenna	ETS	3160	SEL0076	12/08/2009	1Year
Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	15/06/2009	1Year
Cable	Resenberger	N/A	No.1	04/06/2009	1Year
Cable	SCHWARZBECK	N/A	No.2	04/06/2009	1Year
Cable	SCHWARZBECK	N/A	No.3	04/06/2009	1Year
Pre-amplifier	R&S	AFS42-00101 800-25-S-42	SEL0081	18/06/2009	1Year
Pre-amplifier	R&S	AFS33-18002650 -30-8P-44	SEL0080	18/06/2009	1Year

### 3 Test Procedure

**POWER LINE CONDUCTED INTERFERENCE:** The test procedure used was ANSI Standard C63.4-2003 using a 50  $\mu$  H LISN. Both Lines were observed. The bandwidth of the receiver was 10kHz with an appropriate sweep speed. The ambient temperature of the EUT was 25°C with a humidity of 58%.

**RADIATION INTERFERENCE:** The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3MHz above 1 GHz. The ambient temperature of the EUT was 25°C with a humidity of 58%.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

Freq (MHz) METER READING + ACF + CABLE = FS

33.20 dBuV + 10.36 dB + 0.9 dB= 44.46 dBuV/m @ 3m

**ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES:** The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes. The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

## 4 Summary of Measurement

Test Item	Test Requirement	Stanadard Paragraph	Result
Spurious Emission	FCC PART 15 : 2008	Section 15.247&15.209	Compliance
Conduction Emission	FCC PART 15: 2008	Section 15.207	Not applicable
Frequency Separation	FCC PART 15:2008	Section 15.247	Compliance
Peak Power	FCC PART 15:2008	Section 15.247	Compliance
Power Density	FCC PART 15:2008	Section 15.247	Compliance
Number Channel	FCC PART 15:2008	Section 15.247	Not applicable
Band Edge	FCC PART 15:2008	Section 15.247	Compliance
Antenna Requirement	FCC PART 15 : 2008	Section 15.203	Compliance

Note: The EUT has been tested as an independent unit. And Continual Transmitting in maximum power (The new battery be used during Test)

## 5 Spurious Emission

### 5.1 Conducted Spurious Emission

#### 5.1.1 Test limit

Please refer section 15.247.

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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

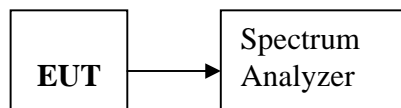
#### 5.1.2 Method of measurement

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 KHz. The video bandwidth is set to 100 KHz.

Measurements are made over the 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.

#### 5.1.3 Test Setup



#### 5.1.4 Test Results

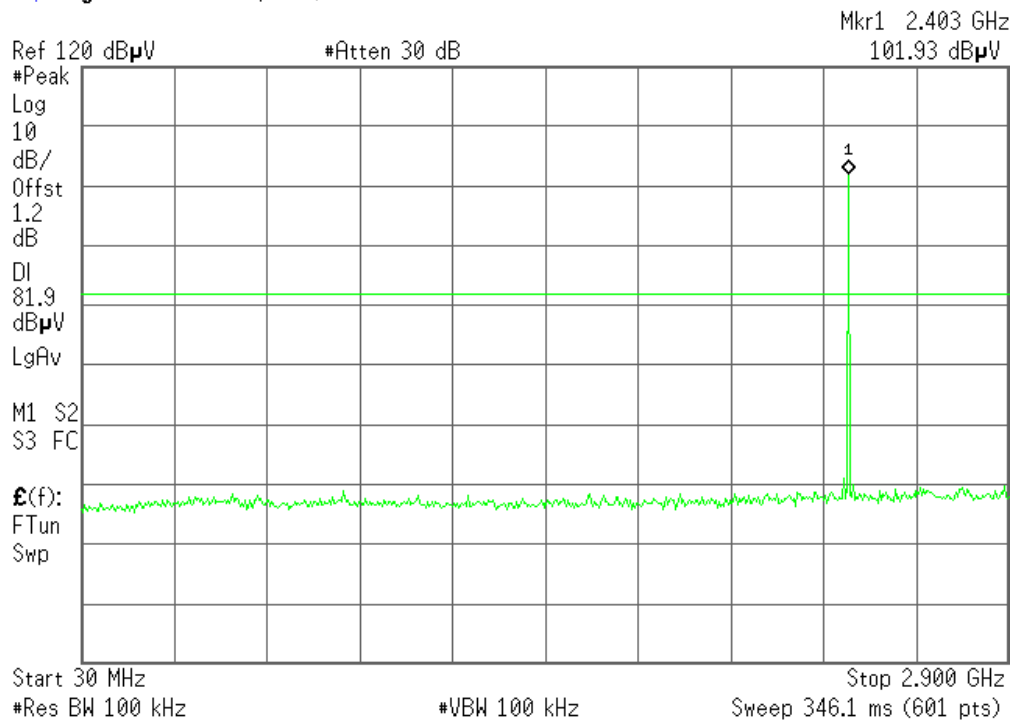
PASS.

Detailed information please see the following page.

# CH Low : 30MHz-2.6.5GHz

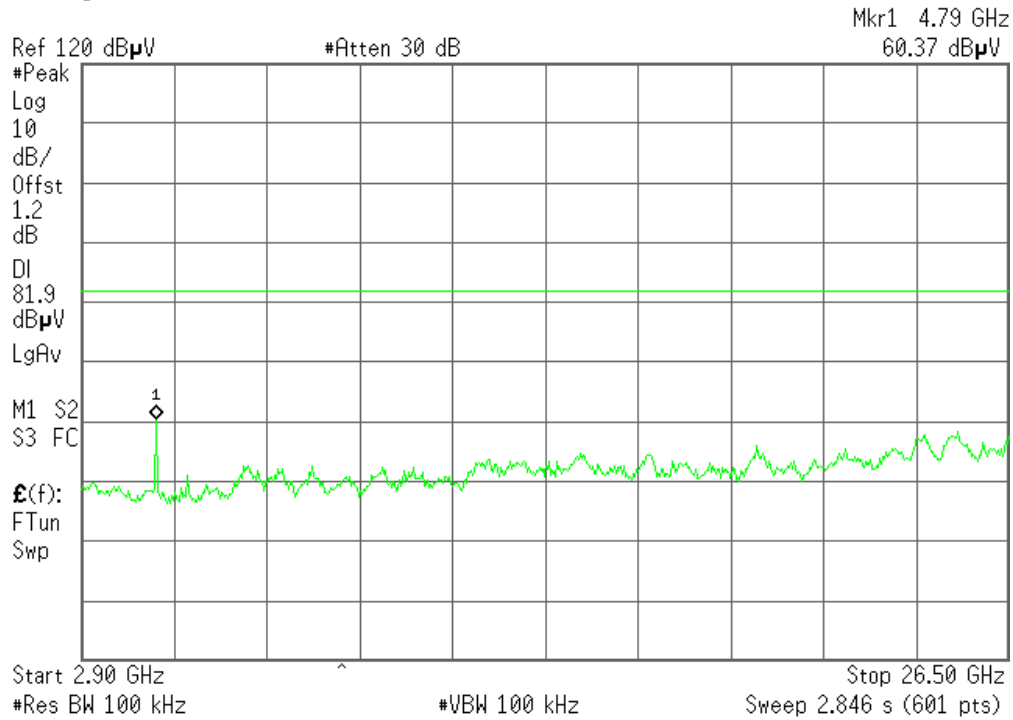
Agilent 17:29:29 Apr 24, 2010

R T



Agilent 17:30:36 Apr 24, 2010

R T

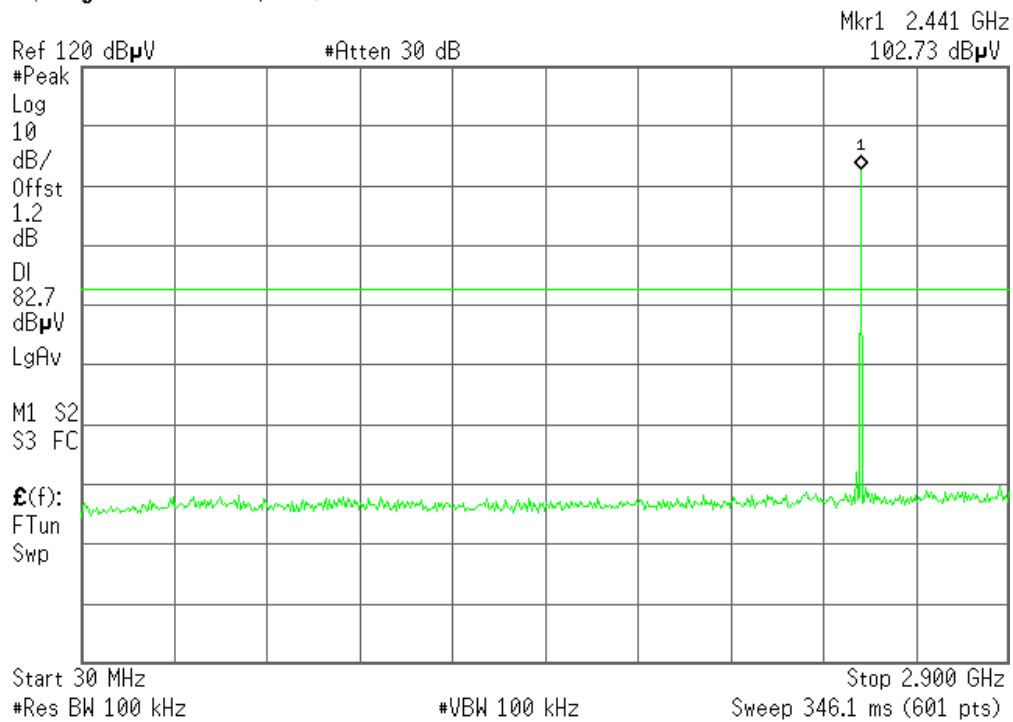




CH Mid : 30MHz-2.6.5GHz

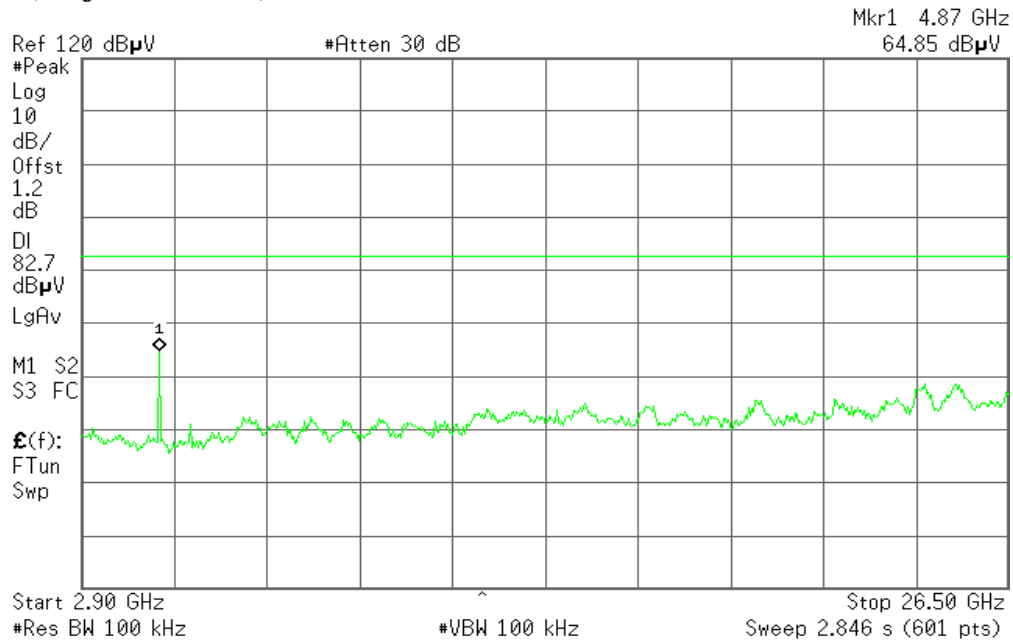
Agilent 17:31:46 Apr 24, 2010

R T



Agilent 17:32:27 Apr 24, 2010

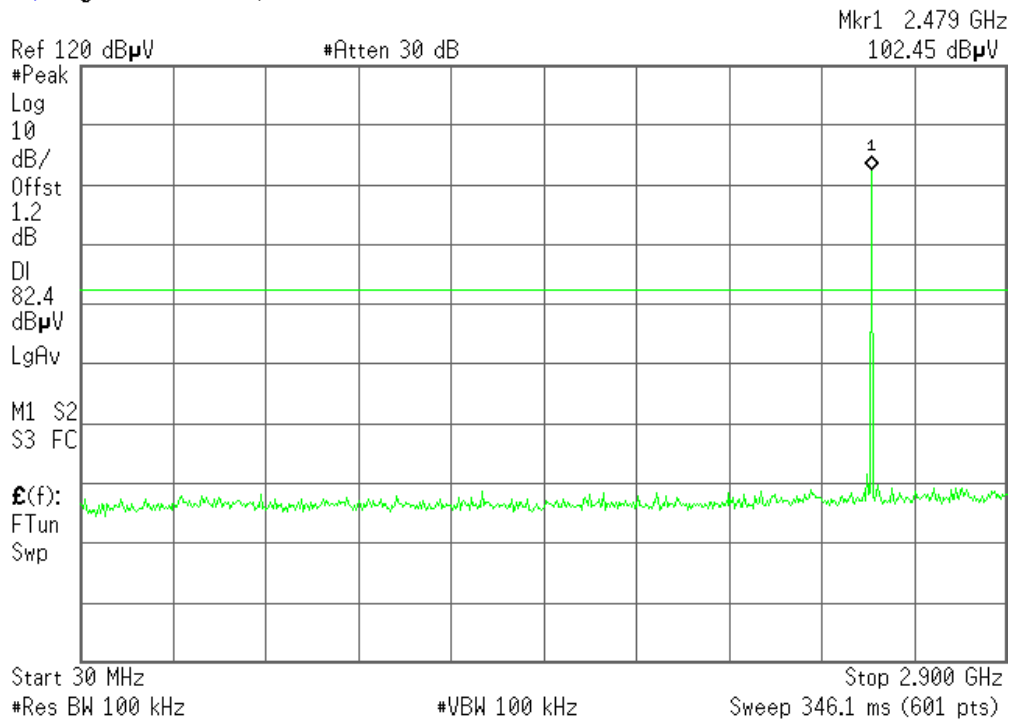
R T



# CH High : 30MHz-2.65GHz

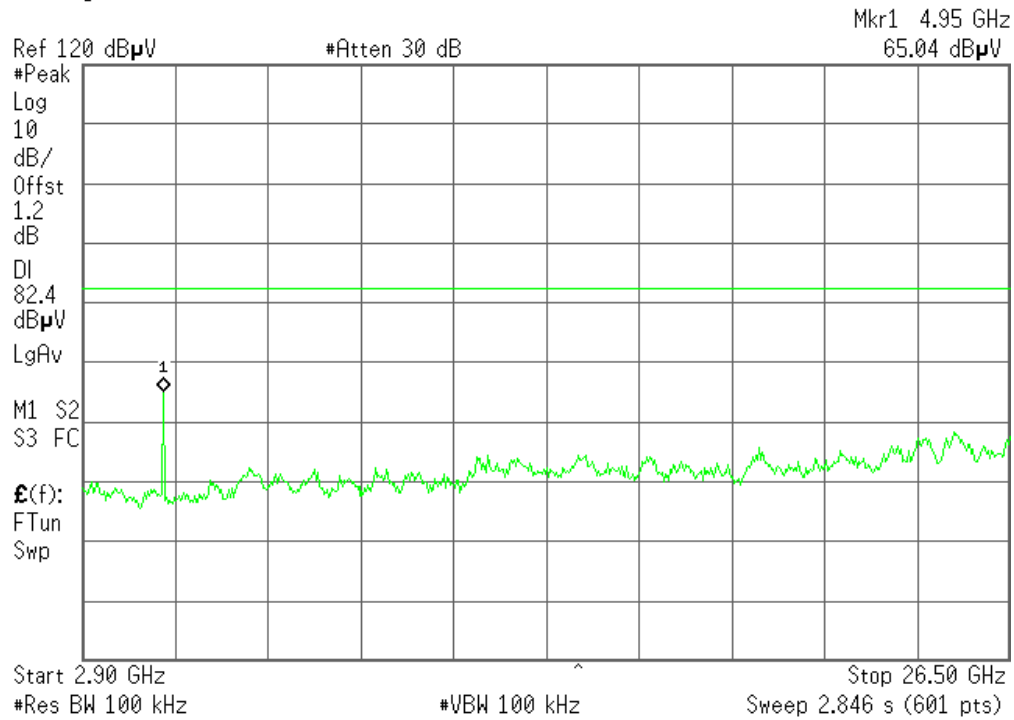
Agilent 17:34:35 Apr 24, 2010

R T



Agilent 17:35:15 Apr 24, 2010

R T



## 5.2 Radiation Emission

### 5.2.1 Radiation Emission Limits(15.209)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

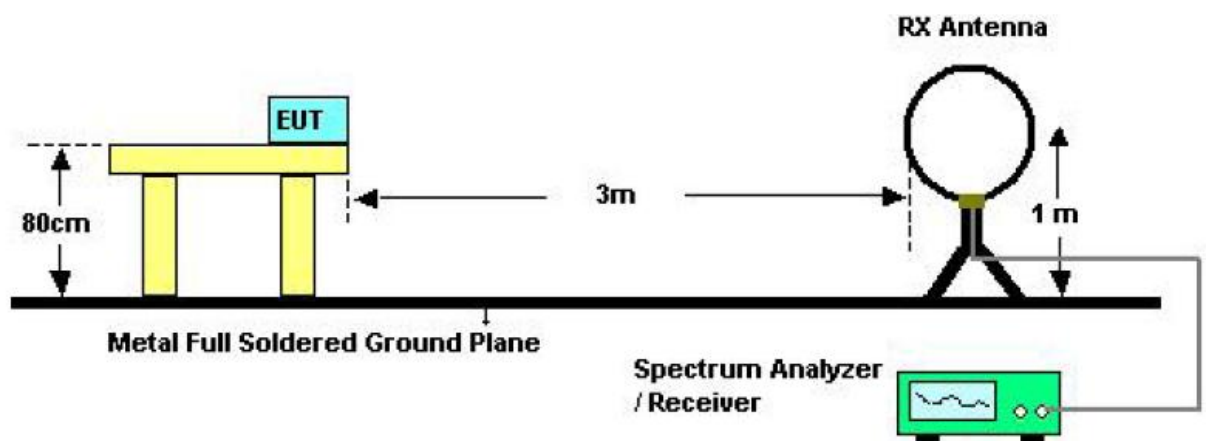
Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

**NOTE:**

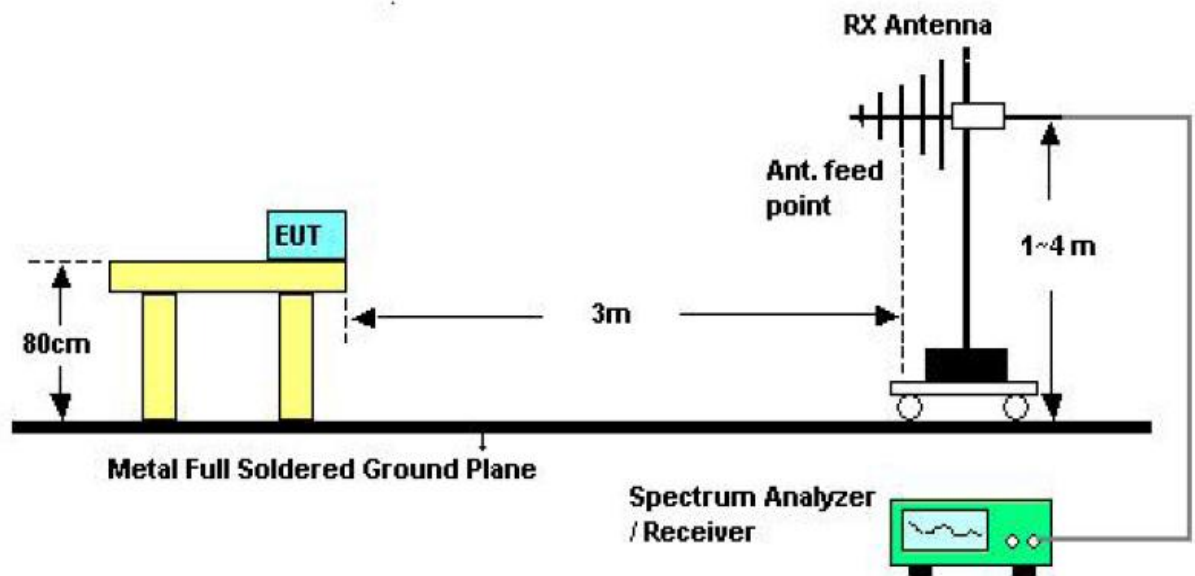
- The tighter limit applies at the band edges.
- Emission Level(dB uV/m)=20log Emission Level(Uv/m)

### 5.2.2 Test Setup

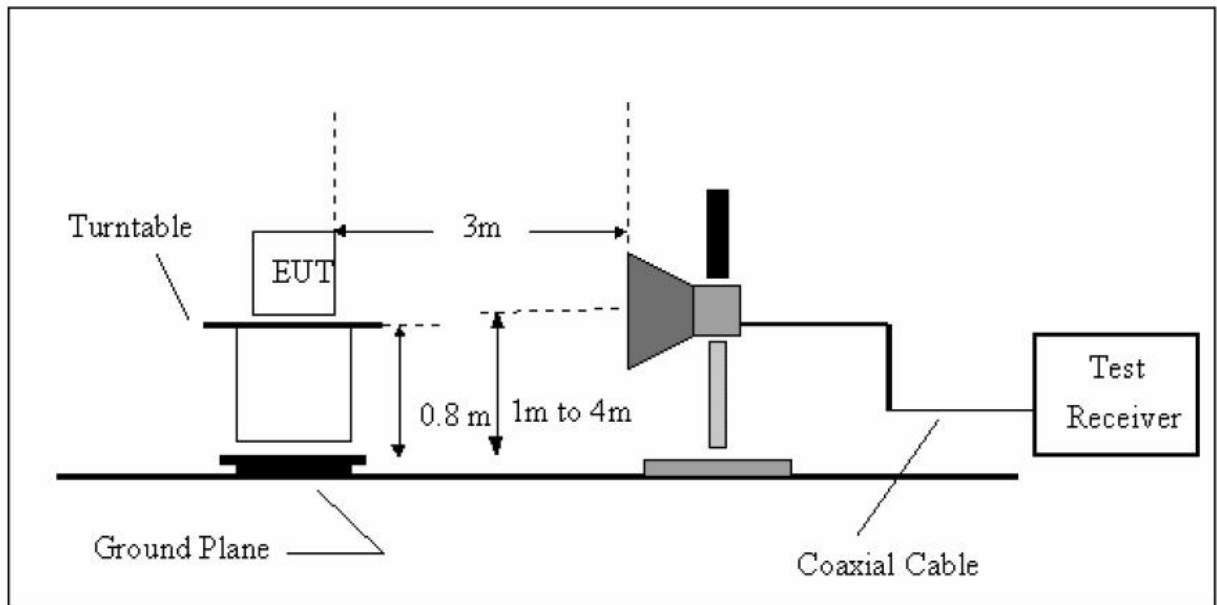
See the next page



Below 30MHZ Test Setup



Above 30MHZ Test Setup



Above 1GHZ Test Setup

### 5.2.3 Test Procedure

- a) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1GHz, The EUT was placed on a rotating 0.8 m high above ground, The table was rotated 360 degrees to determine the position of the highest radiation
- b) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- c) The initial step in collecting conducted emission data is a spectrum analyzer Peak detector mode pre-scanning the measurement frequency range. Significant Peaks are then marked, and then Quasi Peak Detector mode re-measured
- d) If Peak value complies with QP limit Below 1GHz. The EUT is deemed to comply with QP limit. But the Peak value and average value both need to comply with applicable limit above 1GHz.
- e) For the actual test configuration, please see the test setup photo.

### 5.2.4 Test Equipment Setting For emission test. test Result

9KHZ~150KHZ	RBW 200HZ	VBW 1KHZ
150KHZ~30MHZ	RBW 9KHZ	VBW 30KHZ
30MHZ~1GHZ	RBW 120KHZ	VBW 300KHZ
Above 1GHZ	RBW 1MHZ	VBW 3MHZ

### 5.2.5 Test Condition

Continual Transmitting in maximum power (The new battery be used during Test)

### 5.2.6 Test Result

Detailed information please see the following page.

Report No.:STE100422277

<b>EUT</b>	2.4Ghz wireless multimedia keyboard with mouse function	<b>Model Name</b>	QX-K208
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/OP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limits 3m (dBuV/m)	Margin (dBuV/m)
76.560	V	Peak	45.75	-18.43	27.32	40.00	-12.68
165.800	V	Peak	40.58	-12.8	27.78	43.50	-15.72
256.010	V	Peak	41.69	-12.56	29.13	46.00	-16.87
384.050	V	Peak	41.98	-11.82	30.16	46.00	-15.84
500.450	V	Peak	38.41	-8.60	29.81	46.00	-16.19
831.220	V	Peak	34.61	-2.98	31.63	46.00	-14.37

<b>EUT</b>	2.4Ghz wireless multimedia keyboard with mouse function	<b>Model Name</b>	QX-K208
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX		

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/OP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limits 3m (dBuV/m)	Margin (dBuV/m)
191.990	H	Peak	44.98	-13.30	31.68	43.50	-11.82
256.010	H	Peak	46.77	-12.56	34.21	46.00	-11.79
352.040	H	Peak	43.64	-12.04	31.60	46.00	-14.40
399.570	H	Peak	42.99	-11.31	31.68	46.00	-14.32
652.740	H	Peak	38.57	-5.85	32.72	46.00	-13.28
779.810	H	Peak	37.14	-3.80	33.34	46.00	-12.66

**Notes:** Above is Below 1GHZ test data

Report No.:STE100422277

<b>EUT</b>	2.4Ghz wireless multimedia keyboard with mouse function	<b>Model Name</b>	QX-K208
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1244.33	V	59.69	---	-11.52	48.17	---	74.00	54.00	-5.83	Peak
1936.77	V	57.12	---	-8.86	48.26	---	74.00	54.00	-5.74	Peak
3425.66	V	52.37	---	-5.09	47.28	---	74.00	54.00	-6.72	Peak
4802.00	V	47.97	---	0.64	48.61	---	74.00	54.00	-5.39	Peak
N/A										

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<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX Low		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1365.55	H	57.59	---	-10.43	47.16	---	74.00	54.00	-6.84	Peak
1638.43	H	56.63	---	-9.84	46.79	---	74.00	54.00	-7.21	Peak
2933.00	H	53.82	---	-5.95	47.87	---	74.00	54.00	-6.13	Peak
4802.00	H	47.42	---	0.64	48.06	---	74.00	54.00	-5.94	Peak
N/A										

**Notes:**AV Means AV detector test data,Peak Means Peak detector test data.  
Emissions attenuated more than 20 dB below the permissible value are not reported.

<b>EUT</b>	2.4Ghz wireless multimedia keyboard with mouse function	<b>Model Name</b>	QX-K208
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1469.85	V	58.38	---	-10.27	48.11	---	74.00	54.00	-5.89	Peak
1642.66	V	54.13	---	-9.84	44.29	---	74.00	54.00	-9.71	Peak
2876.55	V	51.63	---	-5.87	45.76	---	74.00	54.00	-8.24	Peak
4884.00	V	46.93	---	0.76	47.69	---	74.00	54.00	-6.31	Peak

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<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX Mid		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1325.66	H	56.4	---	-10.84	45.56	---	74.00	54.00	-8.44	Peak
1846.00	H	56.25	---	-9.04	47.21	---	74.00	54.00	-6.79	Peak
2694.33	H	55.51	---	-6.94	48.57	---	74.00	54.00	-5.43	Peak
4884.00	H	46.43	---	0.76	47.19	---	74.00	54.00	-6.81	Peak

**Notes:**AV Means AV detector test data,Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.



<b>EUT</b>	2.4Ghz wireless multimedia keyboard with mouse function	<b>Model Name</b>	QX-K208
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1468.22	V	56.65	---	-10.2	46.38	---	74.00	54.00	-7.62	Peak
1972.55	V	56.75	---	-8.64	48.11	---	74.00	54.00	-5.89	Peak
2135.44	V	56.19	---	-8.36	47.83	---	74.00	54.00	-6.17	Peak
4958.00	V	46.08	---	0.98	47.06	---	74.00	54.00	-6.94	Peak

<b>EUT</b>	2.4Ghz wireless multimedia keyboard with mouse function	<b>Model Name</b>	QX-K208
<b>Temperature</b>	26°C	<b>Relative Humidity</b>	58%
<b>Pressure</b>	960hPa	<b>Test voltage</b>	DC 3V
<b>Test Mode</b>	TX High		

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
1355.82	H	55.07	---	-10.43	44.64	---	74.00	54.00	-9.36	Peak
1677.00	H	56.81	---	-9.65	47.16	---	74.00	54.00	-6.84	Peak
2122.96	H	54.84	---	-8.36	46.48	---	74.00	54.00	-7.52	Peak
4958.00	H	47.59	---	0.98	48.57	---	74.00	54.00	-5.43	Peak

**Notes:**AV Means AV detector test data,Peak Means Peak detector test data.

Emissions attenuated more than 20 dB below the permissible value are not reported.

## 6 Peak Power

### 6.1 Test limit

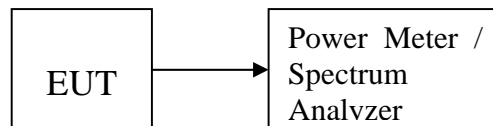
Please refer section 15.247.

Regulation 15.247(b) The limit of Maximum Peak Output Power Measurement is 1W(30dBm)

### 6.2 Test Procedure

The transmitter output is connected to the RF Power Meter. The RF Power Meter is set to the peak power detection.

### 6.3 Test Setup



### 6.4 Test Results

Channel	Frequency (MHz)	Reading Power (dBm)	Factor (dB)	Out put Power (dBm)	Out put Power (W)	Limit (W)	Result
Low	2402	-1.95	1.2	-0.75	0.000841	1	PASS
Mid	2441	-1.98	1.2	-0.78	0.000836		PASS
High	2480	-2.01	1.2	-0.81	0.000830		PASS

## 7 PEAK POWER SPECTRAL DENSITY

### 7.1 Test limit

7.1.1 Please refer section 15.247.

7.1.2 For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

7.1.3 The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

### 7.2 Method of measurement

7.2.1 Place the EUT on the table and set it in transmitting mode.

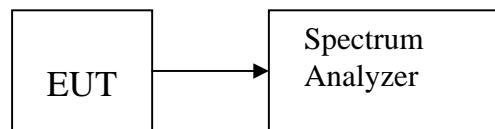
7.2.2 Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

7.2.3 Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 300kHz, Sweep=100s.

7.2.4 Record the max. reading.

7.2.5 Repeat the above procedure until the measurements for all frequencies are completed.

### 7.3 Test Setup



### 7.4 Test Results

PASS.

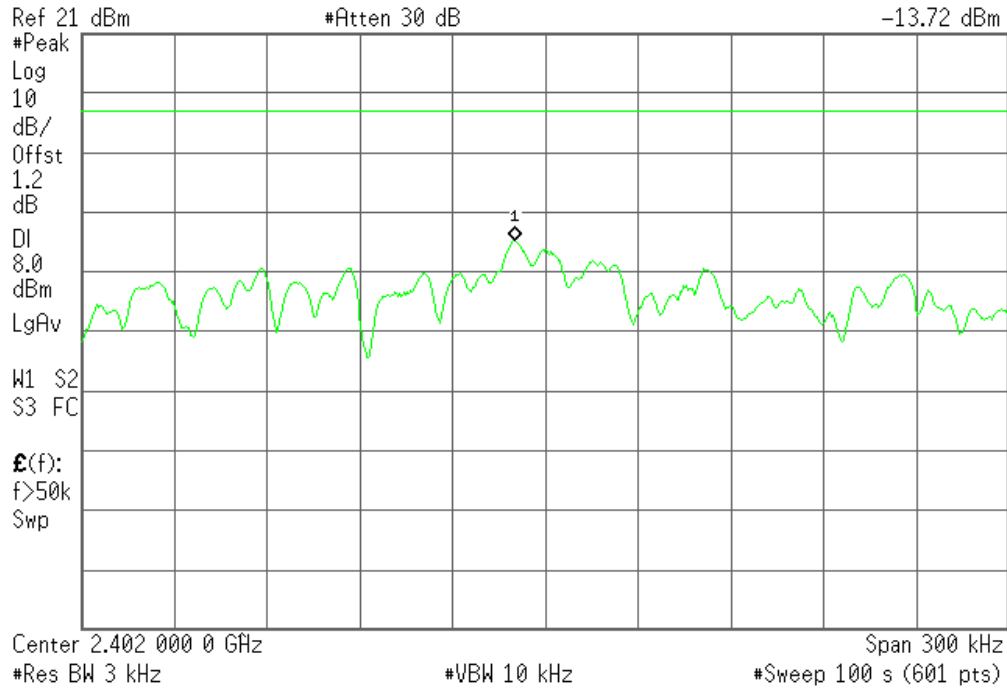
Detailed information please see the following page.

CH Low :

Agilent 22:02:51 Apr 24, 2010

R T

Mkr1 2.401 990 0 GHz  
-13.72 dBm

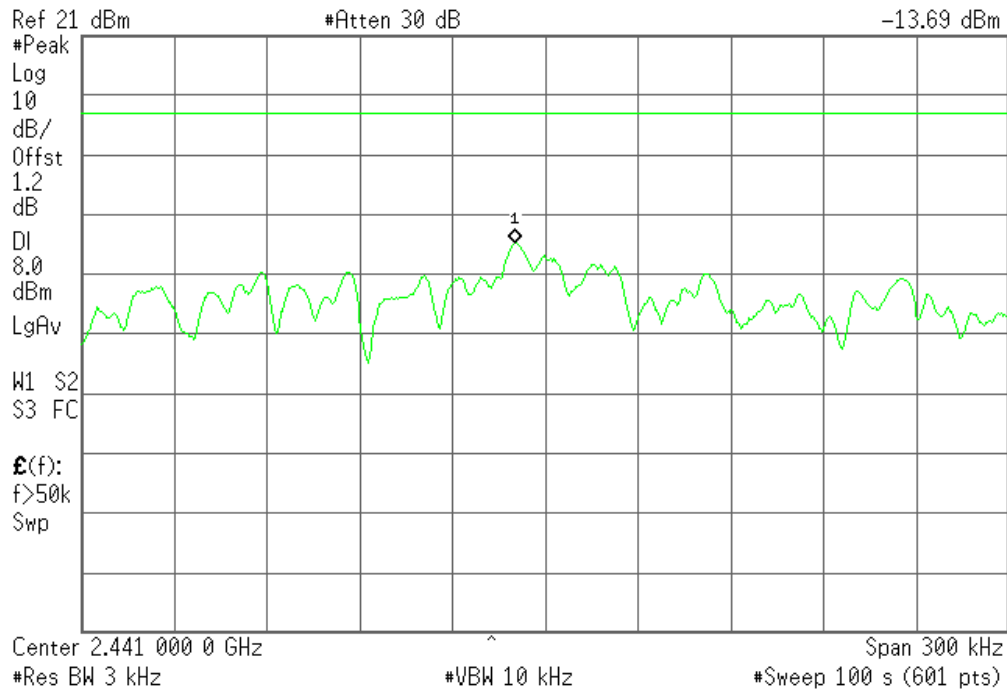


CH Mid :

Agilent 22:00:31 Apr 24, 2010

R T

Mkr1 2.440 990 0 GHz  
-13.69 dBm

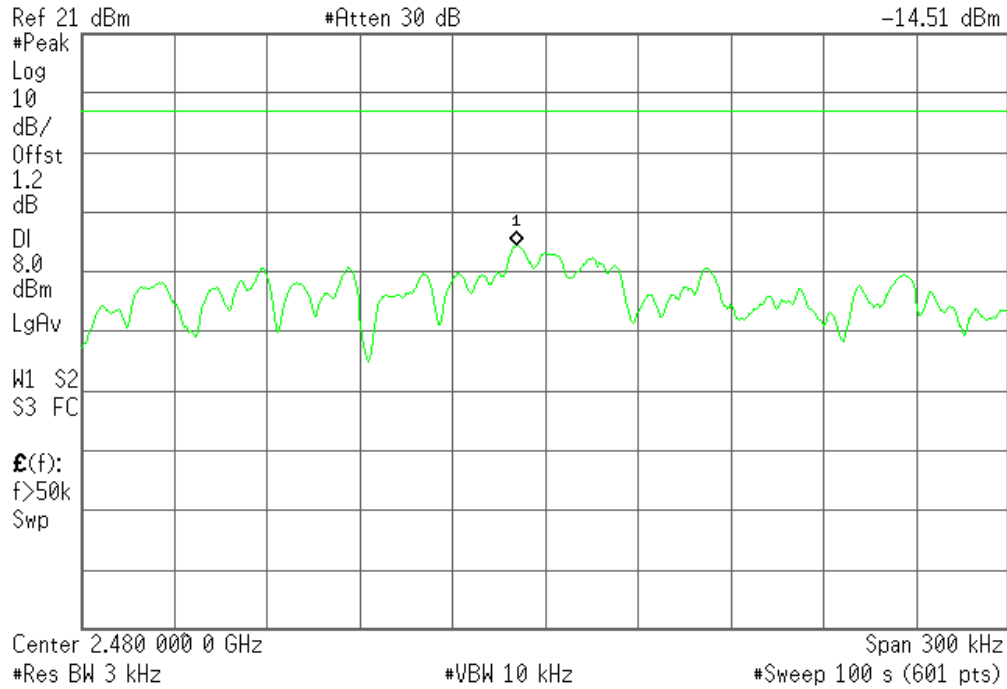


CH High :

Agilent 21:57:43 Apr 24, 2010

R T

Mkr1 2.479 990 5 GHz  
-14.51 dBm



## 8 FREQUENCY SEPARATION

### 8.1 Test limit

Please refer section 15.247

According to § 15.247(a)(2), Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz. bands. The minimum 6dB bandwidth shall be at least 500kHz.

No requirements for Frequency Hopping Systems.

### 8.2 Method of measurement

- a) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.
- b) The test receiver RBW set 100KHZ, VBW set 300KHZ, Sweep time set auto.

### 8.3 Test Setup

Same as 7.3

### 8.4 Test Results

PASS.

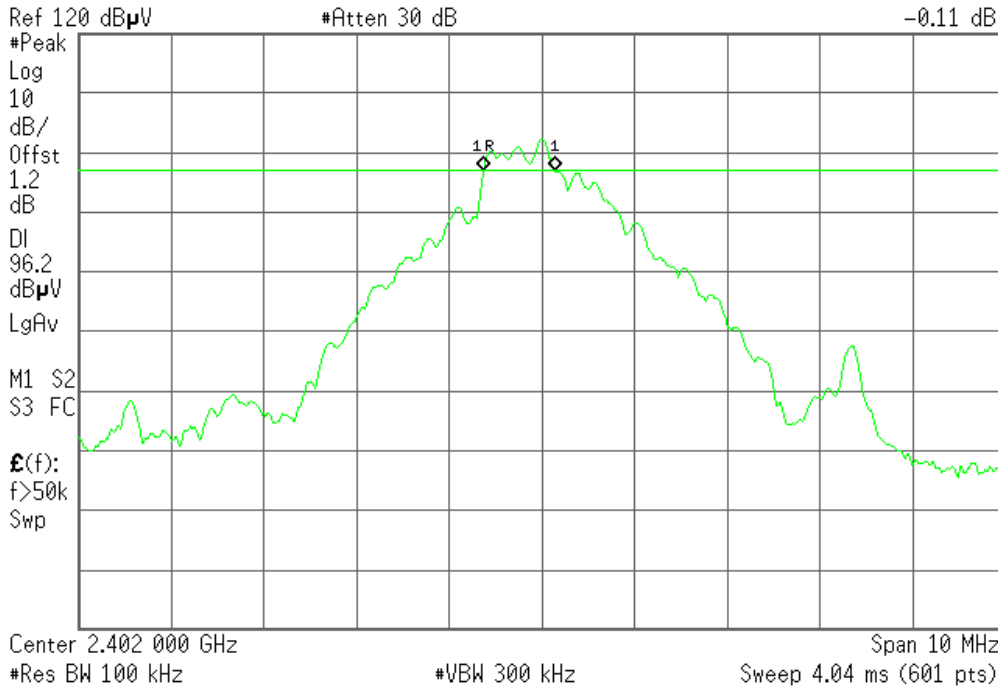
Detailed information please see the following page.

### CH Low :

Agilent 11:12:32 May 10, 2010

R T

▲ Mkr1 814 kHz  
-0.11 dB

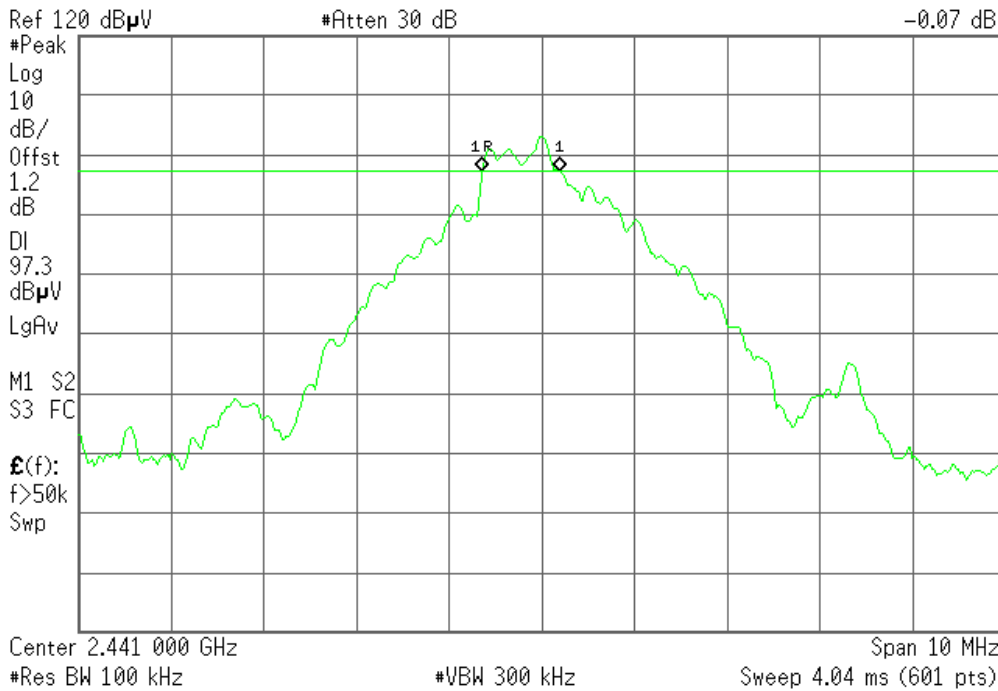


### CH Mid :

Agilent 11:19:13 May 10, 2010

R T

▲ Mkr1 833 kHz  
-0.07 dB



CH High :

✱ Agilent 11:24:43 May 10, 2010

R T

▲ Mkr1 843 kHz  
0.11 dB

Ref 120 dBμV

#Atten 30 dB

#Peak

Log

10

dB/

Offst

1.2

dB

DI

96.6

dBμV

LgAv

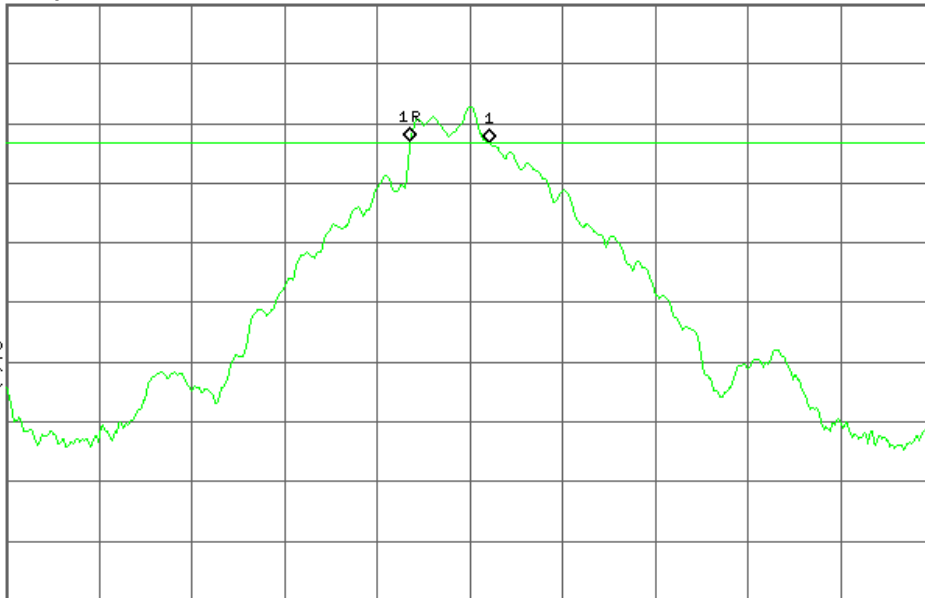
M1 S2

S3 FC

Ⓕ(f):

f>50k

Swp



Center 2.480 000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 10 MHz  
Sweep 4.04 ms (601 pts)



## 9 NUMBER OF HOPPING FREQUENCY

### 9.1 Test limit

Please refer section 15.247

According to § 15.247(a)(1)(ii), Frequency hopping systems operating in the 2400MHz-2483.5 MHz bands shall use at least 15 hopping frequencies.

### 9.2 Method of measurement

9.2.1. Place the EUT on the table and set it in transmitting mode.

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

9.2.3. Set spectrum analyzer Start=2400MHz, Stop = 2441.5MHz, Sweep = 1ms and Start=2441.5MHz, Stop = 2483.5MHz, Sweep = 1ms.

9.2.4. Set the spectrum analyzer as RBW, VBW=510kHz,

9.2.5. Max hold, view and count how many channel in the band.

### 9.3 Test Setup

Same as 7.3

### 9.4 Test Results

The test is not applicable.

No requirements for Frequency Hopping Systems.

## 10 Band Edge Check

### 10.1 Test limit

Please refer section 15.247

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 Section 15.209, whichever is the lesser attenuation.

### 10.2 Test Procedure

11.2.1 Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission

11.2.2 Turning to Low and High frequency, then reduced 50dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency.

11.2.3 Check the spurious emissions out of band.

11.2.4 RBW, VBW Setting, please see the following test plot.

### 10.3 Test Setup

Same as 5.2.2.

### 10.4 Test Result

PASS.

Detailed information please see the following page.

Report No.:STE100422277

CH LOW :

Detector mode: Peak

Agilent 08:14:54 Apr 24, 2010

Polarity: Horizontal

R T

Mkr1 2.390 0 GHz

43.23 dB $\mu$ V

Ref 110 dB $\mu$ V

#Atten 20 dB

#Peak

Log

10

dB/

DI

74.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

$\mathcal{E}(f)$ :

FTun

Swp

Start 2.310 0 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.420 0 GHz

Sweep 1 ms (601 pts)

Detector mode: Average

Agilent 08:16:01 Apr 24, 2010

Polarity: Horizontal

R T

Mkr1 2.390 0 GHz

33.42 dB $\mu$ V

Ref 110 dB $\mu$ V

#Atten 20 dB

#Avg

Log

10

dB/

DI

54.0

dB $\mu$ V

PAvg

M1 S2

S3 FC

A

$\mathcal{E}(f)$ :

FTun

Swp

Start 2.310 0 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.420 0 GHz

Sweep 27.12 s (601 pts)

Report No.:STE100422277

CH High :

**Detector mode: Peak**

✱ Agilent 08:18:43 Apr 24, 2010

**Polarity: Horizontal**

R T

Mkr1 2.483 50 GHz

45.87 dB $\mu$ V

Ref 110 dB $\mu$ V

#Atten 20 dB

#Peak

Log

10

dB/

DI

74.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

$\mathcal{E}(f)$ :

FTun

Swp

Start 2.450 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

Sweep 1 ms (601 pts)

**Detector mode: Average**

✱ Agilent 08:19:25 Apr 24, 2010

**Polarity: Horizontal**

R T

Mkr1 2.483 50 GHz

35.65 dB $\mu$ V

Ref 110 dB $\mu$ V

#Atten 20 dB

#Avg

Log

10

dB/

DI

54.0

dB $\mu$ V

PAvg

M1 S2

S3 FC

A

$\mathcal{E}(f)$ :

FTun

Swp

Start 2.450 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

Sweep 12.33 s (601 pts)

Report No.:STE100422277

CH LOW :

Detector mode: Peak

Agilent 08:29:43 Apr 24, 2010

Polarity: Vertical

R T

Mkr1 2.390 0 GHz

43.31 dBμV

Ref 110 dBμV

#Atten 20 dB

#Peak

Log

10

dB/

DI

74.0

dBμV

LgAv

M1 S2

S3 FC

A

f(f):

FTun

Swp

Start 2.310 0 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.420 0 GHz

Sweep 1 ms (601 pts)

Detector mode: Average

Agilent 08:30:33 Apr 24, 2010

Polarity: Vertical

R T

Mkr1 2.390 0 GHz

33.56 dBμV

Ref 110 dBμV

#Atten 20 dB

#Avg

Log

10

dB/

DI

54.0

dBμV

PAvg

M1 S2

S3 FC

A

f(f):

FTun

Swp

Start 2.310 0 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.420 0 GHz

Sweep 27.12 s (601 pts)

Report No.:STE100422277

CH High :

Detector mode: Peak

Agilent 08:27:36 Apr 24, 2010

Polarity: Vertical

R T

Mkr1 2.483 50 GHz

52.07 dB $\mu$ V

Ref 110 dB $\mu$ V

#Atten 20 dB

#Peak

Log

10

dB/

DI

74.0

dB $\mu$ V

LgAv

M1 S2

S3 FC

A

$\mathcal{E}(f)$ :

FTun

Swp

Start 2.450 00 GHz

#Res BW 1 MHz

#VBW 1 MHz

Stop 2.500 00 GHz

#Sweep 100 ms (601 pts)

Detector mode: Average

Agilent 08:28:13 Apr 24, 2010

Polarity: Vertical

R T

Mkr1 2.483 50 GHz

39.61 dB $\mu$ V

Ref 110 dB $\mu$ V

#Atten 20 dB

#Avg

Log

10

dB/

DI

54.0

dB $\mu$ V

PAvg

M1 S2

S3 FC

A

$\mathcal{E}(f)$ :

FTun

Swp

Start 2.450 00 GHz

#Res BW 1 MHz

#VBW 10 Hz

Stop 2.500 00 GHz

Sweep 12.33 s (601 pts)

## 11 Antenna Requirement

### 11.1 Standard Requirement

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. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

### 11.2 Antenna Connected Construction

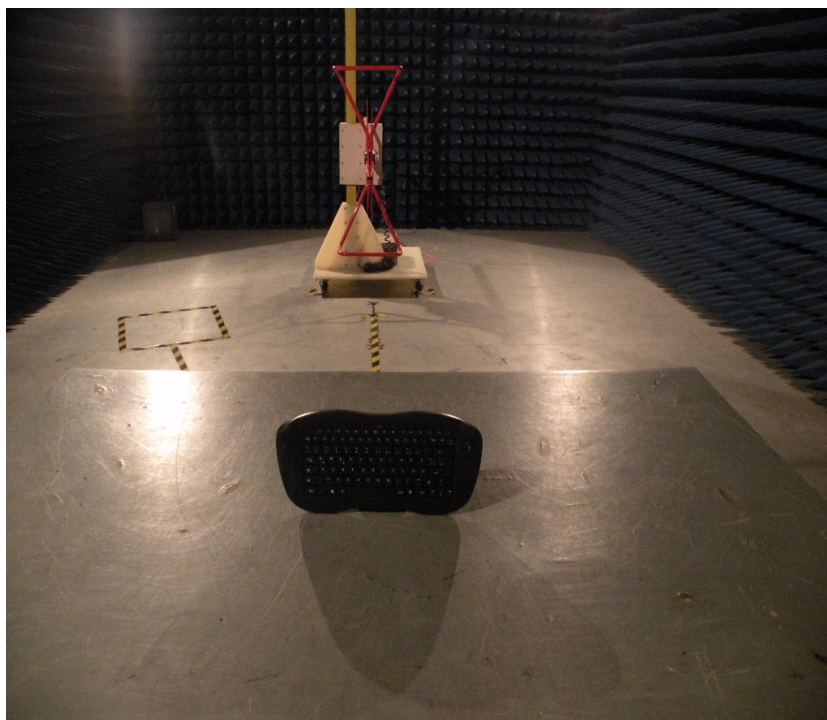
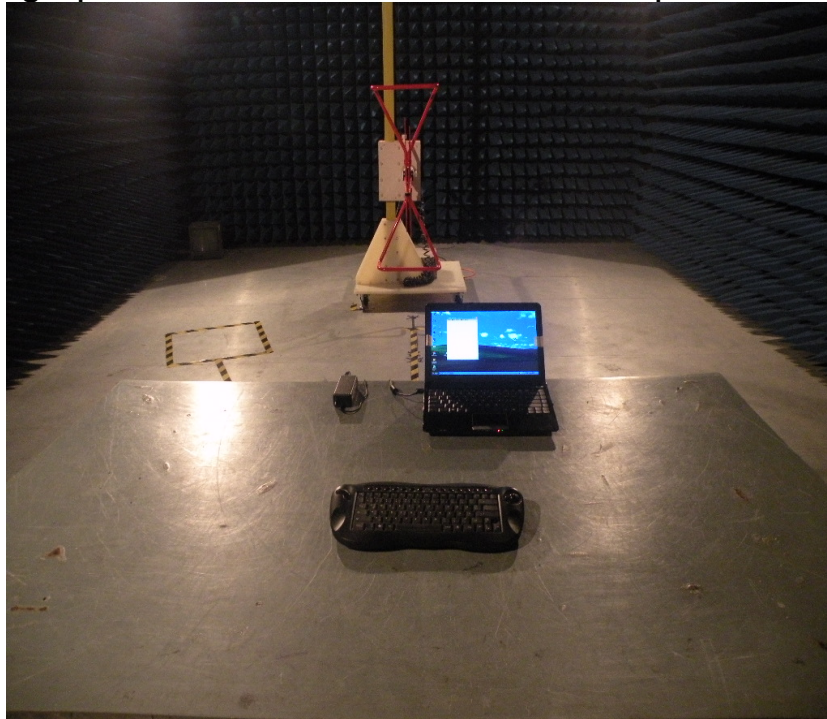
The directional gains of antenna used for transmitting is 0 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Please see EUT photo for details.

### 11.3 Result

The EUT antenna is integral Antenna. It complies with the standard requirement.

## 12 Photographs of Test Setup

### Photographs-Radiated Emission Test Setup in Chamber





## 13 Photographs of EUT

**Figure 1**

Photo of EUT

Front View [ ]

Rear View [ ]

Full View [✓]

Bottom View[ ]

Left View [ ]

Right View [ ]

Full View [ ]



### Receive

**Figure 2**

Photo of EUT

Front View [ ]

Rear View [ ]

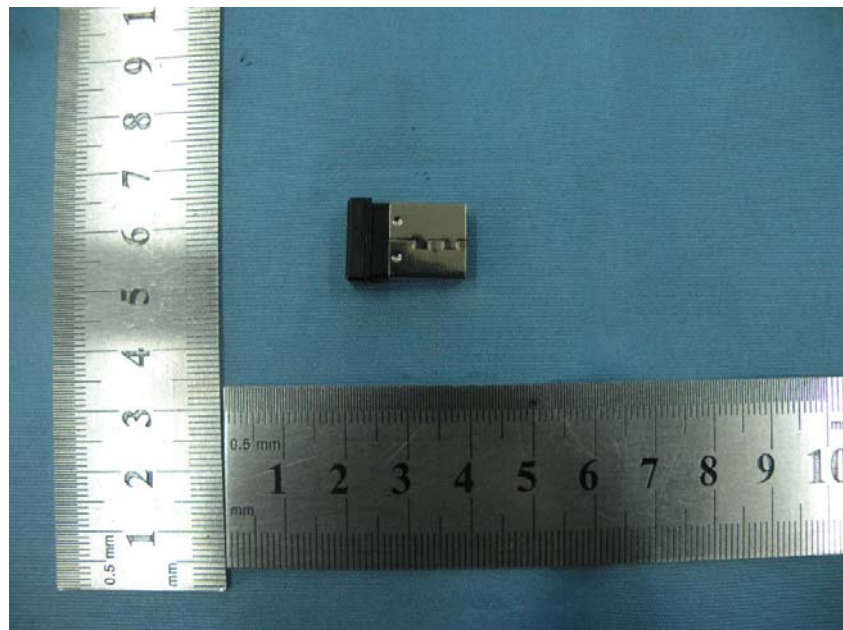
Top View [✓]

Bottom View[ ]

Left View [ ]

Right View [ ]

Full View [ ]



**Figure 3**

Photo of EUT

Front View [ ✓ ]

Rear View [ ]

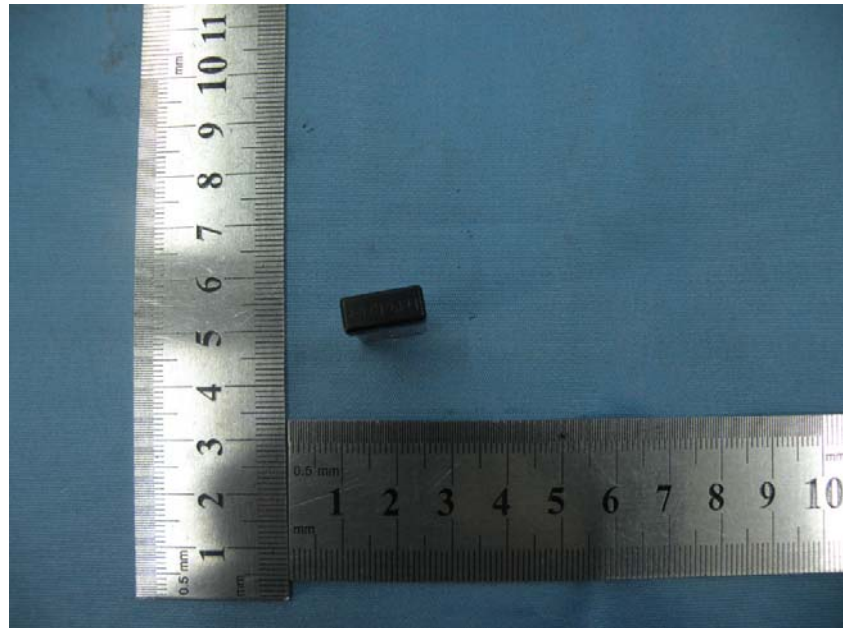
Top View [ ]

Bottom View [ ]

Left View [ ]

Right View [ ]

Full View [ ]



### Transmitter

**Figure 4**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [ ✓ ]

Bottom View [ ]

Left View [ ]

Right View [ ]

Full View [ ]



**Figure 5**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [✓]

Bottom View[ ]

Left View [ ]

Right View [ ]

Full View [ ]



**Figure 6**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [✓]

Bottom View[ ]

Left View [ ]

Right View [ ]

Full View [ ]



**Figure 7**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [ ]

Bottom View[ ✓ ]

Left View [ ]

Right View [ ]

Full View [ ]



**Figure 8**

Photo of EUT

Front View [ ✓ ]

Rear View [ ]

Top View [ ]

Bottom View[ ]

Left View [ ]

Right View [ ]

Internal View [ ]





**Figure 9**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [ ]

Bottom View[ ]

Left View [✓]

Right View [ ]

Internal View [ ]



**Figure 10**

Photo of EUT

Front View [ ]

Rear View [✓]

Top View [ ]

Bottom View[ ]

Left View [ ]

Right View [ ]

Internal View [ ]



**Figure 11**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [ ]

Bottom View[ ]

Left View [ ]

Right View [✓]

Internal View [ ]



**Figure 12**

Photo of EUT

Front View [ ]

Rear View [ ]

Top View [ ]

Bottom View[ ]

Left View [ ]

Right View [ ]

Internal View [✓]



**Figure 13**

Photo of EUT

Front View [ ]

Rear View [ ]

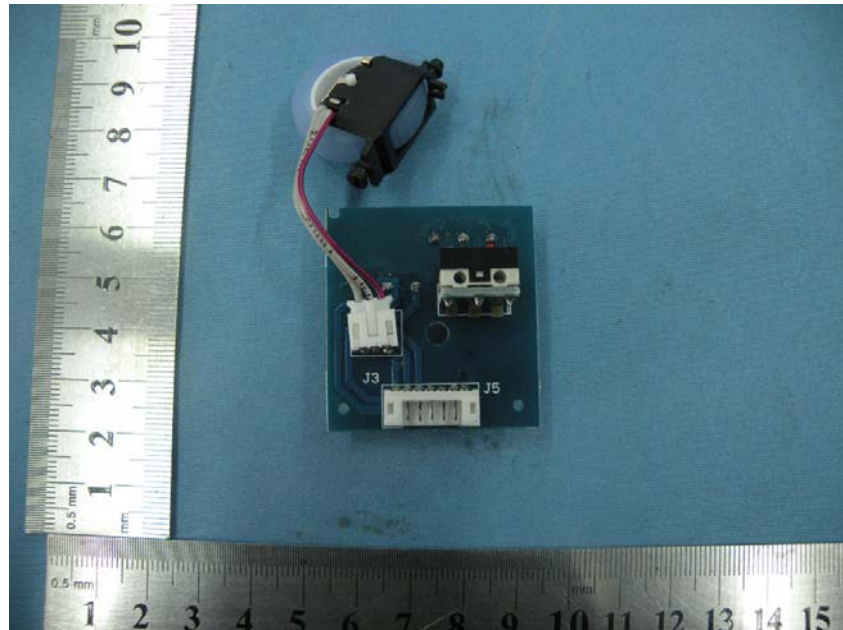
Top View [ ]

Bottom View[ ]

Left View [ ]

Right View [ ]

Internal View [ ✓ ]



**Figure 14**

Photo of EUT

Front View [ ]

Rear View [ ]

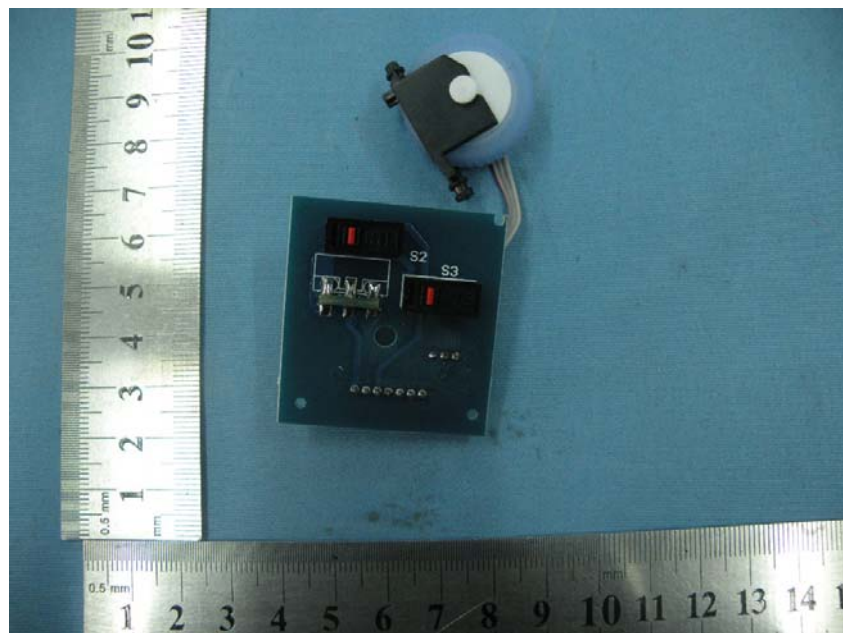
Top View [ ]

Bottom View[ ]

Left View [ ]

Right View [ ]

Internal View [ ✓ ]





**Figure 15**

Photo of EUT

Front View [ ]

Rear View [ ]

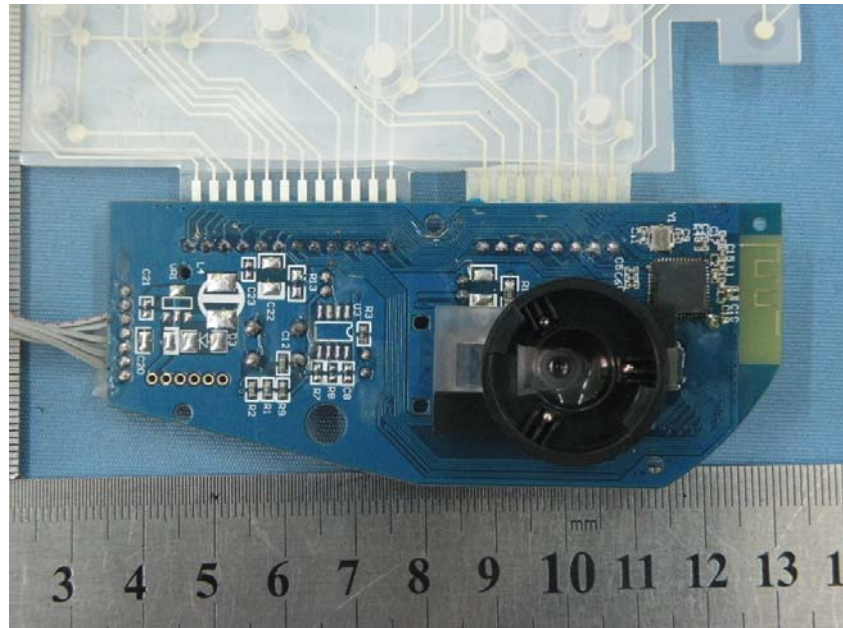
Top View [ ]

Bottom View [ ]

Left View [ ]

Right View [ ]

Internal View [ ✓ ]



**Figure 16**

Photo of EUT

Front View [ ]

Rear View [ ]

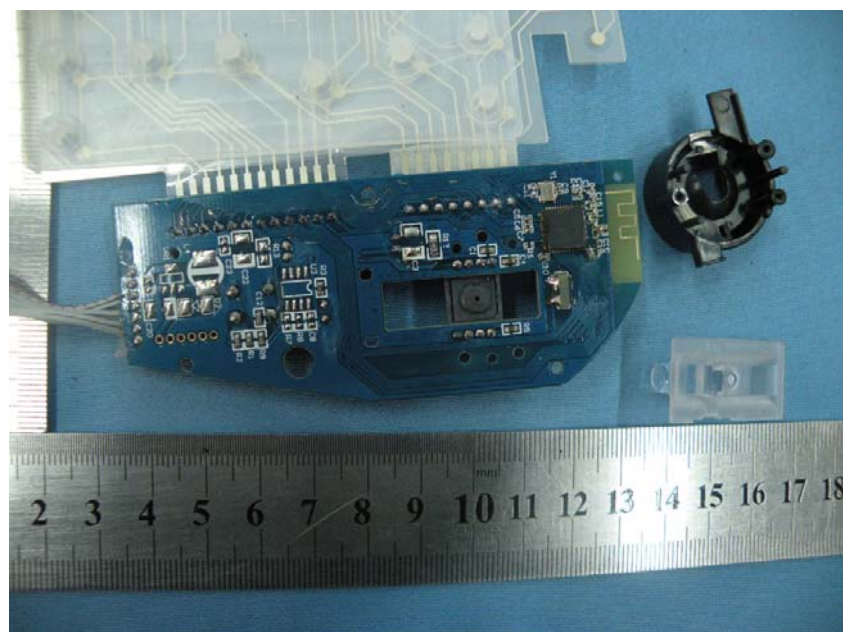
Top View [ ]

Bottom View [ ]

Left View [ ]

Right View [ ]

Internal View [ ✓ ]





**Figure 17**

Photo of EUT

Front View [ ]

Rear View [ ]

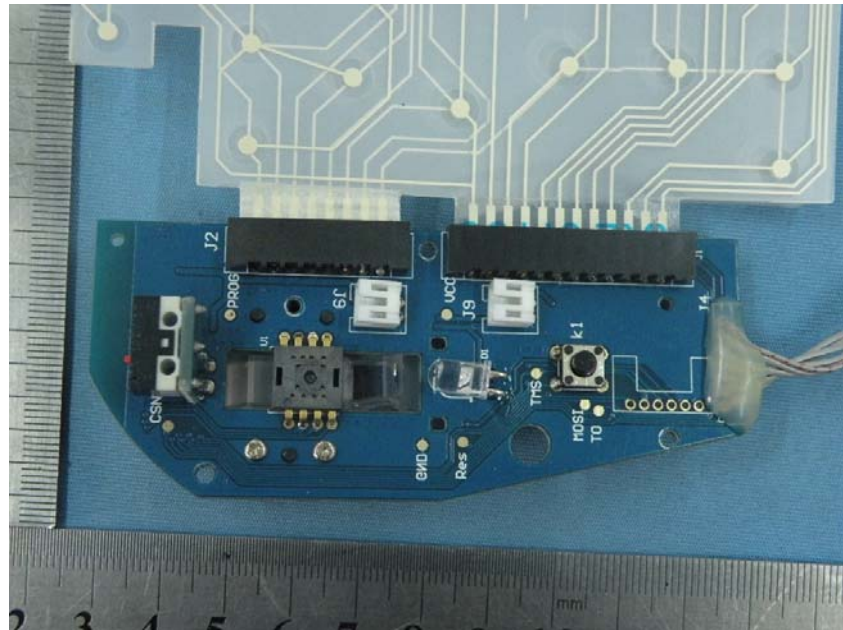
Top View [ ]

Bottom View[   ]

Left View [ ]

Right View [ ]

Internal View [ ✓ ]



-----END OF THE REPORT-----