FCC CO-LOCATION RADIO TEST REPORT

FCC ID	:	**2AP64-2872**
Equipment	:	**Digital Media Receiver**
Model Name	:	**C1125P**
Applicant	:	**Gargantuan LLC** **303 North Glenoaks Blvd., Ste 200** **Burbank, CA 91502**
Standard	:	**FCC Part 15 Subpart E §15.407**

The testing was completed on Aug. 04, 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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

Approved by: Jones Tsai

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR840308-01K	01	Initial issue of report	Aug. 22, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.247(b) 15.247(b)(1) 15.247(b)(3) 15.407(a)	Power Output Measurement	Pass
3.2	15.407(b)	Unwanted Emissions	Pass
3.3	15.203 15.407(a)	Antenna Requirement	Pass

Reviewed by: Joseph Lin

Report Producer: Polly Tsai

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	C1125P
FCC ID	2AP64-2872
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	2400 MHz ~ 2483.5 MHz 5180 MHz ~ 5240 MHz 5725 MHz ~ 5850 MHz
Maximum Output Power to Antenna	**<Ant. 1>** **<2400 MHz ~ 2483.5 MHz>** Bluetooth LE 2Mbps: 5.23 dBm (0.0033 W) 802.11b : 21.60 dBm (0.1445 W) 802.11g : 21.94 dBm (0.1563 W) 802.11n HT20 : 21.54 dBm (0.1426 W) **<5180 MHz ~ 5240 MHz>** 802.11n HT40 : 18.50 dBm / 0.0708 W 802.11ac VHT40 : 18.48 dBm / 0.0705 W 802.11ac VHT80 : 13.52 dBm / 0.0225 W **<5745 MHz ~ 5825 MHz>** 802.11n HT40 : 17.82 dBm / 0.0605 W 802.11ac VHT40 : 17.77 dBm / 0.0598 W 802.11ac VHT80 : 16.61 dBm / 0.0458 W **<Ant. 2>** **<2400 MHz ~ 2483.5 MHz>** Bluetooth LE 2Mbps: 7.26 dBm (0.0053 W) 802.11b : 21.46 dBm (0.1400 W) 802.11g : 22.46 dBm (0.1762 W) 802.11n HT20 : 22.57 dBm (0.1807 W) **<5180 MHz ~ 5240 MHz>** 802.11n HT40 : 18.80 dBm / 0.0759 W 802.11ac VHT40 : 18.78 dBm / 0.0755 W 802.11ac VHT80 : 13.49 dBm / 0.0223 W **<5745 MHz ~ 5825 MHz>** 802.11n HT40 : 18.14 dBm / 0.0652 W 802.11ac VHT40 : 18.05 dBm / 0.0638 W 802.11ac VHT80 : 17.03 dBm / 0.0505 W

Standards-related Product Specification	
Antenna Type / Gain	**<2400 MHz ~ 2483.5 MHz>** Ant. 1 : Fixed Internal Antenna type with gain 2.10 dBi Ant. 2 : Fixed Internal Antenna type with gain 1.90 dBi **<5180 MHz ~ 5240 MHz>** Ant. 1 : Fixed Internal Antenna type with gain 3.70 dBi Ant. 2 : Fixed Internal Antenna type with gain 3.50 dBi **<5725 MHz ~ 5850 MHz>** Ant. 1 : Fixed Internal Antenna type with gain 3.90 dBi Ant. 2 : Fixed Internal Antenna type with gain 4.00 dBi
Type of Modulation	Bluetooth LE : GFSK 802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.3 Modification of EUT

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

1.4 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, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH05-HY

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.**
	03CH15-HY

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

1.5 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04
- 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

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 emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

2.1 Carrier Frequency and Channel

2400-2483.5 MHz 802.11b		2400-2483.5 MHz 802.11b	
Channel	Channel	Channel	Freq. (MHz)
01	2412	11	2462

2400-2483.5 MHz 802.11g		2400-2483.5 MHz 802.11g	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
01	2412	11	2462

2400-2483.5 MHz 802.11n HT20		2400-2483.5 MHz 802.11n HT20	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
01	2412	11	2462

5150-5250 MHz 802.11n HT40		5150-5250 MHz 802.11n HT40	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
38	5190	46	5230

5725-5850 MHz 802.11n HT40		5725-5850 MHz 802.11n HT40	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
151	5755	159	5795

5150-5250 MHz 802.11ac VHT80		5725-5850 MHz 802.11ac VHT80	
Channel	Freq. (MHz)	Channel	Freq. (MHz)
42	5210	155	5775

2400-2483.5 MHz Bluetooth - LE	
Channel	Freq. (MHz)
39	2480

2.2 Test Mode

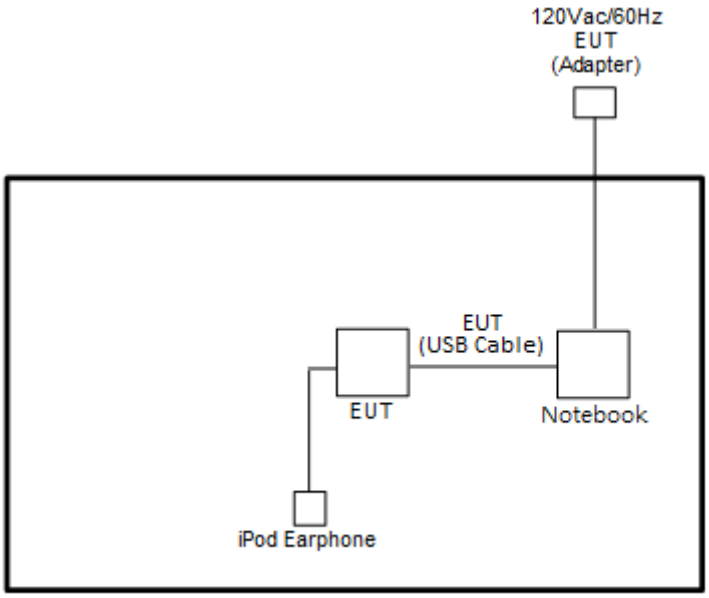
Final test modes are considering the modulation and worse data rates as below table.

<Co-Location>

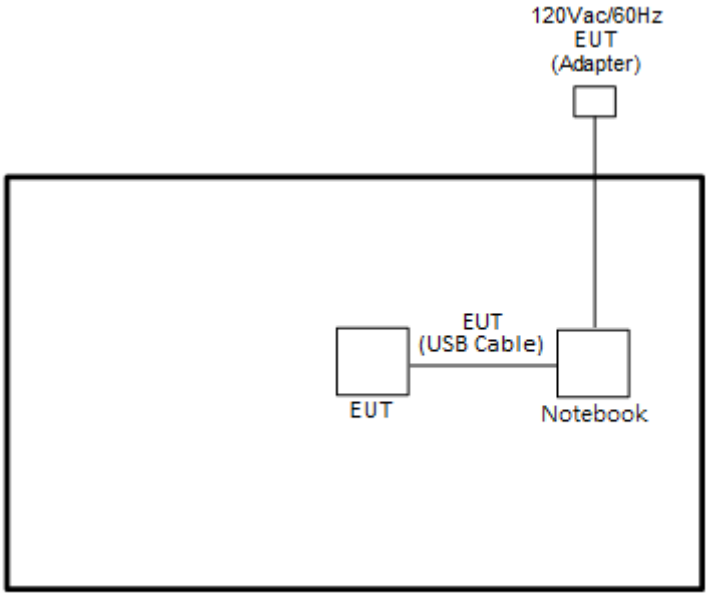
Modulation	Data Rate
802.11b + Bluetooth LE	1 Mbps + 2 Mbps
802.11g + Bluetooth LE	6 Mbps + 2 Mbps
802.11n HT20 + Bluetooth LE	MCS0 + 2 Mbps
802.11n HT40 + Bluetooth LE	MCS0 + 2 Mbps
802.11ac VHT80 + Bluetooth LE	MCS0 + 2 Mbps

2.3 Connection Diagram of Test System

<Co-location Mode with Earphone>



<Co-location Mode without Earphone>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Notebook	N/A	L570	N/A	N/A	N/A

2.5 EUT Operation Test Setup

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

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For Bluetooth LE and 2.4G WLAN

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna of directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

For 5G WLAN

For the 5.15–5.25 GHz bands:

- For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the 5.725-5.85 GHz bands:

- For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

For Bluetooth LE and 2.4G WLAN

1. For Peak Power, the testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v04 section 9.1.3 PKPM1 Peak power meter method.
2. For Average Power, the testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v04 section 9.2.3.1 Method AVGPM.
3. The RF output of EUT was connected to the power meter by RF cable and attenuator.
4. The path loss was compensated to the results for each measurement.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Measure the conducted output power and record the results in the test report.

For 5G WLAN Band 1 and Band 4

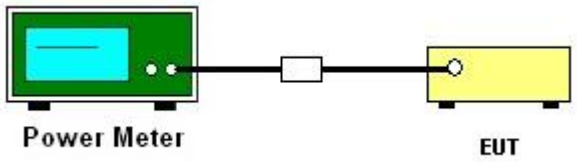
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

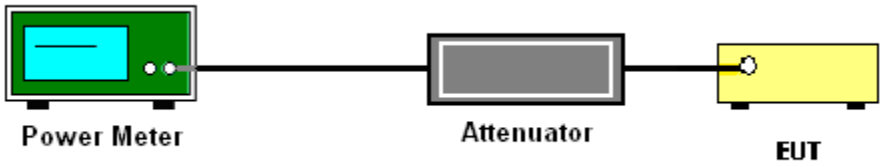
1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, 10 log(1/x), where x is the duty cycle.

3.1.4 Test Setup

For Bluetooth LE and 2.4G WLAN



For 5G WLAN



3.1.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.1.6 Test Result of Average Output Power

Please refer to Appendix A.

3.2 Unwanted Emissions Measurement

3.2.1 Limit of Unwanted Emissions

(1) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

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

Note: The following formula is used to convert the EIRP to field strength.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.3

(2) KDB789033 D02 v02r01 G)2)c)

(i) Section 15.407(b)(1) to (b)(3) specify the unwanted emission limits for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.[3]

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.[4]

Note 3: An out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.

Note 4: Only devices with antenna gains of 10 dBi or less may be approved using the emission limits specified in Section 15.247(d) till March 2, 2018; all other devices operating in this band must use the mask specified in Section 15.407(b)(4)(i).

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

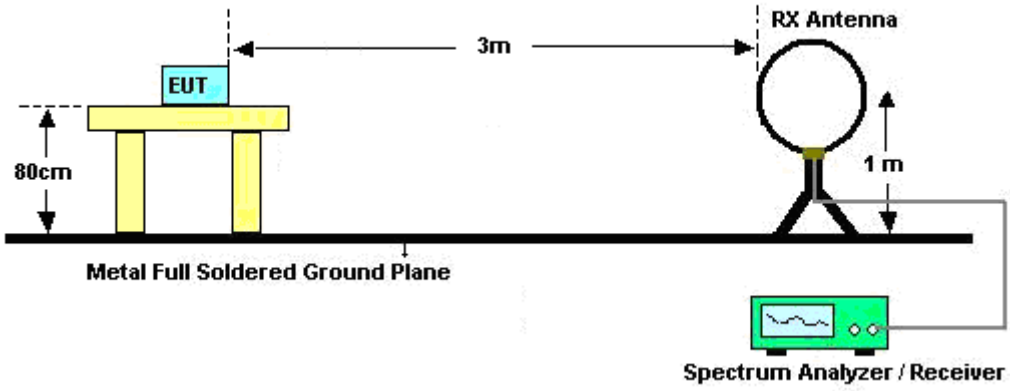
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

2. 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.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.

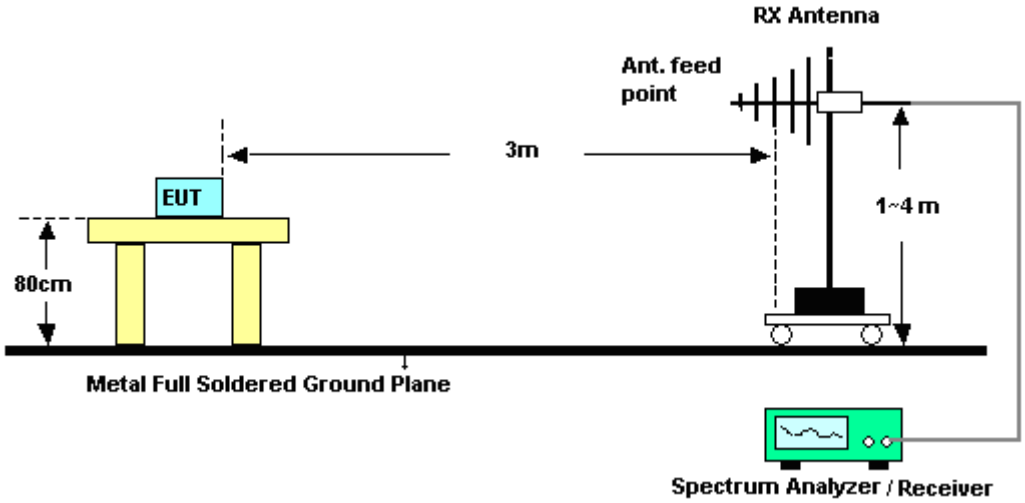
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level 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.

3.2.4 Test Setup

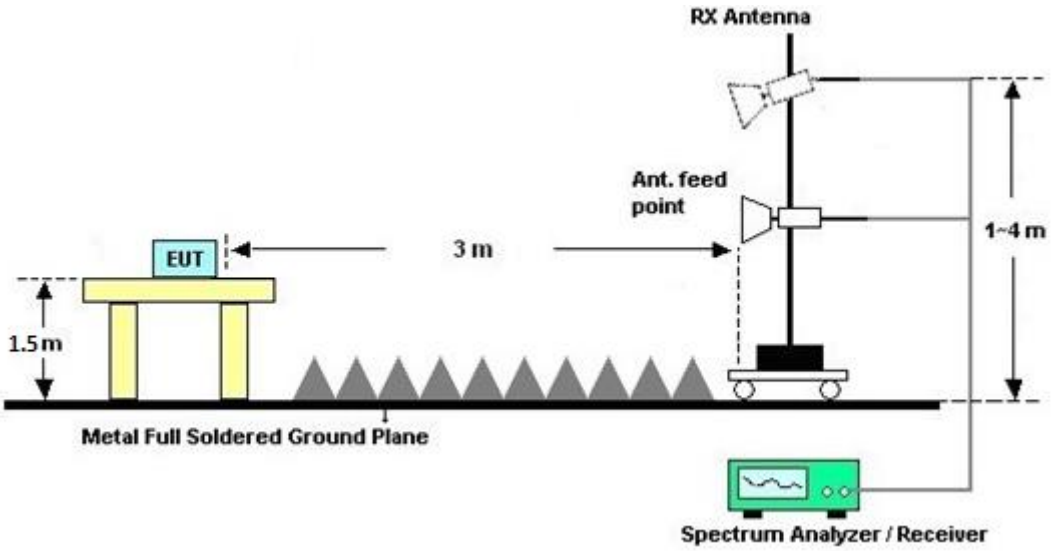
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.2.5 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.

3.2.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.2.7 Duty Cycle

Please refer to Appendix D.

3.2.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.3 Antenna Requirements

3.3.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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
Power Meter	Anritsu	ML2495A	1240001	N/A	Sep. 07, 2017	Jun. 26, 2018~ Aug. 03, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Jun. 26, 2018~ Aug. 03, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Jul. 16, 2018~ Aug. 04, 2018	Nov. 22, 2018	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-303	17100018000550006	1GHz~18GHz	Jul. 10, 2018	Jul. 16, 2018~ Aug. 04, 2018	Jul. 09, 2019	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 26, 2017	Jul. 16, 2018~ Aug. 04, 2018	Dec. 25, 2018	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL6111D&00800N1D01N-06	41912&05	30MHz to 1GHz	Jan. 10, 2018	Jul. 16, 2018~ Aug. 04, 2018	Jan. 09, 2019	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY54130085	20Hz ~ 8.4GHz	Oct. 31, 2017	Jul. 16, 2018~ Aug. 04, 2018	Oct. 30, 2018	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1620	1G~18GHz	Oct. 03, 2017	Jul. 16, 2018~ Aug. 04, 2018	Oct. 02, 2018	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY53270195	1GHz~26.5GHz	Aug. 21, 2017	Jul. 16, 2018~ Aug. 04, 2018	Aug. 20, 2018	Radiation (03CH15-HY)
Spectrum Analyzer	Agilent	E4446A	MY50180136	3Hz~44GHz	Apr. 25, 2018	Jul. 16, 2018~ Aug. 04, 2018	Apr. 24, 2019	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Jul. 16, 2018~ Aug. 04, 2018	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Jul. 16, 2018~ Aug. 04, 2018	N/A	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Jul. 16, 2018~ Aug. 04, 2018	Nov. 26, 2018	Radiation (03CH15-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Jul. 16, 2018~ Aug. 04, 2018	Jul. 15, 2019	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24 (K5)	ARD-SPR-000185	N/A	N/A	Jul. 16, 2018~ Aug. 04, 2018	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36980/4	30M-18G	Apr. 16, 2018	Jul. 16, 2018~ Aug. 04, 2018	Apr. 15, 2019	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9838/4	30M-18GHz	Apr. 16, 2018	Jul. 16, 2018~ Aug. 04, 2018	Apr. 15, 2019	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	MTJ	000000-MT18A-100D3210	30M-18G	Apr. 16, 2018	Jul. 16, 2018~ Aug. 04, 2018	Apr. 15, 2019	Radiation (03CH15-HY)
Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Oct. 17, 2017	Jul. 16, 2018~ Aug. 04, 2018	Oct. 16, 2018	Radiation (03CH15-HY)
Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Oct. 17, 2017	Jul. 16, 2018~ Aug. 04, 2018	Oct. 16, 2018	Radiation (03CH15-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))	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. Test Result of Conducted Test Items

<For Bluetooth LE Ant. 1>

<2Mbps>

Test Engineer:	Kai Liao	Temperature:	21~25	°C
Test Date:	2018/6/26 ~ 2018/7/17	Relative Humidity:	51~54	%

TEST RESULTS DATA
Peak Power Table

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)
BLE	2Mbps	1	39	2480	5.23	30.00

TEST RESULTS DATA
Average Power Table
(Reporting Only)

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
BLE	2Mbps	1	39	2480	2.46	4.44

Report Number : FR840308-01K

<For Bluetooth LE Ant. 2>

<2Mbps>

Test Engineer:	Kai Liao / Rebecca Li	Temperature:	21~25	°C
Test Date:	2018/6/26 ~ 2018/7/17	Relative Humidity:	51~54	%

TEST RESULTS DATA
Peak Power Table

Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	Peak Conducted Power (dBm)	Conducted Power Limit (dBm)
BLE	2Mbps	1	39	2480	7.26	30.00

TEST RESULTS DATA
Average Power Table
(Reporting Only)

Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)
BLE	2Mbps	1	39	2480	2.46	6.76

Report Number : FR840308-01K

<For 2.4G WLAN>

Test Engineer:	Luffy Lin / Derek Hsu	Temperature:	21~25	°C
Test Date:	2018/7/4 ~ 2018/08/03	Relative Humidity:	51~54	%

TEST RESULTS DATA
Peak Output Power

2.4GHz Band																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11b	1Mbps	1	1	2412	21.60	21.46	-	30.00	30.00	2.10	1.90	23.70	23.36	36.00	36.00	Pass
11b	1Mbps	1	11	2462	21.49	21.31	-	30.00	30.00	2.10	1.90	23.59	23.21	36.00	36.00	Pass
11g	6Mbps	1	1	2412	21.94	22.46	-	30.00	30.00	2.10	1.90	24.04	24.36	36.00	36.00	Pass
11g	6Mbps	1	11	2462	21.41	22.22	-	30.00	30.00	2.10	1.90	23.51	24.12	36.00	36.00	Pass
HT20	MCS0	1	1	2412	21.54	22.57	-	30.00	30.00	2.10	1.90	23.64	24.47	36.00	36.00	Pass
HT20	MCS0	1	11	2462	21.19	21.95	-	30.00	30.00	2.10	1.90	23.29	23.85	36.00	36.00	Pass

Note: Measured power (dBm) has offset with cable loss.

TEST RESULTS DATA
Average Output Power

2.4GHz Band									
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		
					Ant 1	Ant 2	Ant 1	Ant 2	SUM
11b	1Mbps	1	1	2412	0.00	0.00	19.93	19.49	-
11b	1Mbps	1	11	2462	0.00	0.00	19.85	19.37	
11g	6Mbps	1	1	2412	0.00	0.00	14.80	16.08	
11g	6Mbps	1	11	2462	0.00	0.00	14.57	14.86	
HT20	MCS0	1	1	2412	0.00	0.00	14.52	14.88	
HT20	MCS0	1	11	2462	0.00	0.00	13.45	13.85	

Note: Measured power (dBm) has offset with cable loss.

Report Number : FR840308-01K

<For 5G WLAN Band 1>

Test Engineer:	Kai Liao / Luffy Lin/Shiang Wang	Temperature:	21~25	°C
Test Date:	2018/6/26 ~ 2018/8/03	Relative Humid	51~54	%

TEST RESULTS DATA
Average Power Table

FCC Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
HT40	MCS0	1	38	5190	0.00	0.00	13.94	14.94	24.00	24.00	3.70	3.50		Pass
HT40	MCS0	1	46	5230	0.00	0.00	18.50	18.80	24.00	24.00	3.70	3.50		Pass
VHT40	MCS0	1	38	5190	0.00	0.00	13.90	14.89	24.00	24.00	3.70	3.50		Pass
VHT40	MCS0	1	46	5230	0.00	0.00	18.48	18.78	24.00	24.00	3.70	3.50		Pass
VHT80	MCS0	1	42	5210	0.00	0.00	13.52	13.49	24.00	24.00	3.70	3.50		Pass

<For 5G WLAN Band 4>

Test Engineer:	Kai Liao	Temperature:	21~25	°C
Test Date:	2018/6/26 ~ 2018/7/17	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Power Table

Band IV													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
HT40	MCS0	1	151	5755	0.00	0.00	17.82	18.14	30.00	30.00	3.90	4.00	Pass
HT40	MCS0	1	159	5795	0.00	0.00	17.69	17.91	30.00	30.00	3.90	4.00	Pass
VHT40	MCS0	1	151	5755	0.00	0.00	17.77	18.05	30.00	30.00	3.90	4.00	Pass
VHT40	MCS0	1	159	5795	0.00	0.00	17.64	17.90	30.00	30.00	3.90	4.00	Pass
VHT80	MCS0	1	155	5775	0.00	0.00	16.61	17.03	30.00	30.00	3.90	4.00	Pass

Appendix B. Radiated Spurious Emission

Test Engineer :	Bill Chang, Karl Hou, and Lance Chiang	Temperature :	24~26°C
		Relative Humidity :	53~56%

Co-location Mode

Bluetooth LE (2Mbps) and WIFI 802.11b (Band edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
Simultaneously		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11b CH01 2412 MHz Ant. 1		2343.81	57.39	-16.61	74	45.39	27.17	15.71	30.88	149	1	P	H
		2344.02	51.12	-2.88	54	39.12	27.17	15.71	30.88	149	1	A	H
	*	2412	112.73	38.73	74	100.41	27.36	15.81	30.85	149	1	P	H
	*	2412	109.66	55.66	54	97.34	27.36	15.81	30.85	149	1	A	H
		2389.485	53.89	-20.11	74	41.67	27.31	15.77	30.86	297	59	P	V
		2344.02	45.48	-8.52	54	33.48	27.17	15.71	30.88	297	59	A	V
	*	2412	108.99	34.99	74	96.67	27.36	15.81	30.85	297	59	P	V
	*	2412	105.91	51.91	54	93.59	27.36	15.81	30.85	297	59	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11b (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11b CH01 2412 MHz Ant. 2	*	2480	102.37	28.37	74	89.74	27.55	15.9	30.82	166	9	P	H
	*	2480	101.68	47.68	54	89.05	27.55	15.9	30.82	166	9	A	H
		2490.68	53.52	-20.48	74	40.82	27.6	15.92	30.82	166	9	P	H
		2483.52	45.78	-8.22	54	33.14	27.55	15.91	30.82	166	9	A	H
	*	2480	101.18	27.18	74	88.55	27.55	15.9	30.82	393	56	P	V
	*	2480	100.62	46.62	54	87.99	27.55	15.9	30.82	393	56	A	V
		2493.04	53.06	-20.94	74	40.35	27.6	15.92	30.81	393	56	P	V
		2483.52	45.69	-8.31	54	33.05	27.55	15.91	30.82	393	56	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11b (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11b CH11 2462 MHz Ant. 1	*	2480	104.88	30.88	74	92.25	27.55	15.9	30.82	354	349	P	H
	*	2480	104.27	50.27	54	91.64	27.55	15.9	30.82	354	349	A	H
		2497.48	57.71	-16.29	74	44.99	27.6	15.93	30.81	354	349	P	H
		2497.48	52.69	-1.31	54	39.97	27.6	15.93	30.81	354	349	A	H
	*	2480	102.93	28.93	74	90.3	27.55	15.9	30.82	400	305	P	V
	*	2480	102.2	48.2	54	89.57	27.55	15.9	30.82	400	305	A	V
		2497.84	56.33	-17.67	74	43.61	27.6	15.93	30.81	400	305	P	V
		2497.4	50.03	-3.97	54	37.31	27.6	15.93	30.81	400	305	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11b (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11b CH11 2462 MHz Ant. 2	*	2480	102.16	28.16	74	89.53	27.55	15.9	30.82	355	8	P	H
	*	2480	98.22	44.22	54	85.59	27.55	15.9	30.82	355	8	A	H
		2499.16	54.45	-19.55	74	41.73	27.6	15.93	30.81	355	8	P	H
		2483.52	46.94	-7.06	54	34.3	27.55	15.91	30.82	355	8	A	H
	*	2480	101.34	27.34	74	88.71	27.55	15.9	30.82	390	43	P	V
	*	2480	99.32	45.32	54	86.69	27.55	15.9	30.82	390	43	A	V
		2497.24	54.41	-19.59	74	41.69	27.6	15.93	30.81	390	43	P	V
		2499.72	46.3	-7.7	54	33.58	27.6	15.93	30.81	390	43	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11g CH01 2412 MHz Ant. 1		2389.8	65.2	-8.8	74	52.97	27.31	15.77	30.85	263	15	P	H
		2390	51.66	-2.34	54	39.42	27.31	15.78	30.85	263	15	A	H
	*	2412	110.27	36.27	74	97.95	27.36	15.81	30.85	263	15	P	H
	*	2412	102.51	48.51	54	90.19	27.36	15.81	30.85	263	15	A	H
		2389.485	65.18	-8.82	74	52.96	27.31	15.77	30.86	371	84	P	V
		2390	50.65	-3.35	54	38.41	27.31	15.78	30.85	371	84	A	V
	*	2412	108.26	34.26	74	95.94	27.36	15.81	30.85	371	84	P	V
	*	2412	100.64	46.64	54	88.32	27.36	15.81	30.85	371	84	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11g CH01 2412 MHz Ant. 2		2389.38	66.52	-7.48	74	54.3	27.31	15.77	30.86	383	351	P	H
		2390	53.15	-0.85	54	40.91	27.31	15.78	30.85	383	351	A	H
	*	2412	110.37	36.37	74	98.06	27.36	15.8	30.85	383	351	P	H
	*	2412	102.79	48.79	54	90.47	27.36	15.81	30.85	383	351	A	H
		2389.485	65.22	-8.78	74	53	27.31	15.77	30.86	375	315	P	V
		2390	50.24	-3.76	54	38	27.31	15.78	30.85	375	315	A	V
	*	2412	107.36	33.36	74	95.04	27.36	15.81	30.85	375	315	P	V
	*	2412	100	46	54	87.68	27.36	15.81	30.85	375	315	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11g CH11 2462 MHz Ant. 1	*	2462	110.11	36.11	74	97.56	27.5	15.88	30.83	252	14	P	H
	*	2462	102.62	48.62	54	90.07	27.5	15.88	30.83	252	14	A	H
		2483.72	67.5	-6.5	74	54.86	27.55	15.91	30.82	252	14	P	H
		2483.52	52.72	-1.28	54	40.08	27.55	15.91	30.82	252	14	A	H
	*	2462	110.07	36.07	74	97.52	27.5	15.88	30.83	400	60	P	V
	*	2462	102.26	48.26	54	89.71	27.5	15.88	30.83	400	60	A	V
		2483.52	66.84	-7.16	74	54.2	27.55	15.91	30.82	400	60	P	V
		2483.52	52.38	-1.62	54	39.74	27.55	15.91	30.82	400	60	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11g CH11 2462 MHz Ant. 2	*	2462	109.91	35.91	74	97.36	27.5	15.88	30.83	359	348	P	H
	*	2462	101.97	47.97	54	89.42	27.5	15.88	30.83	359	348	A	H
		2483.6	65.9	-8.1	74	53.26	27.55	15.91	30.82	359	348	P	H
		2483.52	52.24	-1.76	54	39.6	27.55	15.91	30.82	359	348	A	H
	*	2462	108.79	34.79	74	96.24	27.5	15.88	30.83	400	309	P	V
	*	2462	101.58	47.58	54	89.03	27.5	15.88	30.83	400	309	A	V
		2483.52	67.22	-6.78	74	54.58	27.55	15.91	30.82	400	309	P	V
		2483.52	51.1	-2.9	54	38.46	27.55	15.91	30.82	400	309	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11n HT20 CH01 2412 MHz Ant. 1		2390	71.22	-2.78	74	58.98	27.31	15.78	30.85	264	14	P	H
		2390	53.08	-0.92	54	40.84	27.31	15.78	30.85	264	14	A	H
	*	2412	109.35	35.35	74	97.03	27.36	15.81	30.85	264	14	P	H
	*	2412	101.61	47.61	54	89.29	27.36	15.81	30.85	264	14	A	H
		2389.8	65.8	-8.2	74	53.57	27.31	15.77	30.85	373	63	P	V
		2390	52	-2	54	39.76	27.31	15.78	30.85	373	63	A	V
	*	2412	108.83	34.83	74	96.51	27.36	15.81	30.85	373	63	P	V
	*	2412	101.11	47.11	54	88.79	27.36	15.81	30.85	373	63	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11n HT20 CH01 2412 MHz Ant. 2		2389.485	69.56	-4.44	74	57.34	27.31	15.77	30.86	381	351	P	H
		2390	52.76	-1.24	54	40.52	27.31	15.78	30.85	381	351	A	H
	*	2412	108.89	34.89	74	96.57	27.36	15.81	30.85	381	351	P	H
	*	2412	101.45	47.45	54	89.13	27.36	15.81	30.85	381	351	A	H
		2389.8	64.72	-9.28	74	52.49	27.31	15.77	30.85	374	314	P	V
		2390	50.42	-3.58	54	38.18	27.31	15.78	30.85	374	314	A	V
	*	2412	107.25	33.25	74	94.93	27.36	15.81	30.85	374	314	P	V
	*	2412	99.56	45.56	54	87.24	27.36	15.81	30.85	374	314	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11n HT20 CH11 2462 MHz Ant. 1	*	2462	108.58	34.58	74	96.03	27.5	15.88	30.83	252	13	P	H
	*	2462	100.9	46.9	54	88.35	27.5	15.88	30.83	252	13	A	H
		2483.68	66.9	-7.1	74	54.26	27.55	15.91	30.82	252	13	P	H
		2483.52	51.33	-2.67	54	38.69	27.55	15.91	30.82	252	13	A	H
	*	2462	108.18	34.18	74	95.63	27.5	15.88	30.83	400	60	P	V
	*	2462	100.83	46.83	54	88.28	27.5	15.88	30.83	400	60	A	V
		2484	65.81	-8.19	74	53.17	27.55	15.91	30.82	400	60	P	V
		2483.52	51.13	-2.87	54	38.49	27.55	15.91	30.82	400	60	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11n HT20 CH11 2462 MHz Ant. 2	*	2462	108.51	34.51	74	95.96	27.5	15.88	30.83	362	349	P	H
	*	2462	101.11	47.11	54	88.56	27.5	15.88	30.83	362	349	A	H
		2484.32	66.07	-7.93	74	53.43	27.55	15.91	30.82	362	349	P	H
		2483.52	51.8	-2.2	54	39.16	27.55	15.91	30.82	362	349	A	H
	*	2462	107.98	33.98	74	95.43	27.5	15.88	30.83	400	309	P	V
	*	2462	100.33	46.33	54	87.78	27.5	15.88	30.83	400	309	A	V
		2484.36	65.16	-8.84	74	52.52	27.55	15.91	30.82	400	309	P	V
		2483.52	50.99	-3.01	54	38.35	27.55	15.91	30.82	400	309	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11g CH01 2412 MHz Ant. 2		4824	37.18	-36.82	74	55.38	31.36	8.5	58.06	100	0	P	H
		4960	38.5	-35.5	74	56.14	31.63	8.9	58.17	100	0	P	H
		7440	44.89	-29.11	74	55.48	36.39	11.33	58.31	100	0	P	H
		4824	36.14	-37.86	74	54.85	31.36	8.5	58.57	100	0	P	V
		4960	38.55	-35.45	74	56.54	31.63	8.9	58.52	100	0	P	V
		7440	42.83	-31.17	74	53.78	36.39	11.33	58.67	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11g CH01 2412 MHz Ant. 1		4824	35.97	-38.03	74	54.17	31.36	8.5	58.06	100	0	P	H
		4960	38.3	-35.7	74	55.94	31.63	8.9	58.17	100	0	P	H
		7440	43	-31	74	53.59	36.39	11.33	58.31	100	0	P	H
		4824	35.27	-38.73	74	53.98	31.36	8.5	58.57	100	0	P	V
		4960	37.06	-36.94	74	55.05	31.63	8.9	58.52	100	0	P	V
		7440	42.5	-31.5	74	53.45	36.39	11.33	58.67	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

Bluetooth LE (2Mbps) and WIFI 802.11g (LF @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11g CH01 2412 MHz Ant. 2		43.5	22.28	-17.72	40	36.58	17.51	0.82	32.63	-	-	P	H
		72.66	24.82	-15.18	40	43.63	12.67	1.12	32.6	-	-	P	H
		167.97	29.79	-13.71	43.5	44.69	15.91	1.74	32.55	100	0	P	H
		311.9	25.02	-20.98	46	35.67	19.67	2.21	32.53	-	-	P	H
		360.2	25.06	-20.94	46	34.3	20.95	2.34	32.53	-	-	P	H
		729.1	30.63	-15.37	46	31.96	27.8	3.28	32.41	-	-	P	H
		43.23	23.07	-16.93	40	37.21	17.67	0.82	32.63	-	-	P	V
		71.85	31.99	-8.01	40	50.9	12.58	1.11	32.6	100	0	P	V
		167.97	23.58	-19.92	43.5	38.48	15.91	1.74	32.55	-	-	P	V
		424.6	21.9	-24.1	46	29.12	22.77	2.54	32.53	-	-	P	V
		593.3	25.88	-20.12	46	29.57	25.84	3.04	32.57	-	-	P	V
		738.9	29.05	-16.95	46	30.12	28.01	3.3	32.38	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11g (LF @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11g CH01 2412 MHz Ant. 1		43.77	23.85	-16.15	40	38.29	17.36	0.83	32.63	-	-	P	H
		72.39	24.79	-15.21	40	43.64	12.64	1.11	32.6	-	-	P	H
		167.97	29.36	-14.14	43.5	44.26	15.91	1.74	32.55	100	0	P	H
		328.7	26.57	-19.43	46	36.74	20.14	2.22	32.53	-	-	P	H
		360.2	24.9	-21.1	46	34.14	20.95	2.34	32.53	-	-	P	H
		722.1	29.42	-16.58	46	30.92	27.65	3.28	32.43	-	-	P	H
		42.96	23	-17	40	36.99	17.82	0.82	32.63	-	-	P	V
		72.12	31.95	-8.05	40	50.83	12.61	1.11	32.6	100	0	P	V
		167.97	23.73	-19.77	43.5	38.63	15.91	1.74	32.55	-	-	P	V
		329.4	31.33	-14.67	46	41.48	20.16	2.22	32.53	-	-	P	V
		374.9	24.3	-21.7	46	33.08	21.35	2.4	32.53	-	-	P	V
		659.8	27.46	-18.54	46	30.3	26.52	3.16	32.52	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11n HT40 CH46 5230 MHz Ant. 1		5150	57.45	-16.55	74	47.12	31.79	8.64	30.1	103	230	P	H
		5150	47.59	-6.41	54	37.26	31.79	8.64	30.1	103	230	A	H
	*	5230	109.09	35.09	74	98.63	31.84	8.73	30.11	103	230	P	H
	*	5230	101.5	47.5	54	91.04	31.84	8.73	30.11	103	230	A	H
		5356.68	51.57	-22.43	74	40.77	31.91	9.01	30.12	103	230	P	H
		5351.92	41.35	-12.65	54	30.56	31.91	9	30.12	103	230	A	H
		5148.46	55.47	-18.53	74	45.15	31.79	8.63	30.1	345	145	P	V
		5150	45.1	-8.9	54	34.77	31.79	8.64	30.1	345	145	A	V
	*	5230	108.03	34.03	74	97.57	31.84	8.73	30.11	345	145	P	V
	*	5230	100.03	46.03	54	89.57	31.84	8.73	30.11	345	145	A	V
		5442.92	50.77	-23.23	74	39.82	31.96	9.12	30.13	345	145	P	V
		5350.24	40.55	-13.45	54	29.76	31.91	9	30.12	345	145	A	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11n HT40 CH46 5230 MHz Ant. 2		5147.42	55.91	-18.09	74	45.59	31.79	8.63	30.1	100	177	P	H
		5150	46.9	-7.1	54	36.57	31.79	8.64	30.1	100	177	A	H
	*	5230	109.78	35.78	74	99.32	31.84	8.73	30.11	100	177	P	H
	*	5230	101.55	47.55	54	91.09	31.84	8.73	30.11	100	177	A	H
		5404.84	50.67	-23.33	74	39.75	31.94	9.11	30.13	100	177	P	H
		5350.24	41.37	-12.63	54	30.58	31.91	9	30.12	100	177	A	H
		5141.18	53.29	-20.71	74	42.97	31.79	8.63	30.1	344	223	P	V
		5150.02	44.61	-9.39	54	34.28	31.79	8.64	30.1	344	223	A	V
	*	5230	108.28	34.28	74	97.82	31.84	8.73	30.11	344	223	P	V
	*	5230	100.44	46.44	54	89.98	31.84	8.73	30.11	344	223	A	V
		5371.24	51.02	-22.98	74	40.17	31.92	9.05	30.12	344	223	P	V
		5353.04	40.96	-13.04	54	30.17	31.91	9	30.12	344	223	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11ac VHT80 CH42 5210 MHz Ant. 1		5146.12	65.6	-8.4	74	55.28	31.79	8.63	30.1	105	231	P	H
		5150	52.87	-1.13	54	42.54	31.79	8.64	30.1	105	231	A	H
	*	5210	100.69	26.69	74	90.29	31.83	8.68	30.11	105	231	P	H
	*	5210	93.19	39.19	54	82.79	31.83	8.68	30.11	105	231	A	H
		5370.4	50.98	-23.02	74	40.14	31.92	9.04	30.12	105	231	P	H
		5350.24	41.09	-12.91	54	30.3	31.91	9	30.12	105	231	A	H
		5143.26	61.71	-12.29	74	51.39	31.79	8.63	30.1	369	147	P	V
		5150	50.27	-3.73	54	39.94	31.79	8.64	30.1	369	147	A	V
	*	5210	99.56	25.56	74	89.16	31.83	8.68	30.11	369	147	P	V
	*	5210	91.77	37.77	54	81.37	31.83	8.68	30.11	369	147	A	V
		5355.28	49.88	-24.12	74	39.08	31.91	9.01	30.12	369	147	P	V
		5350.24	40.59	-13.41	54	29.8	31.91	9	30.12	369	147	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11ac VHT80 CH42 5210 MHz Ant. 2		5144.04	67.78	-6.22	74	57.46	31.79	8.63	30.1	118	170	P	H
		5149.76	53.23	-0.77	54	42.91	31.79	8.63	30.1	118	170	A	H
	*	5210	101.15	27.15	74	90.75	31.83	8.68	30.11	118	170	P	H
	*	5210	93.22	39.22	54	82.82	31.83	8.68	30.11	118	170	A	H
		5377.96	50.85	-23.15	74	39.99	31.93	9.06	30.13	118	170	P	H
		5350	41.18	-12.82	54	30.39	31.91	9	30.12	118	170	A	H
		5142.48	62.36	-11.64	74	52.04	31.79	8.63	30.1	330	240	P	V
		5150	51.22	-2.78	54	40.89	31.79	8.64	30.1	330	240	A	V
	*	5210	100.6	26.6	74	90.2	31.83	8.68	30.11	330	240	P	V
	*	5210	92.04	38.04	54	81.64	31.83	8.68	30.11	330	240	A	V
		5428.64	50.61	-23.39	74	39.66	31.96	9.12	30.13	330	240	P	V
		5354.72	41.07	-12.93	54	30.27	31.91	9.01	30.12	330	240	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11n HT40 CH151 5755 MHz Ant. 1	*	2480	104.57	30.57	74	101.86	27.55	5.98	30.82	100	174	P	H
	*	2480	102.24	48.24	54	99.53	27.55	5.98	30.82	100	174	A	H
		2483.56	49.46	-24.54	74	46.74	27.55	5.99	30.82	100	174	P	H
		2483.52	45.57	-8.43	54	42.85	27.55	5.99	30.82	100	174	A	H
	*	2480	102.79	28.79	74	100.08	27.55	5.98	30.82	400	304	P	V
	*	2480	102.27	48.27	54	99.56	27.55	5.98	30.82	400	304	A	V
		2483.56	47.99	-26.01	74	45.27	27.55	5.99	30.82	400	304	P	V
		2483.52	43.69	-10.31	54	40.97	27.55	5.99	30.82	400	304	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11n HT40 CH151 5755 MHz Ant. 2	*	2480	101.99	27.99	74	99.28	27.55	5.98	30.82	353	9	P	H
	*	2480	101.49	47.49	54	98.78	27.55	5.98	30.82	353	9	A	H
		2484.08	47.1	-26.9	74	44.38	27.55	5.99	30.82	353	9	P	H
		2483.52	42.89	-11.11	54	40.17	27.55	5.99	30.82	353	9	A	H
	*	2480	101.92	27.92	74	99.21	27.55	5.98	30.82	354	61	P	V
	*	2480	101.38	47.38	54	98.67	27.55	5.98	30.82	354	61	A	V
		2483.52	46.65	-27.35	74	43.93	27.55	5.99	30.82	354	61	P	V
		2483.52	42.73	-11.27	54	40.01	27.55	5.99	30.82	354	61	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11n HT40 CH159 5795 MHz Ant. 1	*	2480	104.41	30.41	74	101.7	27.55	5.98	30.82	122	176	P	H
	*	2480	103.45	49.45	54	100.74	27.55	5.98	30.82	122	176	A	H
		2483.52	49.08	-24.92	74	46.36	27.55	5.99	30.82	122	176	P	H
		2483.52	45.21	-8.79	54	42.49	27.55	5.99	30.82	122	176	A	H
	*	2480	102.92	28.92	74	100.21	27.55	5.98	30.82	400	309	P	V
	*	2480	102.4	48.4	54	99.69	27.55	5.98	30.82	400	309	A	V
		2483.96	48.47	-25.53	74	45.75	27.55	5.99	30.82	400	309	P	V
		2483.52	43.94	-10.06	54	41.22	27.55	5.99	30.82	400	309	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11n HT40 CH159 5795 MHz Ant. 2	*	2480	102.01	28.01	74	99.3	27.55	5.98	30.82	355	8	P	H
	*	2480	101.5	47.5	54	98.79	27.55	5.98	30.82	355	8	A	H
		2483.6	48.53	-25.47	74	45.81	27.55	5.99	30.82	355	8	P	H
		2483.52	42.97	-11.03	54	40.25	27.55	5.99	30.82	355	8	A	H
	*	2480	101.46	27.46	74	98.75	27.55	5.98	30.82	398	63	P	V
	*	2480	100.78	46.78	54	98.07	27.55	5.98	30.82	398	63	A	V
		2483.88	47.91	-26.09	74	45.19	27.55	5.99	30.82	398	63	P	V
		2483.52	42.39	-11.61	54	39.67	27.55	5.99	30.82	398	63	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11ac VHT80 CH155 5775 MHz Ant. 1		5647.4	61.9	-6.3	68.2	50.71	32.17	9.24	30.22	100	261	P	H
		5699	76.88	-27.58	104.46	65.57	32.23	9.33	30.25	100	261	P	H
		5707.8	80.41	-26.98	107.39	69.07	32.25	9.35	30.26	100	261	P	H
		5724.4	83.02	-37.81	120.83	71.63	32.27	9.38	30.26	100	261	P	H
	*	5775	105.4	37.2	68.2	93.89	32.33	9.47	30.29	100	261	P	H
		5851	74.94	-44.98	119.92	63.28	32.41	9.58	30.33	100	261	P	H
		5857.4	72.96	-37.17	110.13	61.27	32.43	9.59	30.33	100	261	P	H
		5875.8	67.3	-37.31	104.61	55.57	32.46	9.61	30.34	100	261	P	H
		5931.6	55.18	-13.02	68.2	43.36	32.52	9.67	30.37	100	261	P	H
		5644.4	55.12	-13.08	68.2	43.94	32.17	9.23	30.22	386	177	P	V
		5698.4	70.81	-33.21	104.02	59.5	32.23	9.33	30.25	386	177	P	V
		5720	74.86	-35.94	110.8	63.48	32.27	9.37	30.26	386	177	P	V
		5720.2	75.09	-36.17	111.26	63.71	32.27	9.37	30.26	386	177	P	V
	*	5775	99.83	31.63	68.2	88.32	32.33	9.47	30.29	386	177	P	V
		5852.2	67.45	-49.73	117.18	55.79	32.41	9.58	30.33	386	177	P	V
		5862.8	67.81	-40.8	108.61	56.13	32.43	9.59	30.34	386	177	P	V
		5877.4	60.82	-42.6	103.42	49.09	32.46	9.61	30.34	386	177	P	V
		5935.6	52.6	-15.6	68.2	40.78	32.52	9.68	30.38	386	177	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band edge @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11ac VHT80 CH155 5775 MHz Ant. 2		5646.2	61.25	-6.95	68.2	50.06	32.17	9.24	30.22	100	105	P	H
		5696	77.08	-25.17	102.25	65.77	32.23	9.33	30.25	100	105	P	H
		5717	82.05	-27.91	109.96	70.69	32.25	9.37	30.26	100	105	P	H
		5722.8	81.18	-36	117.18	69.79	32.27	9.38	30.26	100	105	P	H
	*	5775	105.12	36.92	68.2	93.61	32.33	9.47	30.29	100	105	P	H
		5854	75	-38.08	113.08	63.32	32.43	9.58	30.33	100	105	P	H
		5855.2	74.73	-36.01	110.74	63.05	32.43	9.58	30.33	100	105	P	H
		5878.6	66.71	-35.82	102.53	54.98	32.46	9.61	30.34	100	105	P	H
		5927.6	54.53	-13.67	68.2	42.71	32.52	9.67	30.37	100	105	P	H
		5648.8	58.49	-9.71	68.2	47.3	32.17	9.24	30.22	363	159	P	V
		5698.8	74.12	-30.2	104.32	62.81	32.23	9.33	30.25	363	159	P	V
		5717.6	79.38	-30.75	110.13	68	32.27	9.37	30.26	363	159	P	V
		5724.6	78.68	-42.61	121.29	67.29	32.27	9.38	30.26	363	159	P	V
	*	5775	102.55	34.35	68.2	91.04	32.33	9.47	30.29	363	159	P	V
		5851.6	72.4	-46.15	118.55	60.74	32.41	9.58	30.33	363	159	P	V
		5857.6	71.39	-38.68	110.07	59.7	32.43	9.59	30.33	363	159	P	V
		5877.6	62.75	-40.52	103.27	51.02	32.46	9.61	30.34	363	159	P	V
		5931.8	52.5	-15.7	68.2	40.68	32.52	9.67	30.37	363	159	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11n HT40 CH46 5230 MHz Ant. 1		4960	37.22	-36.78	74	54.86	31.63	8.9	58.17	100	0	P	H
		7440	43.98	-30.02	74	54.32	36.39	11.58	58.31	100	0	P	H
		10420	45.04	-28.96	74	53.41	39.73	13.36	61.46	100	0	P	H
		15630	45	-29	74	52.8	37.67	16.82	62.29	100	0	P	H
		4960	34.39	-39.61	74	52.03	31.63	8.9	58.17	100	0	P	V
		7440	42.76	-31.24	74	53.1	36.39	11.58	58.31	100	0	P	V
		10420	44.92	-29.08	74	53.29	39.73	13.36	61.46	100	0	P	V
		15630	45.61	-28.39	74	53.41	37.67	16.82	62.29	100	0	P	V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11n HT40 CH46 5230 MHz Ant. 2		4960	38.22	-35.78	74	55.86	31.63	8.9	58.17	100	0	P	H
		7440	43.85	-30.15	74	54.19	36.39	11.58	58.31	100	0	P	H
		10420	45.11	-28.89	74	53.48	39.73	13.36	61.46	100	0	P	H
		15630	44.85	-29.15	74	52.65	37.67	16.82	62.29	100	0	P	H
		4960	35.29	-38.71	74	52.93	31.63	8.9	58.17	100	0	P	V
		7440	42.27	-31.73	74	52.61	36.39	11.58	58.31	100	0	P	V
		10420	45.99	-28.01	74	54.36	39.73	13.36	61.46	100	0	P	V
		15630	45.7	-28.3	74	53.5	37.67	16.82	62.29	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 2 + 802.11ac VHT80 CH42 5210 MHz Ant. 1		43.5	24.64	-15.36	40	38.94	17.51	0.82	32.63	-	-	P	H
		91.02	24.8	-18.7	43.5	41.2	14.92	1.26	32.58	-	-	P	H
		167.97	29.67	-13.83	43.5	44.57	15.91	1.74	32.55	-	-	P	H
		329.4	25.23	-20.77	46	35.38	20.16	2.22	32.53	-	-	P	H
		388.9	28.91	-17.09	46	37.06	21.93	2.45	32.53	-	-	P	H
		729.1	32.29	-13.71	46	33.62	27.8	3.28	32.41	100	0	P	H
		43.23	24.5	-15.5	40	38.64	17.67	0.82	32.63			P	V
		71.85	31.73	-8.27	40	50.64	12.58	1.11	32.6	100	0	P	V
		167.97	23.42	-20.08	43.5	38.32	15.91	1.74	32.55			P	V
		502.3	24.85	-21.15	46	30.45	24.19	2.76	32.55			P	V
		579.3	26.64	-19.36	46	30.08	26.12	3.01	32.57			P	V
		874.7	31.53	-14.47	46	30.56	29.11	3.69	31.83			P	V
Remark	3. No other spurious found. 4. All results are PASS against limit line.												

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (LF @ 3m)

WIFI Ant. Simultaneously	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
BLE(2M) CH39 2480 MHz Ant. 1 + 802.11ac VHT80 CH42 5210 MHz Ant. 2		42.96	23.97	-16.03	40	37.96	17.82	0.82	32.63	-	-	P	H
		71.85	24.32	-15.68	40	43.23	12.58	1.11	32.6	-	-	P	H
		167.97	29.75	-13.75	43.5	44.65	15.91	1.74	32.55	100	0	P	H
		388.9	25.98	-20.02	46	34.13	21.93	2.45	32.53	-	-	P	H
		650.7	28.39	-17.61	46	31.24	26.54	3.14	32.53	-	-	P	H
		914.6	32.11	-13.89	46	30.17	29.75	3.76	31.57	-	-	P	H
		44.04	22.04	-17.96	40	36.63	17.21	0.83	32.63	-	-	P	V
		71.85	31.52	-8.48	40	50.43	12.58	1.11	32.6	100	0	P	V
		167.97	23.58	-19.92	43.5	38.48	15.91	1.74	32.55	-	-	P	V
		360.2	25.11	-20.89	46	34.35	20.95	2.34	32.53	-	-	P	V
		388.9	26.03	-19.97	46	34.18	21.93	2.45	32.53	-	-	P	V
		834.8	31.3	-14.7	46	30.67	29.07	3.6	32.04	-	-	P	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.
-	The signal is **Unintentional Radiators**.
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	Path	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. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path 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) + Path 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)

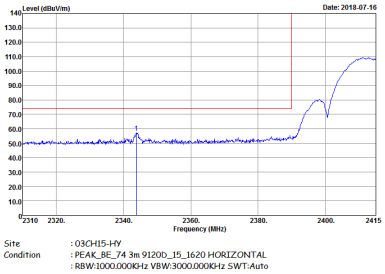
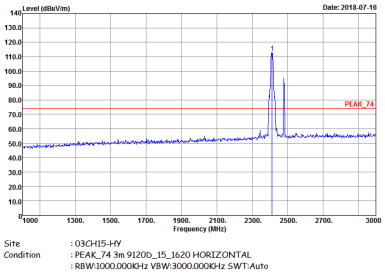
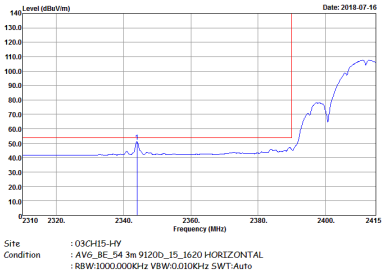
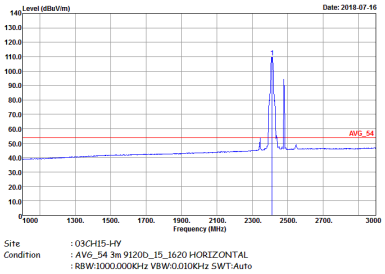
Both peak and average measured complies with the limit line, so test result is "PASS".

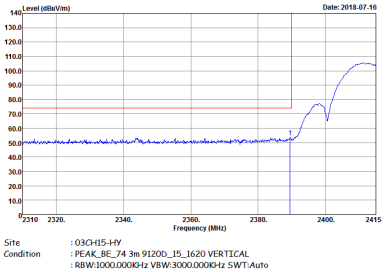
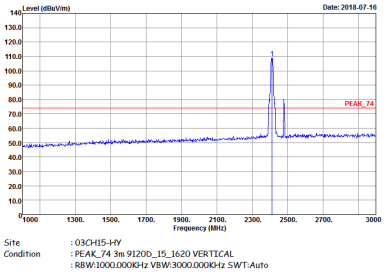
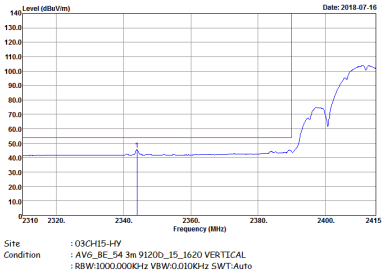
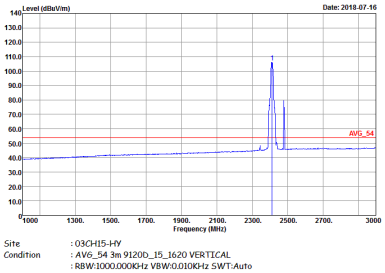
Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Bill Chang, Karl Hou, and Lance Chiang	Temperature :	24~26°C
		Relative Humidity :	53~56%

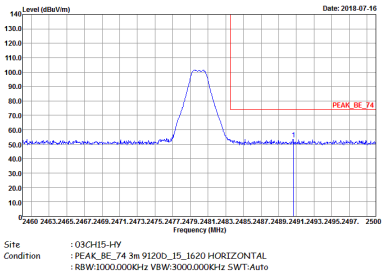
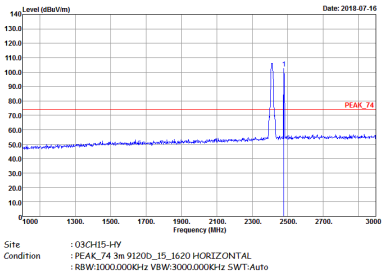
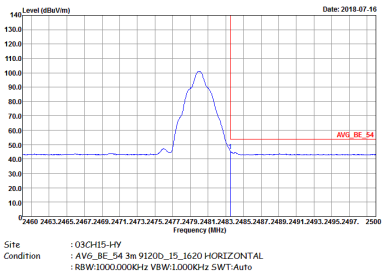
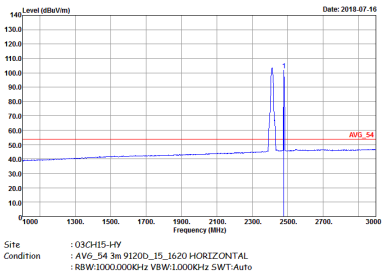
Co-location Mode

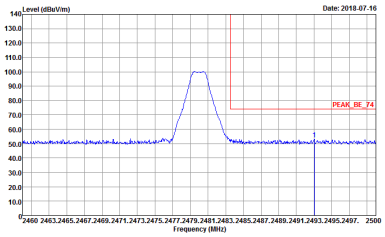
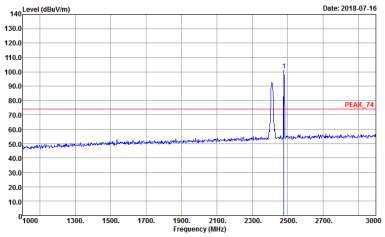
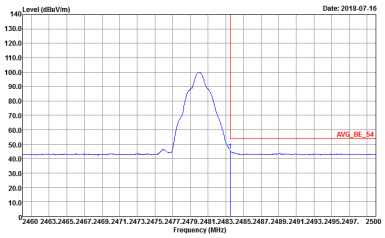
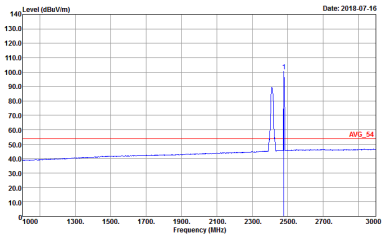
Bluetooth LE (2Mbps) and WIFI 802.11b (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11b CH01 2412MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

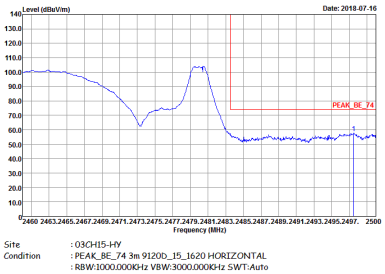
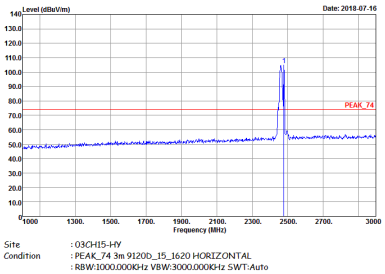
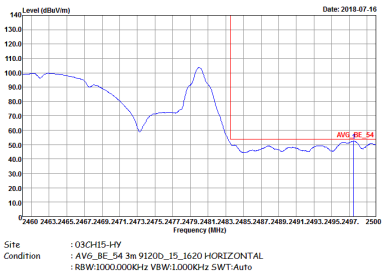
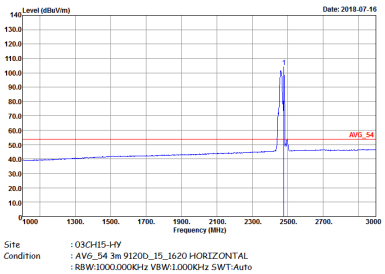
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11b CH01 2412MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		

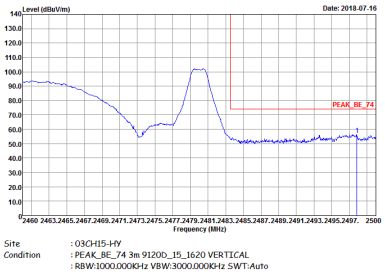
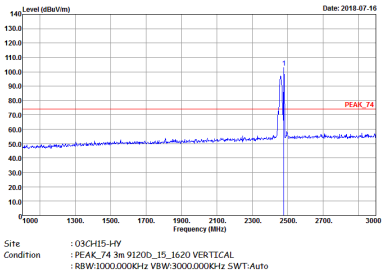
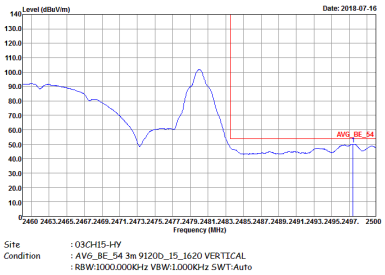
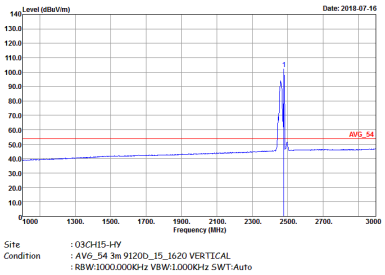
Bluetooth LE (2Mbps) and WIFI 802.11b (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11b CH01 2412MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

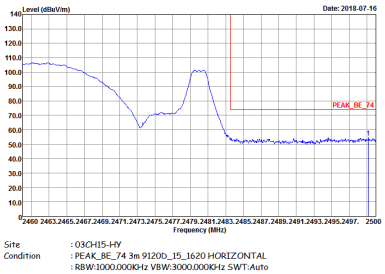
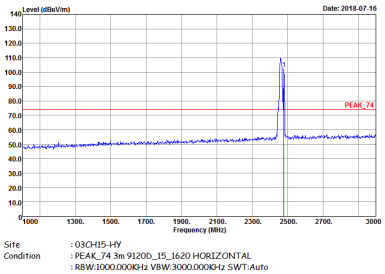
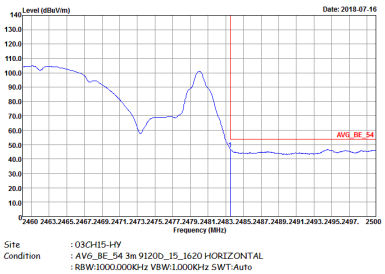
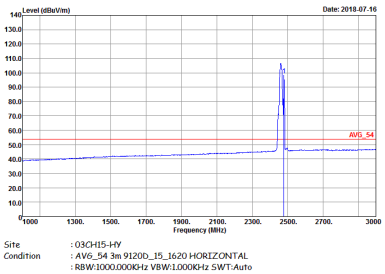
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11b CH01 2412MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

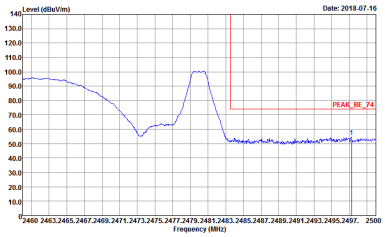
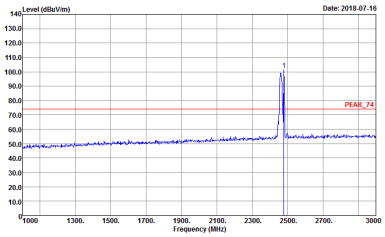
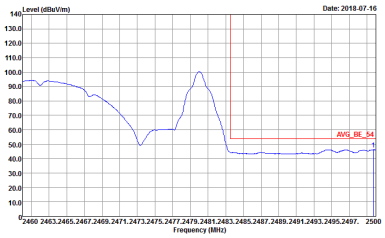
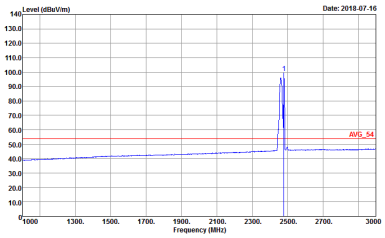
Bluetooth LE (2Mbps) and WIFI 802.11b (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11b CH11 2462MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

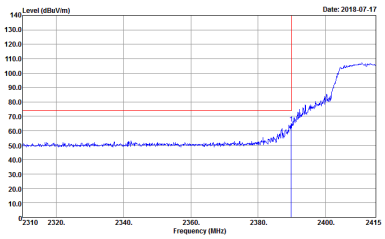
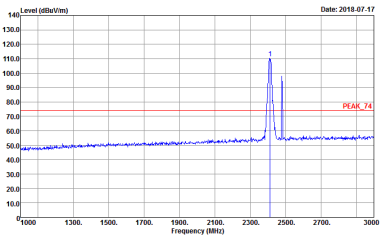
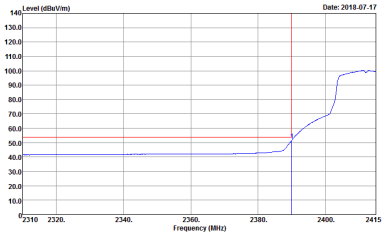
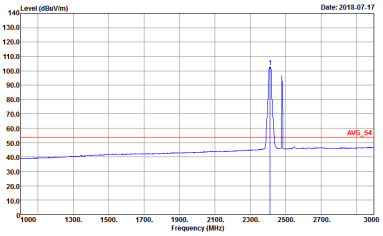
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11b CH11 2462MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		

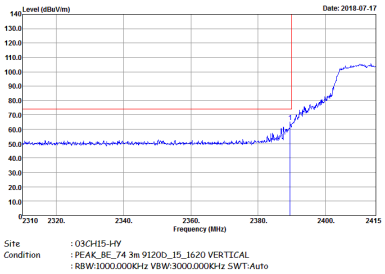
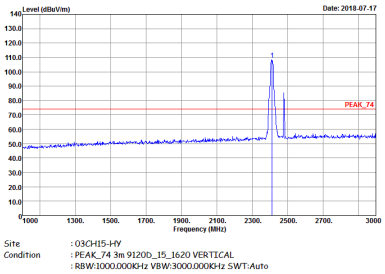
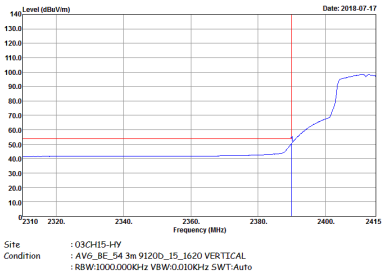
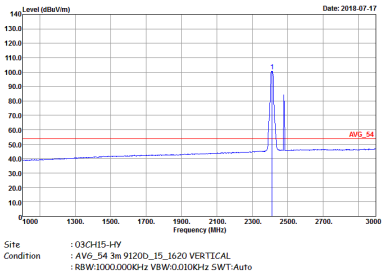
Bluetooth LE (2Mbps) and WIFI 802.11b (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11b CH11 2462MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

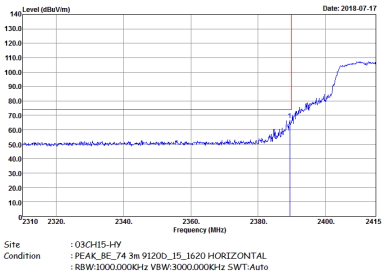
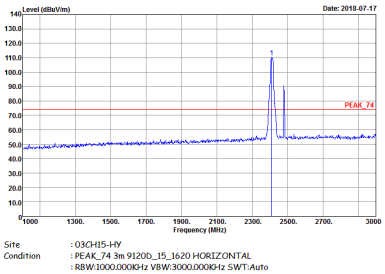
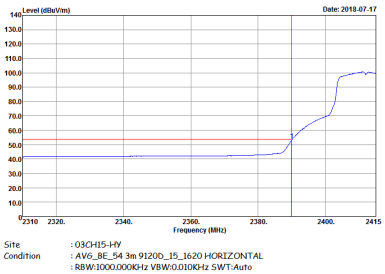
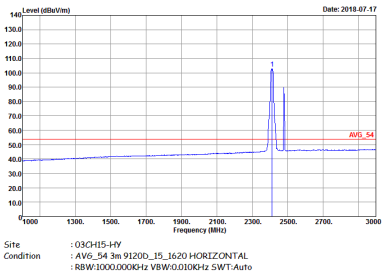
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11b CH11 2462MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

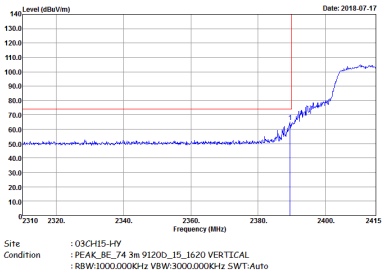
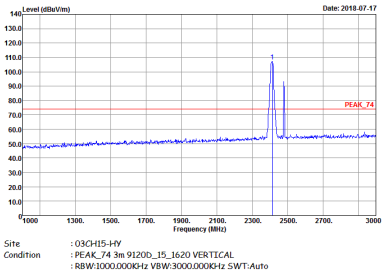
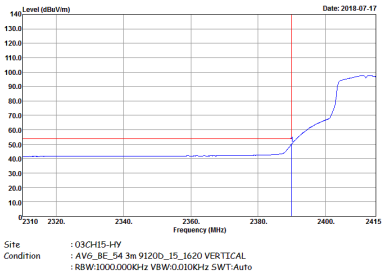
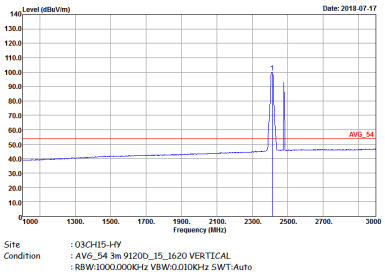
Bluetooth LE (2Mbps) and WIFI 802.11g (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11g CH01 2412MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AV6_BE_54 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH15-HY Condition : AV6_54 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

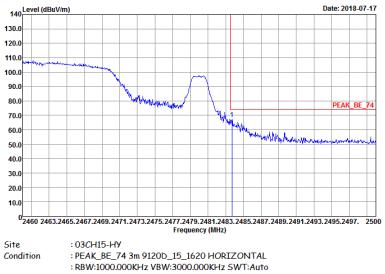
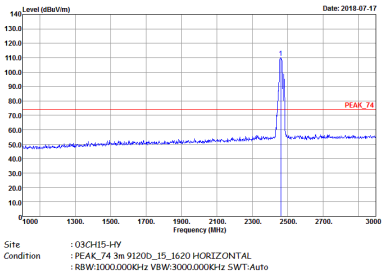
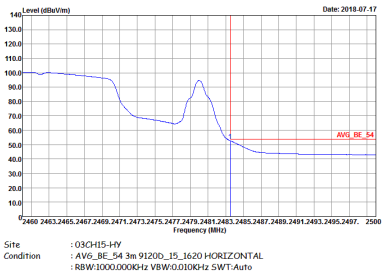
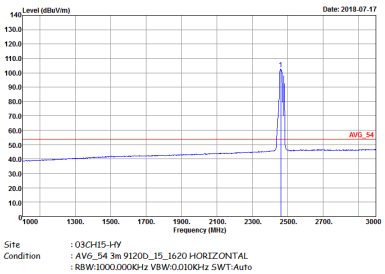
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11g CH01 2412MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		

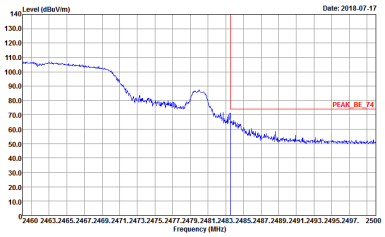
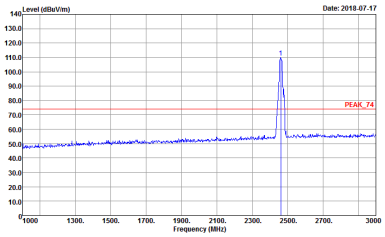
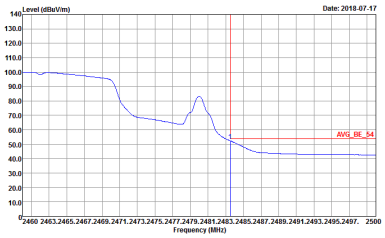
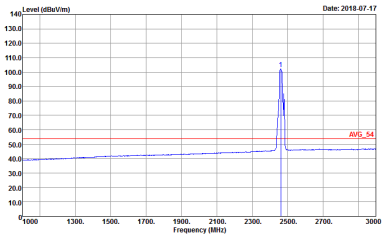
Bluetooth LE (2Mbps) and WIFI 802.11g (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11g CH01 2412MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

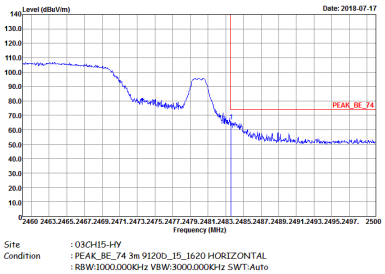
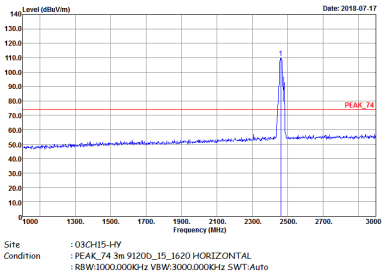
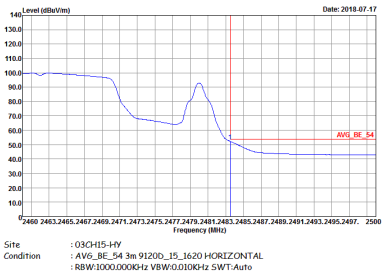
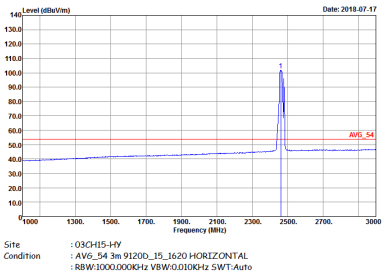
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11g CH01 2412MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		

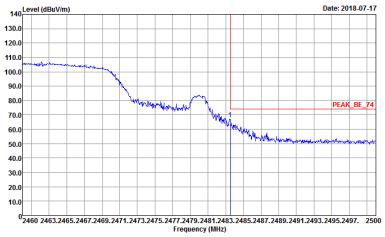
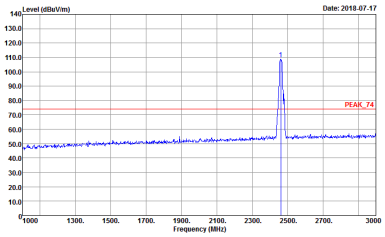
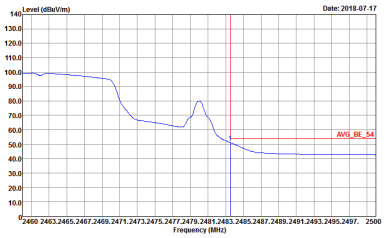
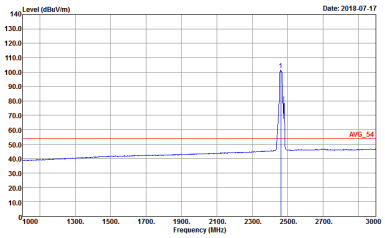
Bluetooth LE (2Mbps) and WIFI 802.11g (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11g CH11 2462MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

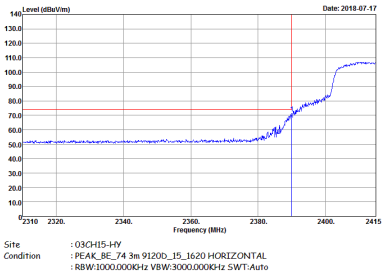
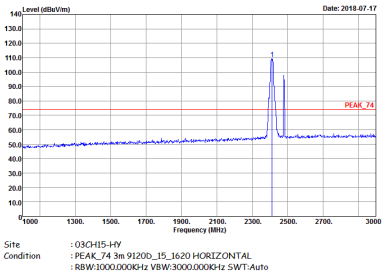
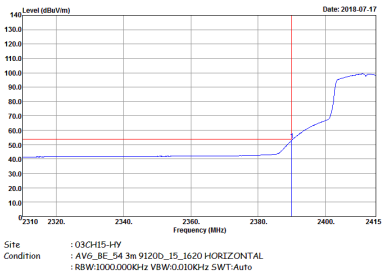
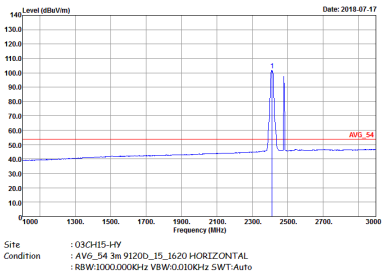
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11g CH11 2462MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

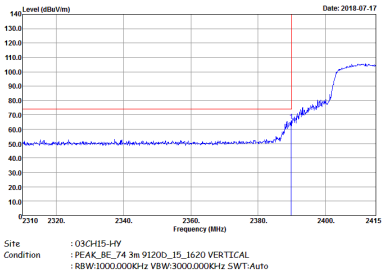
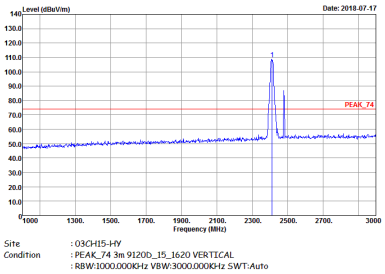
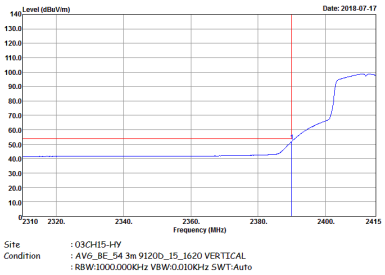
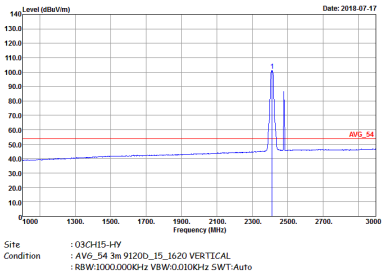
Bluetooth LE (2Mbps) and WIFI 802.11g (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11g CH11 2462MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

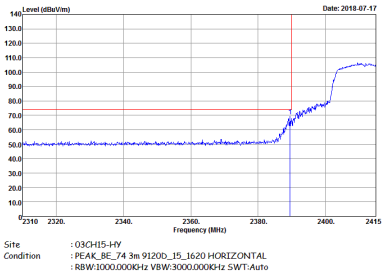
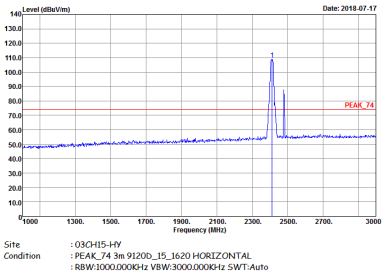
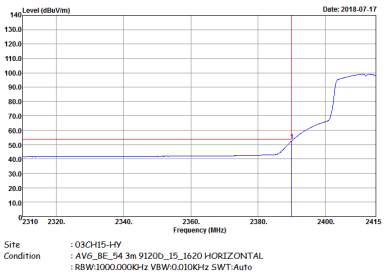
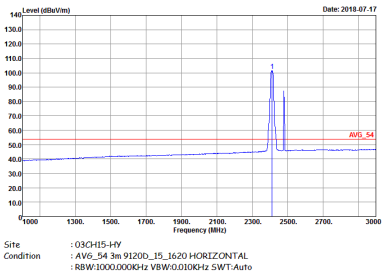
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11g CH11 2462MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

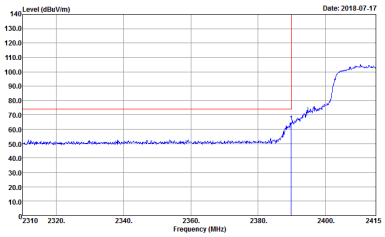
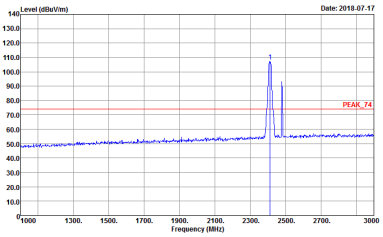
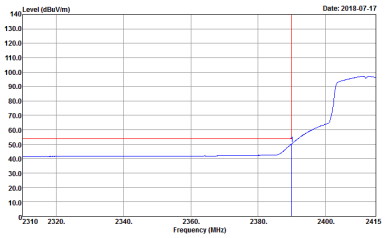
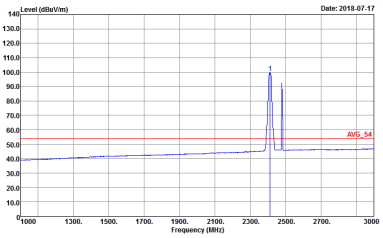
Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT20 CH01 2412MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

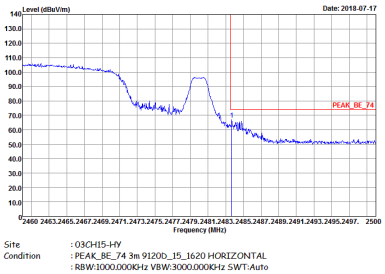
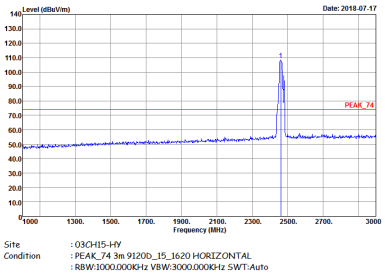
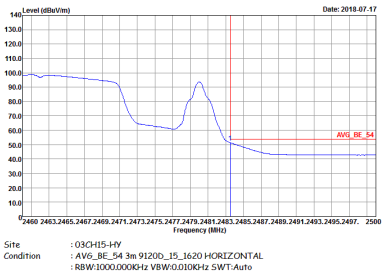
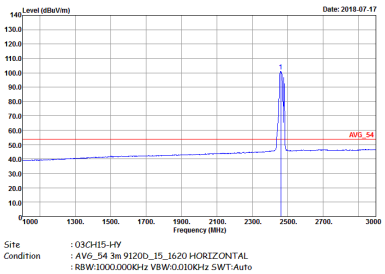
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT20 CH01 2412MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		

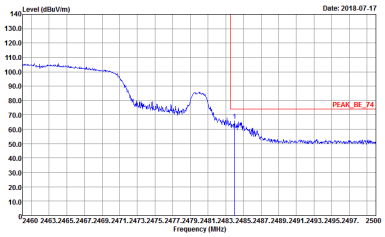
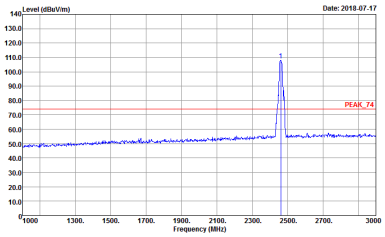
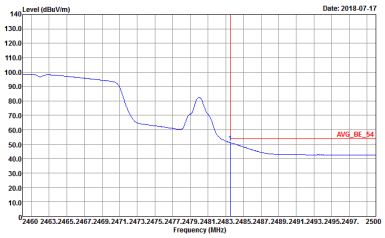
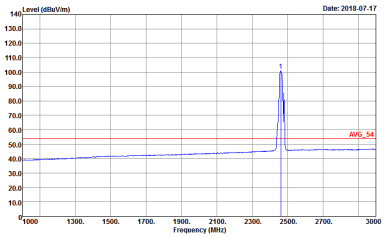
Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT20 CH01 2412MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

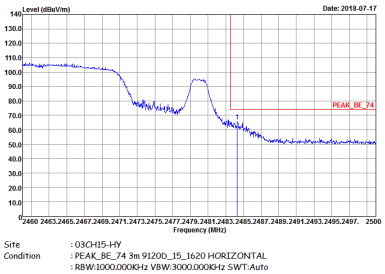
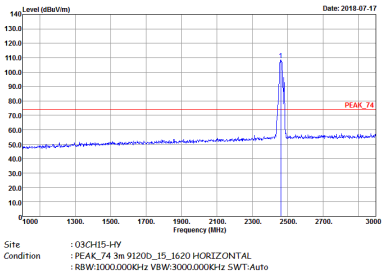
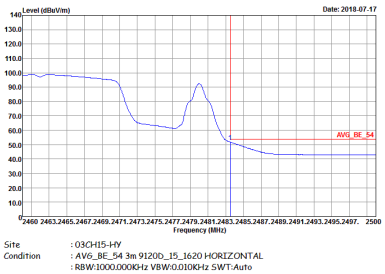
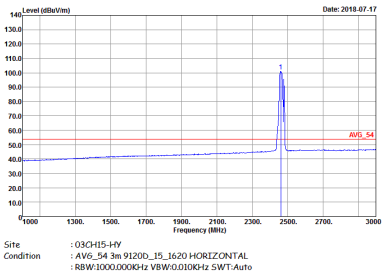
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT20 CH01 2412MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_8E_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_8E_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

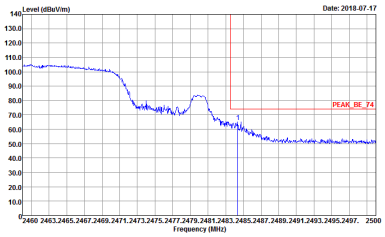
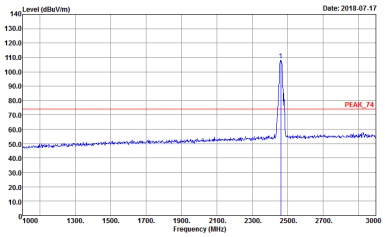
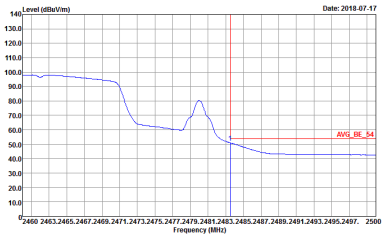
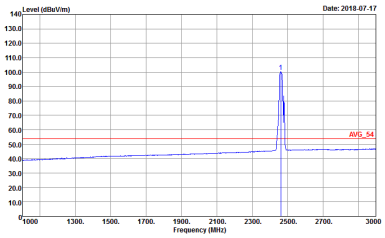
Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT20 CH11 2462MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

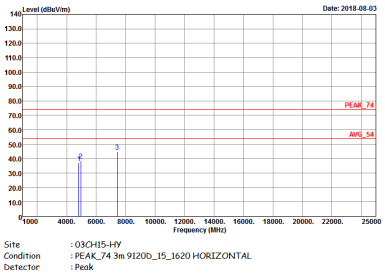
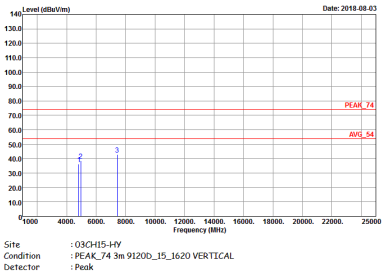
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT20 CH11 2462MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Band Edge @ 3m)

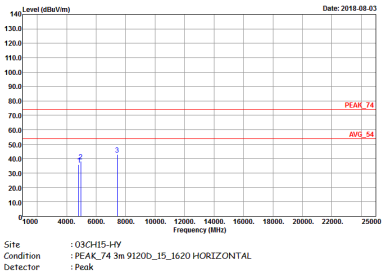
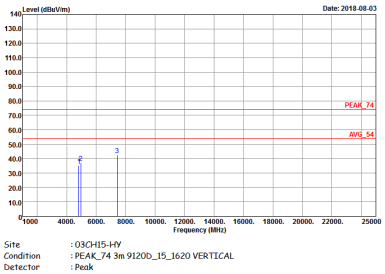
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT20 CH11 2462MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT20 CH11 2462MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

Bluetooth LE (2Mbps) and WIFI 802.11g (Harmonic @ 3m)

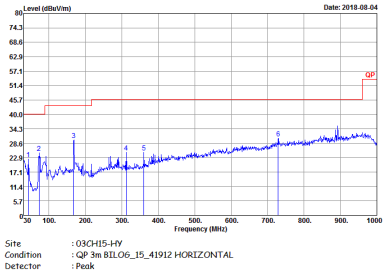
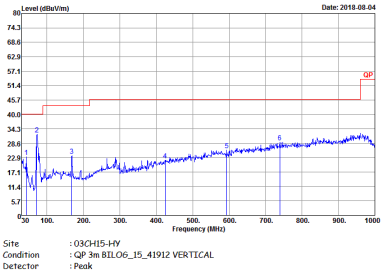
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11g CH01 2412MHz Ant. 2	
Simultaneously	Horizontal	Vertical
Peak		

Bluetooth LE (2Mbps) and WIFI 802.11n HT20 (Harmonic @ 3m)

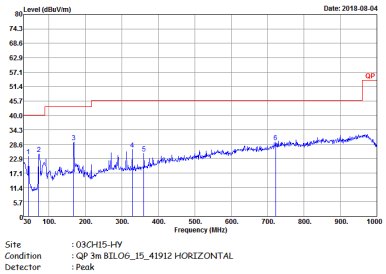
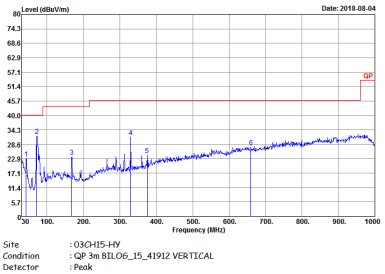
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT20 CH01 2412MHz Ant. 1	
Simultaneously	Horizontal	Vertical
Peak		

Emission below 1GHz

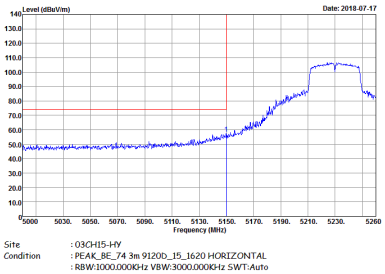
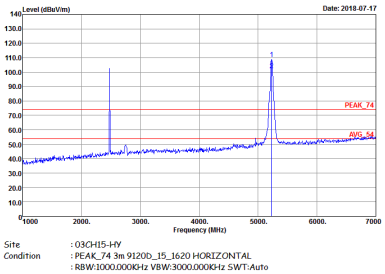
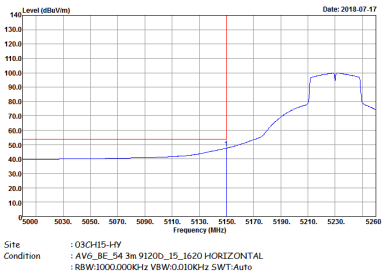
Bluetooth LE (2Mbps) and WIFI 802.11g (LF)

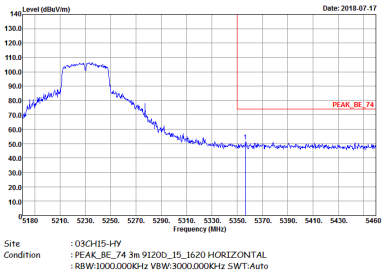
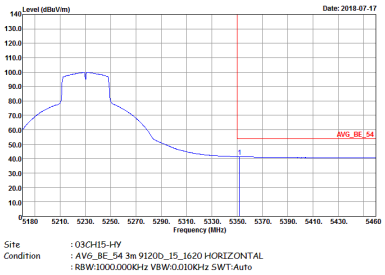
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11g CH01 2412MHz Ant. 2	
Simultaneously	Horizontal	Vertical
QP / Peak		

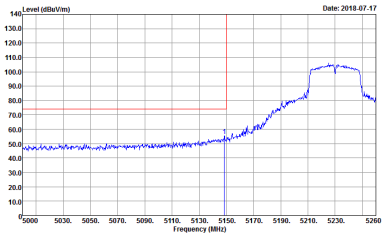
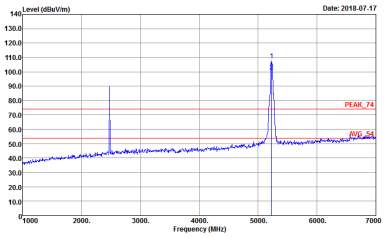
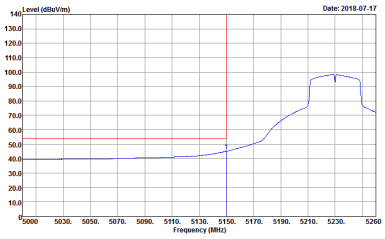
Bluetooth LE (2Mbps) and WIFI 802.11n HT20

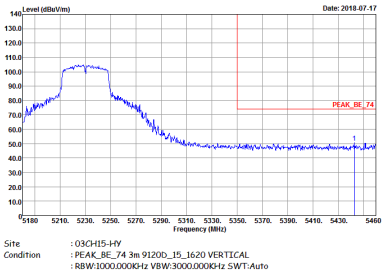
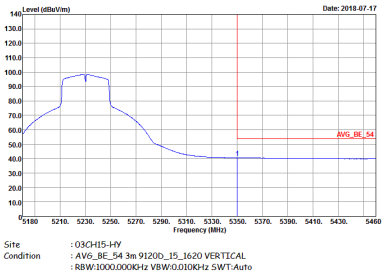
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT20 CH01 2412MHz Ant. 1	
Simultaneously	Horizontal	Vertical
QP / Peak		

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band Edge @ 3m)

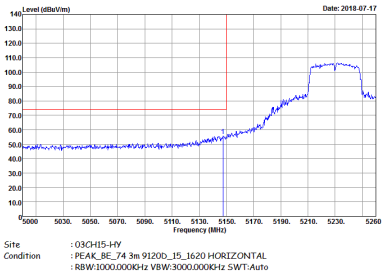
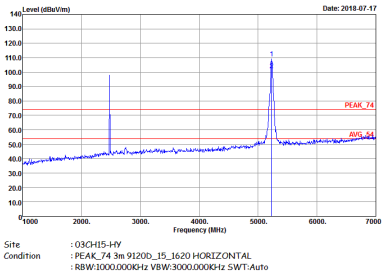
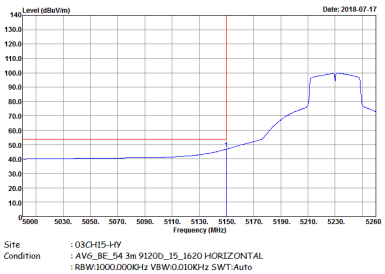
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH46 5230MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		Left blank

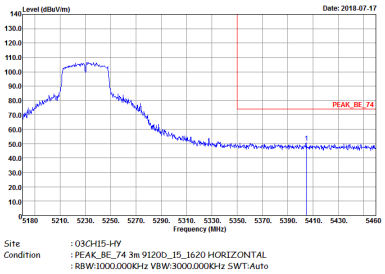
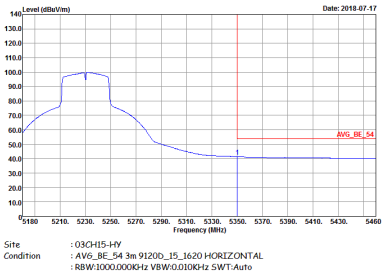
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH46 5230MHz Ant. 1	
Simultaneously	**Horizontal**	**Fundamental**
Peak		Left blank
Avg.		Left blank

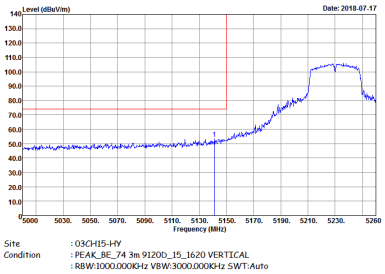
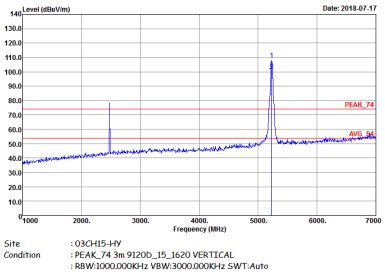
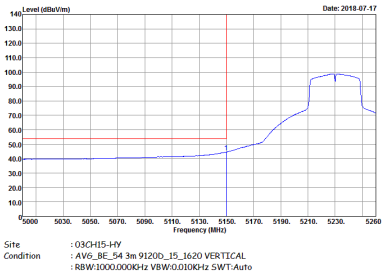
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH46 5230MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_8E_74 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_8E_54 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

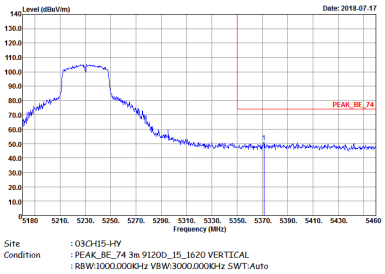
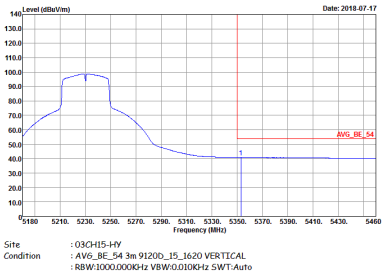
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH46 5230MHz Ant. 1	
Simultaneously	**Vertical**	**Fundamental**
Peak		Left blank
Avg.		Left blank

Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band Edge @ 3m)

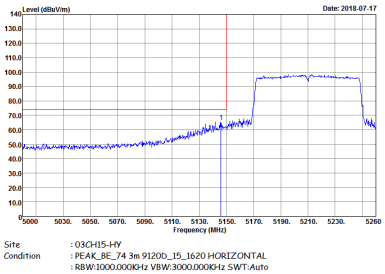
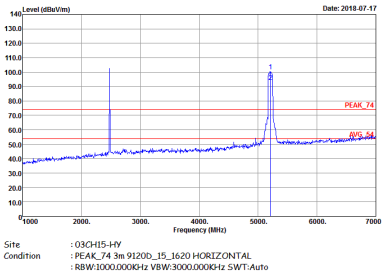
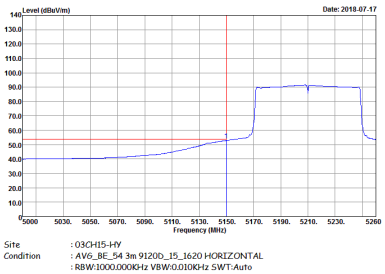
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH46 5230MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		Left blank

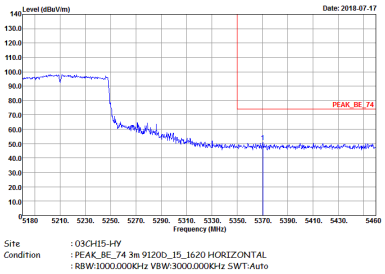
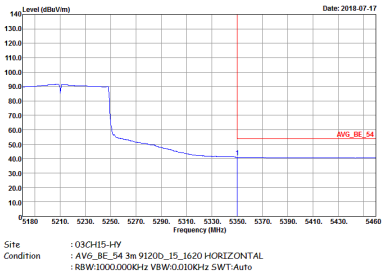
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH46 5230MHz Ant. 2	
Simultaneously	**Horizontal**	**Fundamental**
Peak		Left blank
Avg.		Left blank

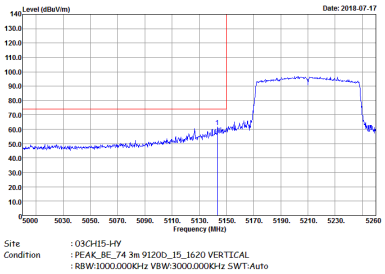
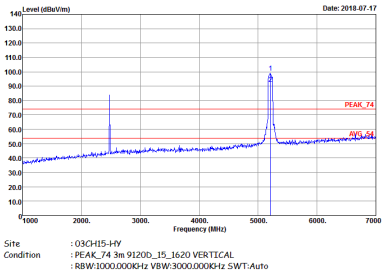
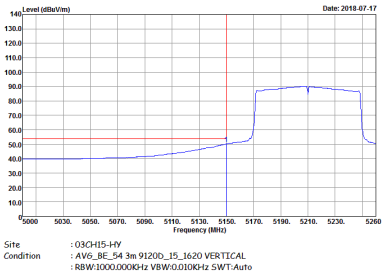
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH46 5230MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		Left blank

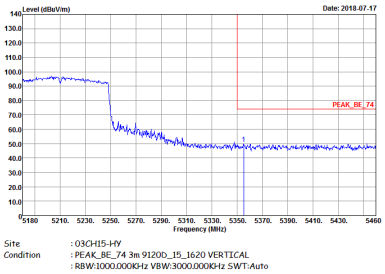
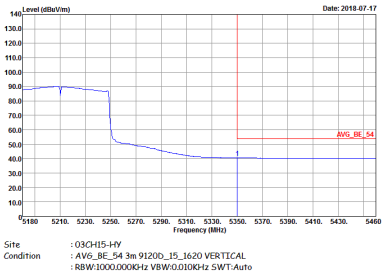
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH46 5230MHz Ant. 2	
Simultaneously	**Vertical**	**Fundamental**
Peak		Left blank
Avg.		Left blank

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band Edge @ 3m)

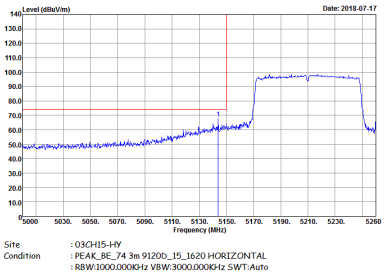
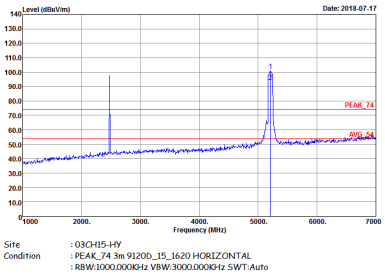
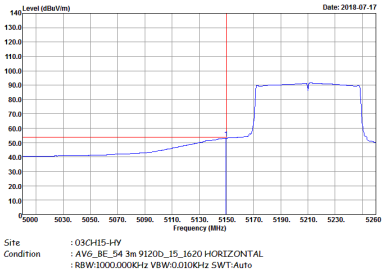
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH42 5210MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		Left blank

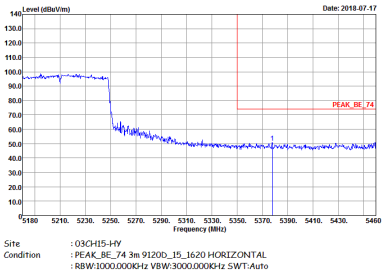
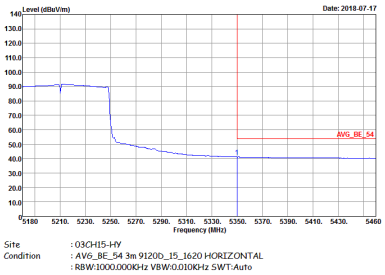
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH42 5210MHz Ant. 1	
Simultaneously	**Horizontal**	**Fundamental**
Peak		Left blank
Avg.		Left blank

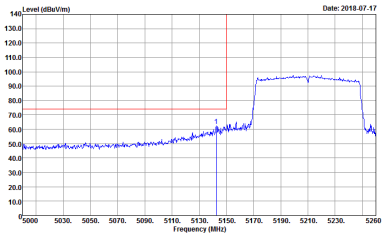
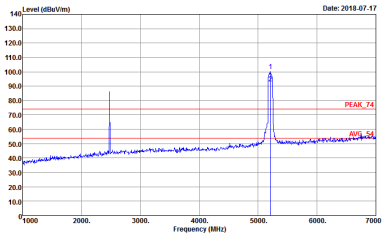
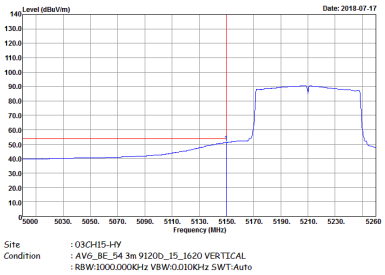
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH42 5210MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		Left blank

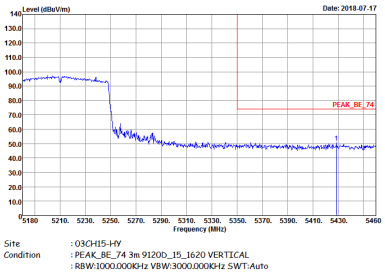
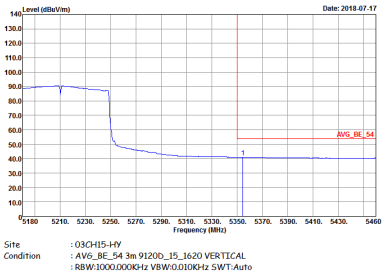
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH42 5210MHz Ant. 1	
Simultaneously	**Vertical**	**Fundamental**
Peak		Left blank
Avg.		Left blank

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band Edge @ 3m)

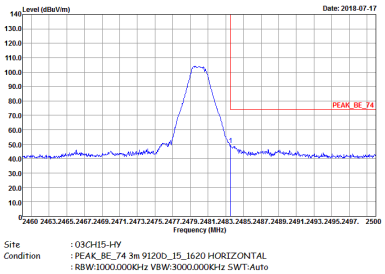
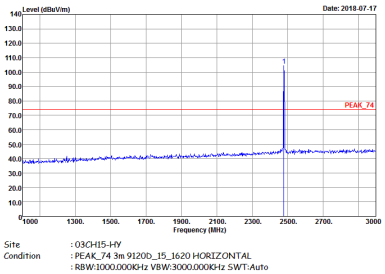
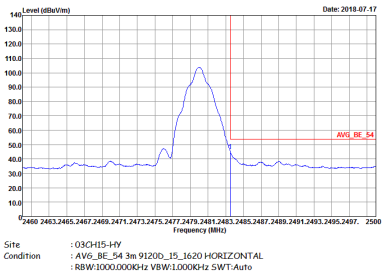
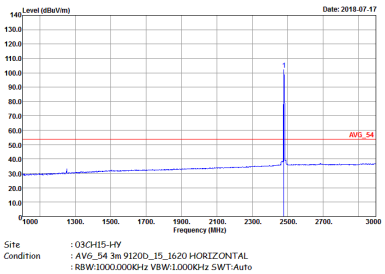
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH42 5210MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		Left blank

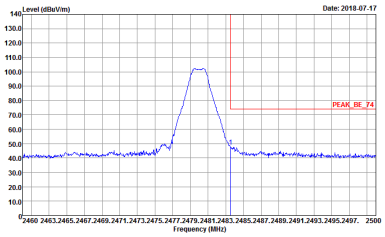
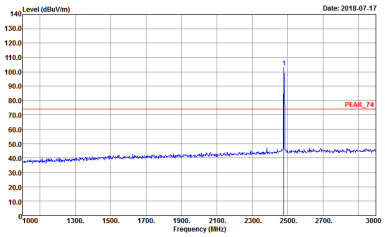
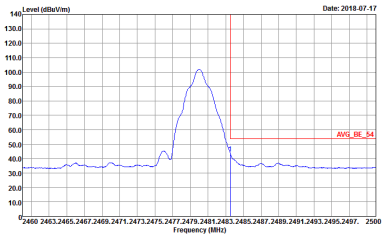
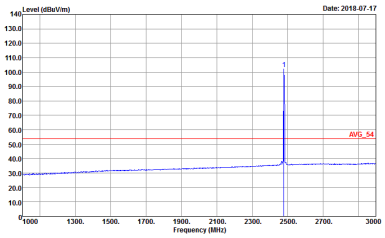
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH42 5210MHz Ant. 2	
Simultaneously	**Horizontal**	**Fundamental**
Peak		Left blank
Avg.		Left blank

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH42 5210MHz Ant. 2	
Simultaneously	**Vertical**	**Fundamental**
Peak		
Avg.		Left blank

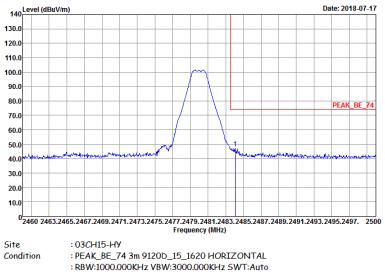
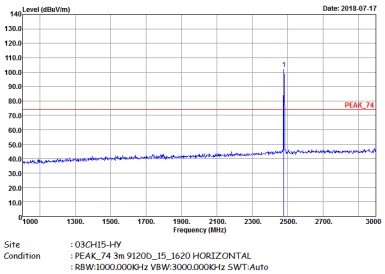
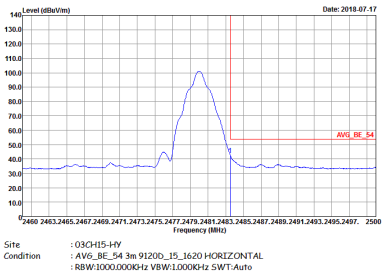
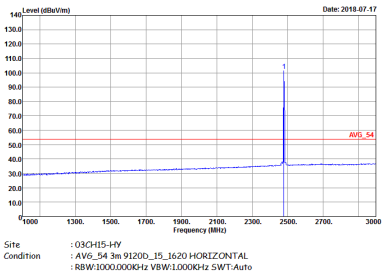
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH42 5210MHz Ant. 2	
Simultaneously	**Vertical**	**Fundamental**
Peak		Left blank
Avg.		Left blank

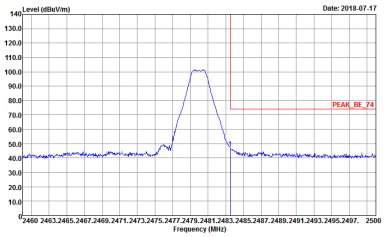
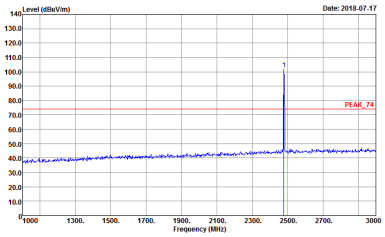
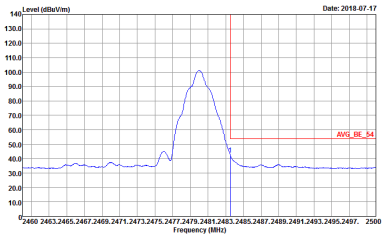
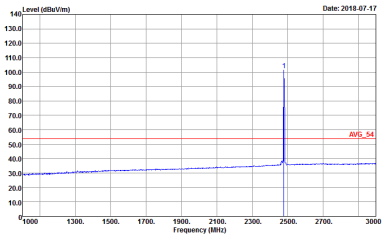
Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH151 5755MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

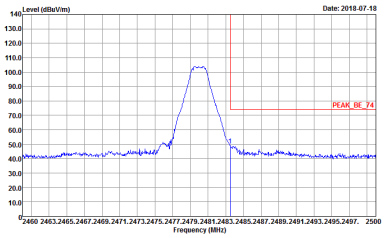
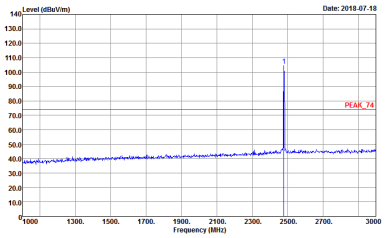
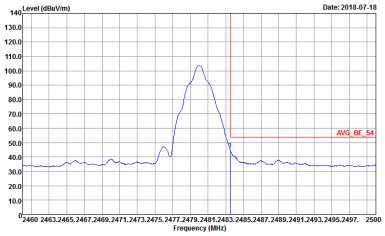
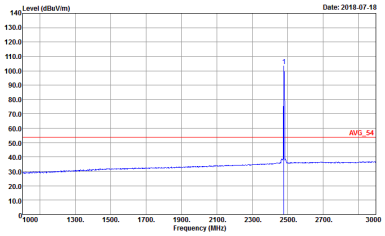
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH151 5755MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

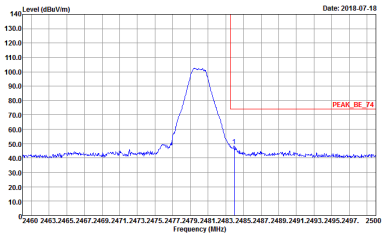
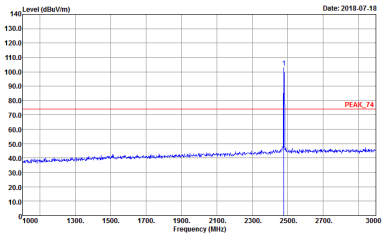
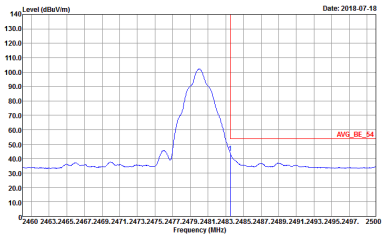
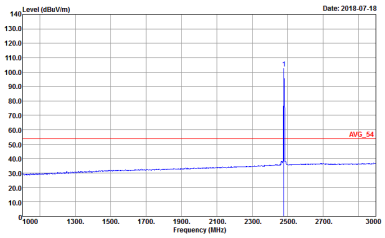
Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH151 5755MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

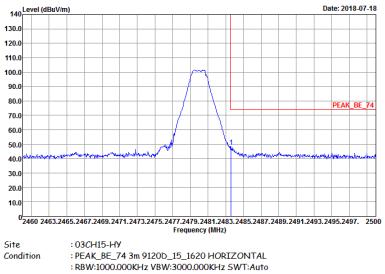
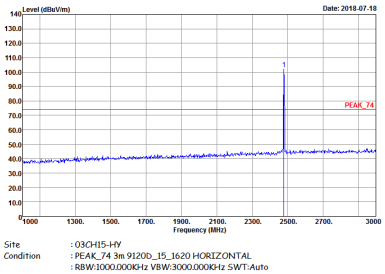
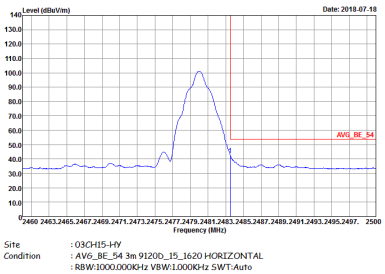
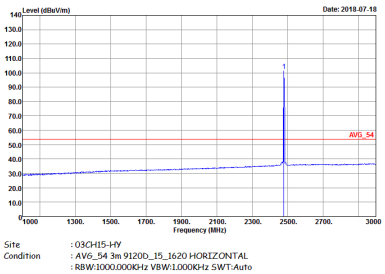
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH151 5755MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120b_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

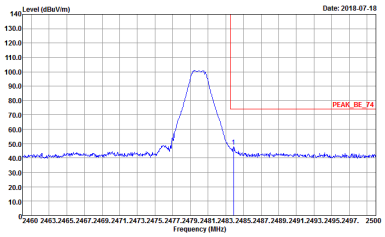
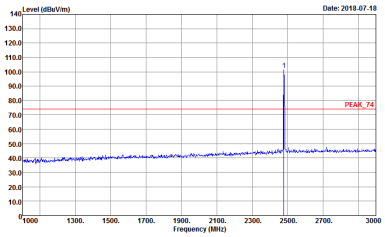
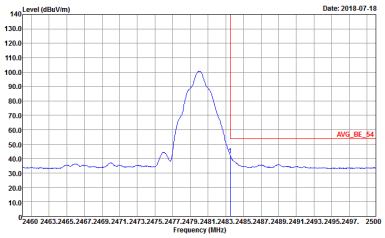
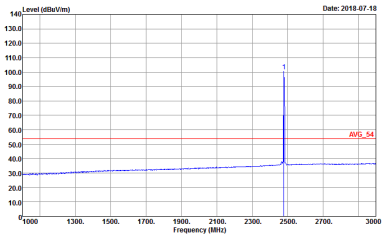
Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH159 5795MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AV6_BE_54 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH15-HY Condition : AV6_54 3m 9120b_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

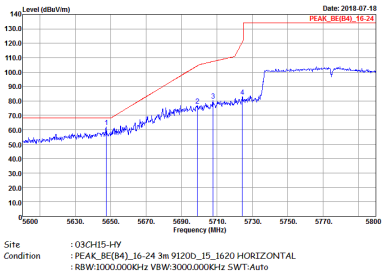
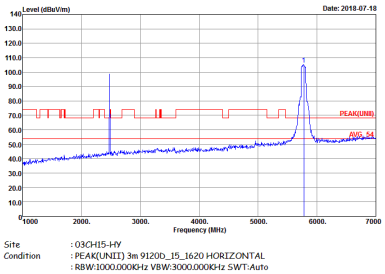
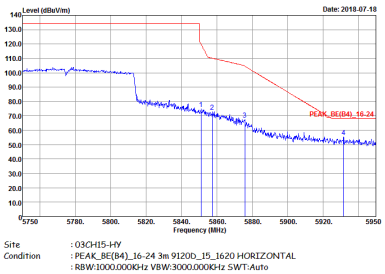
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11n HT40 CH159 5795MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		

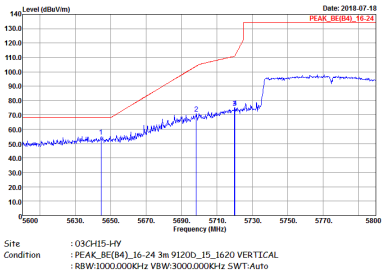
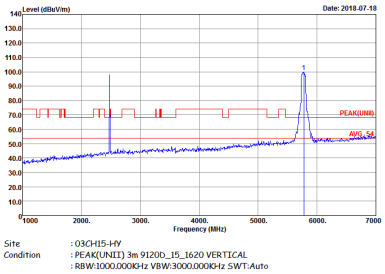
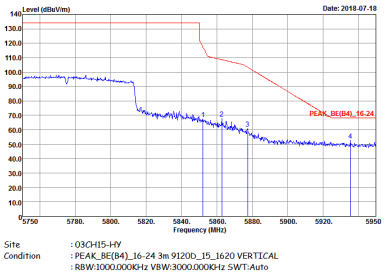
Bluetooth LE (2Mbps) and WIFI 802.11n HT40 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH159 5795MHz Ant. 2	
Simultaneously	Horizontal	Fundamental
Peak		
Avg.		

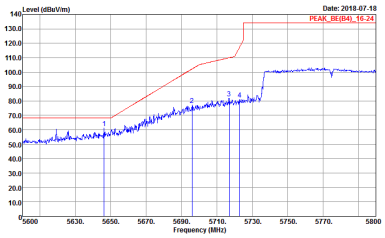
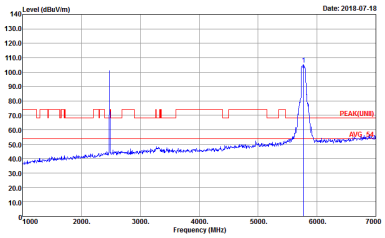
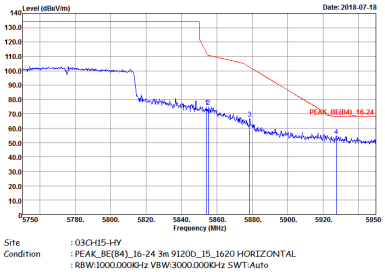
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11n HT40 CH159 5795MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_74 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH15-HY Condition : AVG_BE_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH15-HY Condition : AVG_54 3m 9120D_15_1620 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

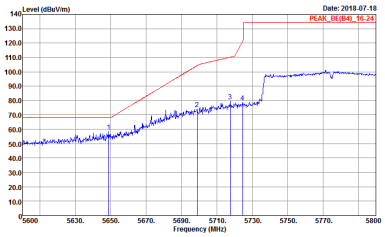
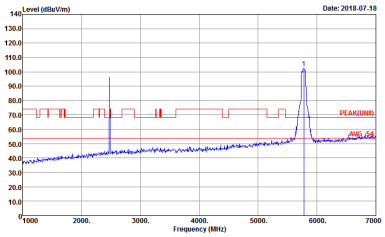
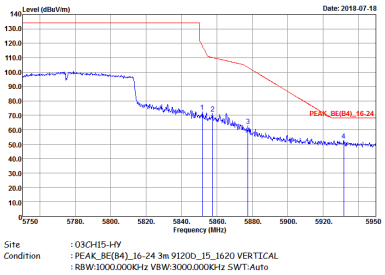
Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band Edge @ 3m)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH155 5775MHz Ant. 1	
Simultaneously	Horizontal	Fundamental
Peak		
Peak		Left blank

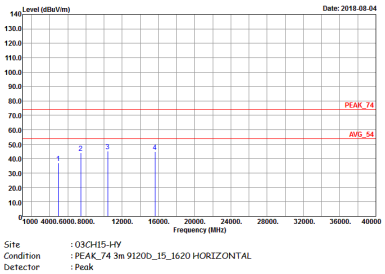
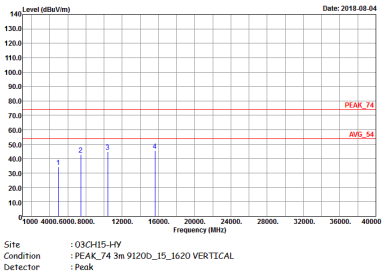
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH155 5775MHz Ant. 1	
Simultaneously	Vertical	Fundamental
Peak		
Peak.		Left blank

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Band Edge @ 3m)

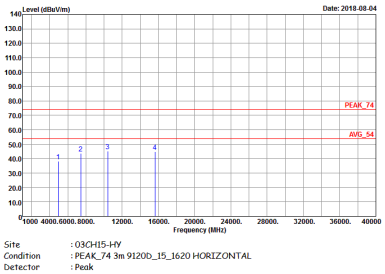
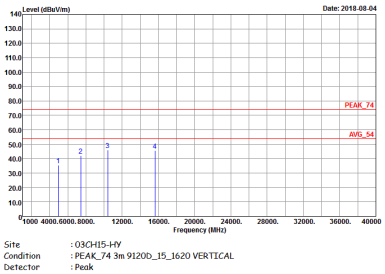
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH155 5775MHz Ant. 2	
Simultaneously	**Horizontal**	**Fundamental**
Peak		
Peak.		Left blank

ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH155 5775MHz Ant. 2	
Simultaneously	Vertical	Fundamental
Peak		
Avg.		Left blank

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Harmonic @ 3m)

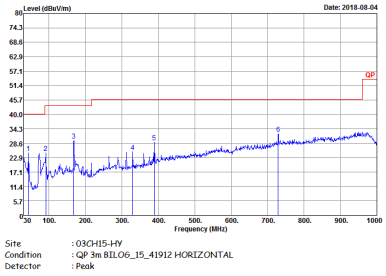
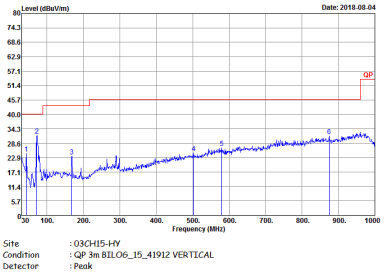
ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH42 5210MHz Ant. 1	
Simultaneously	Horizontal	Vertical
Peak		

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (Harmonic @ 3m)

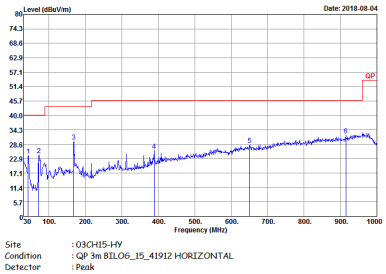
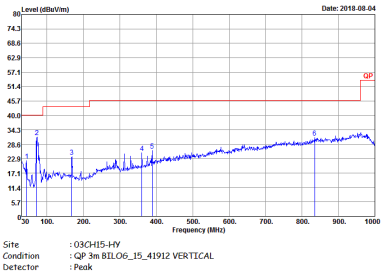
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH42 5210MHz Ant. 2	
Simultaneously	Horizontal	Vertical
Peak		

Emission below 1GHz

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (LF)

ANT	BLE (2M) CH39 2480MHz Ant. 2 + 802.11ac VHT80 CH42 5210MHz Ant. 1	
Simultaneously	Horizontal	Vertical
QP / Peak		

Bluetooth LE (2Mbps) and WIFI 802.11ac VHT80 (LF)

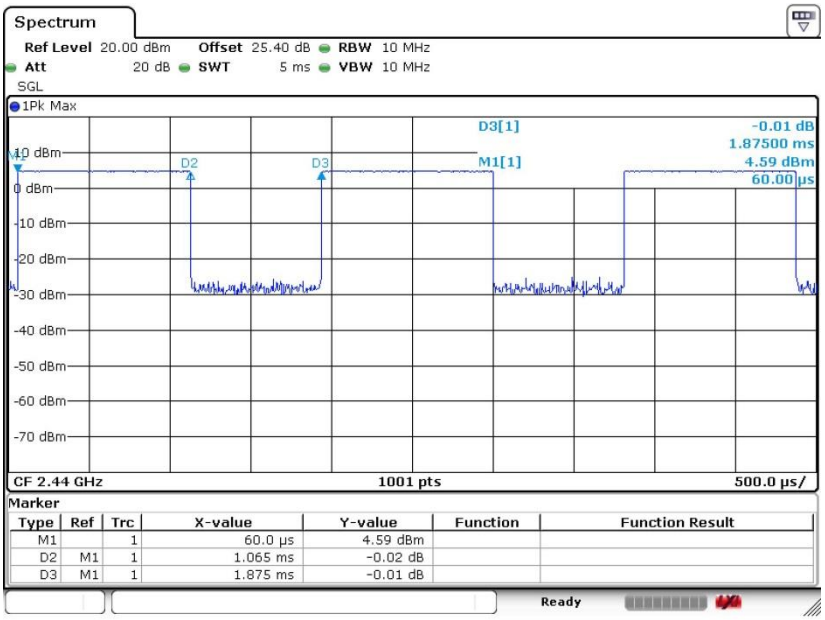
ANT	BLE (2M) CH39 2480MHz Ant. 1 + 802.11ac VHT80 CH42 5210MHz Ant. 2	
Simultaneously	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	Bluetooth - LE for 2 Mbps	56.80	1065.00	0.94	1kHz	2.46
2	Bluetooth - LE for 2 Mbps	56.80	1065.00	0.94	1kHz	2.46
1	5GHz 802.11n HT40	100.00	-	-	10Hz	0.00
2	5GHz 802.11n HT40	100.00	-	-	10Hz	0.00
1	5GHz 802.11ac VHT80	100.00	-	-	10Hz	0.00
2	5GHz 802.11ac VHT80	100.00	-	-	10Hz	0.00

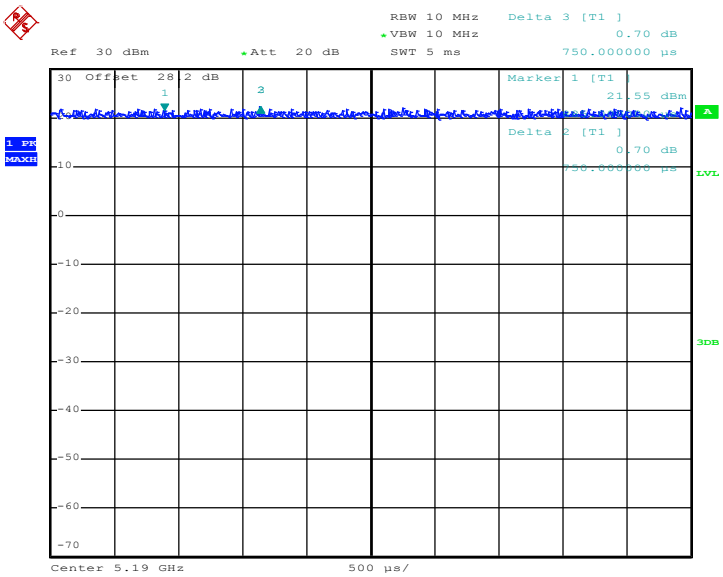
<Ant. 1>

Bluetooth – LE for 2Mbps



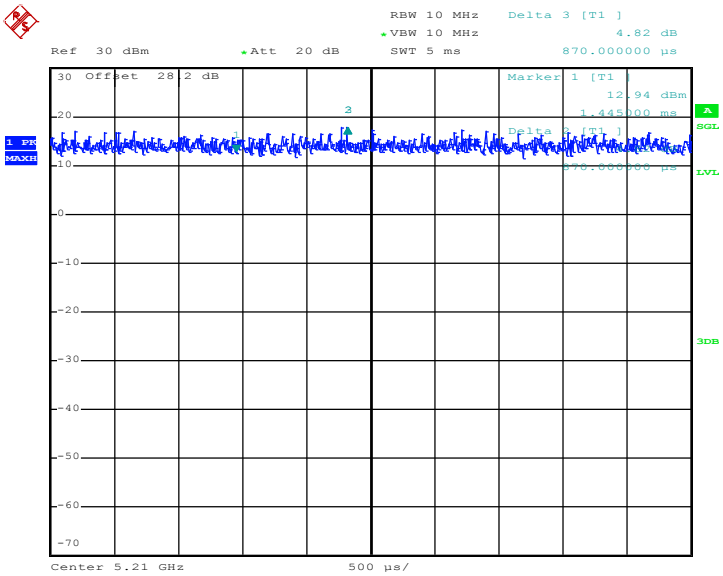
Date: 26.JUN.2018 03:40:41

802.11n HT40



Date: 4.JUL.2018 03:44:32

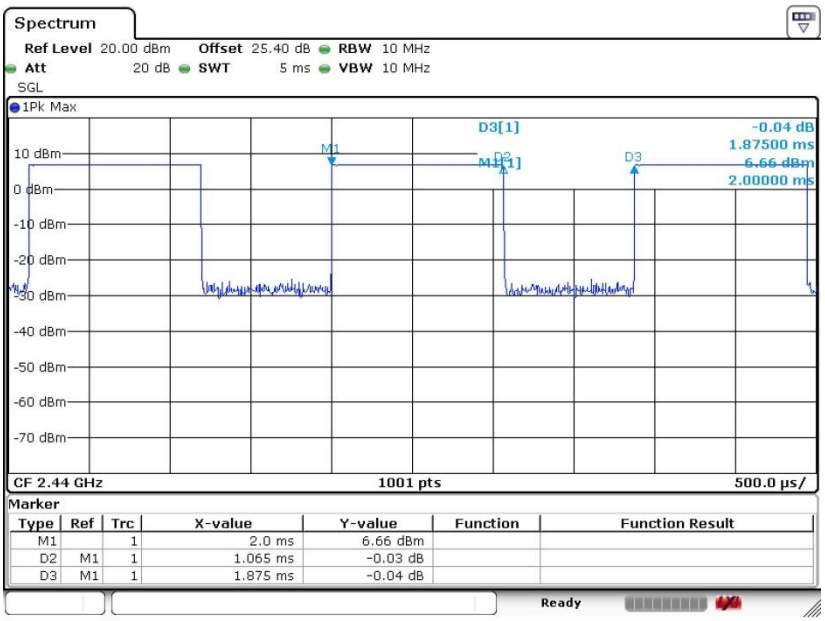
802.11ac VHT80



Date: 4.JUL.2018 03:59:51

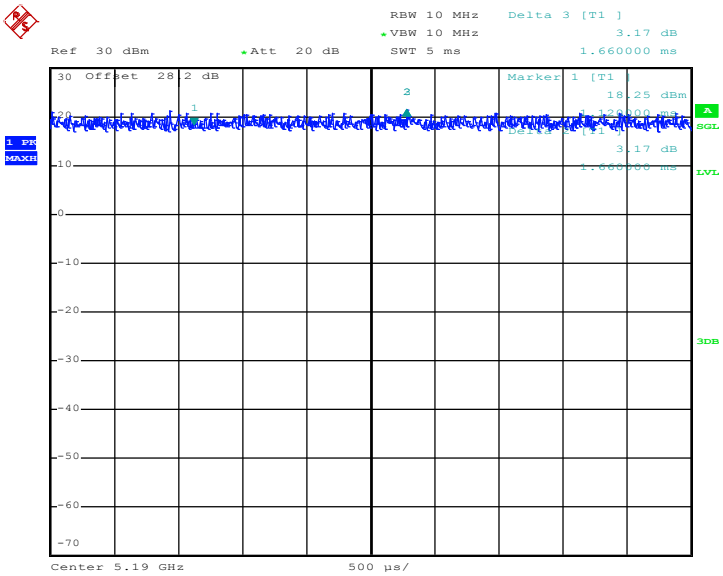
<Ant. 2>

Bluetooth – LE for 2Mbps



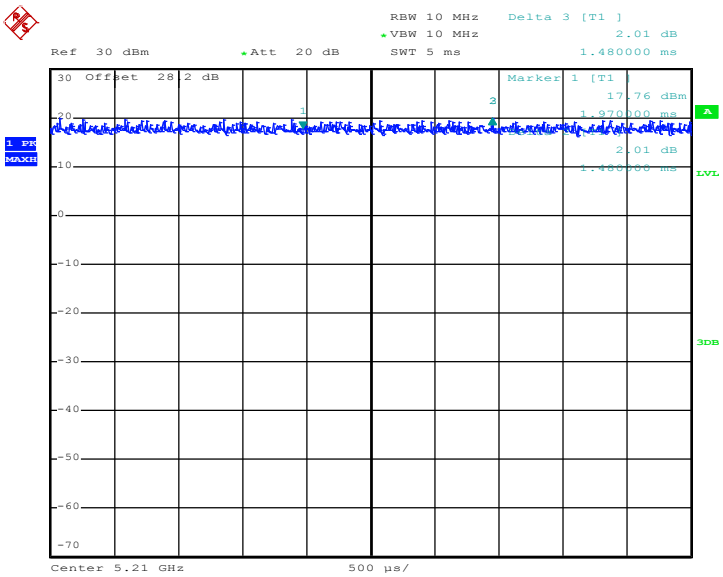
Date: 26.JUN.2018 03:54:28

802.11n HT40



Date: 4.JUL.2018 04:14:46

802.11ac VHT80



Date: 4.JUL.2018 04:05:17

———THE END———