FCC RF Test Report

APPLICANT	**:**	**Motorola Mobility LLC**
EQUIPMENT	**:**	**Mobile Cellular Phone**
BRAND NAME	**:**	**Motorola**
FCC ID	**:**	**IHDT56XE1**
STANDARD	**:**	**FCC Part 15 Subpart C §15.247**
CLASSIFICATION	**:**	**(DTS) Digital Transmission System**

This is a variant report. The product was received on Mar. 07, 2018 and testing was completed on Mar. 28, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

Testing Laboratory
1190

SPORTON INTERNATIONAL INC.
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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR811821-09B	Rev. 01	Initial issue of report	Apr. 23, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
-	15.247(a)(2)	6dB Bandwidth	≥ 0.5MHz	Not Required	-
-	-	99% Bandwidth	-	Not Required	-
-	15.247(b)(3)	Peak Output Power	≤ 30dBm	Not Required	-
-	15.247(e)	Power Spectral Density	≤ 8dBm/3kHz	Not Required	-
-	15.247(d)	Conducted Band Edges and Spurious Emission	≤ 20dBc	Not Required	-
3.1	15.247(d)	Radiated Band Edges and Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.10 dB at 40.800 MHz
3.2	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 6.94 dB at 0.242 MHz
3.3	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass	-
Remark: Not required means after assessing, test items are not necessary to carry out.					

1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
FCC ID	IHDT56XE1
IMEI Code	IMEI: 351886090018737
EUT supports Radios application	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/GNSS/NFC WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	DVT2
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. This is a variant report by adding WPC Back Cover. All the test cases were performed on original report which can be referred to Sporton Report Number FR811821B. Based on the original report, only worst case was verified.

Accessory List		
WPC Cover	Brand Name :	Motorola
	Model Name :	MD100W

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	2402 MHz ~ 2480 MHz
Number of Channels	40
Carrier Frequency of Each Channel	40 Channel(37 hopping + 3 advertising channel)
Antenna Type / Gain	Internal Antenna with gain -5.0 dBi
Type of Modulation	Bluetooth LE : GFSK

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH11-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	0	2402	21	2444
	1	2404	22	2446
	2	2406	23	2448
	3	2408	24	2450
	4	2410	25	2452
	5	2412	26	2454
	6	2414	27	2456
	7	2416	28	2458
	8	2418	29	2460
	9	2420	30	2462
	10	2422	31	2464
	11	2424	32	2466
	12	2426	33	2468
	13	2428	34	2470
	14	2430	35	2472
	15	2432	36	2474
	16	2434	37	2476
	17	2436	38	2478
	18	2438	39	2480
	19	2440	-	-
	20	2442	-	-

2.2 Test Mode

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Z plane) were recorded in this report.

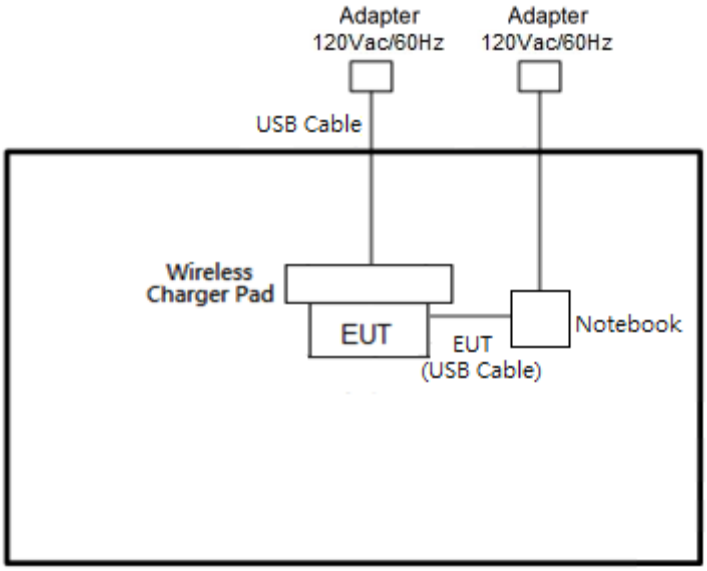
b. AC power line Conducted Emission was tested under maximum output power.

The following summary table is showing all test modes to demonstrate in compliance with the standard.

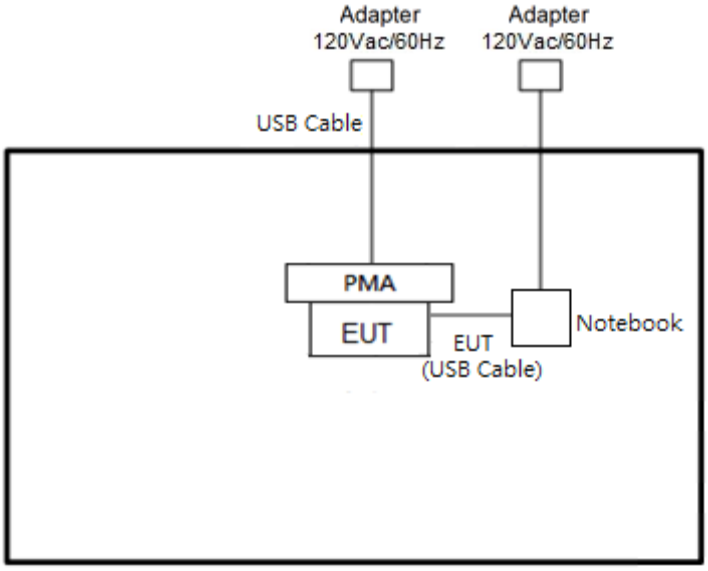
Summary table of Test Cases	
Test Item	**Data Rate / Modulation**
	Bluetooth – LE / GFSK
Radiated TCs	Mode 1 :Bluetooth Tx CH39_2480 MHz_1Mbps for WPC Charging Mode Mode 2 :Bluetooth Tx CH39_2480 MHz_1Mbps for PMA Charging Mode Mode 3 :Bluetooth Tx CH39_2480 MHz_2Mbps for WPC Charging Mode Mode 4 :Bluetooth Tx CH39_2480 MHz_2Mbps for PMA Charging Mode
AC Conducted Emission	Mode 1 :GSM1900 Idle + Bluetooth Link + WLAN (2.4GHz) Link + Camera + WPC Back cover + Battery + LG Charging pad + USB Cable (Charging from Adapter) Mode 2 :WCDMA850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + MPEG4 + WPC Back cover + Battery + PMA Charging pad + Adapter
Remark: The worst case of conducted emission is mode 2; only the test data of it was reported.	

2.3 Connection Diagram of Test System

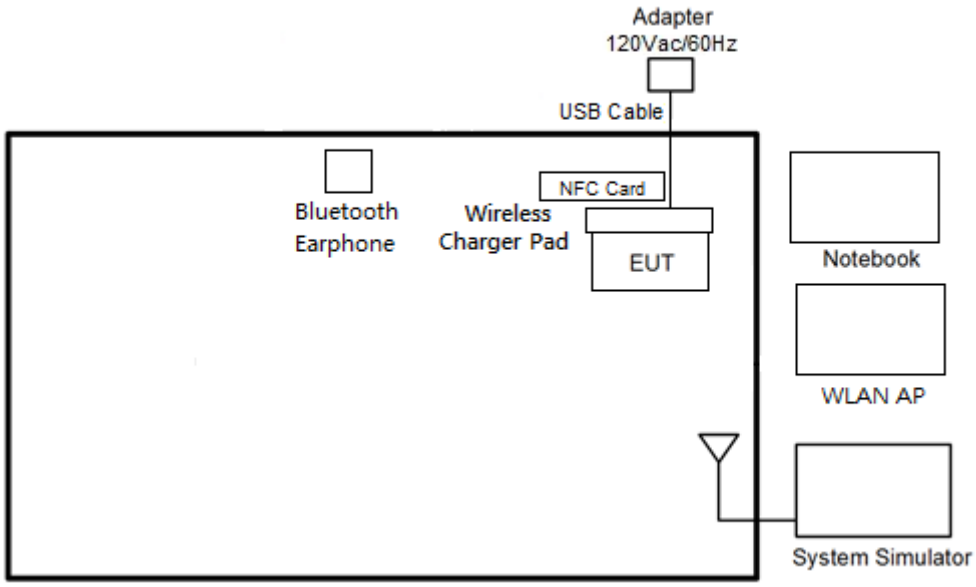
<Bluetooth Tx with WPC Charging Mode>



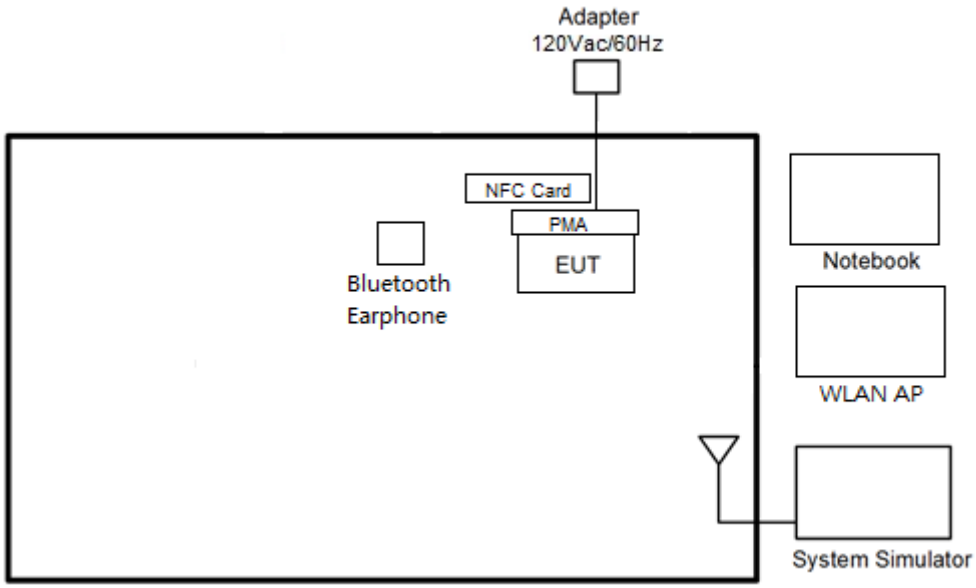
<Bluetooth Tx with PMA Charging Mode>



<AC Conducted Emission Mode with WPC Charging Mode>



<AC Conducted Emissions with PMA Charging Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8m
3.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A
4.	Bluetooth Earphone	lenovo	LBH 301	FCC DoC	N/A	N/A
5.	Notebook	DELL	Latitude E6320	FCC DoC	N/A	AC I/P： Unshielded, 1.2m DC O/P： Shielded, 1.8m
6.	LG Charging pad	LG	WCD-110	FCC DoC	N/A	N/A
7.	PMA Charging pad	Moto	kinxie	FCC DoC	N/A	N/A
8.	USB Cable	N/A	N/A	N/A	N/A	N/A
9.	Adapter	N/A	N/A	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

3 Test Result

3.1 Radiated Band Edges and Spurious Emission Measurement

3.1.1 Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

Frequency (MHz)	Field Strength (microvolts/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

3.1.2 Measuring Instruments

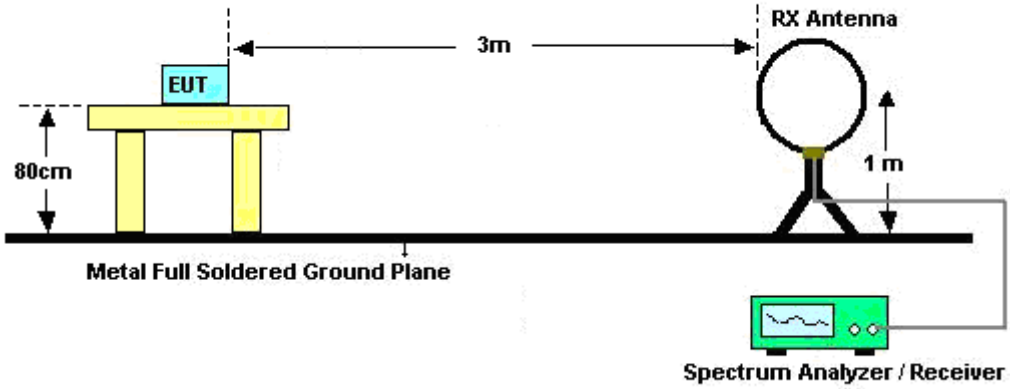
The section 4.0 of List of Measuring Equipment of this test report is used for test.

3.1.3 Test Procedures

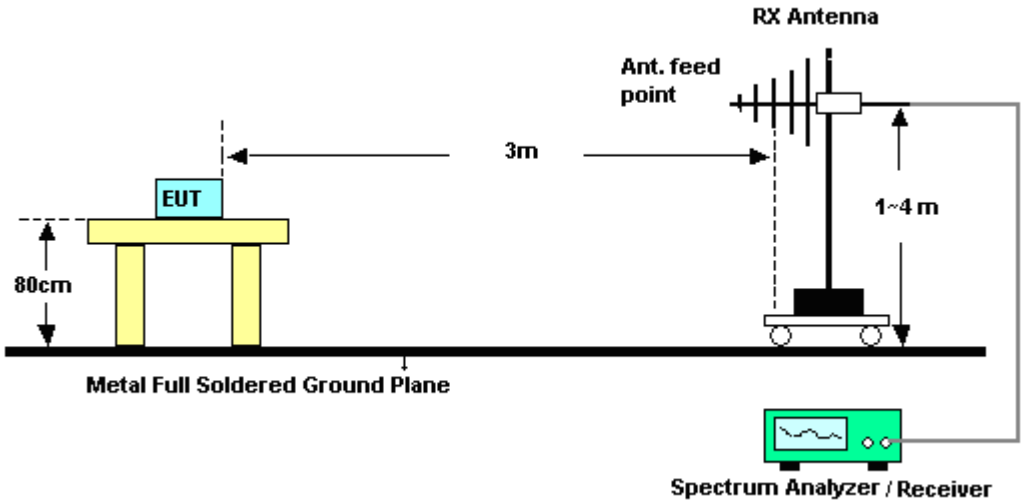
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW=100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.1.4 Test Setup

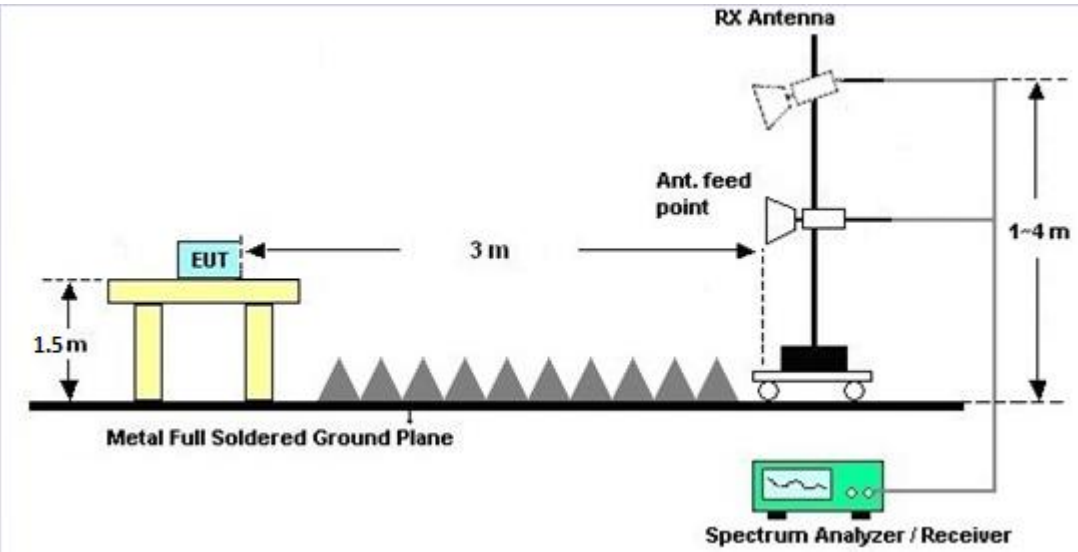
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.1.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.1.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.1.7 Duty Cycle

Please refer to Appendix D.

3.1.8 Test Result of Radiated Spurious Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.2 AC Conducted Emission Measurement

3.2.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

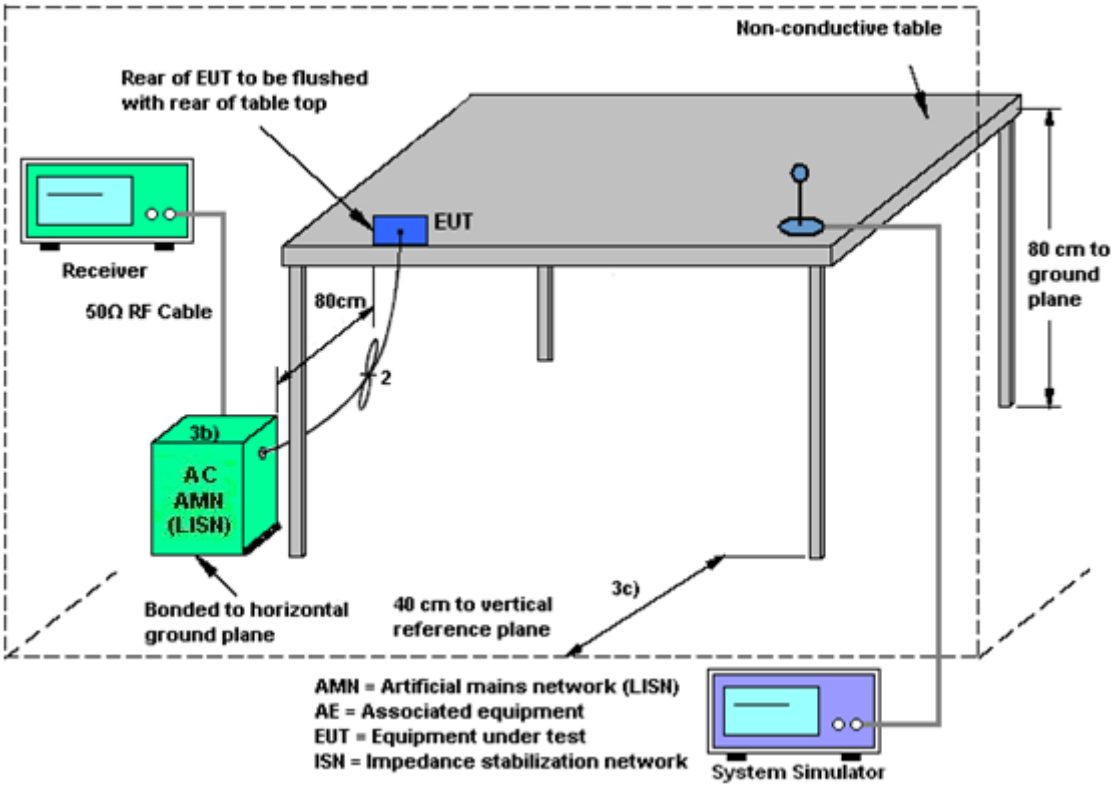
3.2.2 Measuring Instruments

The section 4.0 of List of Measuring Equipment of this test report is used for test.

3.2.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

3.2.4 Test Setup



3.2.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

3.3 Antenna Requirements

3.3.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. 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 rule.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 23, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Mar. 23, 2018	Dec. 07, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Mar. 23, 2018	Nov. 29, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 23, 2018	N/A	Conduction (CO05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	Jul. 17, 2018	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Nov. 10, 2016	Mar. 26, 2018 ~ Mar. 28, 2018	Nov. 09, 2018	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N 0602	30MHz~1GHz	Oct. 14, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	Oct. 13, 2018	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 16, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	Oct. 15, 2018	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	Nov. 22, 2019	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2016	Mar. 26, 2018 ~ Mar. 28, 2018	Nov. 09, 2018	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	Oct. 18, 2018	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Mar. 26, 2018 ~ Mar. 28, 2018	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Mar. 26, 2018 ~ Mar. 28, 2018	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May. 22, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	May. 21, 2018	Radiation (03CH11-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 16, 2018	Mar. 26, 2018 ~ Mar. 28, 2018	Jan. 15, 2019	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Mar. 26, 2018 ~ Mar. 28, 2018	Nov. 26, 2018	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001042	NA	NA	Mar. 26, 2018 ~ Mar. 28, 2018	NA	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.70**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.20**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.50**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

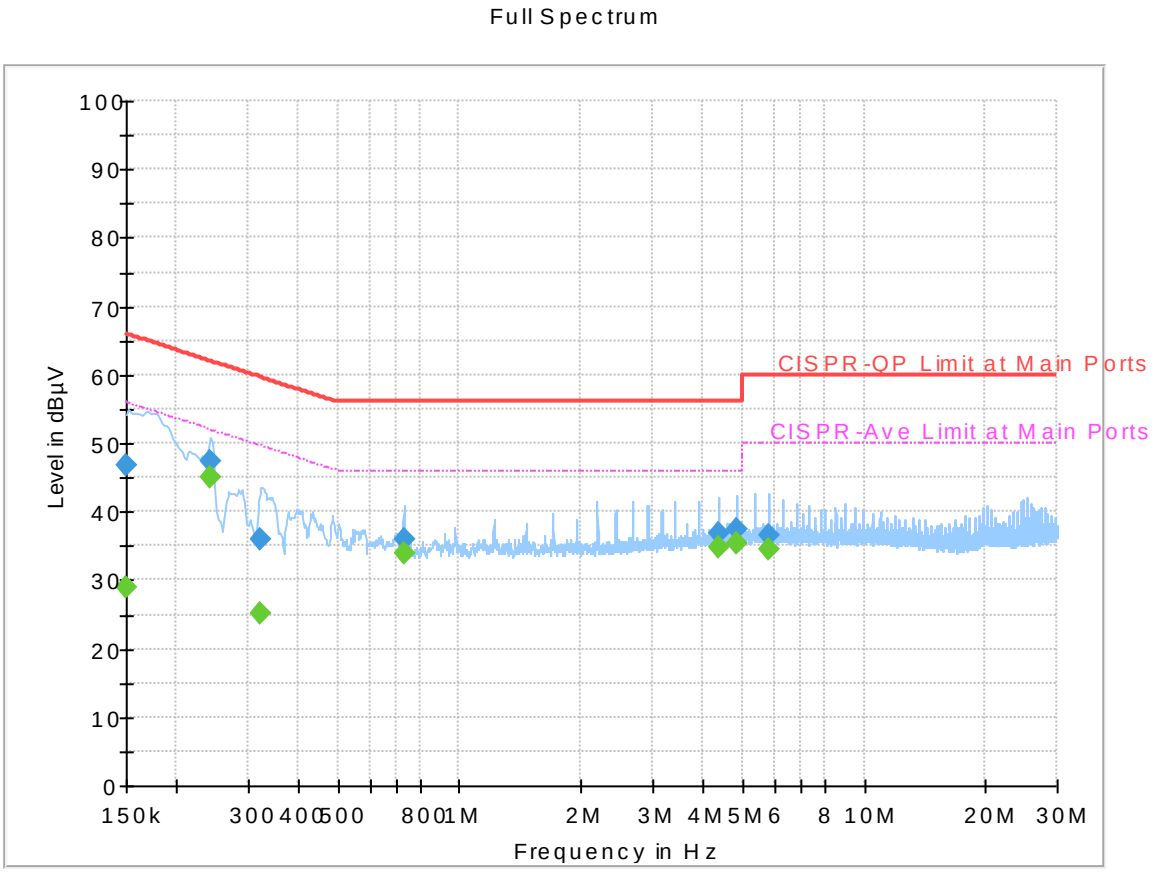
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.20**

Appendix A. AC Conducted Emission Test Results

Test Engineer :	Blue Lan	**Temperature :**	23~26℃
		Relative Humidity :	53~56%

EUT Information

Report NO :	811821-09
Test Mode :	Mode 2
Test Voltage :	120Vac/60Hz
Phase :	Neutral



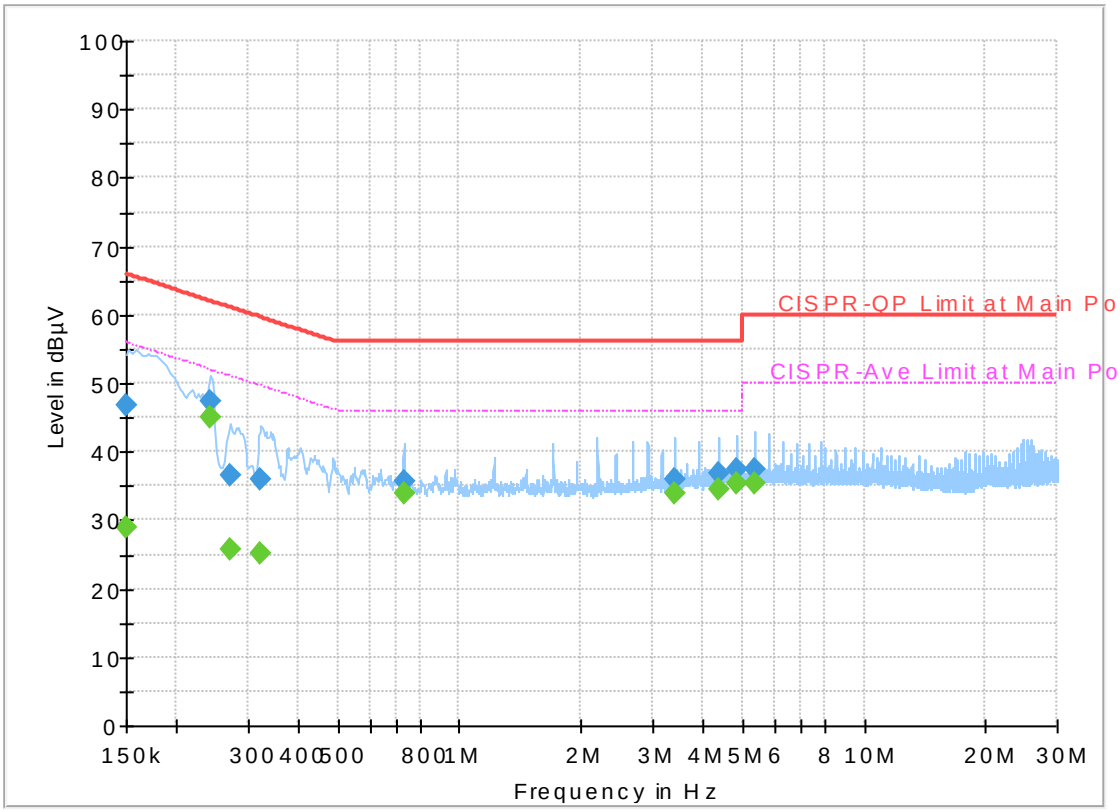
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	28.84	56.00	27.16	N	OFF	19.5
0.150000	46.73	---	66.00	19.27	N	OFF	19.5
0.242250	---	45.03	52.02	6.99	N	OFF	19.5
0.242250	47.31	---	62.02	14.71	N	OFF	19.5
0.323250	---	25.02	49.62	24.60	N	OFF	19.5
0.323250	35.86	---	59.62	23.76	N	OFF	19.5
0.730500	---	33.88	46.00	12.12	N	OFF	19.5
0.730500	35.90	---	56.00	20.10	N	OFF	19.5
4.377750	---	34.83	46.00	11.17	N	OFF	19.6
4.377750	36.83	---	56.00	19.17	N	OFF	19.6
4.866000	---	35.36	46.00	10.64	N	OFF	19.6
4.866000	37.52	---	56.00	18.48	N	OFF	19.6
5.840250	---	34.36	50.00	15.64	N	OFF	19.6
5.840250	36.41	---	60.00	23.59	N	OFF	19.6

EUT Information

Report NO :	811821-09
Test Mode :	Mode 2
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	28.83	56.00	27.17	N	OFF	19.5
0.150000	46.83	---	66.00	19.17	N	OFF	19.5
0.242250	---	45.08	52.02	6.94	N	OFF	19.5
0.242250	47.37	---	62.02	14.65	N	OFF	19.5
0.271500	---	25.69	51.07	25.38	N	OFF	19.5
0.271500	36.66	---	61.07	24.41	N	OFF	19.5
0.323250	---	25.06	49.62	24.56	N	OFF	19.5
0.323250	35.94	---	59.62	23.68	N	OFF	19.5
0.730500	---	33.81	46.00	12.19	N	OFF	19.5
0.730500	35.80	---	56.00	20.20	N	OFF	19.5
3.405750	---	33.81	46.00	12.19	N	OFF	19.6
3.405750	35.82	---	56.00	20.18	N	OFF	19.6
4.380000	---	34.65	46.00	11.35	N	OFF	19.6
4.380000	36.76	---	56.00	19.24	N	OFF	19.6
4.866000	---	35.39	46.00	10.61	N	OFF	19.6
4.866000	37.45	---	56.00	18.55	N	OFF	19.6
5.352000	---	35.32	50.00	14.68	N	OFF	19.6
5.352000	37.30	---	60.00	22.70	N	OFF	19.6

Appendix B. Radiated Spurious Emission

Test Engineer :	Jacky Hong and Hao Xu	Temperature :	22~24°C
		Relative Humidity :	48~52%

<LG Charging Mode>

2.4GHz 2400~2483.5MHz

BLE 1Mbps (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 39 2480MHz	*	2480	101.74	-	-	91.65	27.36	16.31	33.58	304	36	P	H
	*	2480	100.89	-	-	90.8	27.36	16.31	33.58	304	36	A	H
		2483.84	53.2	-20.8	74	43.11	27.36	16.31	33.58	304	36	P	H
		2483.88	42.54	-11.46	54	32.45	27.36	16.31	33.58	304	36	A	H
													H
													H
	*	2480	103.17	-	-	93.08	27.36	16.31	33.58	264	118	P	V
	*	2480	102.38	-	-	92.29	27.36	16.31	33.58	264	118	A	V
		2483.8	55.26	-18.74	74	45.17	27.36	16.31	33.58	264	118	P	V
		2483.8	42.35	-11.65	54	32.26	27.36	16.31	33.58	264	118	A	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

2.4GHz 2400~2483.5MHz

BLE 1Mbps (Harmonic @ 3m)

BLE	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 39 2480MHz		4960	39.74	-34.26	74	55.28	31.54	9.97	57.05	100	0	P	H
		7440	43.13	-30.87	74	52.26	36.59	11.72	57.44	100	0	P	H
													H
													H
		4960	39.74	-34.26	74	55.28	31.54	9.97	57.05	100	0	P	V
		7440	42.98	-31.02	74	52.11	36.59	11.72	57.44	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz BLE 1Mbps (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE LF		134.22	31.72	-11.78	43.5	45.42	17.19	1.56	32.45	-	-	P	H
		201.72	33.27	-10.23	43.5	48.99	14.89	1.78	32.39	-	-	P	H
		269.49	41.62	-4.38	46	52.59	19.24	2.17	32.38	100	0	P	H
		470.1	32.43	-13.57	46	38.68	23.31	2.81	32.37	-	-	P	H
		673.8	36.47	-9.53	46	39.28	26.27	3.39	32.47	-	-	P	H
		808.9	33.59	-12.41	46	34.07	27.96	3.69	32.13	-	-	P	H
													H
													H
													H
													H
													H
													H
		40.8	35.98	-4.02	40	48.96	18.68	0.83	32.49	100	0	P	V
		46.47	34.84	-5.16	40	50.59	15.72	1.02	32.49	-	-	P	V
		268.95	36.96	-9.04	46	47.87	19.3	2.17	32.38	-	-	P	V
		470.1	32.57	-13.43	46	38.82	23.31	2.81	32.37	-	-	P	V
		805.4	32.99	-13.01	46	33.41	28.04	3.69	32.15	-	-	P	V
		952.4	33.54	-12.46	46	29.94	30.71	4.07	31.18	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

<PMA Charging Mode>

2.4GHz 2400~2483.5MHz

BLE 1Mbps (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 39 2480MHz	*	2480	103.37	-	-	93.28	27.36	16.31	33.58	287	75	P	H
	*	2480	102.58	-	-	92.49	27.36	16.31	33.58	287	75	A	H
		2483.56	55.1	-18.9	74	45.01	27.36	16.31	33.58	287	75	P	H
		2483.96	42.3	-11.7	54	32.21	27.36	16.31	33.58	287	75	A	H
													H
													H
	*	2480	102.09	-	-	92	27.36	16.31	33.58	361	127	P	V
	*	2480	101.13	-	-	91.04	27.36	16.31	33.58	361	127	A	V
		2483.56	53.48	-20.52	74	43.39	27.36	16.31	33.58	361	127	P	V
		2484	42.47	-11.53	54	32.38	27.36	16.31	33.58	361	127	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

BLE 1Mbps (Harmonic @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 39 2480MHz		4960	39.66	-34.34	74	55.2	31.54	9.97	57.05	100	0	P	H
		7440	43.08	-30.92	74	52.21	36.59	11.72	57.44	100	0	P	H
													H
													H
		4960	40.13	-33.87	74	55.67	31.54	9.97	57.05	100	0	P	V
		7440	42.44	-31.56	74	51.57	36.59	11.72	57.44	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz BLE 1Mbps (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE LF		64.29	30.55	-9.45	40	50.32	11.69	1.03	32.49	-	-	P	H
		192.54	35.42	-8.08	43.5	51.41	14.65	1.76	32.4	100	0	P	H
		254.37	37.74	-8.26	46	48.97	18.99	2.16	32.38	-	-	P	H
		439.3	32.95	-13.05	46	39.78	22.78	2.74	32.35	-	-	P	H
		806.8	31.8	-14.2	46	32.25	28	3.69	32.14	-	-	P	H
		956.6	33.18	-12.82	46	29.33	30.92	4.07	31.14	-	-	P	H
													H
													H
													H
													H
													H
													H
		47.28	33.87	-6.13	40	50.03	15.31	1.02	32.49	-	-	P	V
		67.8	33.91	-6.09	40	53.48	11.88	1.04	32.49	100	0	P	V
		191.73	27.28	-16.22	43.5	43.29	14.63	1.76	32.4	-	-	P	V
		846	31.71	-14.29	46	31.22	28.68	3.75	31.94	-	-	P	V
		931.4	31.95	-14.05	46	29.6	29.73	3.99	31.37	-	-	P	V
		958	33.56	-12.44	46	29.59	31.02	4.08	31.13	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

<LG Charging pad>

2.4GHz 2400~2483.5MHz

BLE 2Mbps (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 39 2480MHz	*	2480	101.94	-	-	91.85	27.36	16.31	33.58	306	37	P	H
	*	2480	99.16	-	-	89.07	27.36	16.31	33.58	306	37	A	H
		2483.52	56.2	-17.8	74	46.11	27.36	16.31	33.58	306	37	P	H
		2483.52	43.31	-10.69	54	33.22	27.36	16.31	33.58	306	37	A	H
													H
													H
	*	2480	103.06	-	-	92.97	27.36	16.31	33.58	333	119	P	V
	*	2480	100.32	-	-	90.23	27.36	16.31	33.58	333	119	A	V
		2483.52	57.15	-16.85	74	47.06	27.36	16.31	33.58	333	119	P	V
		2483.52	44	-10	54	33.91	27.36	16.31	33.58	333	119	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

BLE 2Mbps (Harmonic @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 39 2480MHz		4960	39.62	-34.38	74	55.16	31.54	9.97	57.05	100	0	P	H
		7440	42.87	-31.13	74	52	36.59	11.72	57.44	100	0	P	H
													H
													H
		4960	39.98	-34.02	74	55.52	31.54	9.97	57.05	100	0	P	V
		7440	43.72	-30.28	74	52.85	36.59	11.72	57.44	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz BLE 2Mbps (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE LF		134.22	32.07	-11.43	43.5	45.77	17.19	1.56	32.45	-	-	P	H
		199.83	32.72	-10.78	43.5	48.46	14.87	1.78	32.39	-	-	P	H
		269.49	42.02	-3.98	46	52.99	19.24	2.17	32.38	100	0	P	H
		303.5	33.97	-12.03	46	44.82	19.11	2.41	32.37	-	-	P	H
		604.5	34.12	-11.88	46	37.98	25.43	3.17	32.46	-	-	P	H
		673.8	37.51	-8.49	46	40.32	26.27	3.39	32.47	-	-	P	H
													H
													H
													H
													H
													H
													H
		40.8	36.9	-3.1	40	49.88	18.68	0.83	32.49	100	0	P	V
		58.89	31.43	-8.57	40	51.23	11.65	1.04	32.49	-	-	P	V
		268.68	38.35	-7.65	46	49.26	19.3	2.17	32.38	-	-	P	V
		470.1	35.97	-10.03	46	42.22	23.31	2.81	32.37	-	-	P	V
		539.4	33.8	-12.2	46	39.14	24.01	3.06	32.41	-	-	P	V
		805.4	34.05	-11.95	46	34.47	28.04	3.69	32.15	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

<PMA Charging pad>

2.4GHz 2400~2483.5MHz

BLE 2Mbps (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE CH 39 2480MHz	*	2480	103.27	-	-	93.18	27.36	16.31	33.58	289	77	P	H
	*	2480	100.6	-	-	90.51	27.36	16.31	33.58	289	77	A	H
		2483.56	57.11	-16.89	74	47.02	27.36	16.31	33.58	289	77	P	H
		2483.52	43.99	-10.01	54	33.9	27.36	16.31	33.58	289	77	A	H
													H
													H
	*	2480	102.11	-	-	92.02	27.36	16.31	33.58	361	129	P	V
	*	2480	98.84	-	-	88.75	27.36	16.31	33.58	361	129	A	V
		2483.76	55.93	-18.07	74	45.84	27.36	16.31	33.58	361	129	P	V
		2483.52	43.48	-10.52	54	33.39	27.36	16.31	33.58	361	129	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

BLE 2Mbps (Harmonic @ 3m)

BLE	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE CH 39 2480MHz		4960	40.08	-33.92	74	55.62	31.54	9.97	57.05	100	0	P	H
		7440	42.45	-31.55	74	51.58	36.59	11.72	57.44	100	0	P	H
													H
													H
		4960	40.61	-33.39	74	56.15	31.54	9.97	57.05	100	0	P	V
		7440	42.71	-31.29	74	51.84	36.59	11.72	57.44	100	0	P	V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.

Emission below 1GHz

2.4GHz BLE 2Mbps (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz BLE LF		134.22	34.95	-8.55	43.5	48.65	17.19	1.56	32.45	-	-	P	H
		202.26	32.53	-10.97	43.5	48.24	14.9	1.78	32.39	-	-	P	H
		268.68	41.77	-4.23	46	52.68	19.3	2.17	32.38	100	0	P	H
		303.5	33.7	-12.3	46	44.55	19.11	2.41	32.37	-	-	P	H
		673.8	37.06	-8.94	46	39.87	26.27	3.39	32.47	-	-	P	H
		805.4	33.68	-12.32	46	34.1	28.04	3.69	32.15	-	-	P	H
													H
													H
													H
													H
													H
													H
		45.93	35.21	-4.79	40	50.54	16.14	1.02	32.49	100	0	P	V
		59.16	32.3	-7.7	40	52.1	11.65	1.04	32.49	-	-	P	V
		268.41	38.55	-7.45	46	49.46	19.3	2.17	32.38	-	-	P	V
		470.8	32.56	-13.44	46	38.81	23.31	2.81	32.37	-	-	P	V
		671.7	32.55	-13.45	46	35.36	26.27	3.39	32.47	-	-	P	V
		808.9	33.8	-12.2	46	34.28	27.96	3.69	32.13	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is "PASS".

Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Jacky Hong and Hao Xu	**Temperature :**	22~24°C
		Relative Humidity :	48~52%

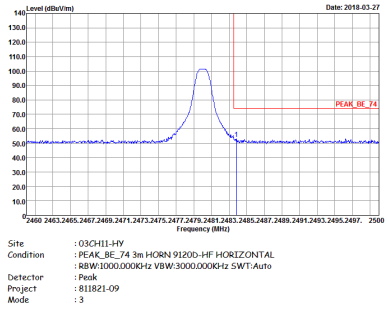
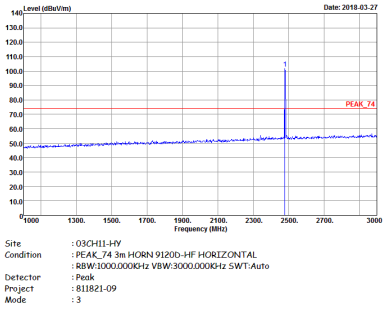
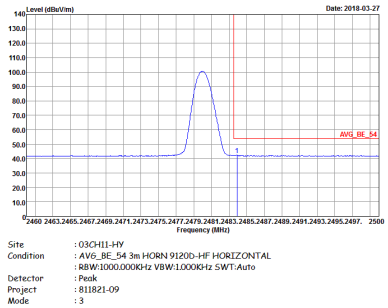
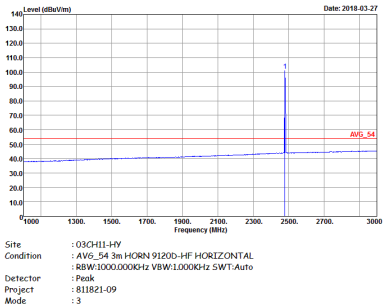
Note symbol

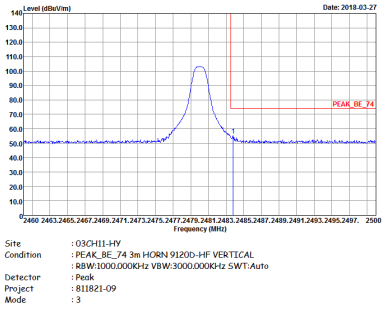
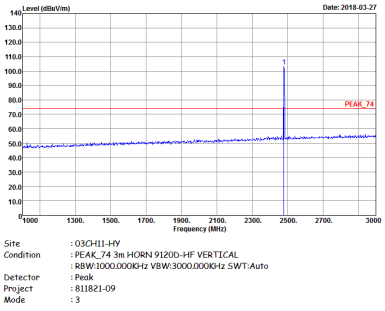
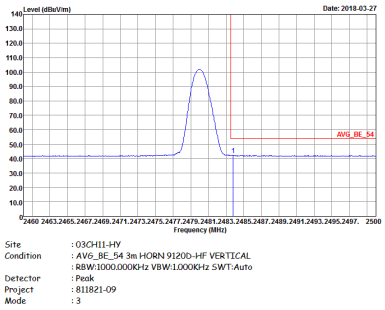
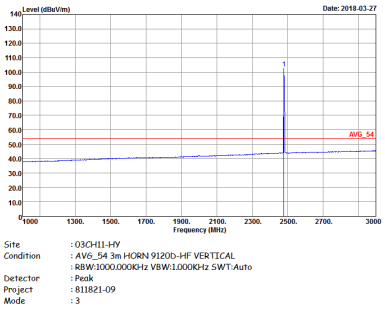
-L	**Low channel location**
-R	**High channel location**

<LG Charging Mode>

2.4GHz 2400~2483.5MHz

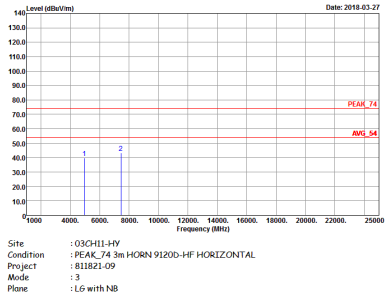
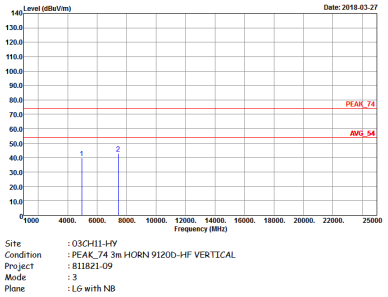
BLE 1Mbps (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 3	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 3
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 3	 Site : 03CH11-HY Condition : AVG_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 3

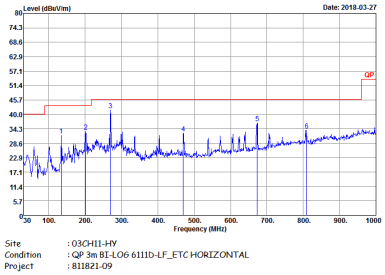
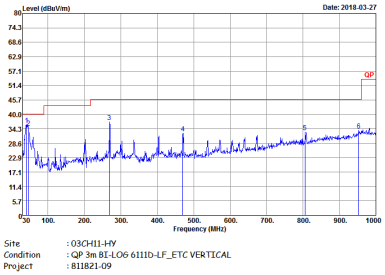
2.4GHz 2400~2483.5MHz

BLE 1Mbps (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Vertical
Peak		

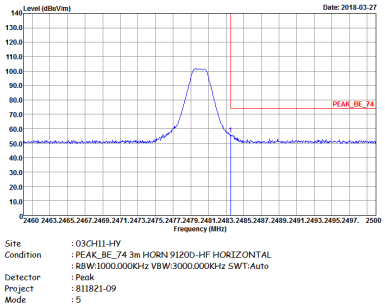
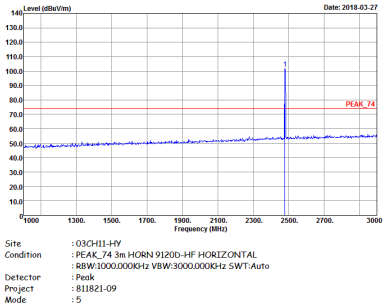
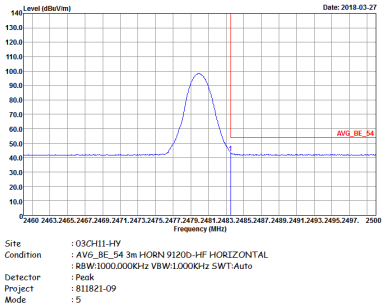
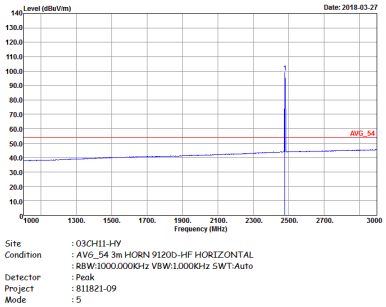
Emission below 1GHz

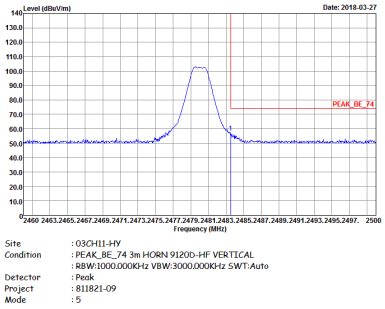
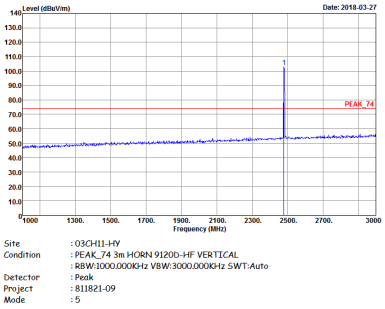
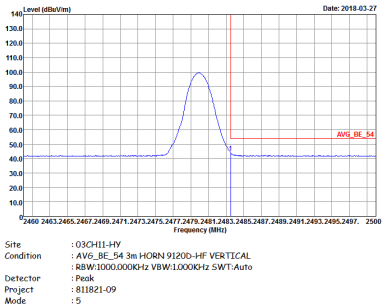
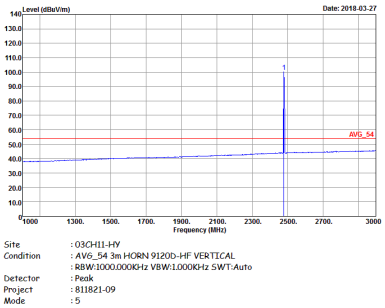
2.4GHz BLE 1Mbps (LF)

BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
1	Horizontal	Vertical
QP / Peak		

2.4GHz 2400~2483.5MHz

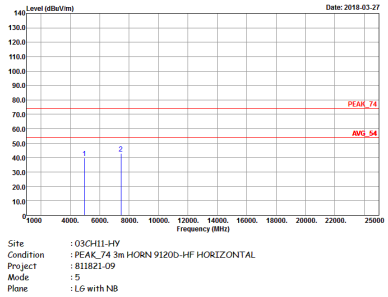
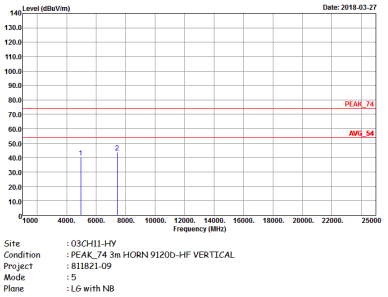
BLE 2Mbps (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 5	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 5
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 5	 Site : 03CH11-HY Condition : AVG_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 5

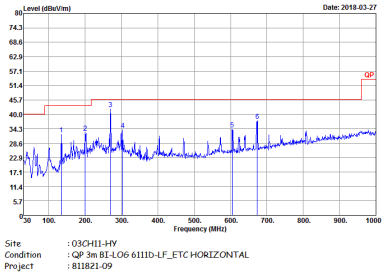
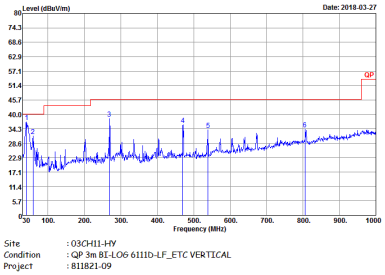
2.4GHz 2400~2483.5MHz

BLE 2Mbps (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Vertical
Peak		

Emission below 1GHz

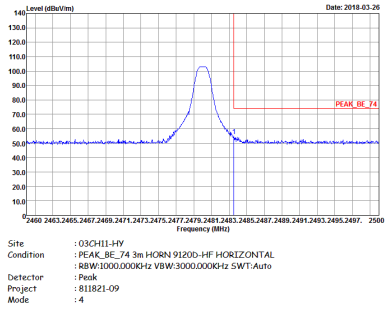
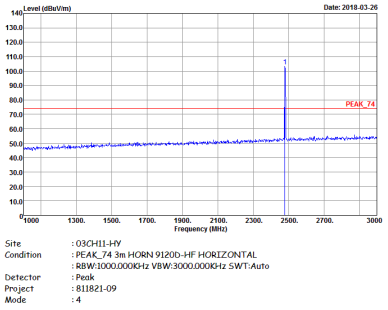
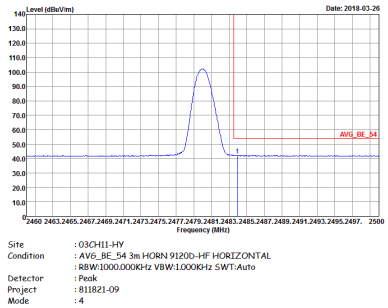
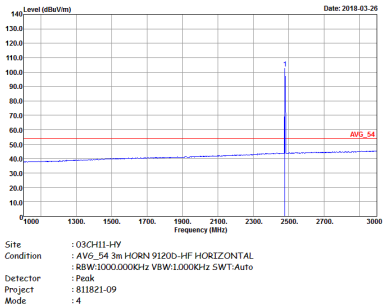
2.4GHz BLE 2Mbps (LF)

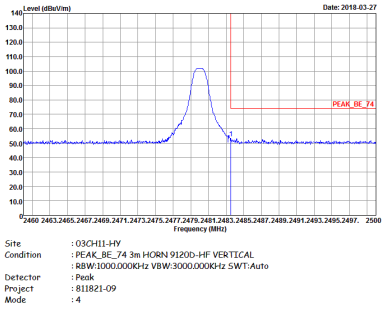
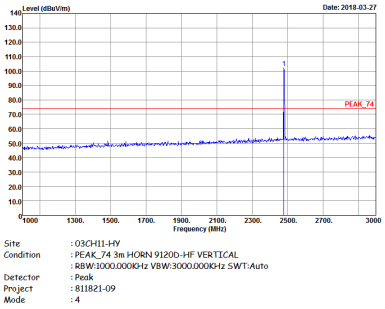
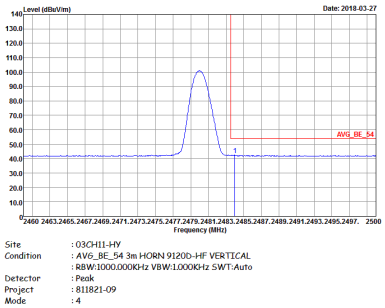
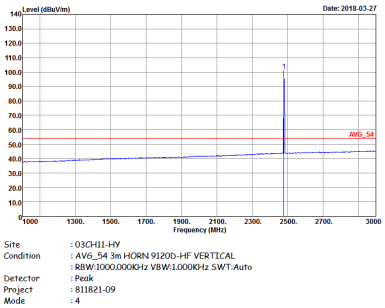
BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
1	Horizontal	Vertical
QP / Peak		

<PMA Charging Mode>

2.4GHz 2400~2483.5MHz

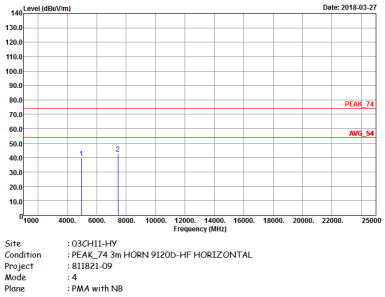
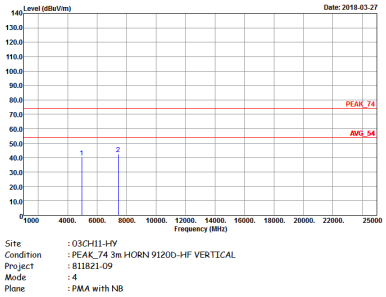
BLE 1Mbps (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 4	 Site : 03CH11-HY Condition : PEAK_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 4
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 4	 Site : 03CH11-HY Condition : AVG_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 811821-09 Mode : 4

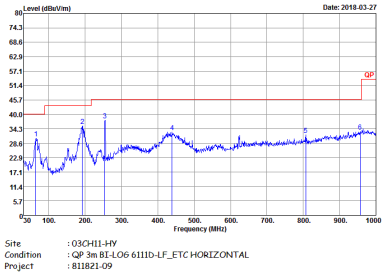
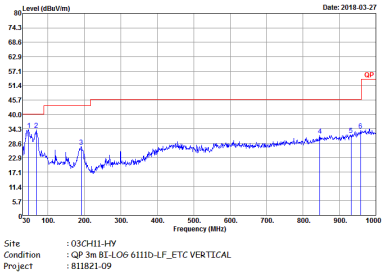
2.4GHz 2400~2483.5MHz

BLE 1Mbps (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Vertical
Peak		

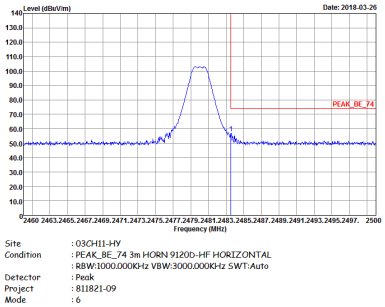
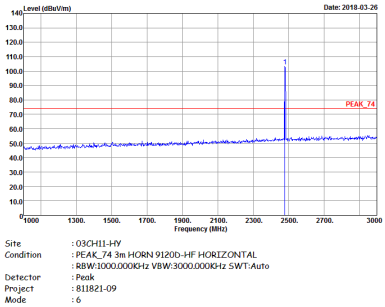
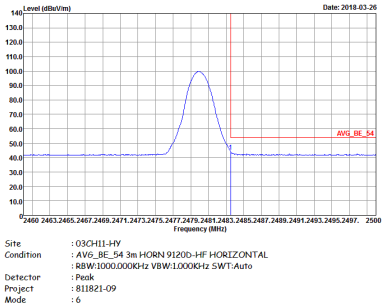
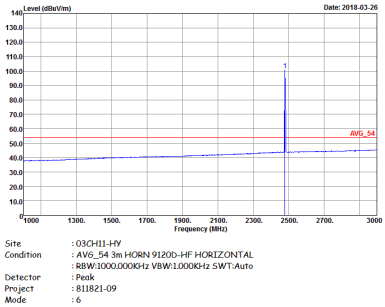
Emission below 1GHz

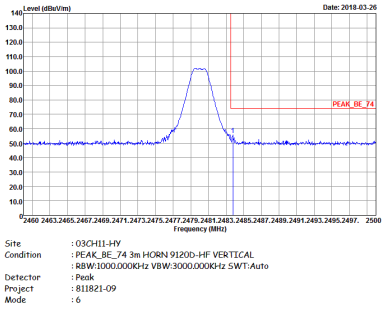
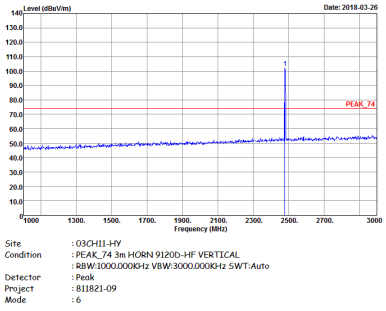
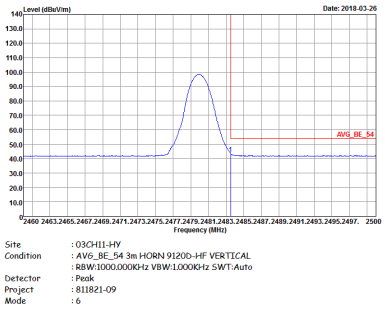
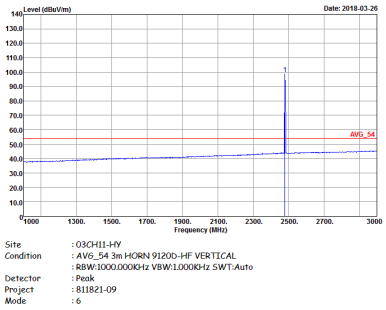
2.4GHz BLE 1Mbps (LF)

BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
1	Horizontal	Vertical
QP / Peak		

2.4GHz 2400~2483.5MHz

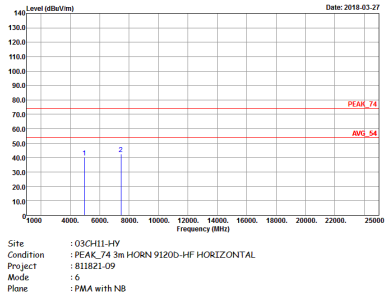
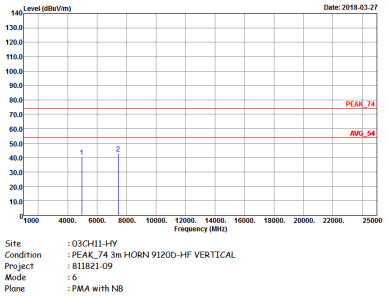
BLE 2Mbps (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Vertical	Fundamental
Peak		
Avg.		

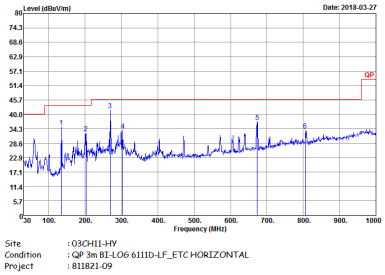
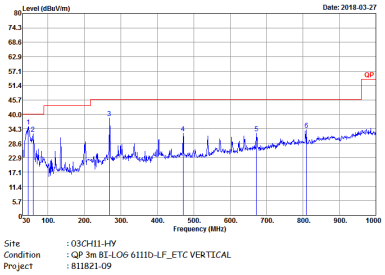
2.4GHz 2400~2483.5MHz

BLE 2Mbps (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Vertical
Peak		

Emission below 1GHz

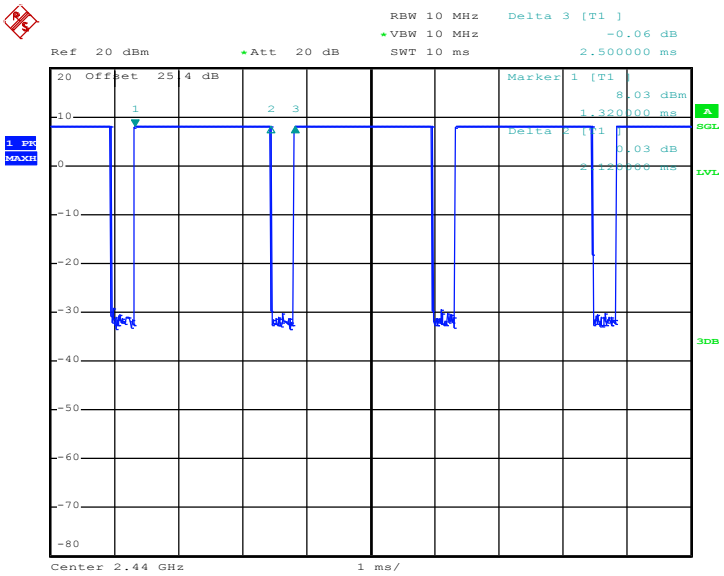
2.4GHz BLE 2Mbps (LF)

BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
1	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

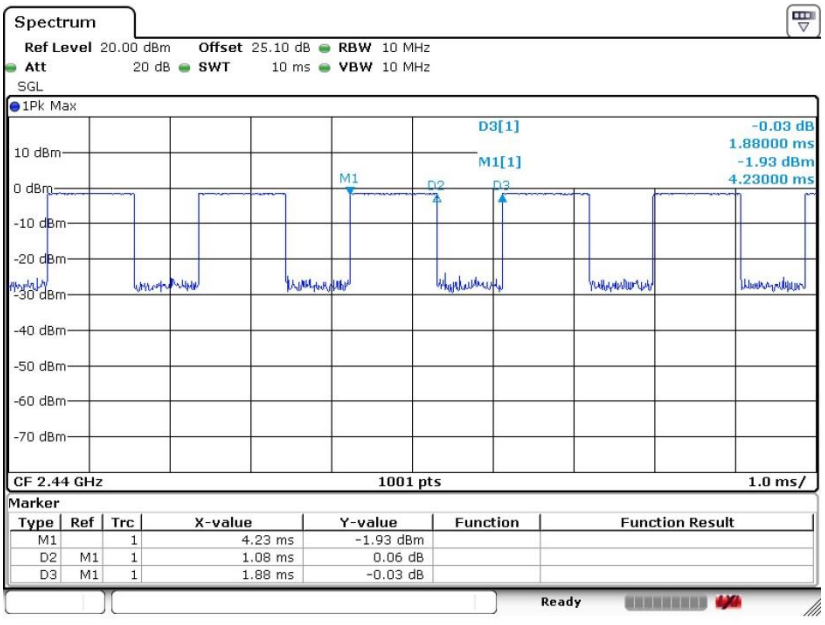
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
Bluetooth –LE 1Mbps	84.80	2120	0.47	1kHz	0.72
Bluetooth –LE 2Mbps	57.45	1080	0.93	1kHz	2.41

Bluetooth – LE 1Mbps



Date: 26.JAN.2018 22:59:49

Bluetooth – LE 2Mbps



Date: 23.JAN.2018 21:08:16