



CMA Testing and Certification Laboratories

廠商會檢定中心

TEST REPORT

Report No. : AS0049260(0) Date : 18 Aug 2014

Application No. : LS027207(7)

Applicant : Hulu Robotics Technology Company Limited
Unit A, 3/F, Cheong Sun Tower, 116-118 Wing Lok Street,
Sheung Wan, Hong Kong

Client : Maker Works Technology Co., Ltd
No. 4266, F/4, Gonglehuating Business Building, Xinhua Road,
Xixiang Sub-district, Bao'An District, Shenzhen, China

Sample Description : One(1) item of submitted sample stated to be Makeblock Bluetooth Module of model No. 13002 applicable only for product Makeblock Starter Robot Kit (Bluetooth Version), Makeblock Ultimate Robot Kit (Bluetooth Version) and Makeblock Inventor Electronic Kit (Bluetooth Version)

Product No. : 90020, 90021, 90024, 90025 and 94004

Buyer SKU No. : 2770245 Robot Starter Kit Bluetooth Version, 2770246 Inventor Ultimate Robot Kit, 2770247 Inventor Electronic Kit

Sample registration No. : RS033606-001

Radio Frequency : 2402MHz ~ 2480MHz Transceiver

Rating : DC 5V

Date Received : 08 Aug 2014

Test Period : 08 Aug 2014 to 15 Aug 2014

Test Requested : FCC Part 15 Certificate

Test Method : 47 CFR Part 15 (10-1-12 Edition), ANSI C63.4 – 2009,
FCC Public Notice DA 00-705

Test Engineer : Mr. LEUNG Shu-kan, Ken

Test Result : See attached sheet(s) from page 2 to 46.

Conclusion : The submitted sample was found to comply with requirement of FCC Part 15
Subpart B and C.

Remark : The Bluetooth Module used in five products is same in electronic circuitry, PCB layout and components. Therefore single Bluetooth unit was chosen to tested unit.
This report is for Bluetooth 3.0 testing

For and on behalf of

CMA Industrial Development Foundation Limited

Authorized Signature : _____

Mr. WONG Lap-pong, Andrew
Manager
Electrical Division

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FCC ID: 2ACWW13002



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1 General Information

1.1 General Description

Me Bluetooth (Dual Mode) is designed to communicate with devices with Bluetooth function through specific software. It is compatible with Bluetooth 2.0 and 4.0, provides a simple way to communicate with other Bluetooth device(such as smart phones). The Bluetooth module provides TTL level UART interface. It acts like a normal UART module in an embedded system(such as Arduino), communicating with other Bluetooth device is as easy as operating a serial port.

The ELET114A Bluetooth Dual-Mode Module is integrated MCU (ARM Cortex-M0 32-BIT MICROCONTROLLER) and Bluetooth radio device, follow BT2.1+EDR/3.0/4.0(BLE) specification, support SPP protocol and so on. It supports UART, SPI, I2C, interfaces, contains four PWM ports, channels and several GPIOs, with high integration, low cost, low power consumption, and excellent Radio performance. It achieves the perfect compatibility of iOS(MAC), Android and other operating system.

This Bluetooth Module is not capable to connect any product(s) other than Makeblock Starter Robot Kit (Bluetooth Version), Makeblock Ultimate Robot Kit (Bluetooth Version) and Makeblock Inventor Electronic Kit (Bluetooth Version). A non standard terminal with unique pin assignment has been used to limit user operation.

Pseudorandom frequency hopping sequence

The channel is represented by a pseudo-random hopping sequence hopping through the 79 RF Channels. The hopping sequence is unique for the piconet and is determined by the Bluetooth device address of the master; the phase in the hopping sequence is determined by the Bluetooth clock of the master. The channel is divided into time slots where each slot corresponds to an RF hop frequency. Consecutive hops correspond to different RF hop frequencies. The nominal hop rate is 1600 hops/s.

Example of a 79 hopping sequence in data mode: 40, 21, 44, 23, 42, 53, 46, 55, 48, 33, 52, 35, 50, 65, 54...

Equal Hopping Frequency Use

All Bluetooth units participating in the piconet are time and hop-synchronized to the channel.

System Receiver Input Bandwidth

The input bandwidth of the receiver is 1 MHz. In every connection one Bluetooth device is the master and the other one is slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally the type of connection (e.g. single multisport (packet) is set up at the beginning of the



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connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also the slave of the connection will use these settings. Repeating of a packet has no influence on the hopping sequence.. The hopping sequence generated by the master of the connection will be followed in any case. That means, a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.

Equipment Description

15.247(g): In accordance with the Bluetooth Industry Standard, the system is designed to comply With all of The regulations in Section 15.247 when the transmitter is presented with a continuous data (or information) system.

15.247(h): In accordance with the Bluetooth Industry Standard, the system does not coordinate it channels selection/ hopping sequence with other frequency hopping systems for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters.

The brief circuit description is listed as follows:

- U2 and its associated circuit act as Bluetooth module
- U1 and its associated circuit act as power regulator

Antenna type : PCB Antenna
Antenna gain : 1.5dBi
Modulation technique : GFSK, $\Pi/4$ -DQPSK, 8PSK
Number of channel : 79 channels



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1.2 Location of the test site

FCC Registered Test Site Number: 552221

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2009. A Semi-Anechoic Chamber Testing Site is set up for investigation and located at:

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
Hong Kong.

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2009. A shielded room is located at :

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
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1.3 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due Date	Calibration Period
EMI Test Receiver	R&S	ESCS30	100001	21 Nov 2014	1Year
Spectrum Analyzer	R&S	FSV40	100964	17 Dec 2014	1Year
Broadband Antenna	Schaffner	CBL6112B	2718	06 Jan 2015	1Year
Loop Antenna	EMCO	6502	00056620	28 Oct 2015	1Year
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-531	09 Oct 2014	1Year
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170442	17 Jun 2015	2Years
Broadband Pre-Amplifier	Schwarzbeck	BBV 9718	9718-119	09 Oct 2014	1Year
Broadband Pre-Amplifier	Schwarzbeck	BBV 9719	9719-010	17 Jun 2015	2Years
Coaxial Cable	Schaffner	RG 213/U	N/A	06 Jan 2015	1Year
Coaxial Cable	Suhner	RG 214/U	N/A	06 Jan 2015	1Year
Coaxial Cable	Suhner	Sucoflex_102	N/A	09 Oct 2014	1Year



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1.4 Measurement Uncertainty

The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a level of confidence of approximately 95%.

Radiated emissions

Frequency	Uncertainty (U_{lab})
30MHz ~ 200MHz (Horizontal)	4.63dB
30MHz ~ 200MHz (Vertical)	4.65dB
200MHz ~ 1000MHz (Horizontal)	4.45dB
200MHz ~ 1000MHz (Vertical)	4.41dB

Conducted emissions

Frequency	Uncertainty (U_{lab})
150kHz~30MHz	2.47dB



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2 Description of the radiated emission test

2.1 Test Procedure

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2009 and DA 00-705.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1 m above the ground.

For 30MHz to 1GHz, broadband antenna with its vertical and horizontal plane is placed 3m from the EUT and rotated about its vertical and horizontal axis for maximum response at each azimuth about the EUT. And the reference point of antenna shall be 1 m above the ground.

For above 1GHz, horn antenna with its vertical and horizontal plane is placed 3m from the EUT and rotated about its vertical and horizontal axis for maximum response at each azimuth about the EUT. Preamplifier and High Pass filter was used for measurements. The reference point of antenna shall be 1 m above the ground.

The device was rotated through three orthogonal axes to determine which attitude and configuration produce the highest emission during measurement for Radiated Emission measurement.



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2.2 Test Result

Summary

Section in FCC part 15	Description	Result
15.205(a), 15.209, 15.247(d)	Transmitter radiated spurious field strength and other emissions	Page 11
15.209	Receiver emissions	Page 12
15.247 (a)(1), Part 2.1 and DA-00705	Hopping sequence	Page 26, 27
15.247 (a)(1)	20dB bandwidth and 99% bandwidth	Page 28, 29, 30
15.247 (a)(1)	Channel Spacing (Frequency separation)	Page 31, 32
15.247 (a)(1)(iii)	Number of hopping frequency	Page 33
15.247 (d)	Band Edge	Page 34, 35
15.247 (a)(1)(iii)	Dwell Time (Bluetooth Average On Time)	Page 36-44
15.247 (b)(1)	Maximum Peak output power	Page 10, 45, 46

Subpart C:

Peak Detector and Average Detector data were measured unless otherwise stated.

“#” means emissions appear within the restricted bands shall follow the requirement of section 15.205.

The harmonic emissions meet the requirement of section 15.209 are based on measurements employing the CISPR quasi-peak detector below 1000MHz and average detector for frequencies above 1000MHz.

Subpart B:

The emissions meet the requirement of section 15.109 are based on measurements employing the CISPR quasi-peak detector below 1000MHz and average detector for frequencies above 1000MHz.

The frequencies from 30MHz to 1000MHz were investigated, and emissions more 20dB below limit were not reported. Thus, those highest emissions were presented in next page (section 2.3).

It was found that the EUT meet the FCC requirement.



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2.3 Maximum peak output power

Conductive measurements

pursuant to

the requirement of FCC Part 15 subpart C

Environmental conditions:

Parameter	Recorded value	
Ambient temperature:	26	° C
Relative humidity:	60	%

Operation Mode: Transmission

Channel	Frequency (MHz)	Reading (dBm)	Reading (mW)	Limit (mW)	Margin (mW)
00	2402.094	- 11.20	0.076	1000.0	- 999.924

Channel	Frequency (MHz)	Reading (dBm)	Reading (mW)	Limit (mW)	Margin (mW)
39	2441.108	- 12.13	0.061	1000.0	- 999.939

Channel	Frequency (MHz)	Reading (dBm)	Reading (mW)	Limit (mW)	Margin (mW)
78	2480.094	- 12.19	0.060	1000.0	- 999.940

The plot saved in TestRpt8.pdf shows the transmission power was less than 1 watt.

Remark

All data rate and modulation were tested, the worst case result are represented



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2.4 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart C

Environmental conditions:

Parameter	Recorded value	
Ambient temperature:	27	° C
Relative humidity:	65	%

Detector: Peak RBW: 1MHz VBW: 3MHz Testing frequency range: 9kHz to 25GHz

Data rate: 1MHz, Modulation: GFSK

Channel	Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV)	Transducer Factor (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
00	2402.869	H	91.6	- 6.3	85.3	114.0	- 28.7
	#4803.610	V	48.7	2.4	51.1	74.0	- 22.9
	#4803.933	H	48.5	2.4	50.9	74.0	- 23.1
	7206.636	H	31.1	10.8	41.9	74.0	- 32.1

39	2441.094	H	92.9	- 6.3	86.6	114.0	- 27.4
	#4881.608	H	48.3	2.4	50.7	74.0	- 23.3
	#4882.208	V	48.5	2.4	50.9	74.0	- 23.1
	#7322.869	H	32.0	10.8	42.8	74.0	- 31.2

78	2480.102	H	93.3	- 6.3	87.0	114.0	- 27.0
	#4959.194	V	50.4	2.4	52.8	74.0	- 21.2
	#4960.188	H	49.2	2.4	51.6	74.0	- 22.1
	#7439.832	H	32.2	10.8	43.0	74.0	- 31.0

Remark: Peak measurement values are lower than average limit, therefore average measurement is not necessary.

Other emissions more than 20dB below the limit are not reported.

All data rate and modulation were tested, the worst case result are represented.

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2.4 Radiated Emission Measurement Data (Con't)

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart B

Environmental conditions:

Parameter	Recorded value	
Ambient temperature:	27	° C
Relative humidity:	65	%

Detector: Quasi-peak

RBW: 120kHz VBW: 300kHz, Operation Mode: Receiver mode, Testing frequency range: 9kHz to 25GHz

Data rate: 1MHz, Modulation: GFSK

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
97.469	H	22.7	9.7	32.4	43.5	- 11.1
97.491	V	28.3	9.7	38.0	43.5	- 5.5
102.535	H	19.9	12.2	32.1	43.5	- 11.4
120.664	V	19.3	14.4	33.7	43.5	- 9.8
162.496	V	26.7	11.9	38.6	43.5	- 4.4
227.477	H	22.1	11.8	33.9	46.0	- 12.1
292.502	H	22.7	15.4	38.1	46.0	- 7.9

Remark: Other emissions more than 20dB below the limit are not reported.

All data rate and modulation were tested, the worst case result are represented



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3 Description of the Line-conducted Test

3.1 Test Procedure

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2009. The EUT was setup as described in the procedures, and both lines were measured.

3.2 Test Result

No measurement is required as the EUT is a DC-operated product.

3.3 Graph and Table of Conducted Emission Measurement Data

Not Applicable



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4 Photograph

4.1 Photographs of the Test Setup for Radiated Emission and Conducted Emission

For electronic filing, the photos are saved with filename TSup1.jpg to TSup7.jpg.

4.2 Photographs of the External and Internal Configurations of the EUT

For electronic filing, the photos are saved with filename ExPho1.jpg to ExPho2.jpg and InPho1.jpg to InPho2.jpg.



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5 Supplementary document

The following document were submitted by applicant, and for electronic filing, the document are saved with the following filenames:

Document	Filename
ID Label/Location	LabelSmp.jpg
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem.pdf
Users Manual	UserMan.pdf
Operational Description	OpDes.pdf

5.1 Bandwidth

Bluetooth:

The plot saved in TestRpt3.pdf shows the 20dB bandwidth and 99% bandwidth:

Frequency Channel (MHz)	20dB bandwidth (kHz)	99% bandwidth (kHz)
2402	1120.1	963.8
2441	1123.0	960.9
2480	1125.9	963.8

The plot saved in TestRpt4.pdf shows the channel spacing has minimum 25 kHz or two-third of 20dB bandwidth of hopping channel.

Frequency (MHz)	Channel spacing (kHz)	Two-third of 20dB bandwidth (kHz)	Minimum bandwidth (kHz)
2402	1005.8	746.3	25
2441	1005.8	748.7	25
2480	1005.8	750.6	25

The plot saved in TestRpt5.pdf shows the frequency hopping channel over 75 hopping frequency.

The plot saved in TestRpt6.pdf shows the fundamental emission is confined in the specified band. It shows the 20dB bandwidth and band edge meet the 15.247(d) and 15.205 requirement.



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5.2 Duty cycle

Not Applicable

5.3 Transmission time

Not Applicable

5.4 Power Spectral Density

Not Applicable

5.5 Hopping sequence

The plot saved in TestRpt2.pdf shows the hopping sequence is pseudorandom randomly distributed. Four example of continuous fundamental frequency hopping pattern was as below:

The 1st example of fundamental frequency = 2.470150GHz

The 2nd example of fundamental frequency = 2.424590GHz

The 3rd example of fundamental frequency = 2.463260GHz

The 4th example of fundamental frequency = 2.404050GHz

Result:

Fc 1 – Fc 2 = +45.56MHz

Fc 2 – Fc 3 = -38.67MHz

Fc 3 – Fc 4 = +59.21MHz

It was found the hopping pattern is pseudorandom random.



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5.6 Average on time

The plot saved in TestRpt7.pdf shows the average on time for frequency hopping channel is within 0.4 seconds.

The calculation for average on time as below:

Average hopping channel = Number of transmitted carrier / Sweep time

Average on time = Packet on time x Average hopping channel

Dwell time = Average on time x Total frequency hopping channel x 0.4

Test result:

Frequency Channel (MHz)	Packet	Dwell Time (Seconds)	Limit (Seconds)	Margin (Seconds)
2402	DH1	0.204	0.4	- 0.196
2402	DH3	0.293	0.4	- 0.107
2402	DH5	0.353	0.4	- 0.047
2441	DH1	0.184	0.4	- 0.216
2441	DH3	0.262	0.4	- 0.138
2441	DH5	0.376	0.4	- 0.024
2480	DH1	0.185	0.4	- 0.215
2450	DH3	0.281	0.4	- 0.119
2480	DH5	0.374	0.4	- 0.026



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6 Appendices

A1	Photos of the set-up of Radiated Emissions	4	pages
A2	Photos of External Configurations	1	page
A3	Photos of Internal Configurations	1	page
A4	ID Label/Location	1	page
A5	Hopping sequence	2	pages
A6	20 dB bandwidth and 99% bandwidth	3	pages
A7	Bluetooth Channel Spacing	2	pages
A8	Bluetooth Hopping Channel	1	page
A9	Bluetooth Band Edge	2	pages
A10	Bluetooth Average on time	9	pages
A11	Transmission Power	2	pages



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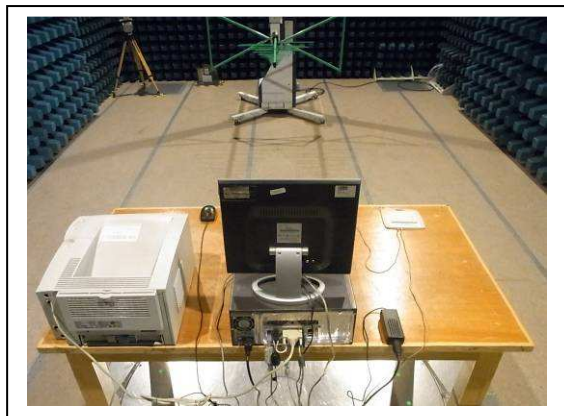
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A1. Photos of the set-up of Radiated Emissions



(Front view, 30MHz – 1GHz)



(Back view, 30MHz – 1GHz)

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Reviewed by:

Mr. WONG Lap-pong, Andrew



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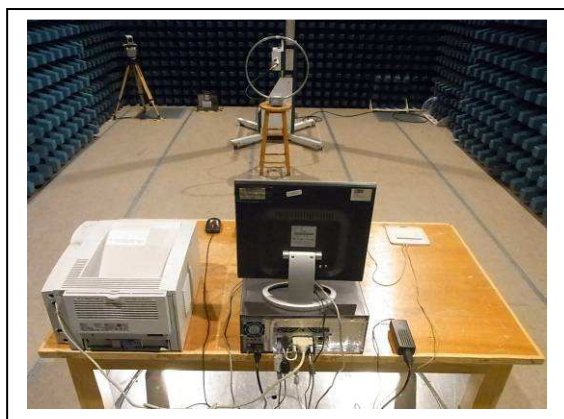
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(Front view, 9KHz – 30MHz)



(Back view, 9KHz – 30MHz)

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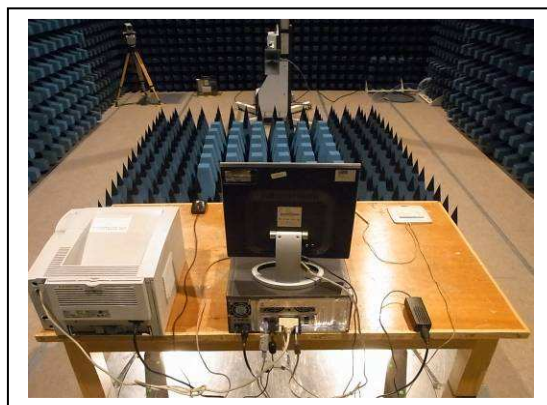
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(front view, 1GHz – 25GHz)



(rear view, 1GHz – 25GHz)

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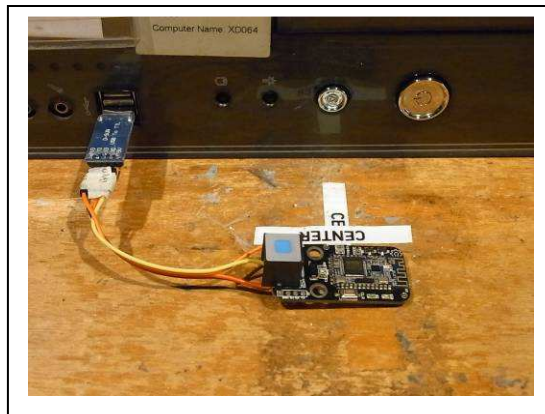
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Position of EUT

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Mr. LEUNG Shu-kan, Ken

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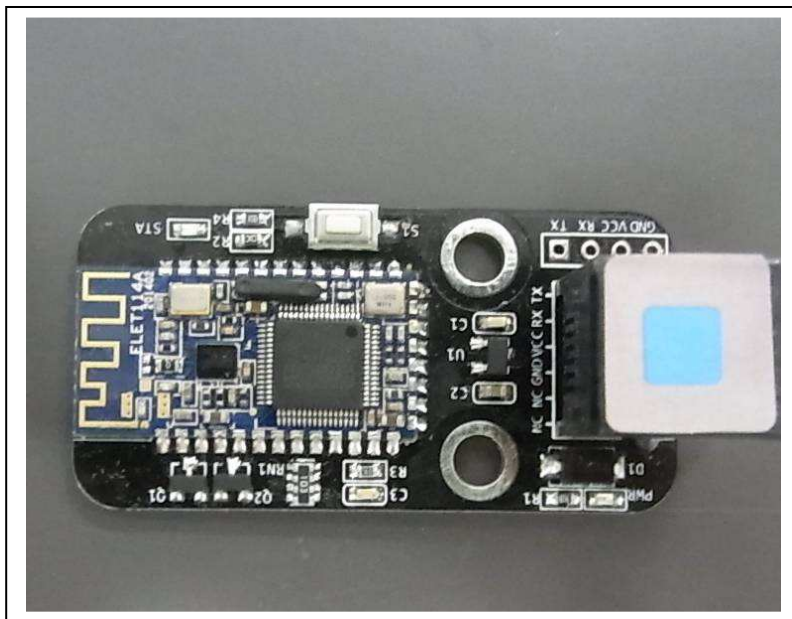
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A2. Photos of External Configurations



External Configuration 1



External Configuration 2

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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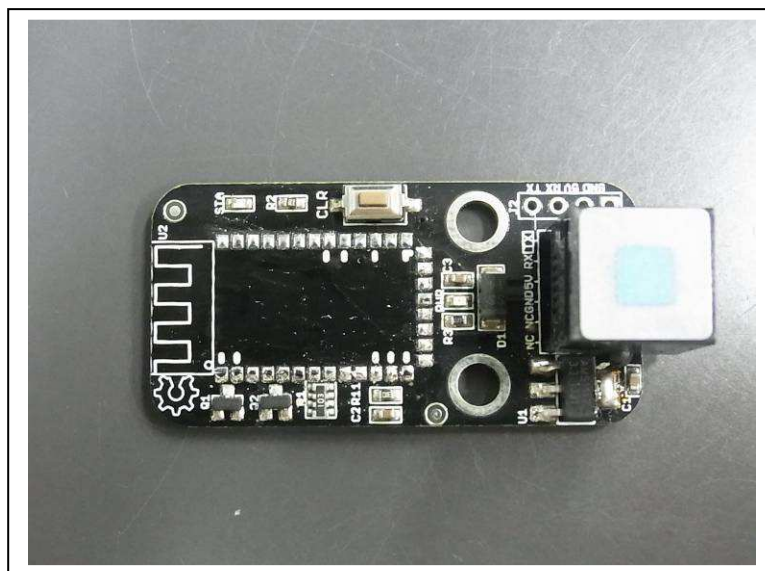
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A3. Photos of Internal Configurations



Internal Configuration 1



Internal Configuration 2

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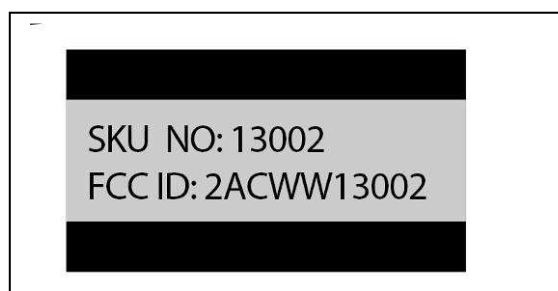
Report No. : AS0049260(0)

Date : 18 Aug 2014

A4. ID Label / Location



ID Label 1



ID Label2

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew



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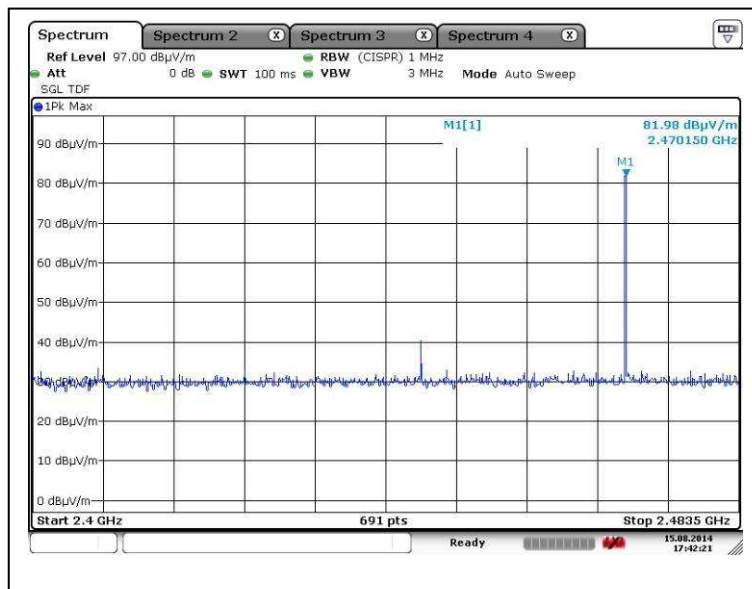
廠商會檢定中心

TEST REPORT

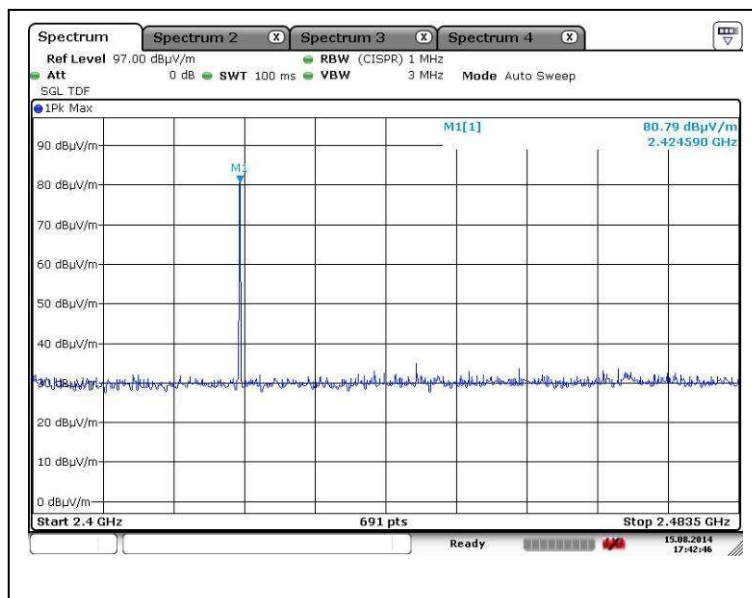
Report No. : AS0049260(0)

Date : 18 Aug 2014

A5. Hopping sequence



1st example of fundamental frequency



2nd example of fundamental frequency

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

FCC ID: 2ACWW13002



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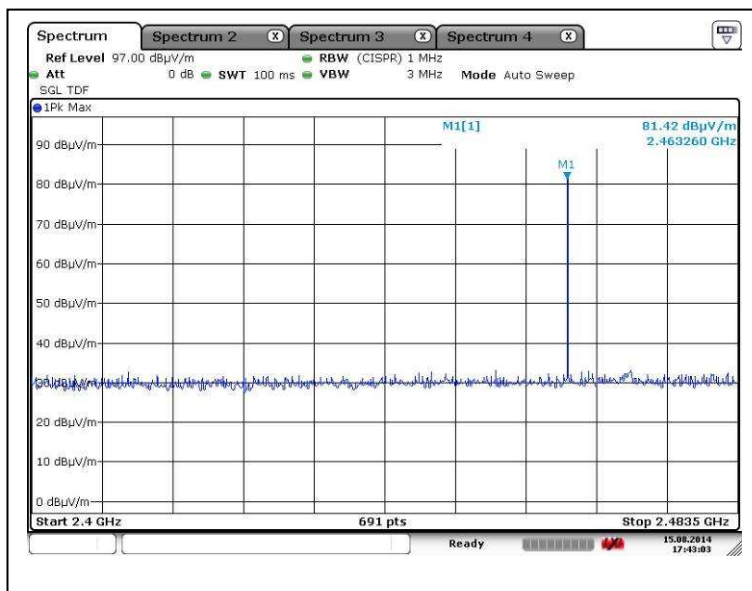
廠商會檢定中心

TEST REPORT

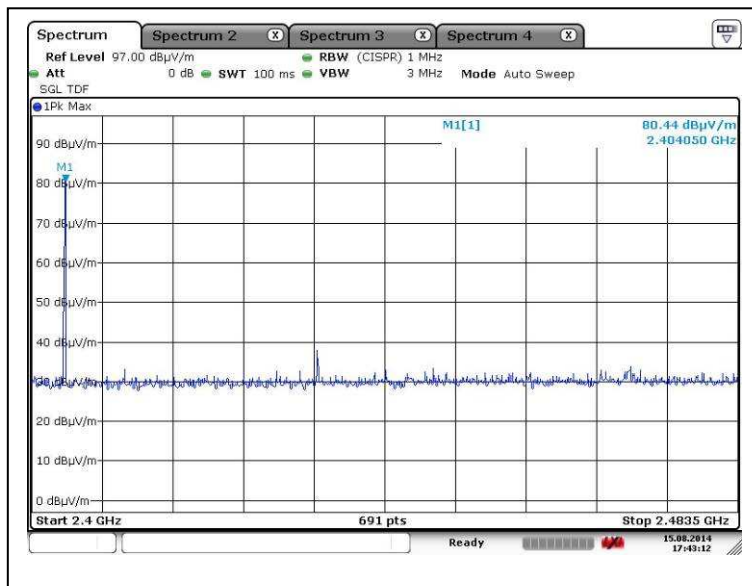
Report No. : AS0049260(0)

Date : 18 Aug 2014

A5. Hopping sequence



3rd example of fundamental frequency



4th example of fundamental frequency

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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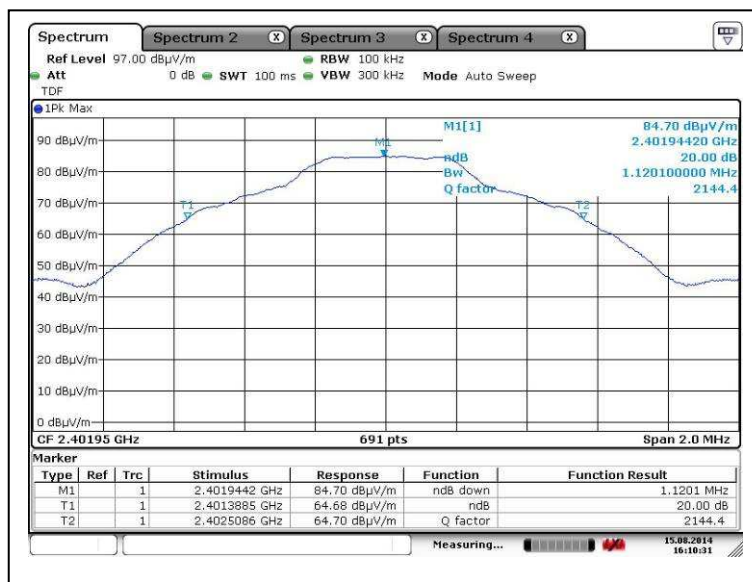
TEST REPORT

Report No. : AS0049260(0)

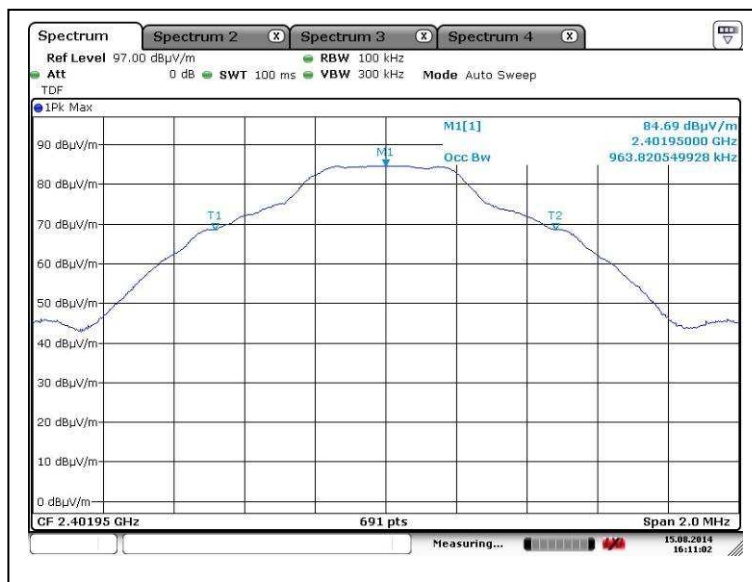
Date : 18 Aug 2014

A6. 20 dB bandwidth and 99% bandwidth

Channel: CH00



20 dB bandwidth



99% bandwidth

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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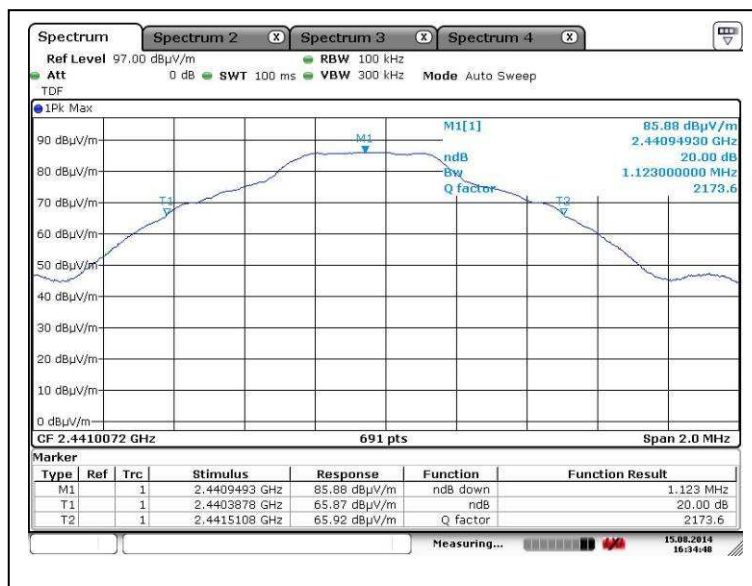
TEST REPORT

Report No. : AS0049260(0)

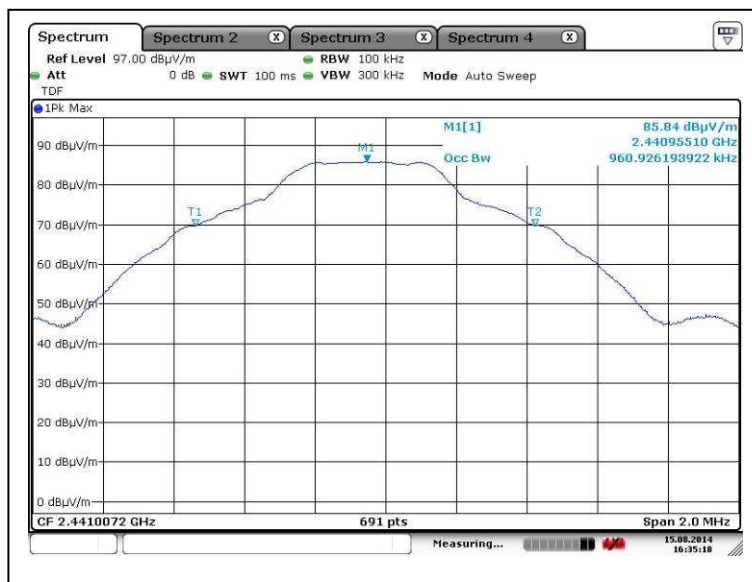
Date : 18 Aug 2014

A6. 20 dB bandwidth and 99% bandwidth

Channel: CH39



20 dB bandwidth



99% bandwidth

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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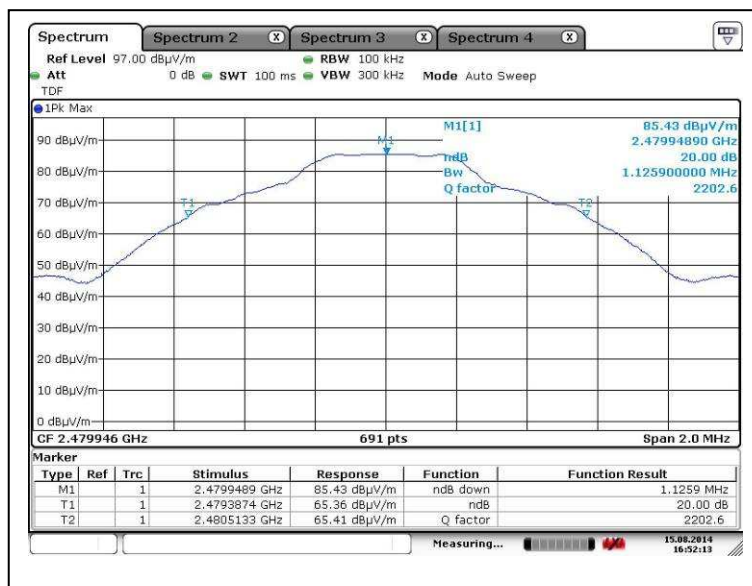
TEST REPORT

Report No. : AS0049260(0)

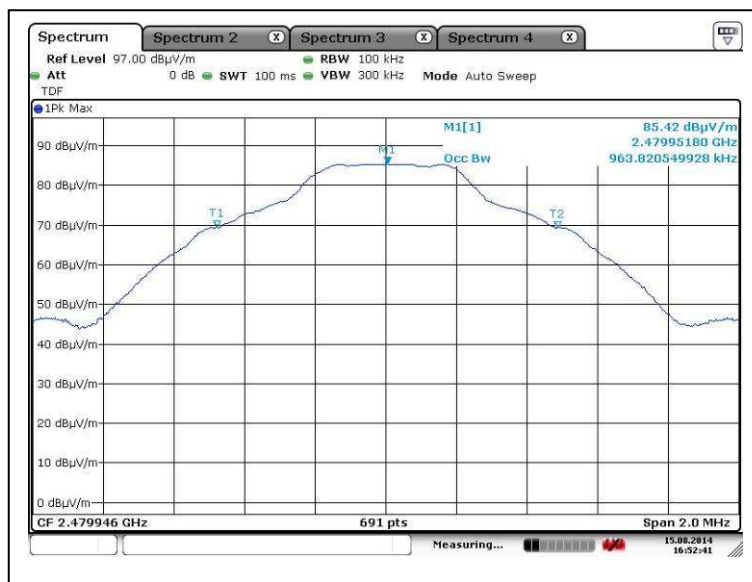
Date : 18 Aug 2014

A6. 20 dB bandwidth and 99% bandwidth

Channel: CH78



20 dB bandwidth



99% bandwidth

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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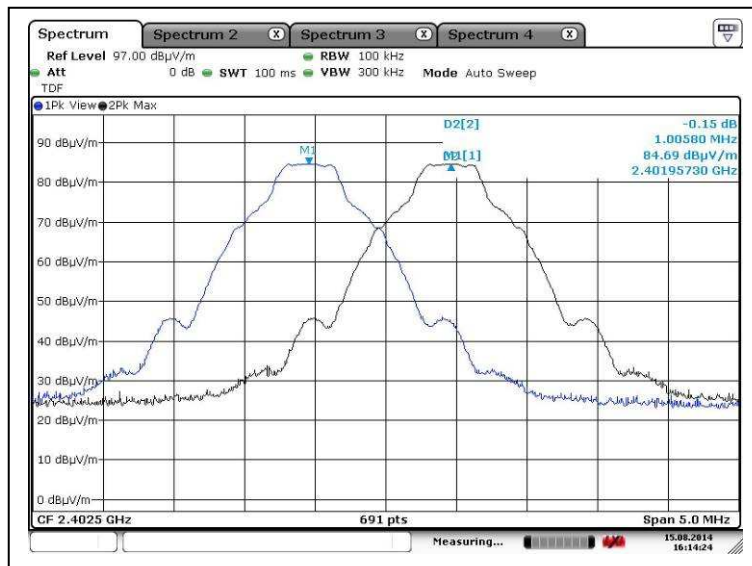
廠商會檢定中心

TEST REPORT

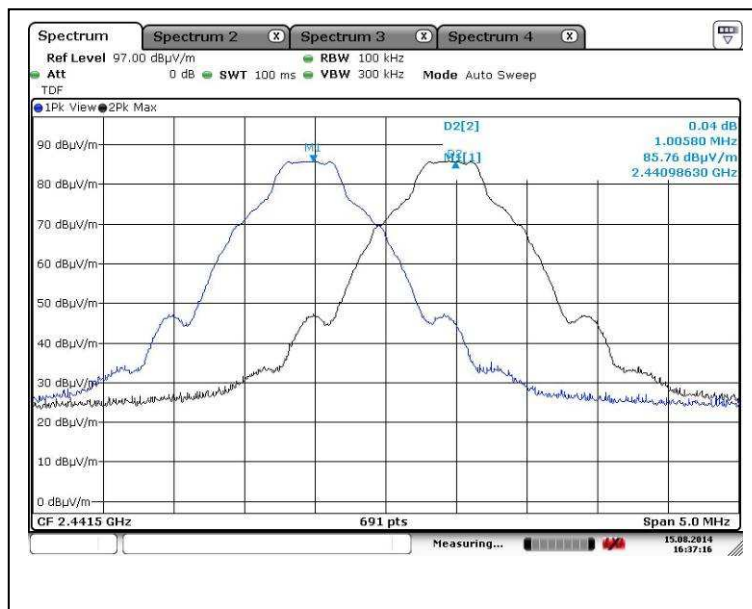
Report No. : AS0049260(0)

Date : 18 Aug 2014

A7. Bluetooth Channel Spacing



CH00-CH01



CH39-CH40

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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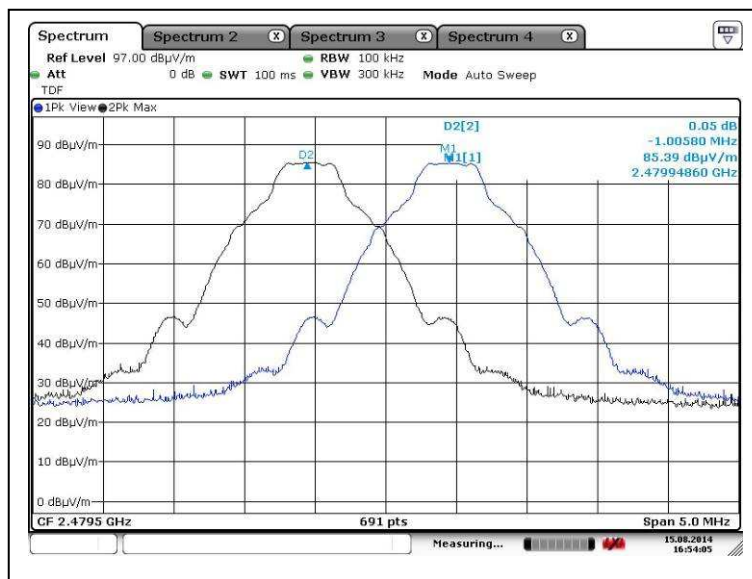
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TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A7. Bluetooth Channel Spacing



CH77-CH78

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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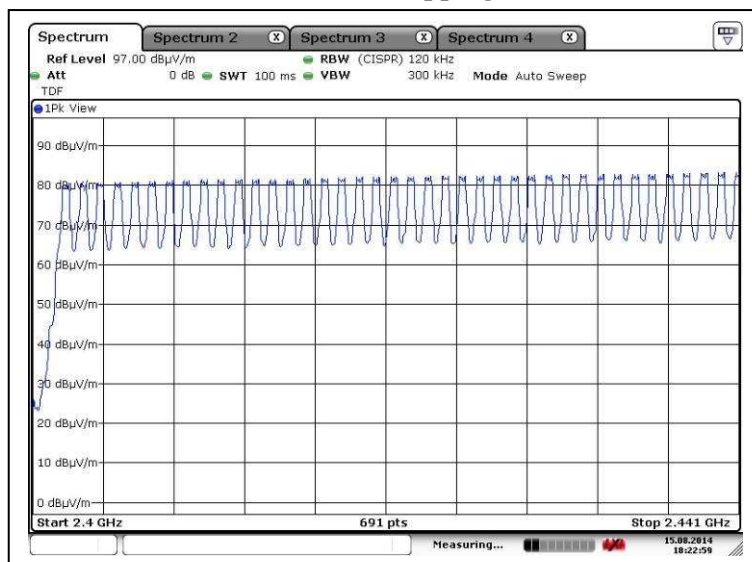
廠商會檢定中心

TEST REPORT

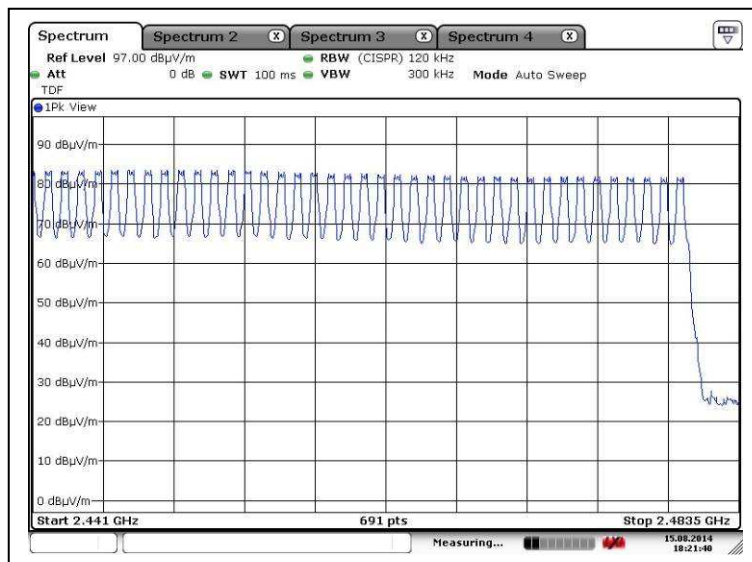
Report No. : AS0049260(0)

Date : 18 Aug 2014

A8. Bluetooth Hopping Channel



CH00-CH39



CH39-CH78

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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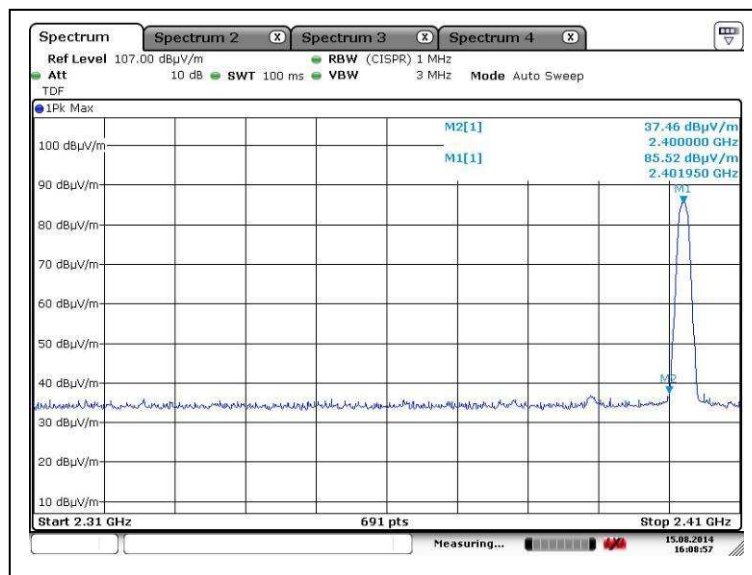
廠商會檢定中心

TEST REPORT

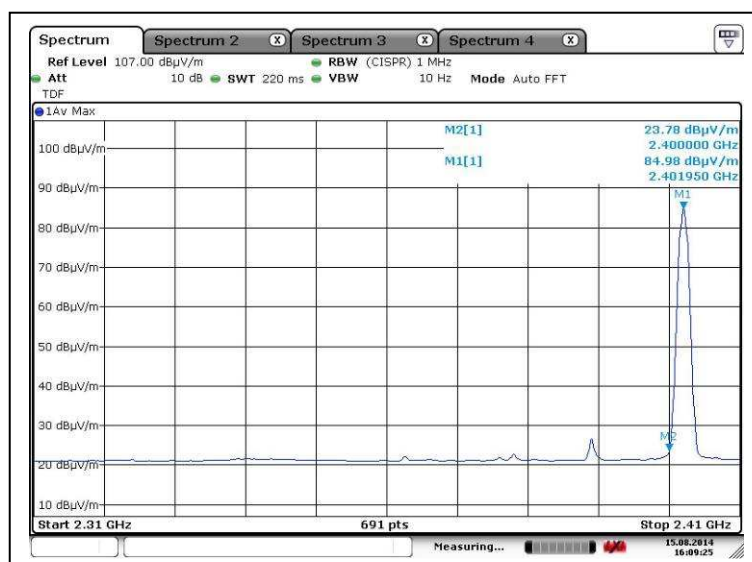
Report No. : AS0049260(0)

Date : 18 Aug 2014

A9. Bluetooth Band Edge



Lower channel (Peak measurement)



Lower channel (Average measurement)

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew



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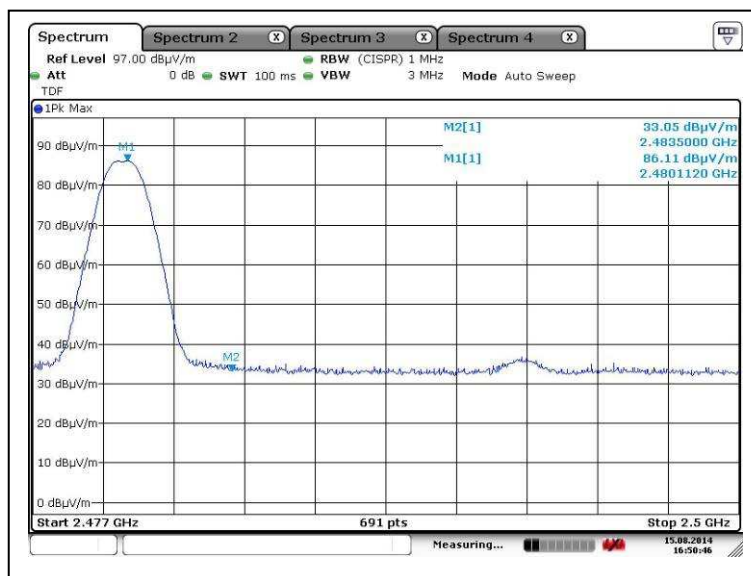
廠商會檢定中心

TEST REPORT

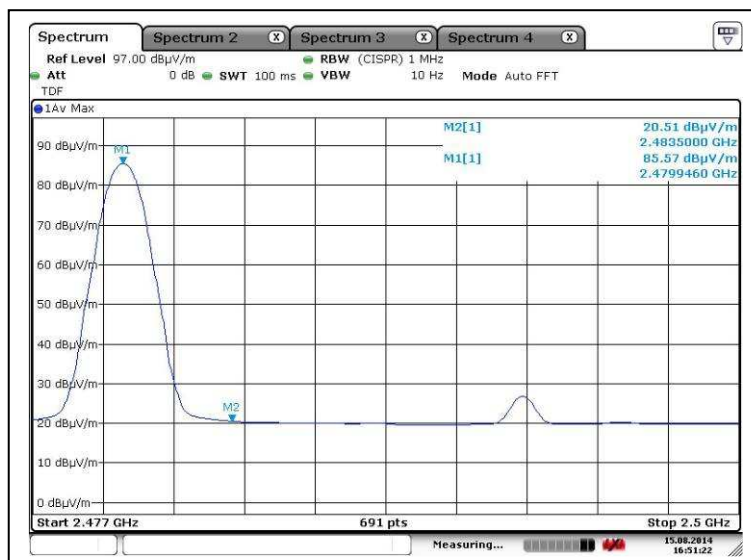
Report No. : AS0049260(0)

Date : 18 Aug 2014

A9. Bluetooth Band Edge



Higher channel (Peak measurement)



Higher channel (Average measurement)

Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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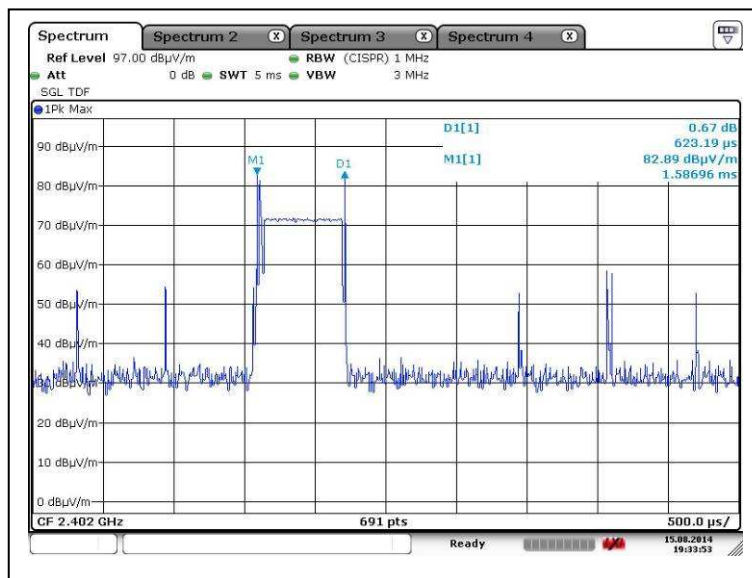
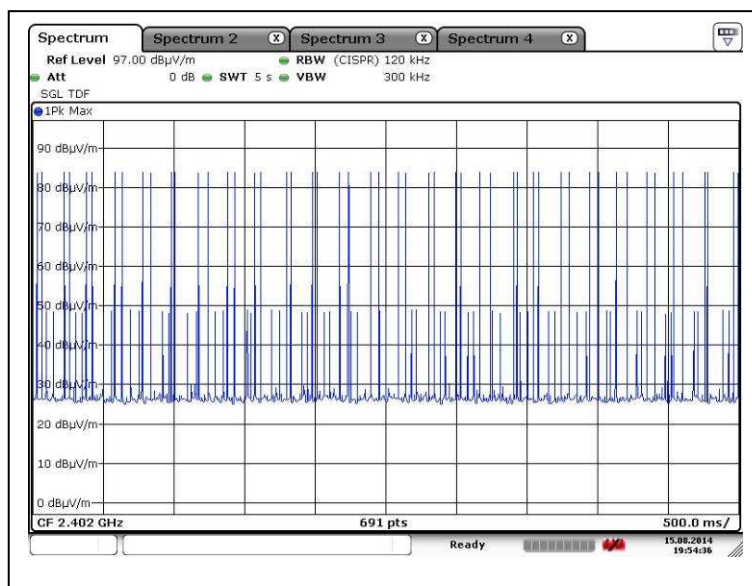
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH1
Channel: CH00



Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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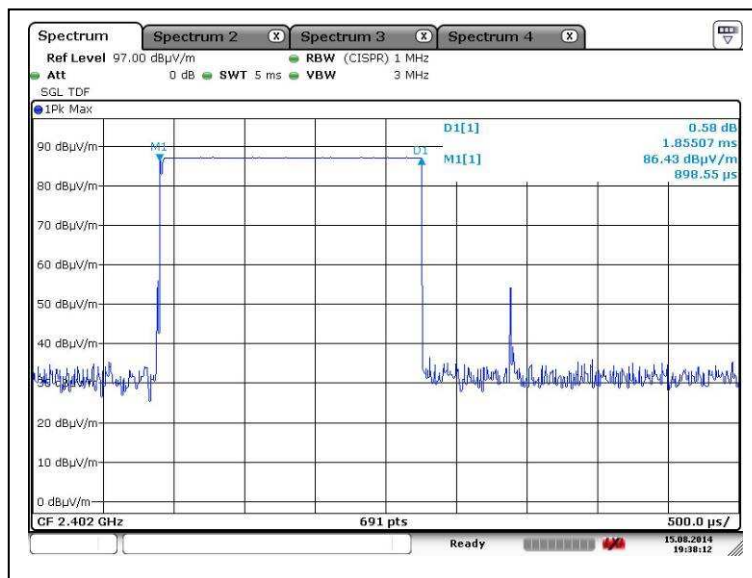
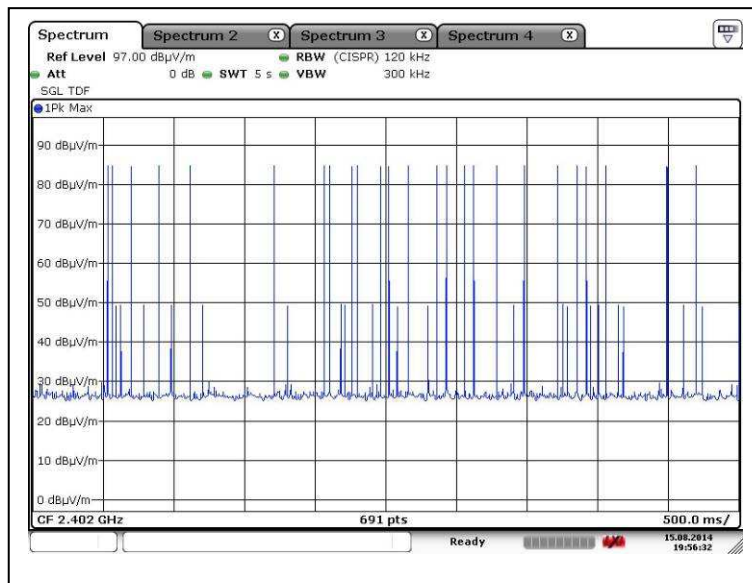
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH3
Channel: CH00



Tested by:

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Reviewed by:

Mr. WONG Lap-pong, Andrew

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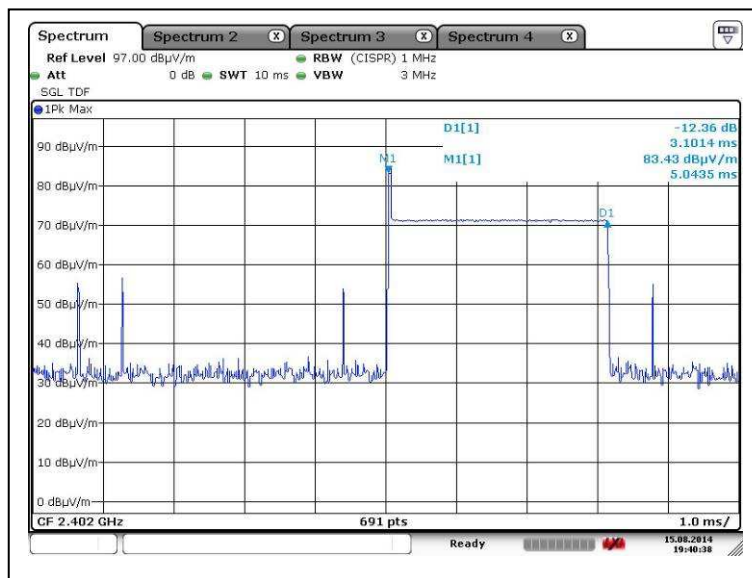
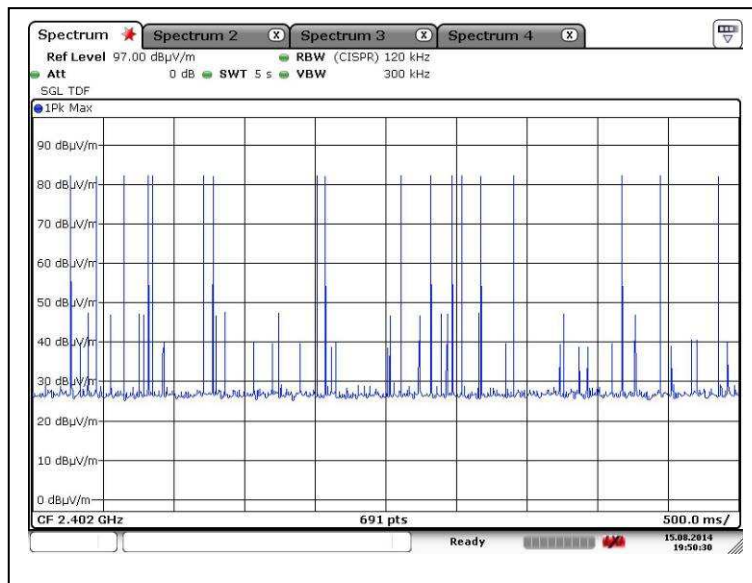
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH5
Channel: CH00



Tested by:

Ken

Mr. LEUNG Shu-kan, Ken

Reviewed by:

PR

Mr. WONG Lap-pong, Andrew

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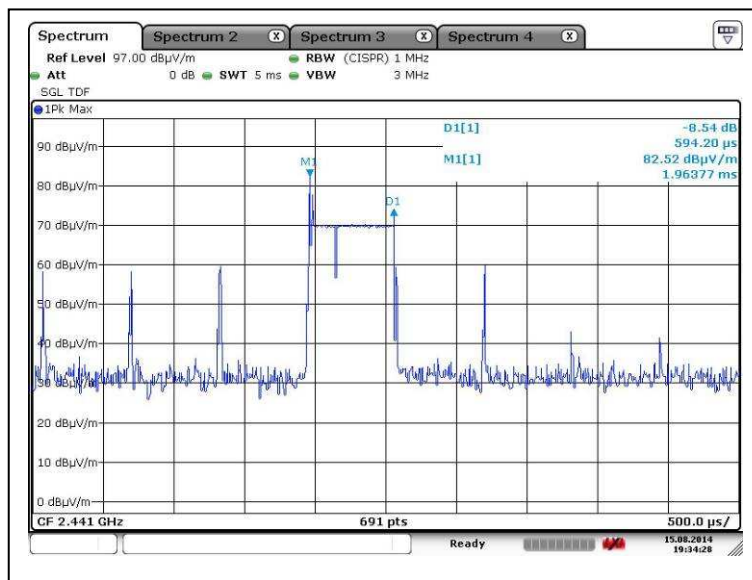
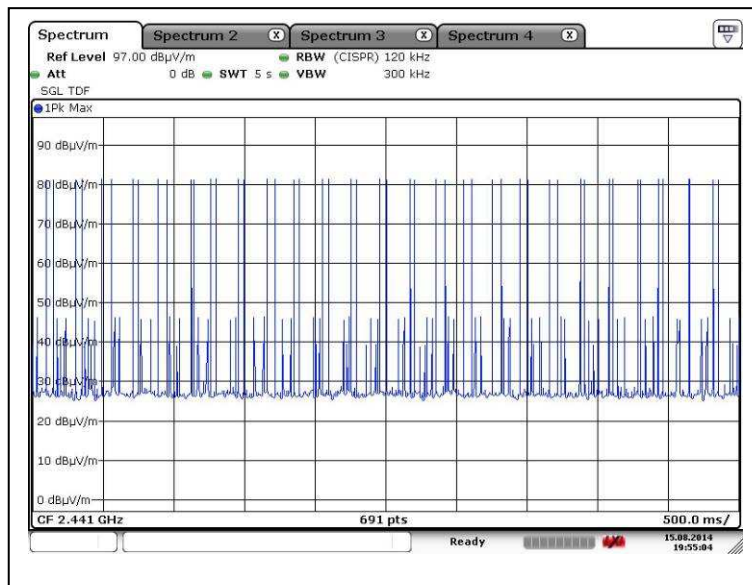
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH1
Channel: CH39



Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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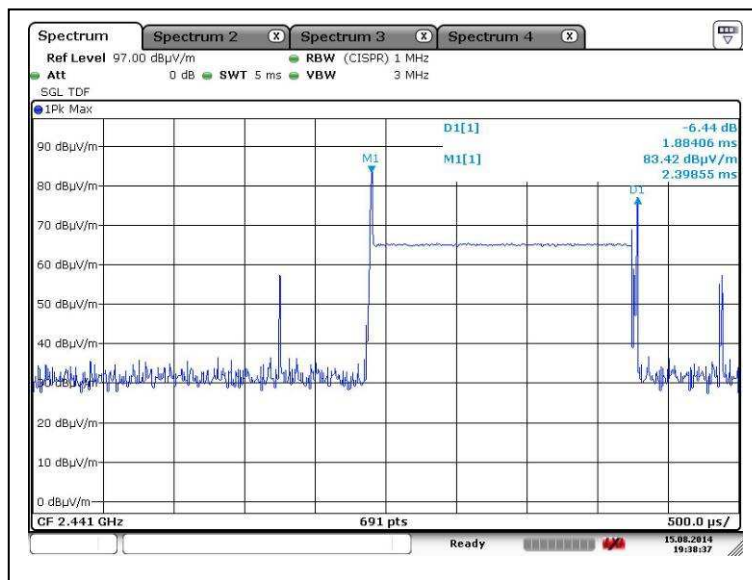
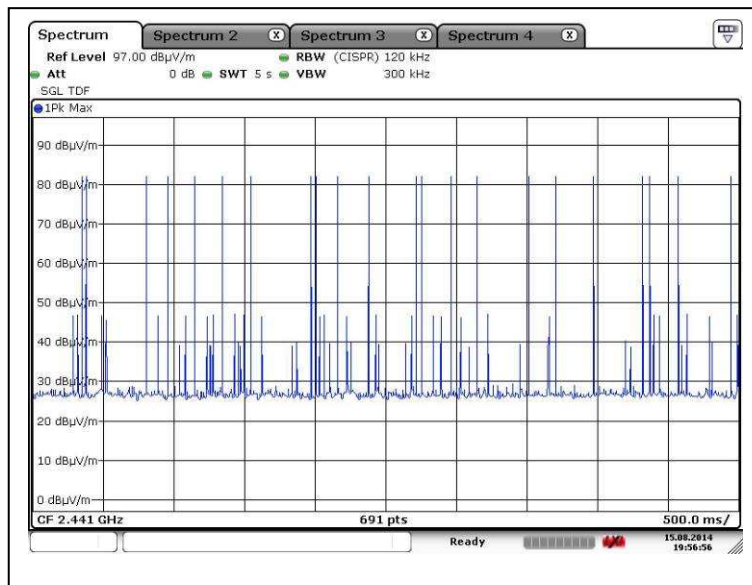
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH3
Channel: CH39



Tested by:

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Reviewed by:

Mr. WONG Lap-pong, Andrew

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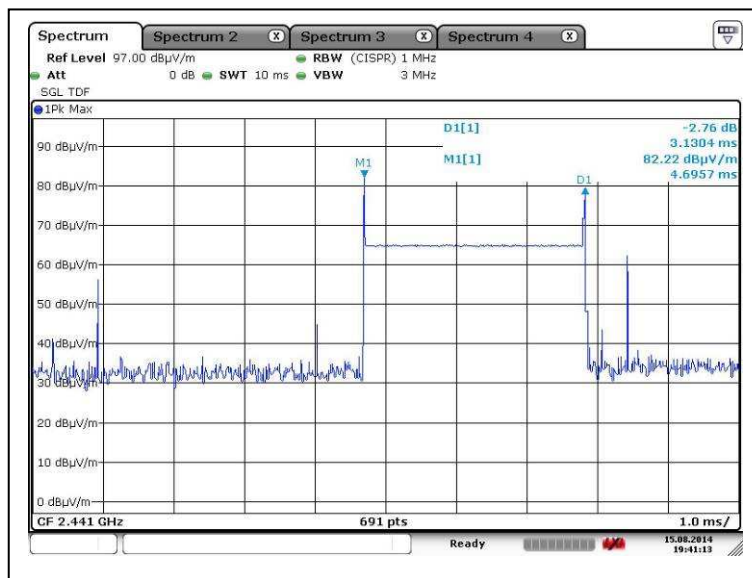
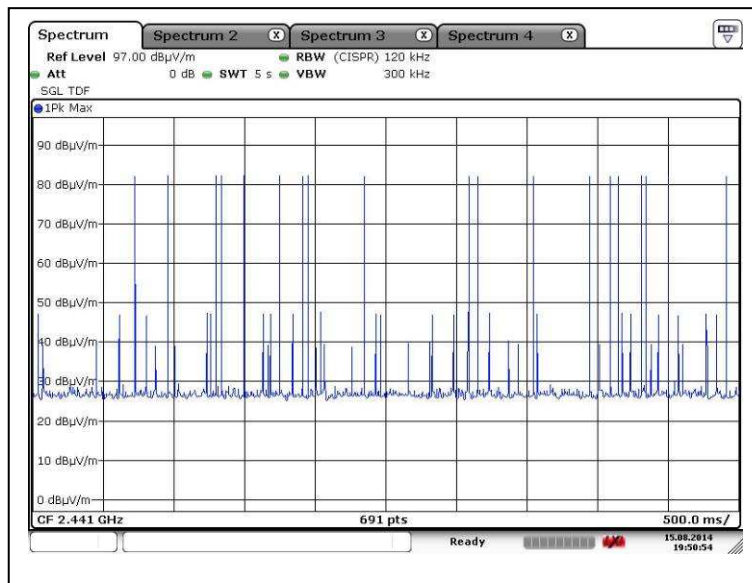
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH5
Channel: CH39



Tested by:

Ken

Mr. LEUNG Shu-kan, Ken

Reviewed by:

PR

Mr. WONG Lap-pong, Andrew

FCC ID: 2ACWW13002

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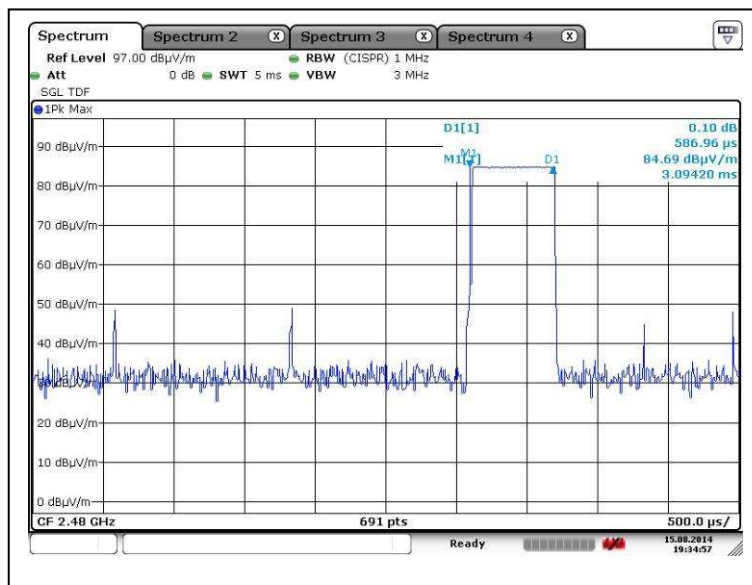
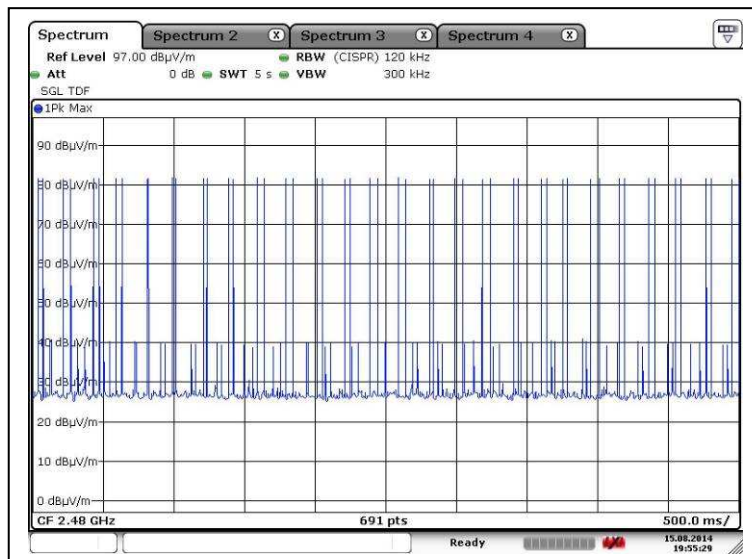
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH1
Channel: CH78



Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

FCC ID: 2ACWW13002

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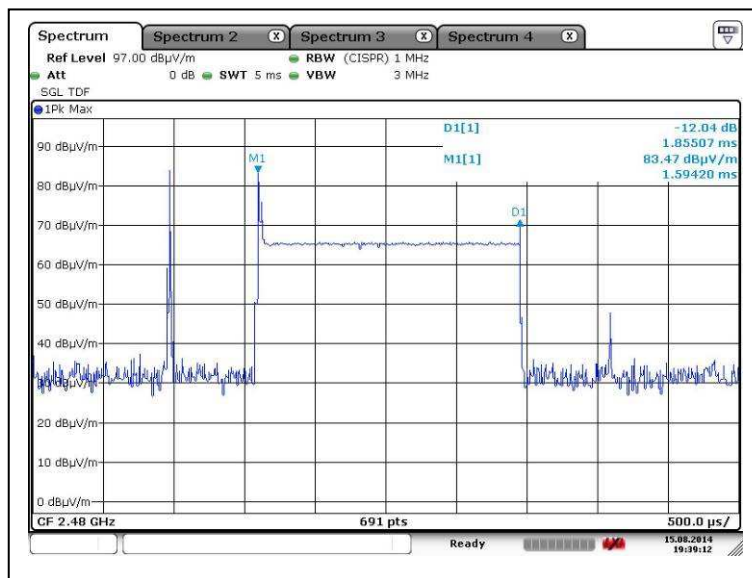
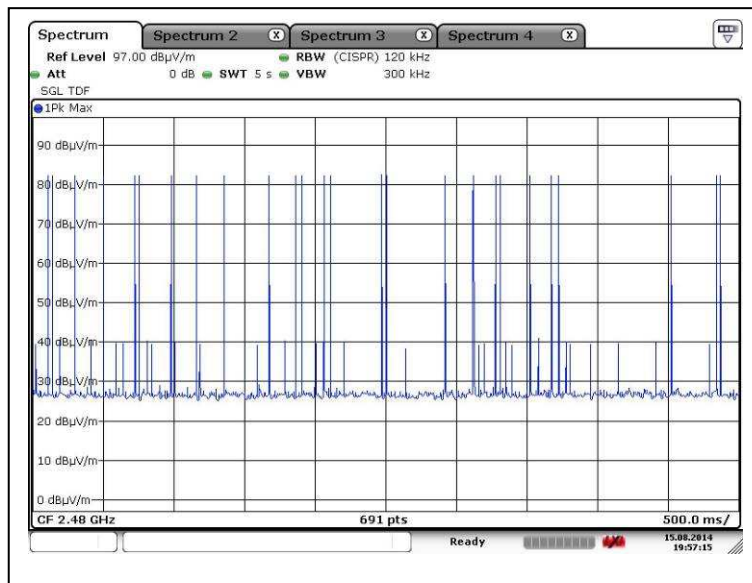
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH3
Channel: CH78



Tested by:

Ken

Mr. LEUNG Shu-kan, Ken

Reviewed by:

PR

Mr. WONG Lap-pong, Andrew

FCC ID: 2ACWW13002

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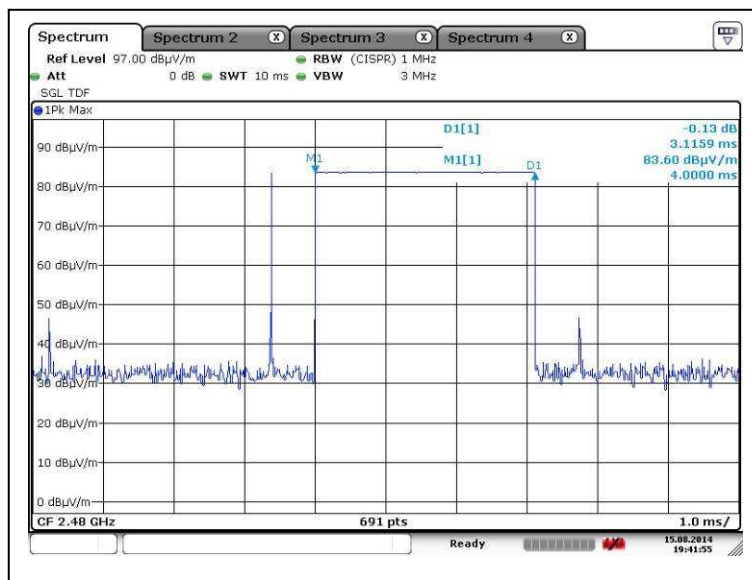
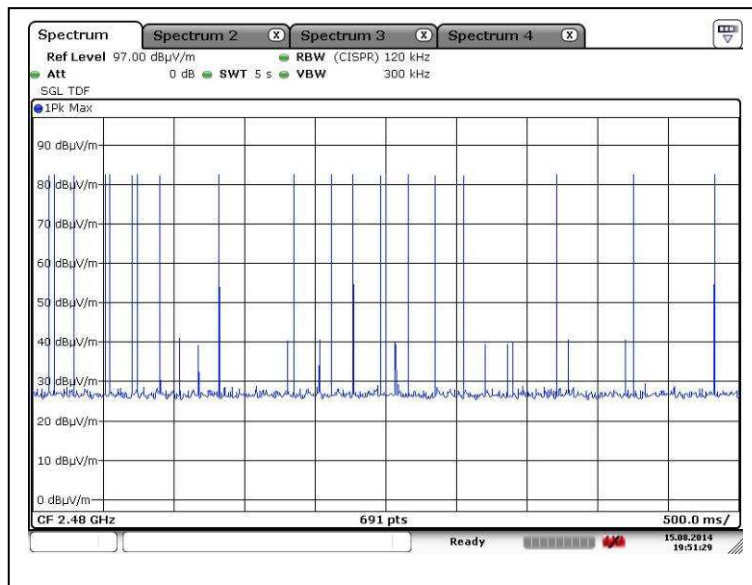
TEST REPORT

Report No. : AS0049260(0)

Date : 18 Aug 2014

A10. Bluetooth Average On Time

Packet: DH5
Channel: CH78



Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

FCC ID: 2ACWW13002

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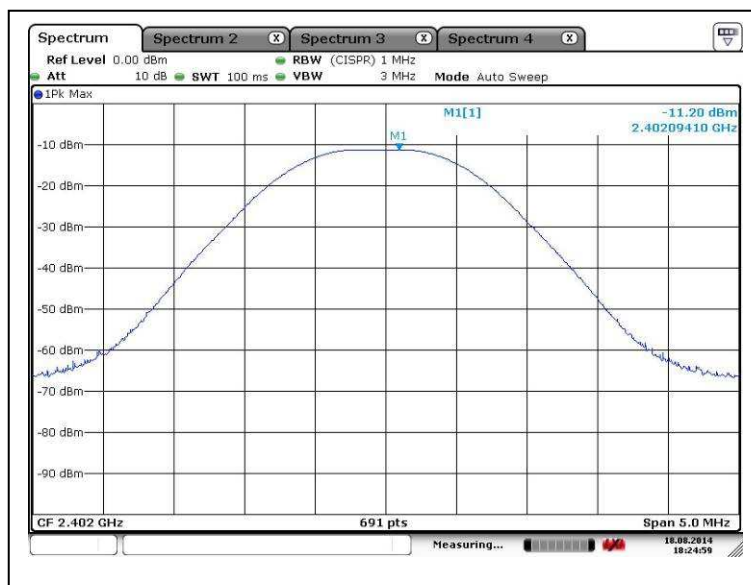
TEST REPORT

Report No. : AS0049260(0)

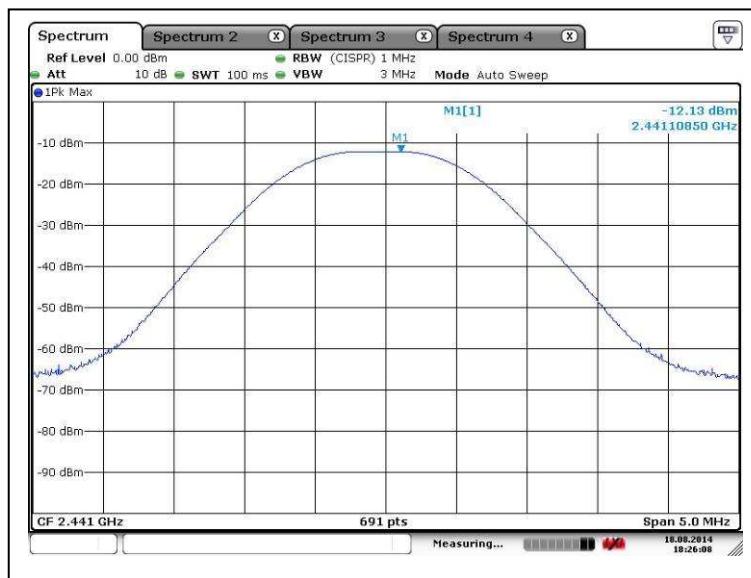
Date : 18 Aug 2014

A11. Transmission Power

Channel: CH00



Channel: CH39



Tested by:

Mr. LEUNG Shu-kan, Ken

Reviewed by:

Mr. WONG Lap-pong, Andrew

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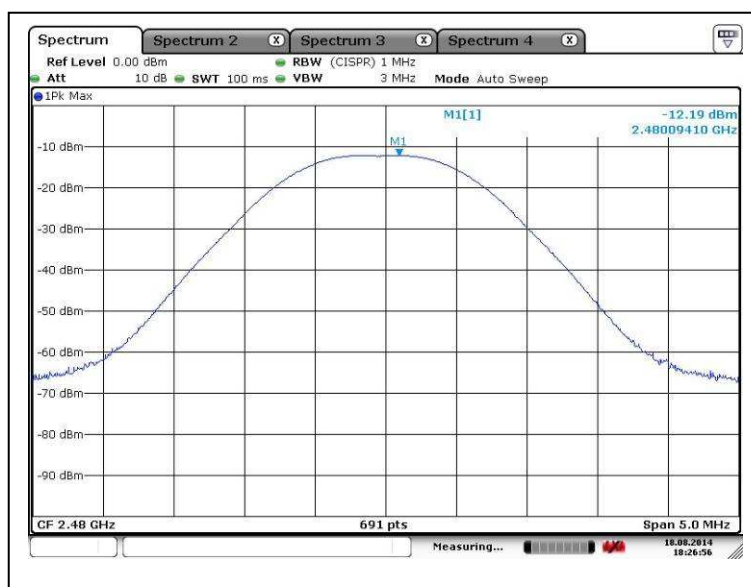
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TEST REPORT

Date : 18 Aug 2014

Channel: CH78



***** End of Report *****

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PR.

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