



FCC RF Test Report

APPLICANT : Altocumulous LLC
EQUIPMENT : Digital Media Receiver
MODEL NAME : RS03QR
FCC ID : 2AHSE-2045
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DTS) Digital Transmission System

This is a variant report which is only valid together with the original test report. The testing was completed on Oct. 14, 2016. 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



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456

FAX : 886-3-328-4978

FCC ID : 2AHSE-2045

Page Number : 1 of 15

Report Issued Date : Oct. 14, 2016

Report Version : Rev. 01

Report Template No.: BU5-FR15CBT4.0 Version 1.3



TABLE OF CONTENTS

SUMMARY OF TEST RESULT 4

1 GENERAL DESCRIPTION..... 5

 1.1 Applicant 5

 1.2 Product Feature of Equipment Under Test..... 5

 1.3 Product Specification of Equipment Under Test..... 5

 1.4 Modification of EUT 5

 1.5 Testing Location 6

 1.6 Applicable Standards..... 6

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST..... 7

 2.1 Descriptions of Test Mode 7

 2.2 Test Mode 7

 2.3 Connection Diagram of Test System 8

 2.4 Support Unit used in test configuration and system 8

 2.5 EUT Operation Test Setup 8

3 TEST RESULT 9

 3.1 Radiated Band Edges and Spurious Emission Measurement 9

 3.2 Antenna Requirements 13

4 LIST OF MEASURING EQUIPMENT 14

5 UNCERTAINTY OF EVALUATION..... 15

APPENDIX A. RADIATED SPURIOUS EMISSION

APPENDIX B. RADIATED SPURIOUS EMISSION PLOTS

APPENDIX C. DUTY CYCLE PLOTS



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR631725-02B	Rev. 01	Initial issue of report	Oct. 14, 2016



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result
3.1	15.247(d)	Radiated Band Edges and Spurious Emission	15.209(a) & 15.247(d)	Pass
3.2	15.203 & 15.247(b)	Antenna Requirement	N/A	Pass



1 General Description

1.1 Applicant

Altocumulous LLC

300 E. Business Way, Suite 200, Summit Woods Corporate Center Cincinnati, Ohio 45241

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	RS03QR
FCC ID	2AHSE-2045
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth v4.1 EDR/LE

Remark: This is a variant report by adding 2nd RF crystal. All the test cases were performed on original report which can be referred to Sporton Report Number FR631725-01B. Based on the original report, the RF output power, radiated band edges, and radiated spurious emission worst case was verified.

1.3 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)
Maximum Output Power to Antenna	7.15 dBm (0.0052 W)
Antenna Type / Gain	Fixed Internal Antenna type with gain 1.47 dBi
Type of Modulation	Bluetooth LE : GFSK

1.4 Modification of EUT

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



1.5 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1022 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 1 st 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. TH05-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. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH13-HY

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

1.6 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 v03r05
- ♦ ANSI C63.10-2013

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.



2 Test Configuration of Equipment Under Test

2.1 Descriptions of Test Mode

The RF output power was recorded in the following table:

Channel	Frequency	Bluetooth – LE RF Output Power
		Data Rate / Modulation
		GFSK
		1Mbps
Ch00	2402MHz	7.15 dBm
Ch19	2440MHz	7.11 dBm
Ch39	2480MHz	6.91 dBm

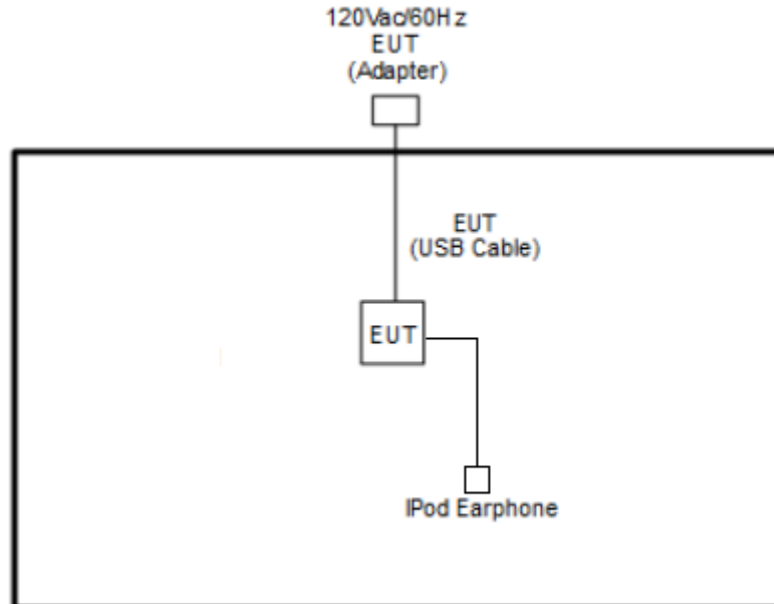
- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

2.2 Test Mode

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

Summary table of Test Cases	
Radiated TCs	Mode 1: Bluetooth Tx CH39_2480 MHz_1Mbps

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshield, 1.0m	N/A

2.5 EUT Operation Test Setup

For Bluetooth function, programmed RF utility, "Compliance.exe" installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting and receiving 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 FCC section 15.209 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 measuring equipment is listed in the section 4 of this test report.

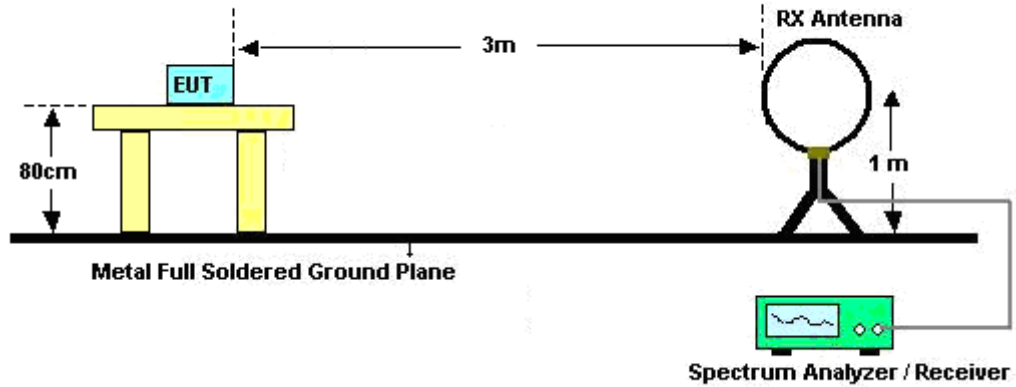


3.1.3 Test Procedures

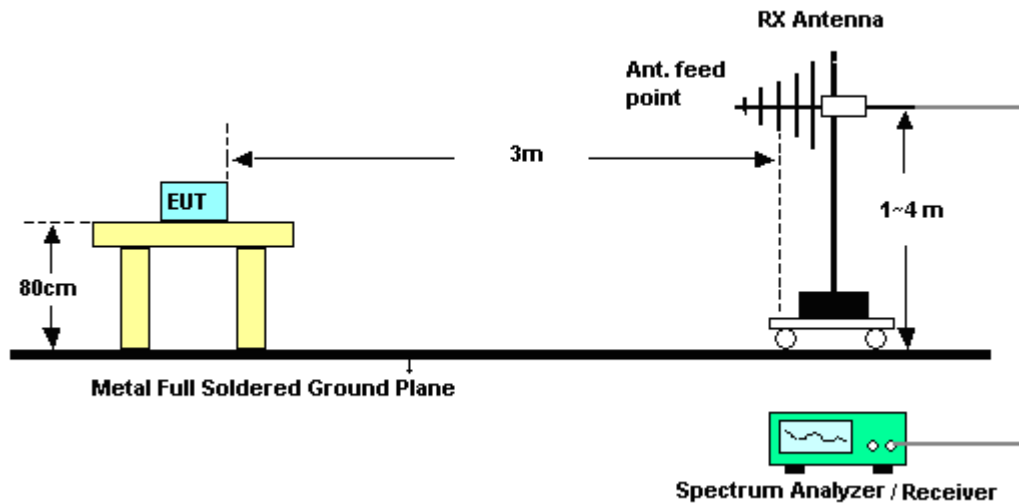
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v03r05.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the 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 measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. 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 \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold;
 - (3) Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement.
For average measurement:
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq 1/T$, 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

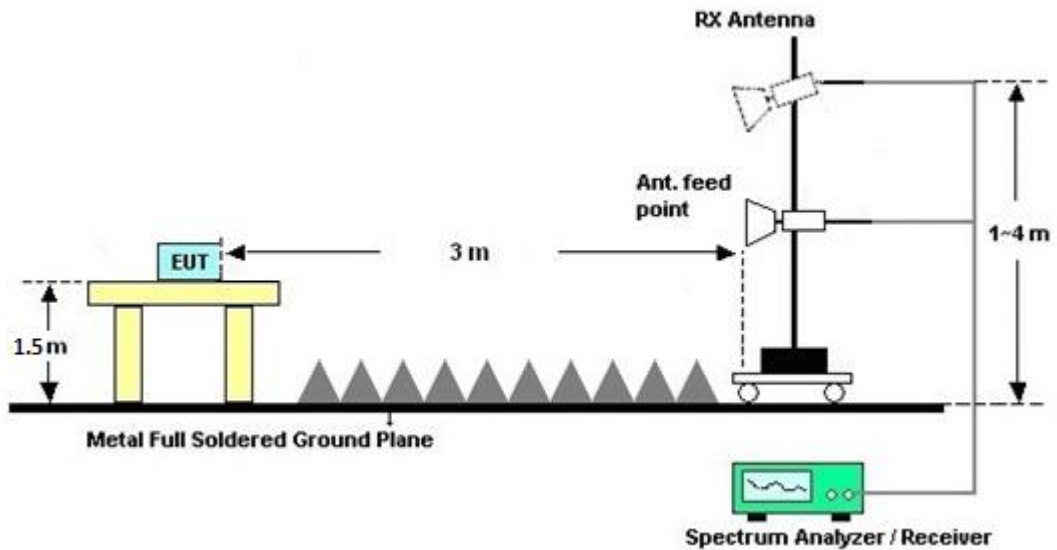
For radiated emissions below 30MHz



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 per 15.31(o) was not reported.

3.1.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A and B

3.1.7 Duty Cycle

Please refer to Appendix C.

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

Please refer to Appendix A and B



3.2 Antenna Requirements

3.2.1 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 FCC rule.

3.2.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.2.3 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
Power Meter	Agilent	E4416A	GB412923 44	300MHz~40GHz	Jan. 08, 2016	Oct. 03, 2016	Jan. 07, 2017	Conducted (TH05-HY)
Power Sensor	Agilent	E9327A	US404415 48	300MHz~40GHz	Jan. 07, 2016	Oct. 03, 2016	Jan. 06, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 23, 2015	Oct. 03, 2016	Nov. 22, 2016	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Sep. 02, 2015	Oct. 12, 2016 ~ Oct. 14, 2016	Sep. 01, 2017	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	10MHz~1GHz	Dec. 31, 2015	Oct. 12, 2016 ~ Oct. 14, 2016	Dec. 30, 2016	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&04	30MHz to 1GHz	Jan. 13, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Jan. 12, 2017	Radiation (03CH13-HY)
EMI Test Receiver	Keysight	N9038A (MXE)	MY554201 70	N/A	Mar. 10, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Mar. 09, 2017	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-124 1	1GHz ~ 18GHz	Apr. 25, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Apr. 24, 2017	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590074	1GHz~18GHz	Jun. 27, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Jun. 26, 2017	Radiation (03CH13-HY)
Preamplifier	MITEQ	JS44-180040 00-33-8P	1840917	18GHz ~ 40GHz	Jun. 14, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Jun. 13, 2017	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY532701 47	1GHz~26.5GHz	Jan. 30, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Jan. 29, 2017	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY553705 26	N/A	Mar. 14, 2016	Oct. 12, 2016 ~ Oct. 14, 2016	Mar. 13, 2017	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500- B	N/A	1m~4m	N/A	Oct. 12, 2016 ~ Oct. 14, 2016	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Oct. 12, 2016 ~ Oct. 14, 2016	N/A	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170 584	18GHz- 40GHz	Nov. 02, 2015	Oct. 12, 2016 ~ Oct. 14, 2016	Nov. 01, 2016	Radiation (03CH13-HY)



5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.9
---	-----

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4
---	-----

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.3
---	-----



Appendix A. Radiated Spurious Emission

Test Engineer :	Alex Wang, Bill Kuo, and Kyle Jhuang	Temperature :	22~25°C
		Relative Humidity :	51~55%

2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.	
		(MHz)	(dBμV/m)	(dB)	Limit	Level	Factor	Loss	Factor	Pos	Pos	Avg.		
					Line	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
BLE CH 39 2480MHz	*	2480	102.07	-	-	98.89	27.36	7.07	31.25	400	111	P	H	
	*	2480	101.9	-	-	98.72	27.36	7.07	31.25	400	111	A	H	
		2483.52	63.54	-10.46	74	60.36	27.36	7.07	31.25	400	111	P	H	
		2483.6	47.98	-6.02	54	44.8	27.36	7.07	31.25	400	111	A	H	
													H	
														H
	*	2480	101.53	-	-	98.35	27.36	7.07	31.25	400	174	P	V	
	*	2480	101.39	-	-	98.21	27.36	7.07	31.25	400	174	A	V	
		2483.64	62.95	-11.05	74	59.77	27.36	7.07	31.25	400	174	P	V	
		2483.52	47.15	-6.85	54	43.97	27.36	7.07	31.25	400	174	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 (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	39.78	-34.22	74	54.52	31.44	10.17	56.35	100	0	P	H
		7440	42.48	-31.52	74	50.44	36.66	12.8	57.42	100	0	P	H
													H
													H
		4960	38.6	-35.4	74	53.34	31.44	10.17	56.35	100	0	P	V
		7440	42.36	-31.64	74	50.32	36.66	12.8	57.42	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 (LF)

BLE	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)	
2.4GHz BLE LF		53.76	26.55	-13.45	40	43.77	13.9	0.8	31.92	100	0	P	H	
		123.96	25.36	-18.14	43.5	38.47	17.58	1.18	31.87	-	-	P	H	
		181.47	29.14	-14.36	43.5	44.25	15.31	1.41	31.83	-	-	P	H	
		486.2	24.26	-21.74	46	29.98	23.68	2.45	31.85	-	-	P	H	
		692	26.44	-19.56	46	29.45	26.03	2.98	32.02	-	-	P	H	
		953.1	32.25	-13.75	46	29.77	30.12	3.45	31.09	-	-	P	H	
														H
														H
														H
														H
														H
														H
			36.75	36.82	-3.18	40	46.19	21.94	0.63	31.94	130	25	P	V
			53.76	32.66	-7.34	40	49.88	13.9	0.8	31.92	-	-	P	V
			125.58	28.93	-14.57	43.5	42	17.62	1.18	31.87	-	-	P	V
			540.1	24.57	-21.43	46	29.6	24.24	2.63	31.9	-	-	P	V
			683.6	26.35	-19.65	46	29.44	25.97	2.96	32.02	-	-	P	V
			947.5	32.17	-13.83	46	29.83	30.05	3.44	31.15	-	-	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	Peak or Average
H/V	Horizontal or Vertical



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		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		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 B. Radiated Spurious Emission

Test Engineer :	Alex Wang, Bill Kuo, and Kyle Jhuang	Temperature :	22~25°C
		Relative Humidity :	51~55%

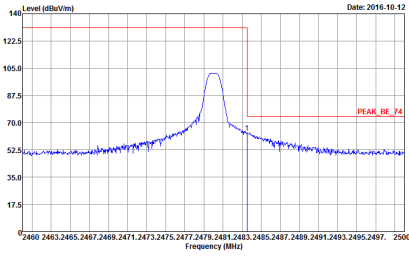
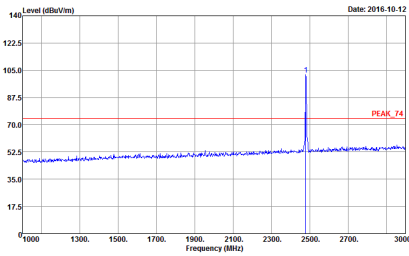
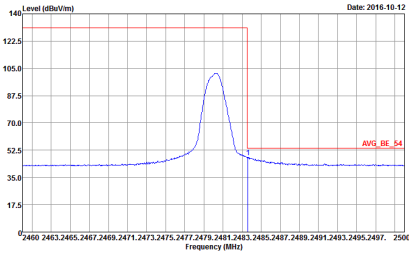
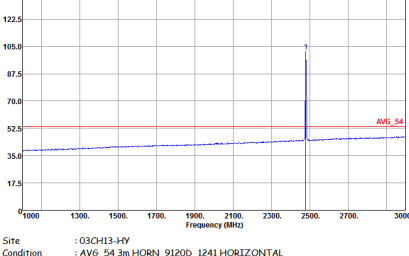
Note symbol

-L	Low channel location
-R	High channel location

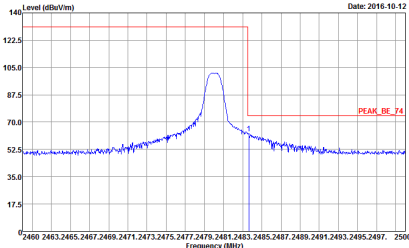
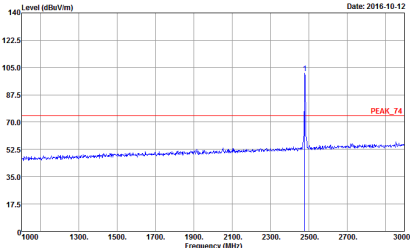
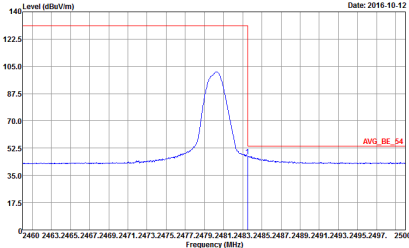
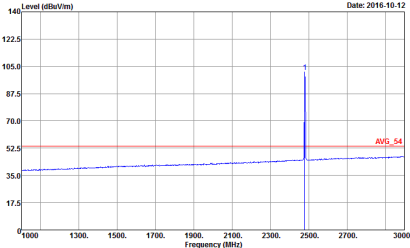


2.4GHz 2400~2483.5MHz

BLE (Band Edge @ 3m)

BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Fundamental
Peak	 <p>Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 631725-02 Mode : 2</p>	 <p>Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 631725-02 Mode : 2</p>
Avg.	 <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 631725-02 Mode : 2</p>	 <p>Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL Detector : Peak Project : 631725-02 Mode : 2</p>

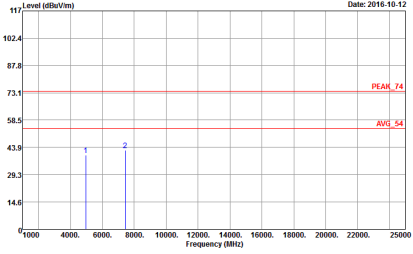
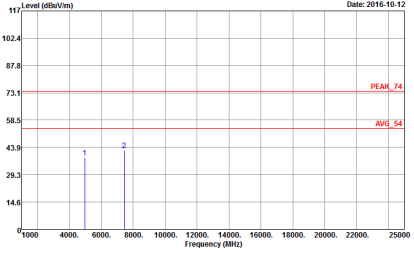


BLE	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	BLE CH39 2480MHz	
1	Vertical	Fundamental
<p>Peak</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a peak at 2480 MHz. The peak level is approximately 105 dBuV/m. The plot is dated 2016-10-12.</p> <p>Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 631725-02 Mode : 2</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing a sharp peak at 2480 MHz. The peak level is approximately 105 dBuV/m. The plot is dated 2016-10-12.</p> <p>Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 631725-02 Mode : 2</p>
<p>Avg.</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average level across the band. A peak is visible at 2480 MHz. The plot is dated 2016-10-12.</p> <p>Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 631725-02 Mode : 2</p>	 <p>Level (dBuV/m) vs Frequency (MHz) plot showing the average level across the band. A sharp peak is visible at 2480 MHz. The plot is dated 2016-10-12.</p> <p>Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 631725-02 Mode : 2</p>



2.4GHz 2400~2483.5MHz

BLE (Harmonic @ 3m)

BLE	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	BLE CH39 2480MHz	
1	Horizontal	Vertical
Peak	 <p>Site : 03CH13-1Y Condition : PEAK_74 3m SHF_HORN_584 HORIZONTAL Detector : Peak Project : 631725-02 Mode : 2</p>	 <p>Site : 03CH13-1Y Condition : PEAK_74 3m SHF_HORN_584 VERTICAL Detector : Peak Project : 631725-02 Mode : 2</p>



Emission below 1GHz

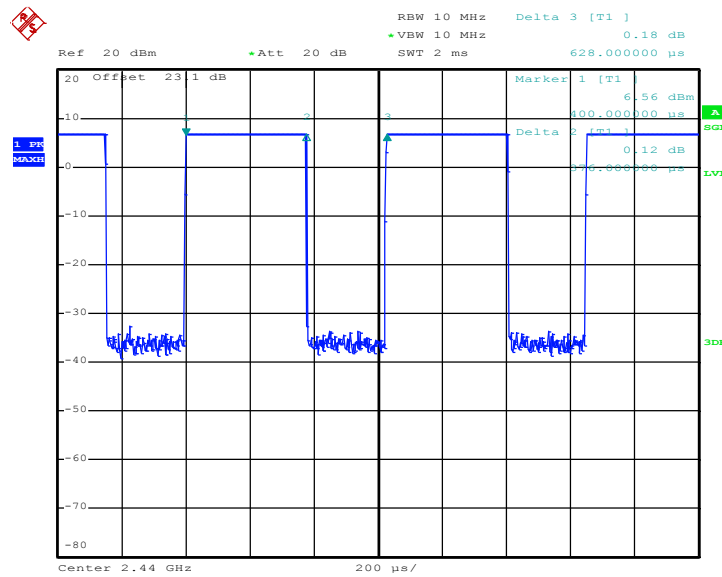
2.4GHz BLE (LF)

BLE	2.4GHz 2400~2483.5MHz	
ANT	BLE LF	
1	Horizontal	Vertical
QP / Peak	<p>Site : 03CH13-HY Condition : QP 3m BIL06_40103 HORIZONTAL Detector : Peak Project : 631725-02 Mode : IO</p>	<p>Site : 03CH13-HY Condition : QP 3m BIL06_40103 VERTICAL Detector : Peak Project : 631725-02 Mode : IO</p>

Appendix C. Duty Cycle Plots

Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
Bluetooth 4.0-LE	59.87	376.00	2.66	3kHz

Bluetooth 4.0-LE



Date: 3.OCT.2016 21:36:44