FCC RADIO TEST REPORT

FCC ID	**:**	**PPD-QCNFA435**
Equipment	**:**	**Single Stream 802.11a/b/g/n/ac + BT 4.1 M.2 Type Card**
Brand Name	**:**	**Qualcomm Atheros**
Model Name	**:**	**QCNFA435**
Applicant	**:**	**Qualcomm Atheros, Inc** **1700 Technology Drive, San Jose, CA 95110**
Manufacturer	**:**	**Qualcomm Atheros, Inc** **1700 Technology Drive, San Jose, CA 95110**
Standard	**:**	**FCC Part 15 Subpart C §15.247**

The product was received on Jun. 27, 2018 and testing was started from Jul. 24, 2018 and completed on Aug. 07, 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 partial 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.

Jones Tsai

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
FR862735C	01	Initial issue of report	Aug. 30, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(b)	Power Output Measurement	Pass	-
3.2	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	Under limit 5.88 dB at 31.080 MHz
3.3	15.203 & 15.247(b)	Antenna Requirement	Pass	-

Reviewed by: Joseph Lin

Report Producer: Yimin Ho

1 General Description

1.1 Product Feature of Equipment Under Test

Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac, and Wi-Fi 5GHz 802.11a/n/ac

Product Specification subjective to this standard	
Sample 1	EUT with Host 1
Sample 2	EUT with Host 2

The product was installed into Portable Computer (Brand Name: DELL, Model Name: P93G) during test, and the host information was recorded in the following table.

Host Information	
Host 1	Host with WNC Antenna
Host 2	Host with HB Antenna

Antenna Information								
Mode	**Manufacturer**	**Antenna type**	**Antenna**	**2.4G**	**5G B1**	**5G B2**	**5G B3**	**5G B4**
Notebook	HB	PIFA	1(main)	0.86	-0.24	-1.62	-0.75	-0.21
			2(aux)	-0.53	-0.24	0.05	1.14	0.38
	WNC	PIFA	1(main)	-0.87	-4.57	-4	-5.76	-5.19
			2(aux)	-0.16	-2.63	-2.7	-1.12	-1.12

Antenna Information								
Mode	**Manufacturer**	**Antenna type**	**Antenna**	**2.4G**	**5G B1**	**5G B2**	**5G B3**	**5G B4**
Tablet	HB	PIFA	1(main)	0.38	-1.58	-1.7	-0.65	0.05
			2(aux)	-1.66	-0.7	-0.35	-0.7	0.47
	WNC	PIFA	1(main)	-2	-4.41	-4.41	-4.67	-4.39
			2(aux)	-0.57	-3.1	-3.1	-3.46	-3.31

1.2 Modification of EUT

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

1.3 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

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH13-HY

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

1.4 Applicable Standards

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

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

Remark: 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). For radiated measurement, pre-scanned in orthogonal panels, X, Y, Z, and Notebook type, the worst cases (Notebook type) were recorded in this report.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

2.2 Test Mode

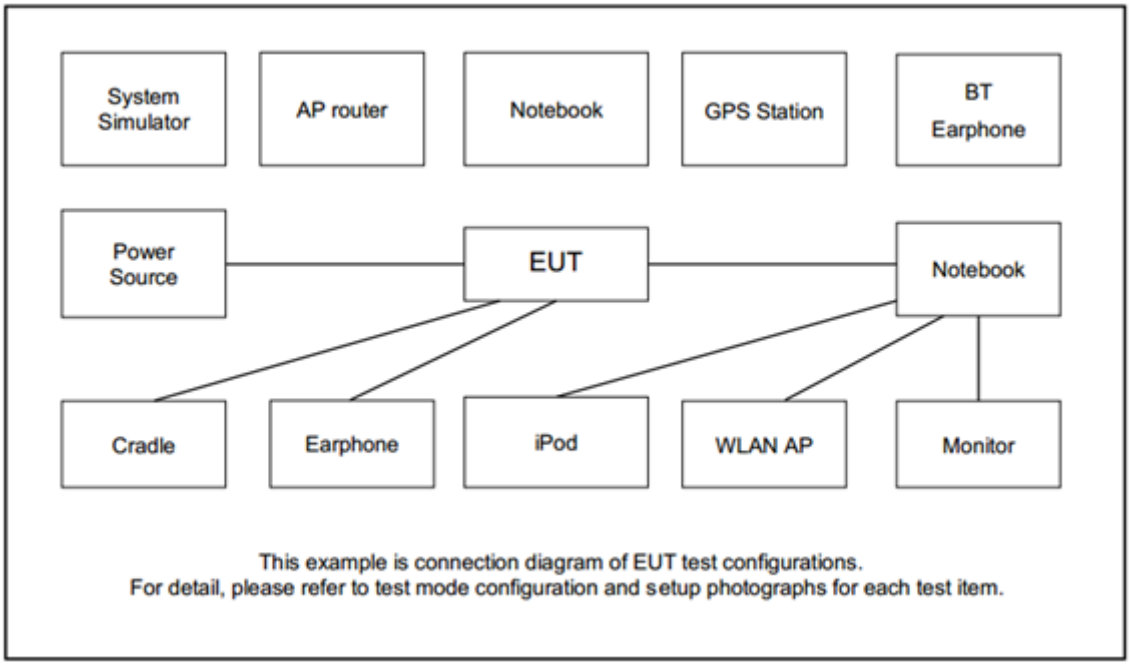
Final test modes are considering the modulation and worse data rates as below table.

Modulation	Data Rate
802.11b	**1 Mbps**
802.11g	**6 Mbps**
802.11n HT20	**MCS0**
802.11n HT40	**MCS0**
802.11ac VHT20	**MCS0**
802.11ac VHT40	**MCS0**

Remark:

1. For Radiated Test Cases, the tests were performed with Adapter 1.
2. The test configuration was designated by manufacturer.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

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

2.5 EUT Operation Test Setup

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

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna with 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.

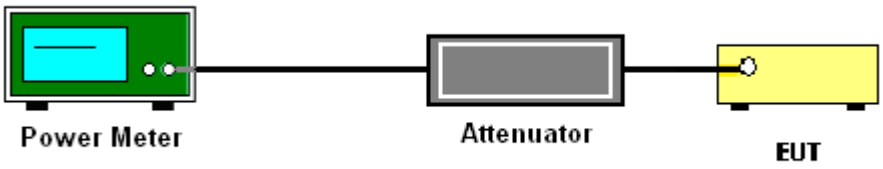
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

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. The path loss was compensated to the results for each measurement.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Measure the conducted output power and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of Peak Output Power

Please refer to Appendix A.

3.1.6 Test Result of Average output Power (Reporting Only)

Please refer to Appendix A.

3.2 Radiated Band Edges and Spurious Emission Measurement

3.2.1 Limit of Radiated band edge and Spurious Emission Measurement

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

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2 Measuring Instruments

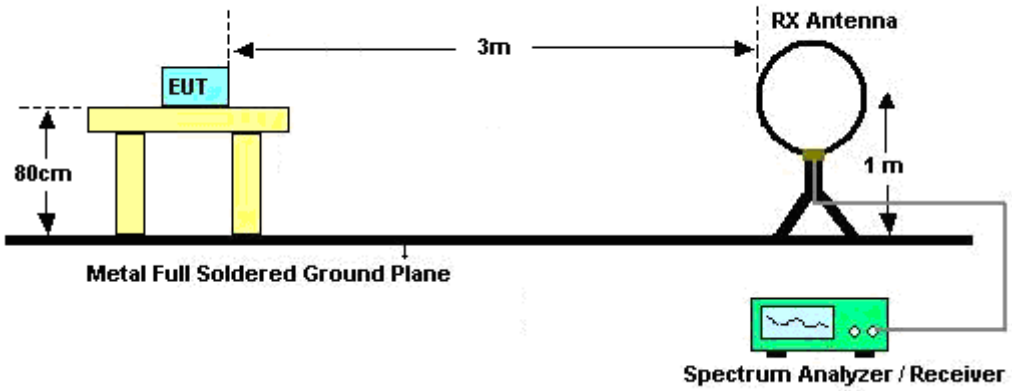
See list of measuring equipment of this test report.

3.2.3 Test Procedures

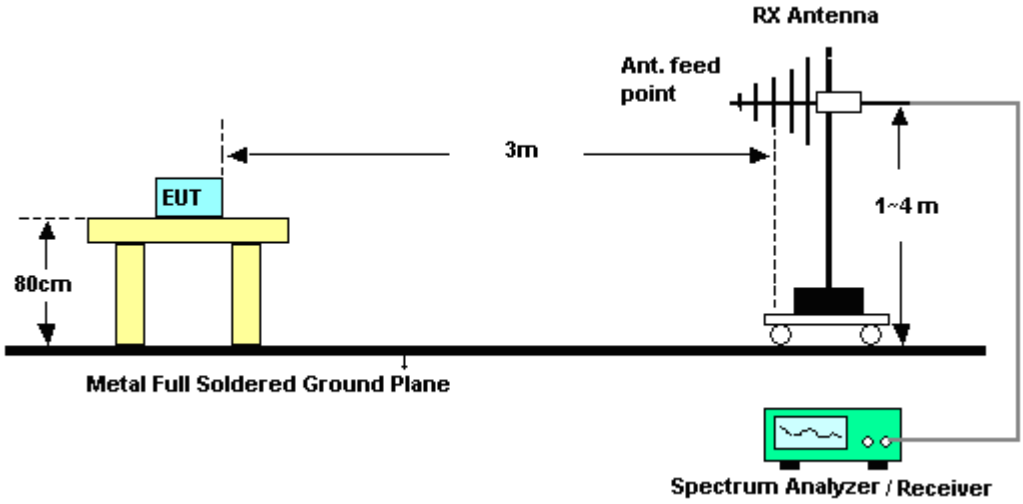
1. The testing follows FCC KDB Publication No. 558074 D01 DTS Meas. Guidance v04.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test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

3.2.4 Test Setup

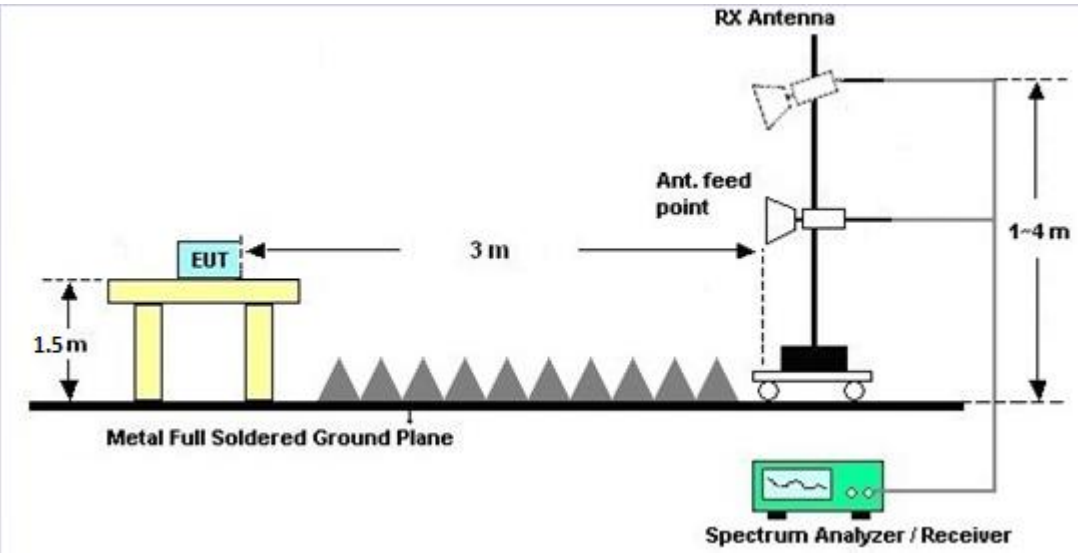
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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 Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.3 Antenna Requirements

3.3.1 Standard Applicable

If directional gain of transmitting Antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached Antenna or of an Antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the rule.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 26, 2017	Jul. 24, 2018 ~ Jul. 25, 2018	Sep. 25, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 26, 2017	Jul. 24, 2018 ~ Jul. 25, 2018	Sep. 25, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 13, 2017	Jul. 24, 2018 ~ Jul. 25, 2018	Nov. 12, 2018	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Jul. 24, 2018 ~ Jul. 25, 2018	Feb. 28, 2019	Conducted (TH05-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Nov. 10, 2017	Jul. 25, 2018 ~ Aug. 07, 2018	Nov. 09, 2018	Radiation (03CH13-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jul. 15, 2019	Radiation (03CH13-HY)
Filter	WI	WLK4-1000-1530-8000-40SS	SN1	1G Lowpass Filter	Sep. 18, 2017	Jul. 25, 2018 ~ Aug. 07, 2018	Sep. 17, 2018	Radiation (03CH13-HY)
Amplifier	Sonoma-Instrument	310 N	187282	9KHz~1GHz	Dec. 21, 2016	Jul. 25, 2018 ~ Aug. 07, 2018	Dec. 20, 2018	Radiation (03CH13-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	40103&07	30MHz to 1GHz	Jan. 10, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jan. 09, 2019	Radiation (03CH13-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1241	1GHz ~ 18GHz	Jun. 29, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jun. 28, 2019	Radiation (03CH13-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 21, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	May 20, 2019	Radiation (03CH13-HY)
Preamplifier	Keysight	83017A	MY53270147	1GHz~26.5GHz	Feb. 02, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Feb. 01, 2019	Radiation (03CH13-HY)
Spectrum Analyzer	Keysight	N9010A	MY55370526	10Hz~44GHz	Mar. 15, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Mar. 14, 2019	Radiation (03CH13-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60SS	SN2	3G High Pass	Sep. 18, 2017	Jul. 25, 2018 ~ Aug. 07, 2018	Sep. 17, 2018	Radiation (03CH13-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Jul. 25, 2018 ~ Aug. 07, 2018	N/A	Radiation (03CH13-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Jul. 25, 2018 ~ Aug. 07, 2018	N/A	Radiation (03CH13-HY)
EMI Test Receiver	Agilent	N9038A (MXE)	MY53290053	20Hz to 26.5GHz	Jan. 16, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jan. 15, 2019	Radiation (03CH13-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Jul. 25, 2018 ~ Aug. 07, 2018	Nov. 26, 2018	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126E	0030/126E	30M-18G	Jan. 22, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jan. 21, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	335041/4	30M-18G	Jan. 22, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jan. 21, 2019	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24961/4	30M~18GHz	Jan. 22, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Jan. 21, 2019	Radiation (03CH13-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30M~40GHz	Oct. 17, 2017	Jul. 25, 2018 ~ Aug. 07, 2018	Oct. 16, 2018	Radiation (03CH13-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30M~40GHz	Oct. 17, 2017	Jul. 25, 2018 ~ Aug. 07, 2018	Oct. 16, 2018	Radiation (03CH13-HY)
Software	AUDIX	E3 6.2009-8-24c	RK-001124	N/A	N/A	Jul. 25, 2018 ~ Aug. 07, 2018	N/A	Radiation (03CH13-HY)
Preamplifier	Jet-Power	JPA0118-55-303K	1710001800054002	1GHz~18GHz	Apr. 16, 2018	Jul. 25, 2018 ~ Aug. 07, 2018	Apr. 15, 2019	Radiation (03CH13-HY)

5 Uncertainty of Evaluation

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

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

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Luffy Lin	Temperature:	21~25	°C
Test Date:	2018/07/24 ~ 2018/07/25	Relative Humidity:	51~54	%

Report Number : FR862735C

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	21.51	-	-	30.00	-	0.86	-	22.37	-	36.00	-	Pass
11b	1Mbps	1	6	2437	21.45	-	-	30.00	-	0.86	-	22.31	-	36.00	-	Pass
11b	1Mbps	1	11	2462	21.65	-	-	30.00	-	0.86	-	22.51	-	36.00	-	Pass
11g	6Mbps	1	1	2412	21.54	-	-	30.00	-	0.86	-	22.40	-	36.00	-	Pass
11g	6Mbps	1	6	2437	23.18	-	-	30.00	-	0.86	-	24.04	-	36.00	-	Pass
11g	6Mbps	1	11	2462	22.22	-	-	30.00	-	0.86	-	23.08	-	36.00	-	Pass
HT20	MCS0	1	1	2412	22.19	-	-	30.00	-	0.86	-	23.05	-	36.00	-	Pass
HT20	MCS0	1	6	2437	23.75	-	-	30.00	-	0.86	-	24.61	-	36.00	-	Pass
HT20	MCS0	1	11	2462	21.30	-	-	30.00	-	0.86	-	22.16	-	36.00	-	Pass
HT40	MCS0	1	3	2422	20.54	-	-	30.00	-	0.86	-	21.40	-	36.00	-	Pass
HT40	MCS0	1	6	2437	23.11	-	-	30.00	-	0.86	-	23.97	-	36.00	-	Pass
HT40	MCS0	1	9	2452	20.13	-	-	30.00	-	0.86	-	20.99	-	36.00	-	Pass
VHT20	MCS0	1	1	2412	22.24	-	-	30.00	-	0.86	-	23.10	-	36.00	-	Pass
VHT20	MCS0	1	6	2437	23.83	-	-	30.00	-	0.86	-	24.69	-	36.00	-	Pass
VHT20	MCS0	1	11	2462	21.35	-	-	30.00	-	0.86	-	22.21	-	36.00	-	Pass
VHT40	MCS0	1	3	2422	20.57	-	-	30.00	-	0.86	-	21.43	-	36.00	-	Pass
VHT40	MCS0	1	6	2437	23.13	-	-	30.00	-	0.86	-	23.99	-	36.00	-	Pass
VHT40	MCS0	1	9	2452	20.20	-	-	30.00	-	0.86	-	21.06	-	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	0.05	-	18.95	-	-
11b	1Mbps	1	6	2437	0.05	-	18.93	-	
11b	1Mbps	1	11	2462	0.05	-	18.98	-	
11g	6Mbps	1	1	2412	0.25	-	15.71	-	
11g	6Mbps	1	6	2437	0.25	-	17.73	-	
11g	6Mbps	1	11	2462	0.25	-	16.47	-	
HT20	MCS0	1	1	2412	0.31	-	15.82	-	
HT20	MCS0	1	6	2437	0.31	-	17.85	-	
HT20	MCS0	1	11	2462	0.31	-	15.24	-	
HT40	MCS0	1	3	2422	0.48	-	13.92	-	
HT40	MCS0	1	6	2437	0.48	-	16.93	-	
HT40	MCS0	1	9	2452	0.48	-	13.47	-	
VHT20	MCS0	1	1	2412	0.31	-	15.84	-	
VHT20	MCS0	1	6	2437	0.31	-	17.87	-	
VHT20	MCS0	1	11	2462	0.31	-	15.26	-	
VHT40	MCS0	1	3	2422	0.52	-	13.94	-	
VHT40	MCS0	1	6	2437	0.52	-	16.96	-	
VHT40	MCS0	1	9	2452	0.52	-	13.49	-	

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

Appendix B. Radiated Spurious Emission

Test Engineer :	Alex Jheng, Fu Chen and Wilson Wu	**Temperature :**	24~25°C
		Relative Humidity :	55~56%

<For Sample 1>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11b CH 01 2412MHz		2375.625	54.51	-19.49	74	41.73	27.19	15.49	29.9	130	123	P	H
		2389.17	43.93	-10.07	54	31.11	27.23	15.49	29.9	130	123	A	H
	*	2412	102.88	-	-	89.96	27.28	15.53	29.89	130	123	P	H
	*	2412	99.73	-	-	86.81	27.28	15.53	29.89	130	123	A	H
													H
													H
		2388.855	54.53	-19.47	74	41.71	27.23	15.49	29.9	255	87	P	V
		2389.17	44.48	-9.52	54	31.66	27.23	15.49	29.9	255	87	A	V
	*	2412	104.85	-	-	91.93	27.28	15.53	29.89	255	87	P	V
	*	2412	101.64	-	-	88.72	27.28	15.53	29.89	255	87	A	V
													V
													V
802.11b CH 11 2462MHz	*	2462	101.12	-	-	88.02	27.41	15.57	29.88	114	121	P	H
	*	2462	97.84	-	-	84.74	27.41	15.57	29.88	114	121	A	H
		2487.12	54.41	-19.59	74	41.22	27.46	15.61	29.88	114	121	P	H
		2491.24	44.04	-9.96	54	30.81	27.5	15.61	29.88	114	121	A	H
													H
													H
	*	2462	103.21	-	-	90.11	27.41	15.57	29.88	271	90	P	V
	*	2462	99.9	-	-	86.8	27.41	15.57	29.88	271	90	A	V
		2493.12	55.5	-18.5	74	42.26	27.5	15.61	29.87	271	90	P	V
		2491.36	44.4	-9.6	54	31.17	27.5	15.61	29.88	271	90	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI Ant. 1	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)
802.11b CH 06 2437MHz		4874	43.59	-30.41	74	60.29	31.36	8.49	56.55	-	-	P	H
		7311	46.13	-27.87	74	55.5	36.18	10.68	56.23	-	-	P	H
													H
													H
		4874	43.17	-30.83	74	59.87	31.36	8.49	56.55	-	-	P	V
		7311	47.11	-26.89	74	56.48	36.18	10.68	56.23	-	-	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11g CH 01 2412MHz		2362.185	54.22	-19.78	74	41.52	27.14	15.47	29.91	128	123	P	H
		2389.065	44.56	-9.44	54	31.74	27.23	15.49	29.9	128	123	A	H
	*	2412	101.91	-	-	88.99	27.28	15.53	29.89	128	123	P	H
	*	2412	93.89	-	-	80.97	27.28	15.53	29.89	128	123	A	H
													H
													H
		2356.2	55.02	-18.98	74	42.34	27.14	15.45	29.91	264	86	P	V
		2389.59	45.24	-8.76	54	32.42	27.23	15.49	29.9	264	86	A	V
	*	2412	104.04	-	-	91.12	27.28	15.53	29.89	264	86	P	V
	*	2412	95.94	-	-	83.02	27.28	15.53	29.89	264	86	A	V
													V
													V
802.11g CH 11 2462MHz	*	2462	99.87	-	-	86.77	27.41	15.57	29.88	102	216	P	H
	*	2462	91.85	-	-	78.75	27.41	15.57	29.88	102	216	A	H
		2485.28	56.48	-17.52	74	43.29	27.46	15.61	29.88	102	216	P	H
		2483.72	44.93	-9.07	54	31.74	27.46	15.61	29.88	102	216	A	H
													H
													H
	*	2462	102.04	-	-	88.94	27.41	15.57	29.88	272	90	P	V
	*	2462	93.93	-	-	80.83	27.41	15.57	29.88	272	90	A	V
		2483.76	55.12	-18.88	74	41.93	27.46	15.61	29.88	272	90	P	V
		2483.64	45.39	-8.61	54	32.2	27.46	15.61	29.88	272	90	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI Ant. 1	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)
802.11g CH 06 2437MHz		4874	40.51	-33.49	74	57.21	31.36	8.49	56.55	100	0	P	H
		7311	45.81	-28.19	74	55.18	36.18	10.68	56.23	100	0	P	H
													H
													H
		4874	42.14	-31.86	74	58.84	31.36	8.49	56.55	100	0	P	V
		7311	45.73	-28.27	74	55.1	36.18	10.68	56.23	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		2337.72	54.3	-19.7	74	41.68	27.1	15.43	29.91	128	123	P	H
		2389.905	44.97	-9.03	54	32.14	27.23	15.49	29.89	128	123	A	H
	*	2412	103.63	-	-	90.71	27.28	15.53	29.89	128	123	P	H
	*	2412	93.98	-	-	81.06	27.28	15.53	29.89	128	123	A	H
802.11n													H
HT20													H
CH 01		2389.275	55.73	-18.27	74	42.91	27.23	15.49	29.9	254	86	P	V
2412MHz		2390	45.71	-8.29	54	32.88	27.23	15.49	29.89	254	86	A	V
	*	2412	105.27	-	-	92.35	27.28	15.53	29.89	254	86	P	V
	*	2412	96.44	-	-	83.52	27.28	15.53	29.89	254	86	A	V
													V
													V
	*	2462	99.29	-	-	86.19	27.41	15.57	29.88	118	122	P	H
	*	2462	90.61	-	-	77.51	27.41	15.57	29.88	118	122	A	H
		2485.8	54.29	-19.71	74	41.1	27.46	15.61	29.88	118	122	P	H
		2484.12	44.53	-9.47	54	31.34	27.46	15.61	29.88	118	122	A	H
802.11n													H
HT20													H
CH 11	*	2462	100.67	-	-	87.57	27.41	15.57	29.88	268	89	P	V
2462MHz	*	2462	92.07	-	-	78.97	27.41	15.57	29.88	268	89	A	V
		2499.48	54.96	-19.04	74	41.72	27.5	15.61	29.87	268	89	P	V
		2483.8	44.89	-9.11	54	31.7	27.46	15.61	29.88	268	89	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	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)
		4874	40.41	-33.59	74	57.11	31.36	8.49	56.55	100	0	P	H
		7311	43.98	-30.02	74	53.35	36.18	10.68	56.23	100	0	P	H
802.11n													H
HT20													H
CH 06		4874	40.56	-33.44	74	57.26	31.36	8.49	56.55	100	0	P	V
2437MHz		7311	47.96	-26.04	74	57.33	36.18	10.68	56.23	100	0	P	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11n HT40 CH 03 2422MHz		2388.26	60.77	-13.23	74	47.95	27.23	15.49	29.9	134	122	P	H
		2389.1	47.33	-6.67	54	34.51	27.23	15.49	29.9	134	122	A	H
	*	2422	96.94	-	-	83.98	27.32	15.53	29.89	134	122	P	H
	*	2422	89.12	-	-	76.16	27.32	15.53	29.89	134	122	A	H
		2494.68	53.97	-20.03	74	40.73	27.5	15.61	29.87	134	122	P	H
		2486.49	45.29	-8.71	54	32.1	27.46	15.61	29.88	134	122	A	H
		2389.94	61.81	-12.19	74	48.98	27.23	15.49	29.89	255	85	P	V
		2387.14	48.06	-5.94	54	35.24	27.23	15.49	29.9	255	85	A	V
	*	2422	98.99	-	-	86.03	27.32	15.53	29.89	255	85	P	V
	*	2422	91.14	-	-	78.18	27.32	15.53	29.89	255	85	A	V
		2486.49	54.12	-19.88	74	40.93	27.46	15.61	29.88	255	85	P	V
		2488.52	44.84	-9.16	54	31.61	27.5	15.61	29.88	255	85	A	V
802.11n HT40 CH 09 2452MHz		2388.68	56.96	-17.04	74	44.14	27.23	15.49	29.9	129	122	P	H
		2382.1	44.7	-9.3	54	31.92	27.19	15.49	29.9	129	122	A	H
	*	2452	94.89	-	-	81.83	27.37	15.57	29.88	129	122	P	H
	*	2452	86.89	-	-	73.83	27.37	15.57	29.88	129	122	A	H
		2487.19	57.53	-16.47	74	44.34	27.46	15.61	29.88	129	122	P	H
		2483.76	45.9	-8.1	54	32.71	27.46	15.61	29.88	129	122	A	H
		2387	57.93	-16.07	74	45.11	27.23	15.49	29.9	281	90	P	V
		2389.1	45.19	-8.81	54	32.37	27.23	15.49	29.9	281	90	A	V
	*	2452	98	-	-	84.94	27.37	15.57	29.88	281	90	P	V
	*	2452	90.06	-	-	77	27.37	15.57	29.88	281	90	A	V
		2492.44	57.81	-16.19	74	44.57	27.5	15.61	29.87	281	90	P	V
		2483.69	46.43	-7.57	54	33.24	27.46	15.61	29.88	281	90	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	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)
		4874	37.77	-36.23	74	54.47	31.36	8.49	56.55	100	0	P	H
		7311	41.84	-32.16	74	51.21	36.18	10.68	56.23	100	0	P	H
802.11n													H
HT40													H
CH 06		4874	37.41	-36.59	74	54.11	31.36	8.49	56.55	100	0	P	V
2437MHz		7311	41.89	-32.11	74	51.26	36.18	10.68	56.23	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	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)
		2385.6	54.87	-19.13	74	42.05	27.23	15.49	29.9	128	122	P	H
		2389.905	45.09	-8.91	54	32.26	27.23	15.49	29.89	128	122	A	H
	*	2412	102.56	-	-	89.64	27.28	15.53	29.89	128	122	P	H
	*	2412	93.73	-	-	80.81	27.28	15.53	29.89	128	122	A	H
802.11ac													H
VHT20													H
CH 01		2389.17	55.58	-18.42	74	42.76	27.23	15.49	29.9	253	87	P	V
2412MHz		2390	45.53	-8.47	54	32.7	27.23	15.49	29.89	253	87	A	V
	*	2412	104.04	-	-	91.12	27.28	15.53	29.89	253	87	P	V
	*	2412	95.86	-	-	82.94	27.28	15.53	29.89	253	87	A	V
													V
													V
	*	2462	99.05	-	-	85.95	27.41	15.57	29.88	115	120	P	H
	*	2462	90.2	-	-	77.1	27.41	15.57	29.88	115	120	A	H
		2497.84	54.18	-19.82	74	40.94	27.5	15.61	29.87	115	120	P	H
		2496.08	44.6	-9.4	54	31.36	27.5	15.61	29.87	115	120	A	H
802.11ac													H
VHT20													H
CH 11	*	2462	100.92	-	-	87.82	27.41	15.57	29.88	270	89	P	V
2462MHz	*	2462	92.56	-	-	79.46	27.41	15.57	29.88	270	89	A	V
		2494.28	55.02	-18.98	74	41.78	27.5	15.61	29.87	270	89	P	V
		2483.72	45.13	-8.87	54	31.94	27.46	15.61	29.88	270	89	A	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	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)
		4874	39.52	-34.48	74	56.22	31.36	8.49	56.55	100	0	P	H
		7311	44.5	-29.5	74	53.87	36.18	10.68	56.23	100	0	P	H
802.11ac													H
VHT20													H
CH 06		4874	40.2	-33.8	74	56.9	31.36	8.49	56.55	100	0	P	V
2437MHz		7311	48.96	-25.04	74	58.33	36.18	10.68	56.23	100	0	P	V
													V
													V

Remark

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

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11ac VHT40 CH 03 2422MHz		2387.98	62.19	-11.81	74	49.37	27.23	15.49	29.9	136	122	P	H
		2389.38	47.59	-6.41	54	34.77	27.23	15.49	29.9	136	122	A	H
	*	2422	97.63	-	-	84.67	27.32	15.53	29.89	136	122	P	H
	*	2422	89.75	-	-	76.79	27.32	15.53	29.89	136	122	A	H
		2485.58	54.45	-19.55	74	41.26	27.46	15.61	29.88	136	122	P	H
		2486.07	44.89	-9.11	54	31.7	27.46	15.61	29.88	136	122	A	H
		2389.38	62.06	-11.94	74	49.24	27.23	15.49	29.9	255	86	P	V
		2389.1	48.05	-5.95	54	35.23	27.23	15.49	29.9	255	86	A	V
	*	2422	98.87	-	-	85.91	27.32	15.53	29.89	255	86	P	V
	*	2422	91.04	-	-	78.08	27.32	15.53	29.89	255	86	A	V
		2490.06	53.42	-20.58	74	40.19	27.5	15.61	29.88	255	86	P	V
		2489.78	45.01	-8.99	54	31.78	27.5	15.61	29.88	255	86	A	V
802.11ac VHT40 CH 09 2452MHz		2381.82	56.18	-17.82	74	43.4	27.19	15.49	29.9	129	120	P	H
		2387.98	44.79	-9.21	54	31.97	27.23	15.49	29.9	129	120	A	H
	*	2452	95.5	-	-	82.44	27.37	15.57	29.88	129	120	P	H
	*	2452	87.38	-	-	74.32	27.37	15.57	29.88	129	120	A	H
		2483.97	56.65	-17.35	74	43.46	27.46	15.61	29.88	129	120	P	H
		2486.07	46.1	-7.9	54	32.91	27.46	15.61	29.88	129	120	A	H
		2384.34	57.11	-16.89	74	44.33	27.19	15.49	29.9	278	91	P	V
		2389.1	45.02	-8.98	54	32.2	27.23	15.49	29.9	278	91	A	V
	*	2452	97.29	-	-	84.23	27.37	15.57	29.88	278	91	P	V
	*	2452	89.14	-	-	76.08	27.37	15.57	29.88	278	91	A	V
		2485.16	57.35	-16.65	74	44.16	27.46	15.61	29.88	278	91	P	V
		2485.72	46.75	-7.25	54	33.56	27.46	15.61	29.88	278	91	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	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)
		4874	37.73	-36.27	74	54.43	31.36	8.49	56.55	100	0	P	H
		7311	42.06	-31.94	74	51.43	36.18	10.68	56.23	100	0	P	H
802.11ac													H
VHT40													H
CH 06		4874	36.78	-37.22	74	53.48	31.36	8.49	56.55	100	0	P	V
2437MHz		7311	42.14	-31.86	74	51.51	36.18	10.68	56.23	100	0	P	V
													V
													V

Remark

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

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		65.91	32.22	-7.78	40	51.27	12.13	1.13	32.31	100	0	P	H
		181.74	29.78	-13.72	43.5	45.24	15.13	1.68	32.27	-	-	P	H
		263.82	30.48	-15.52	46	40.87	19.79	2	32.18	-	-	P	H
		331.5	30.06	-15.94	46	40.11	19.87	2.22	32.14	-	-	P	H
		360.2	33.69	-12.31	46	42.72	20.83	2.28	32.14	-	-	P	H
		957.3	33.78	-12.22	46	30.05	31.01	3.71	30.99	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT40		31.08	34.12	-5.88	40	41.71	23.96	0.79	32.34	100	0	P	V
LF		51.6	29.86	-10.14	40	47.06	14.13	0.99	32.32	-	-	P	V
		65.91	29.4	-10.6	40	48.45	12.13	1.13	32.31	-	-	P	V
		363.7	29.5	-16.5	46	38.41	20.89	2.34	32.14	-	-	P	V
		528.2	30.92	-15.08	46	36.19	24.13	2.8	32.2	-	-	P	V
		934.2	33.51	-12.49	46	31.19	29.86	3.66	31.2	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

<For Sample 2>

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	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)
802.11n HT40 CH 03 2422MHz		2386.86	59.12	-14.88	74	46.3	27.23	15.49	29.9	121	121	P	H
		2389.52	46.46	-7.54	54	33.64	27.23	15.49	29.9	121	121	A	H
	*	2422	96.09	-	-	83.13	27.32	15.53	29.89	121	121	P	H
	*	2422	88.14	-	-	75.18	27.32	15.53	29.89	121	121	A	H
		2485.02	56.37	-17.63	74	43.18	27.46	15.61	29.88	121	121	P	H
		2490.76	45.55	-8.45	54	32.32	27.5	15.61	29.88	121	121	A	H
		2388.82	58.56	-15.44	74	45.74	27.23	15.49	29.9	399	86	P	V
		2387.98	46.04	-7.96	54	33.22	27.23	15.49	29.9	399	86	A	V
	*	2422	95.47	-	-	82.51	27.32	15.53	29.89	399	86	P	V
	*	2422	87.39	-	-	74.43	27.32	15.53	29.89	399	86	A	V
		2485.23	56.08	-17.92	74	42.89	27.46	15.61	29.88	399	86	P	V
		2484.88	45.66	-8.34	54	32.47	27.46	15.61	29.88	399	86	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	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)
		4844	38.46	-35.54	74	55.39	31.29	8.34	56.56	100	0	P	H
		7266	42.06	-31.94	74	51.54	36.11	10.68	56.27	100	0	P	H
802.11n													H
HT40													H
CH 03		4844	38.39	-35.61	74	55.32	31.29	8.34	56.56	100	0	P	V
2422MHz		7266	43.62	-30.38	74	53.1	36.11	10.68	56.27	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

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		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		66.18	30.48	-9.52	40	49.53	12.13	1.13	32.31	100	0	P	H
		102.09	27.86	-15.64	43.5	42.49	16.3	1.36	32.29	-	-	P	H
		146.91	27.51	-15.99	43.5	40.98	17.27	1.54	32.28	-	-	P	H
		833.4	32.79	-13.21	46	32.49	28.64	3.49	31.83	-	-	P	H
		913.2	33.3	-12.7	46	31.85	29.24	3.6	31.39	-	-	P	H
		953.1	33.86	-12.14	46	30.37	30.81	3.71	31.03	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT40		31.08	33.49	-6.51	40	41.08	23.96	0.79	32.34	100	0	P	V
LF		61.86	31.32	-8.68	40	50.54	12.05	1.04	32.31	-	-	P	V
		102.63	27.75	-15.75	43.5	42.3	16.38	1.36	32.29	-	-	P	V
		442.8	32.26	-13.74	46	38.8	23.07	2.56	32.17	-	-	P	V
		895.7	32.61	-13.39	46	31.57	29.02	3.55	31.53	-	-	P	V
		955.2	33.64	-12.36	46	30.03	30.91	3.71	31.01	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(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 :	Alex Jheng, Fu Chen and Wilson Wu	**Temperature :**	24~25°C
		Relative Humidity :	55~56%

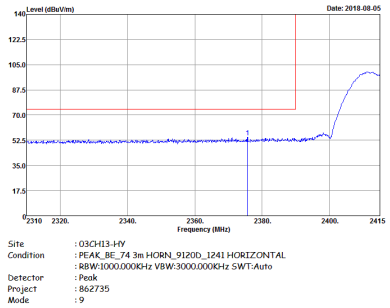
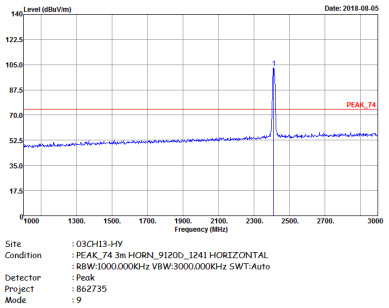
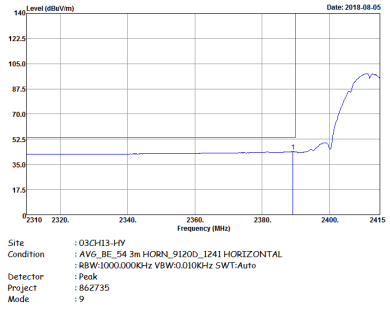
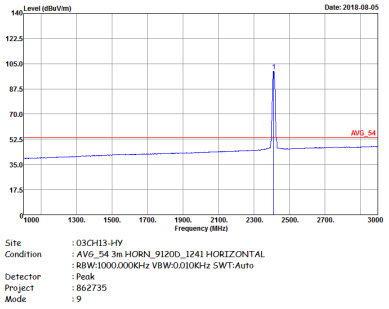
Note symbol

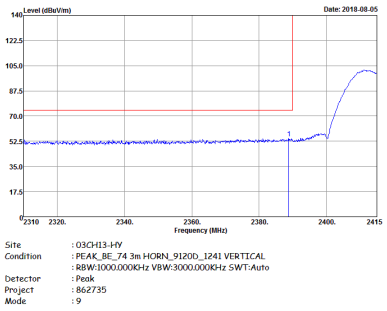
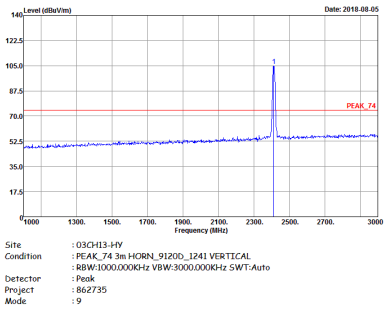
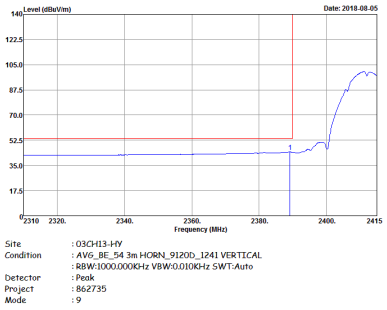
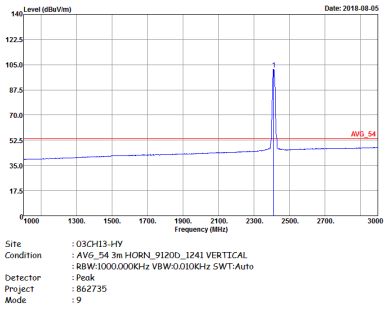
-L	**Low channel location**
-R	**High channel location**

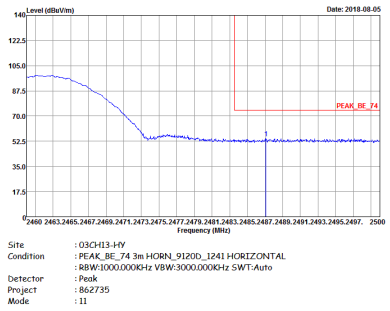
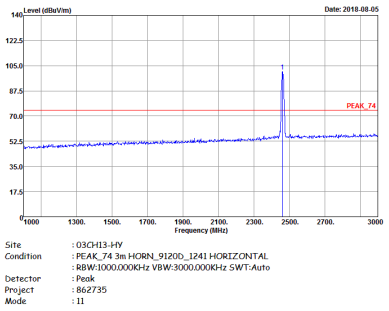
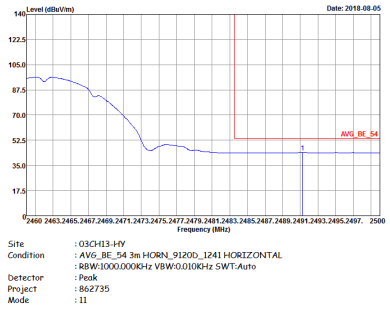
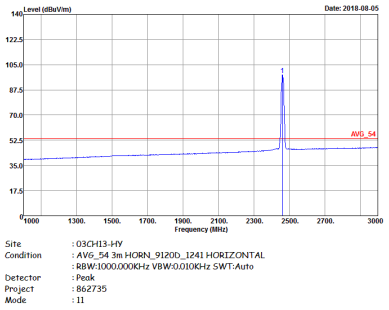
<For Sample 1>

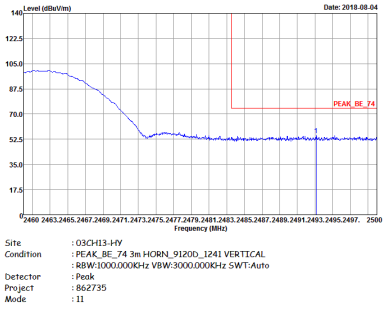
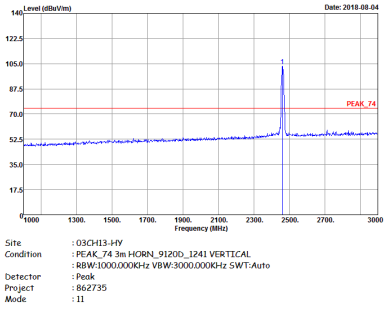
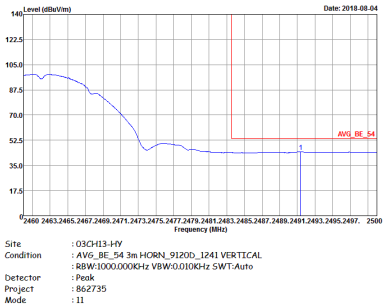
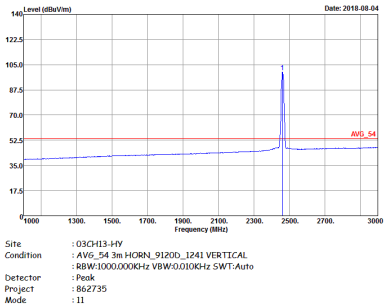
2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

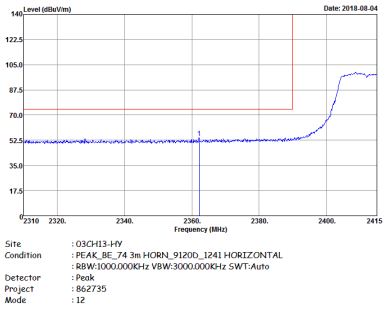
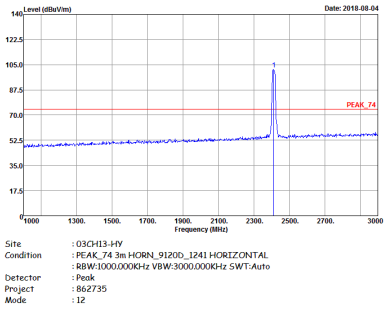
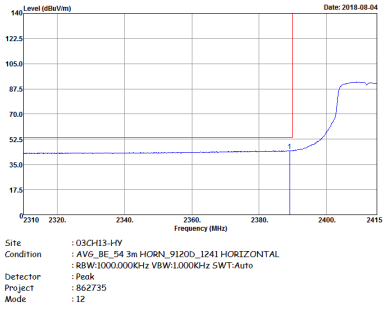
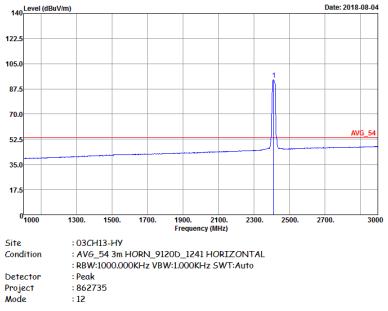
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

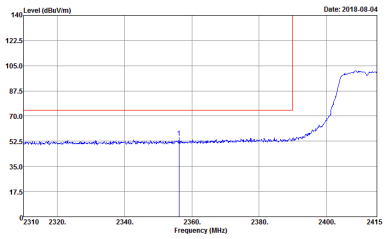
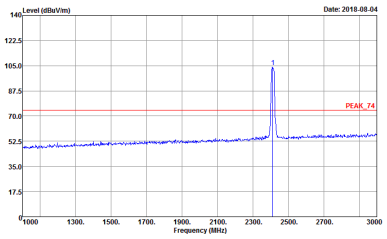
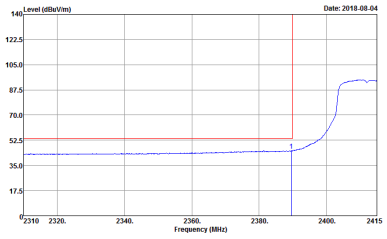
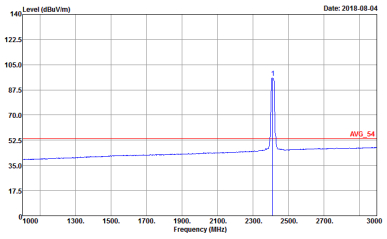
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

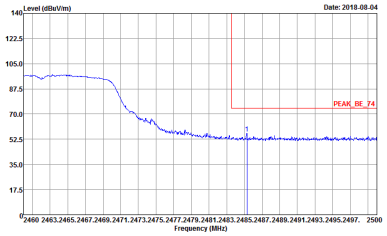
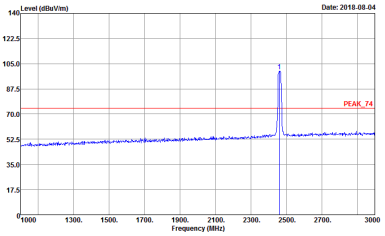
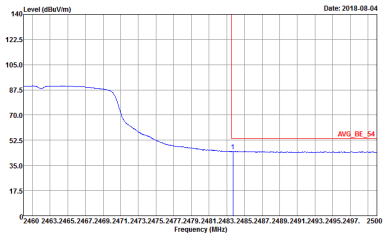
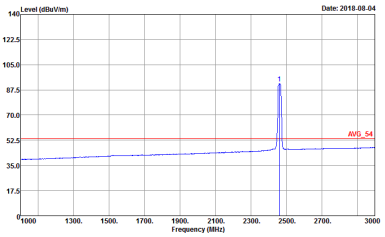
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

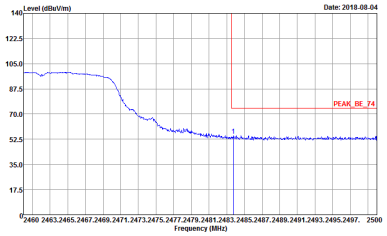
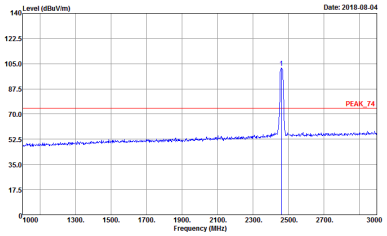
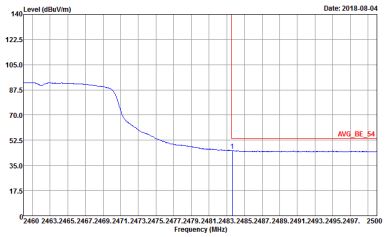
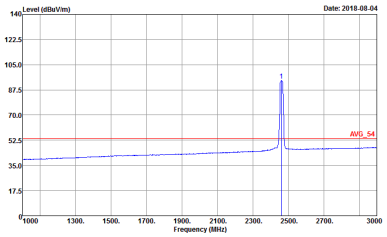
2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

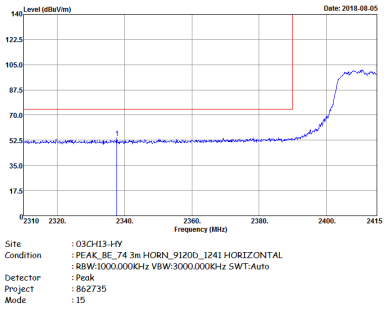
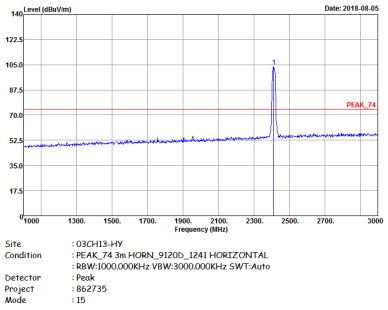
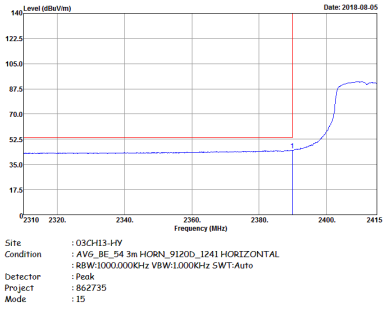
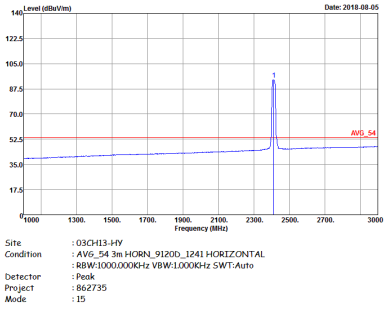
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

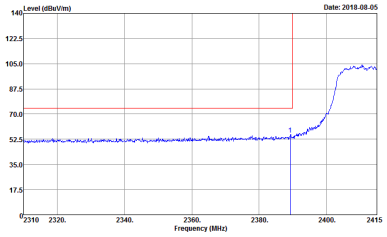
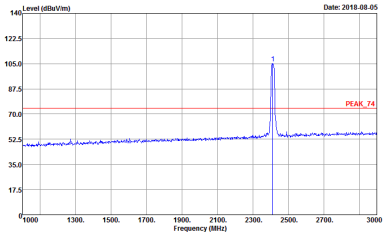
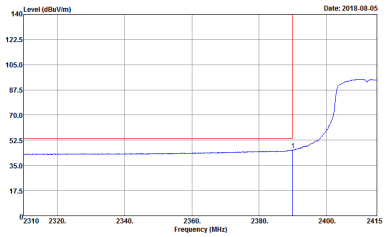
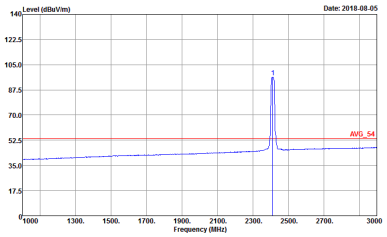
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 9	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 9
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 9	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 9

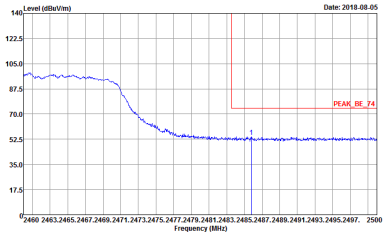
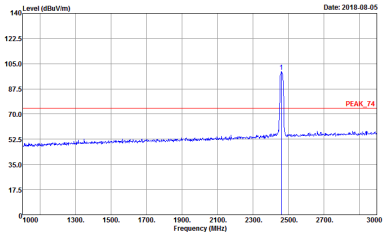
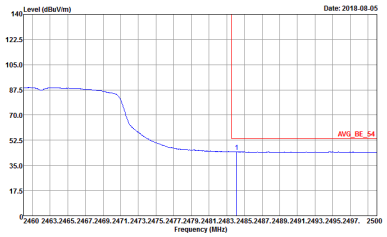
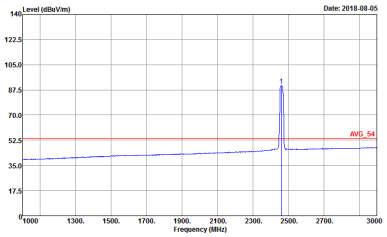
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 14	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 14
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 14	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 14

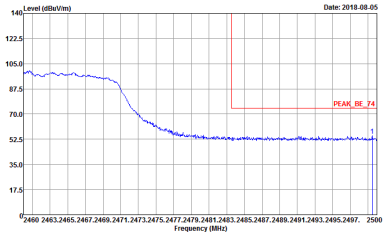
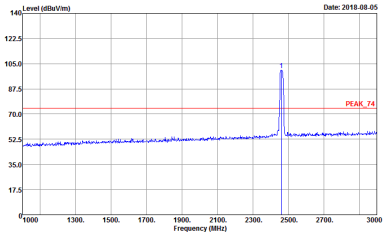
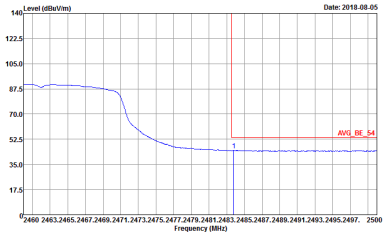
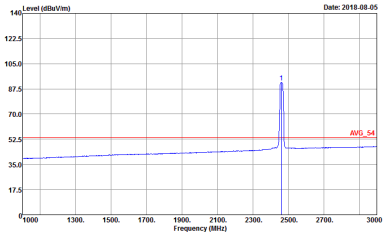
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

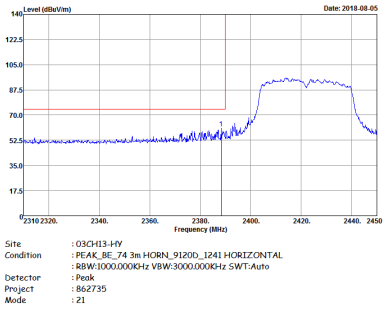
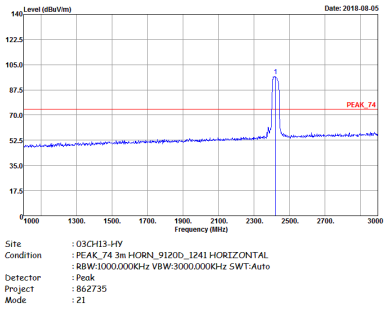
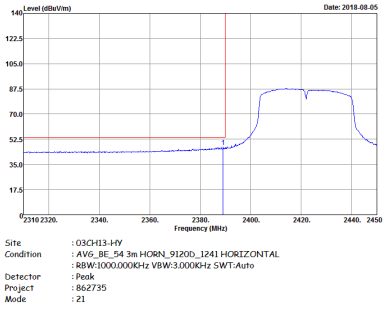
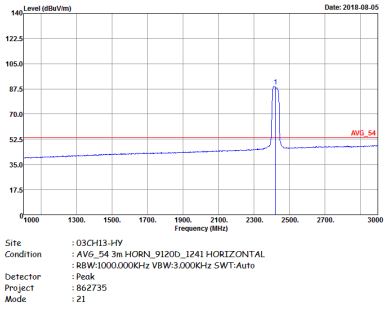
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 15	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 15
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 15	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 15

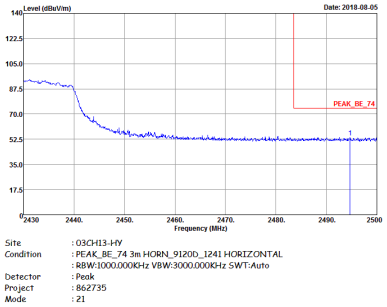
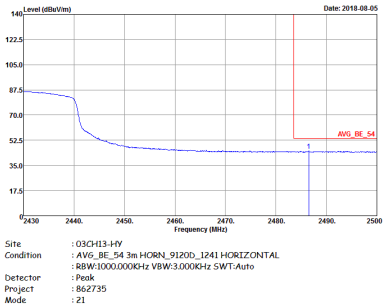
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17

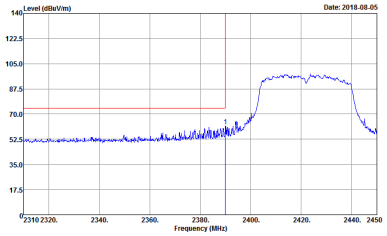
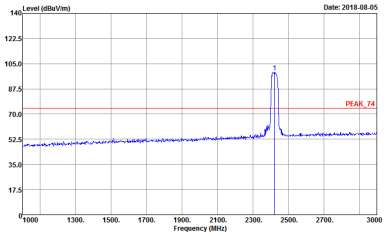
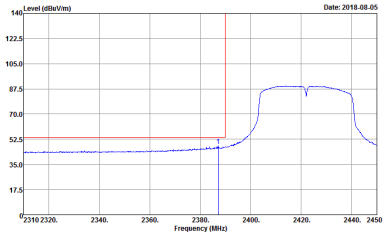
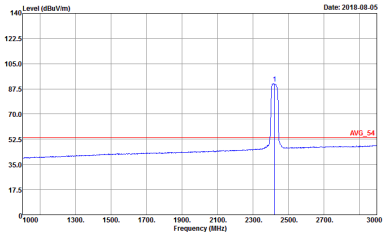
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 17

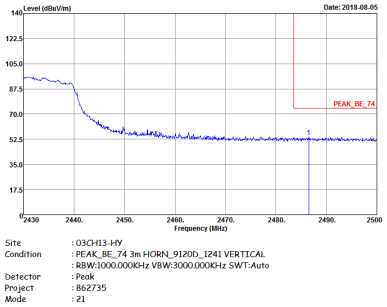
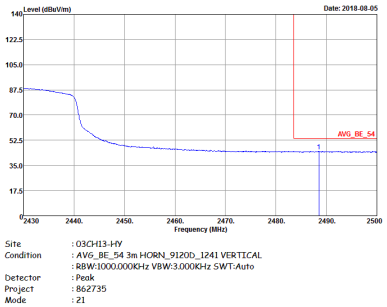
2.4GHz 2400~2483.5MHz

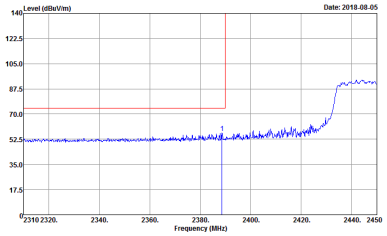
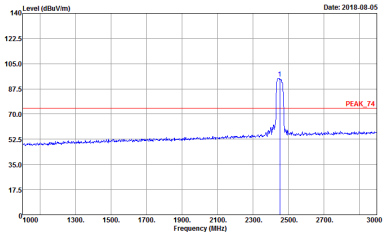
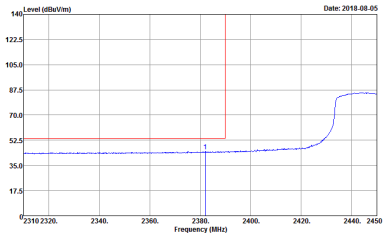
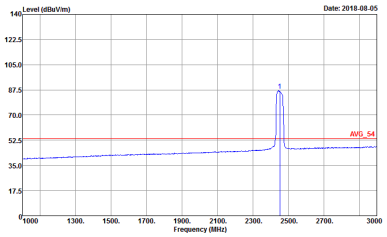
WIFI 802.11n HT40 (Band Edge @ 3m)

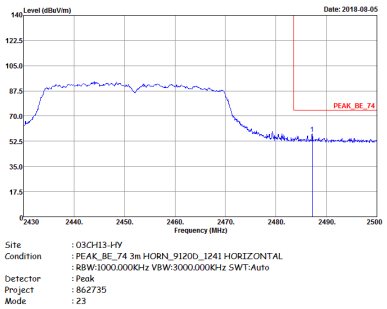
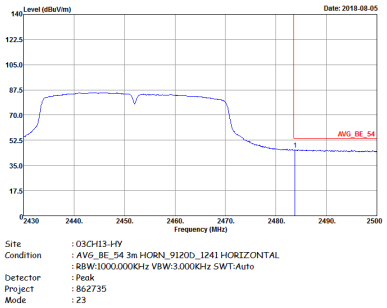
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

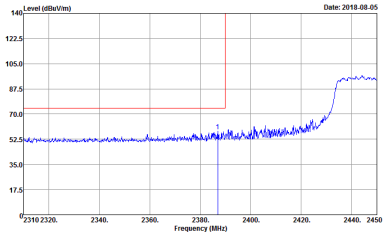
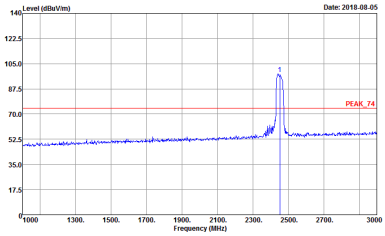
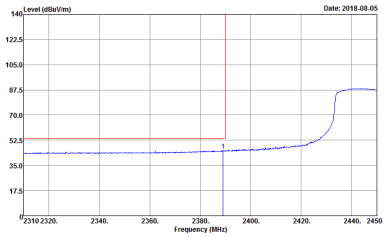
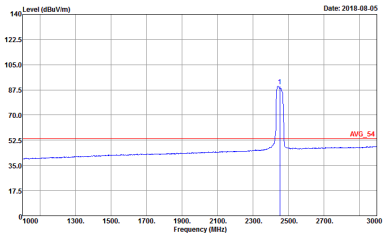
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak		Left Blank
Avg.		Left Blank

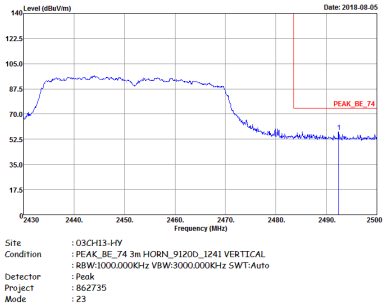
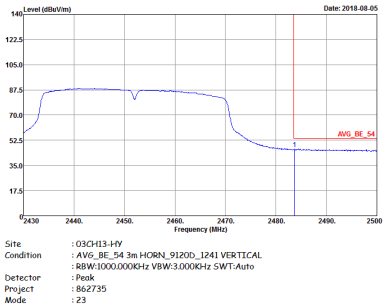
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 21	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 21
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 21	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 21

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23

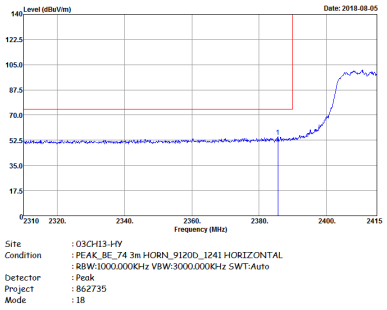
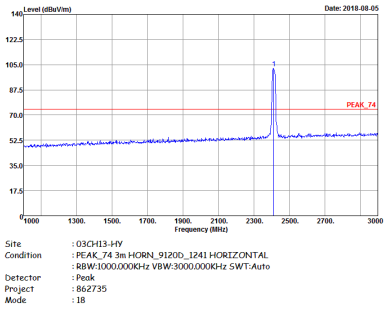
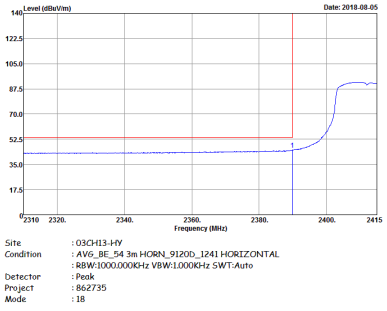
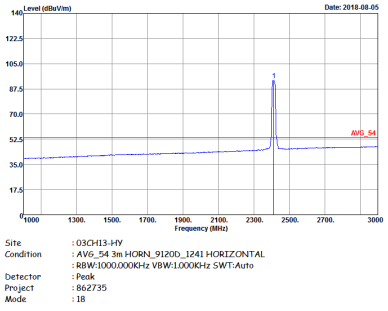
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

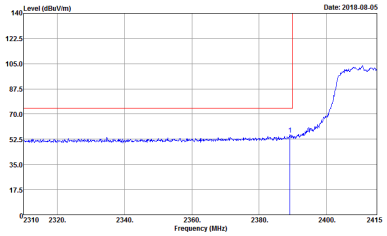
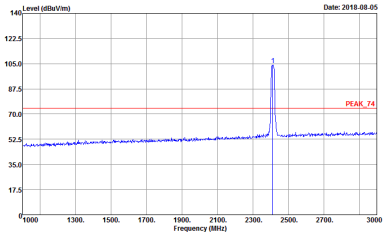
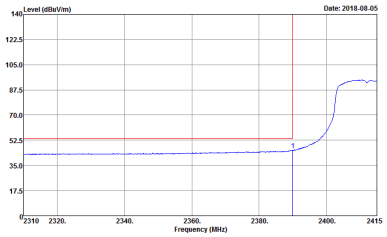
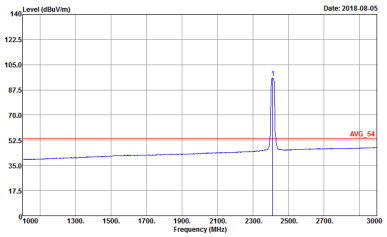
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 23

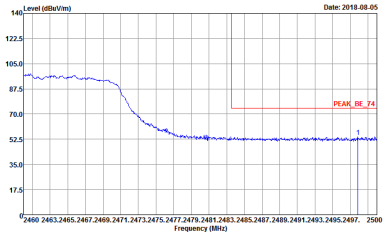
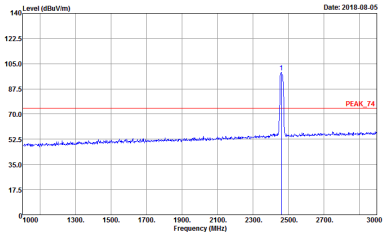
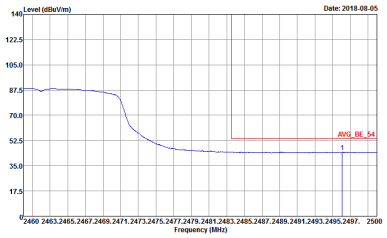
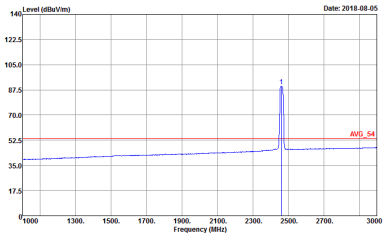
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

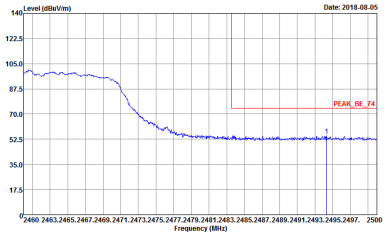
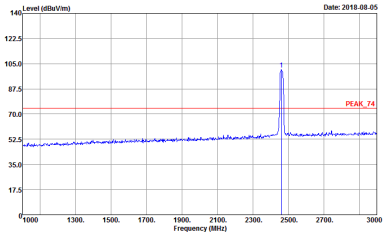
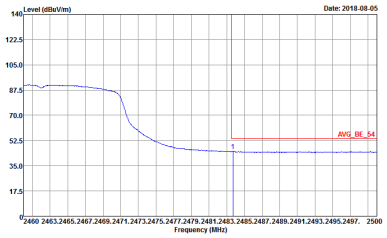
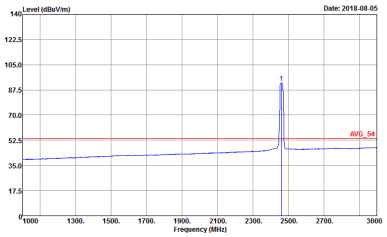
2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

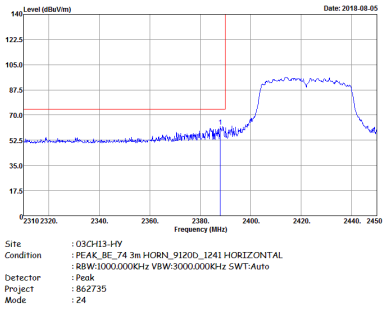
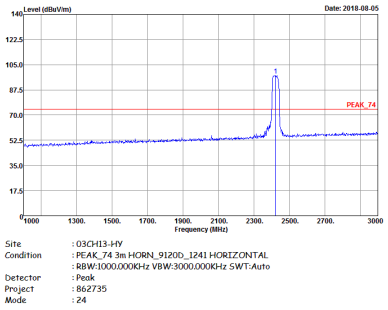
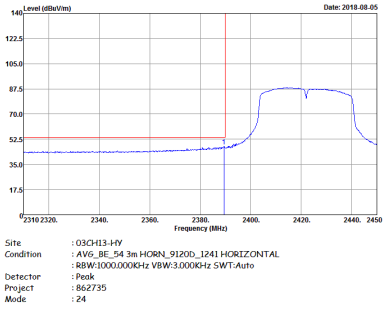
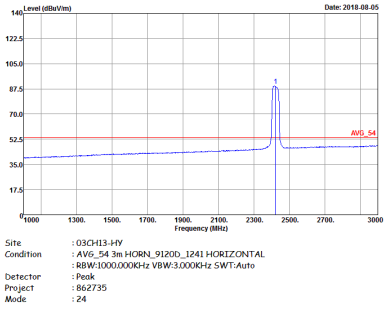
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

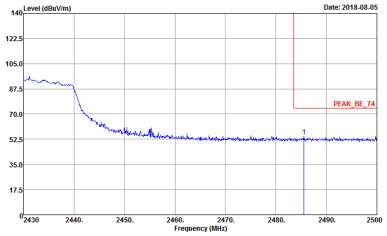
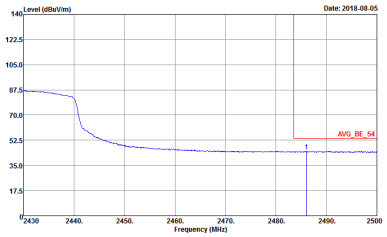
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20

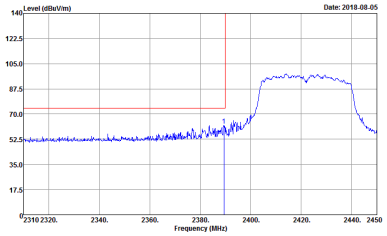
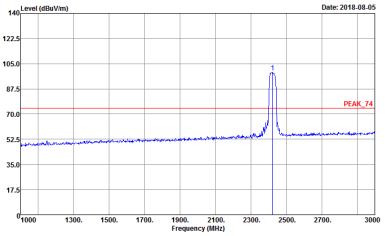
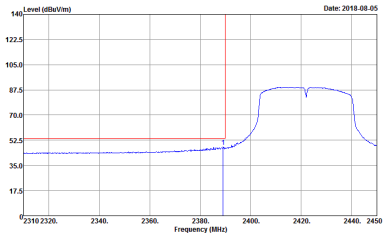
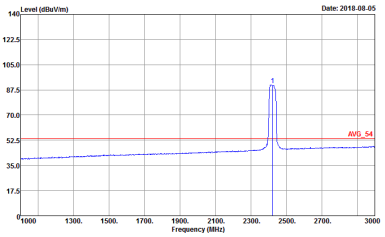
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH20 CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 20

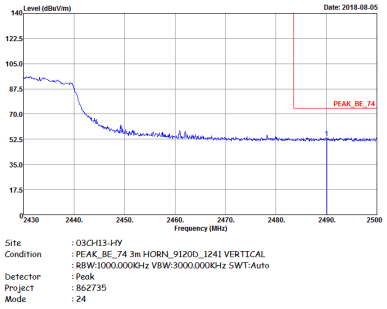
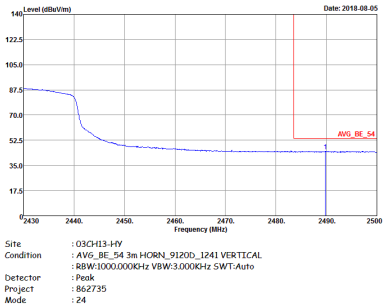
2.4GHz 2400~2483.5MHz

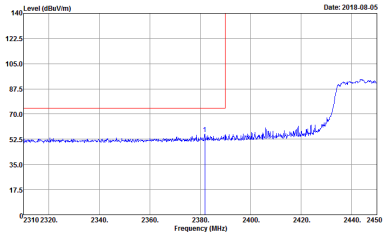
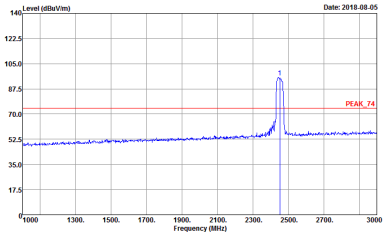
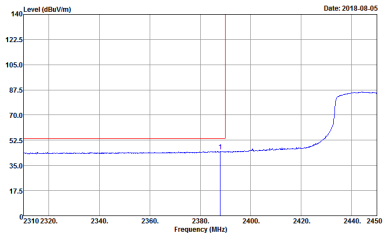
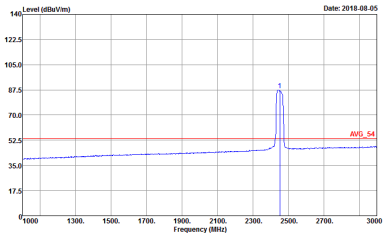
WIFI 802.11ac VHT40 (Band Edge @ 3m)

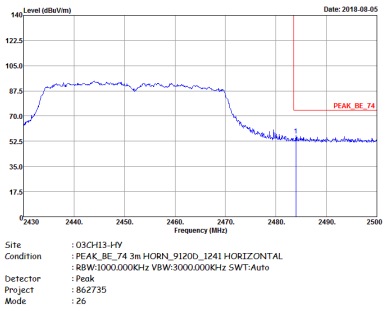
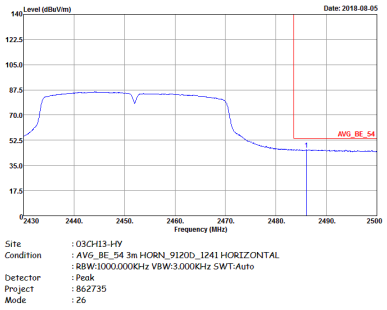
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

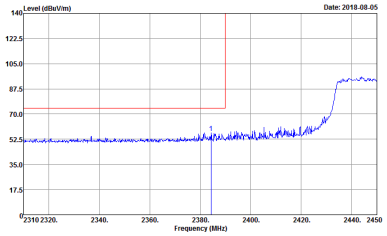
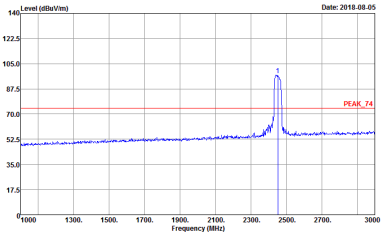
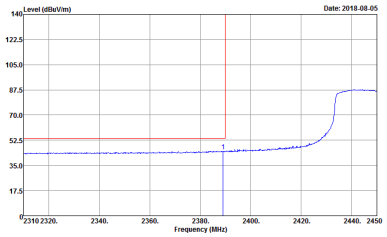
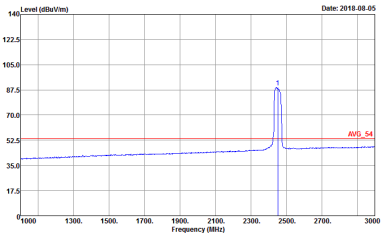
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 24	Left blank
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 24	Left blank

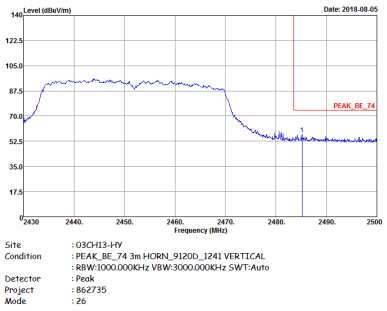
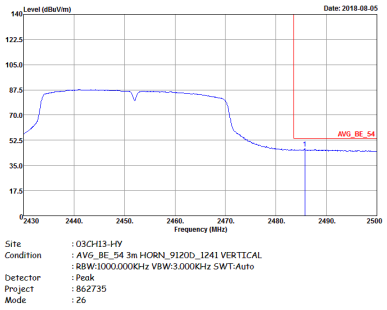
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 24	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 24
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 24	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 24

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH09 2452MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26

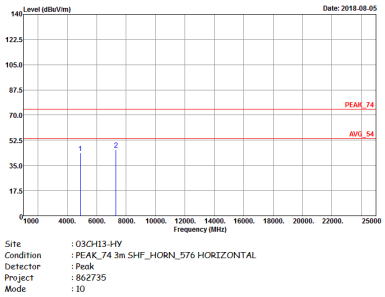
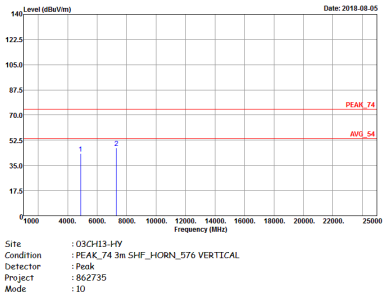
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 26

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ac VH40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

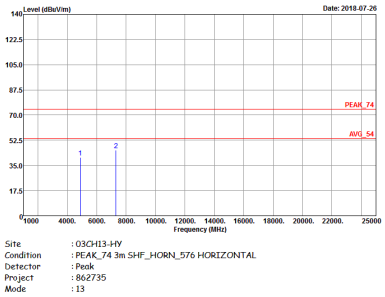
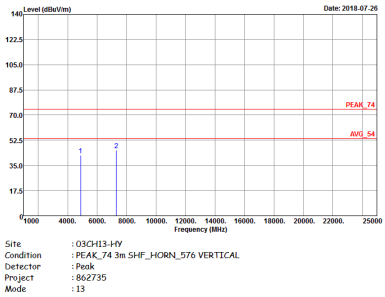
2.4GHz 2400~2483.5MHz

WIFI 802.11b (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

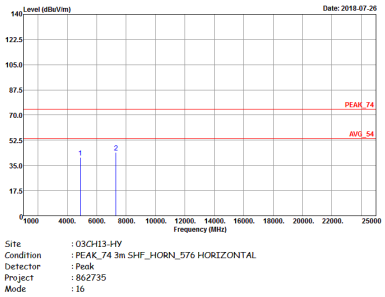
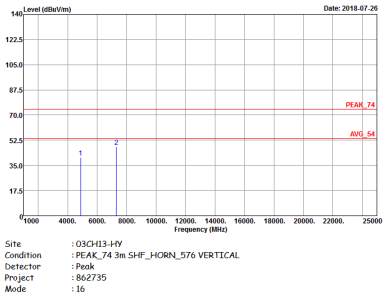
2.4GHz 2400~2483.5MHz

WIFI 802.11g (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

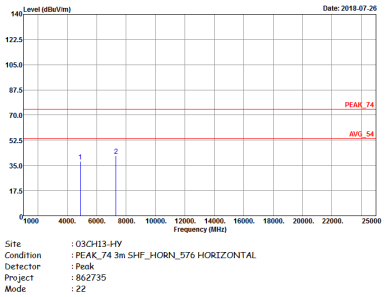
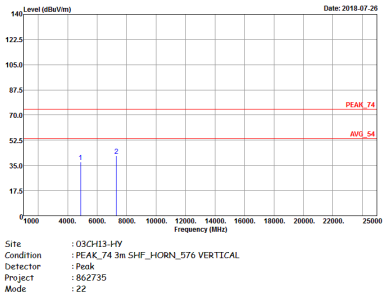
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

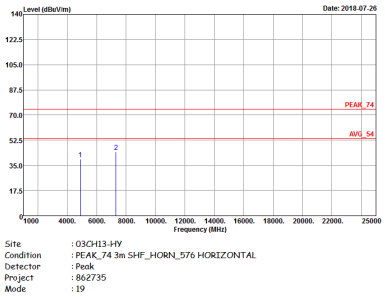
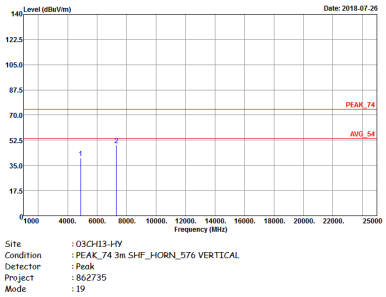
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

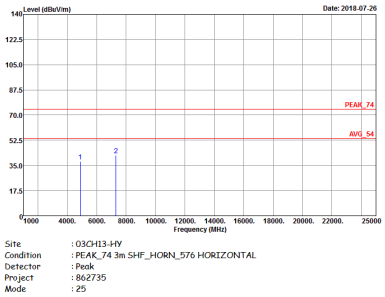
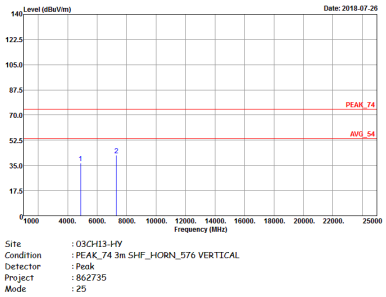
2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

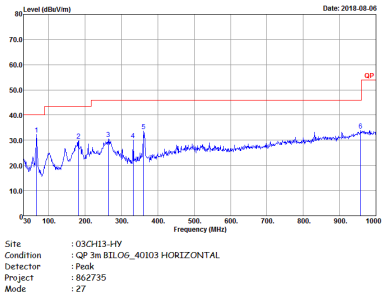
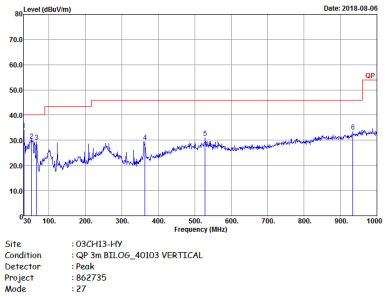
2.4GHz 2400~2483.5MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH06 2437MHz	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

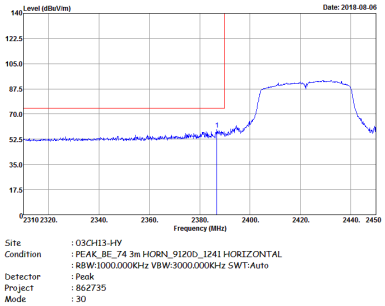
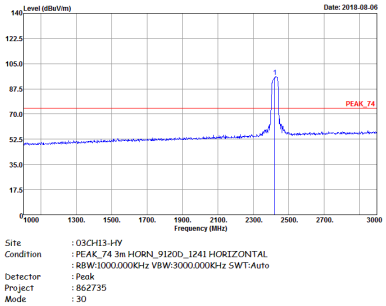
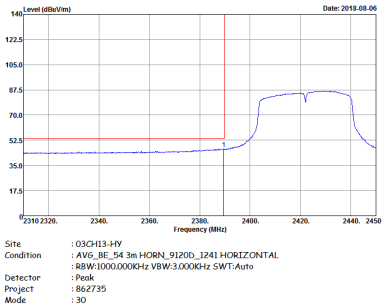
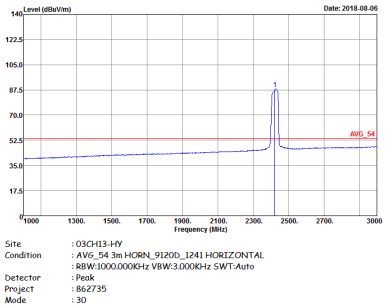
2.4GHz WIFI 802.11n HT40 (LF)

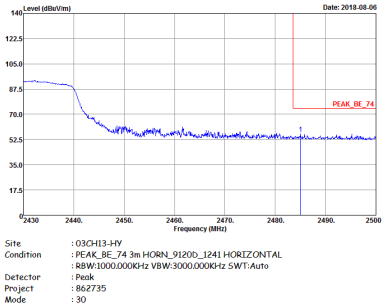
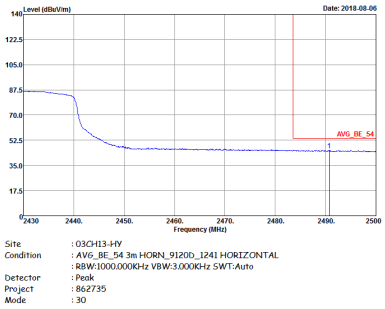
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

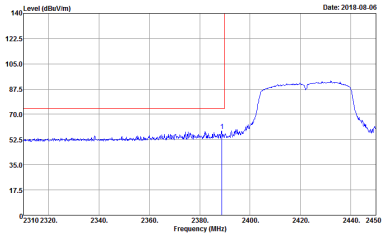
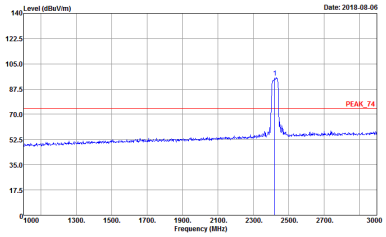
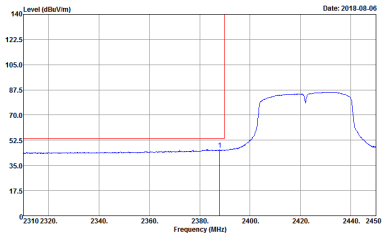
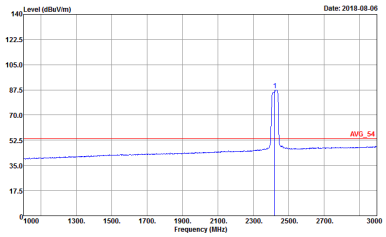
<For Sample 2>

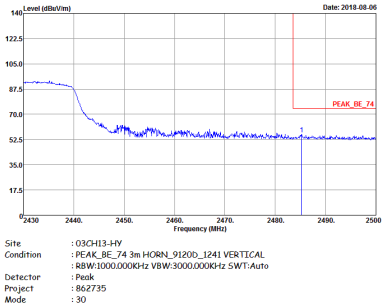
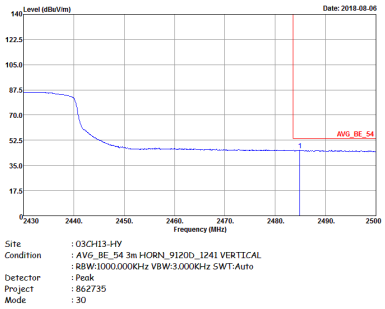
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

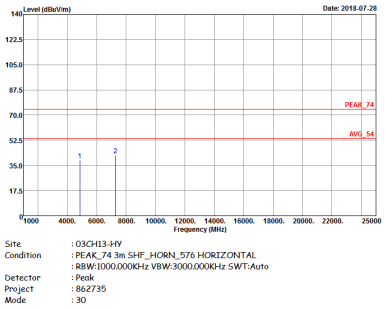
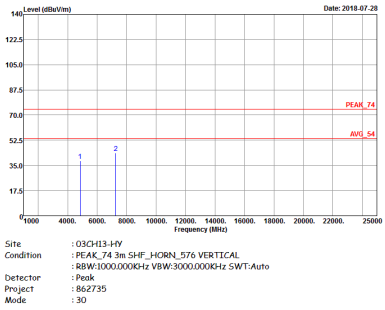
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30	Left Blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30	Left Blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HY Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30	 Site : 03CH13-HY Condition : PEAK_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30
Avg.	 Site : 03CH13-HY Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30	 Site : 03CH13-HY Condition : AVG_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak	 Site : 03CH13-HV Condition : PEAK_BE_74 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30	Left blank
Avg.	 Site : 03CH13-HV Condition : AVG_BE_54 3m HORN_9120D_1241 VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 862735 Mode : 30	Left blank

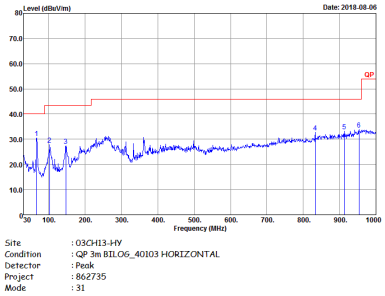
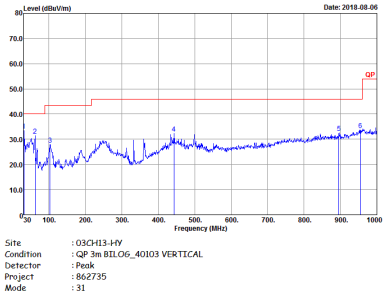
2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

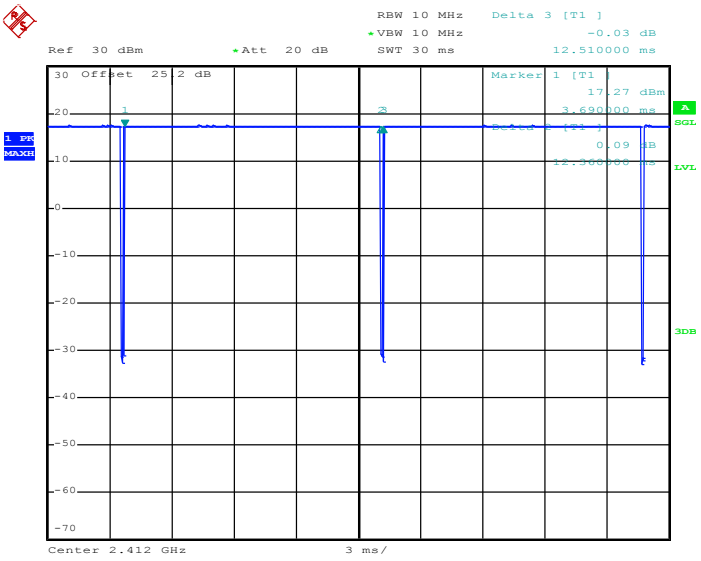
2.4GHz WIFI 802.11n HT40 (LF)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

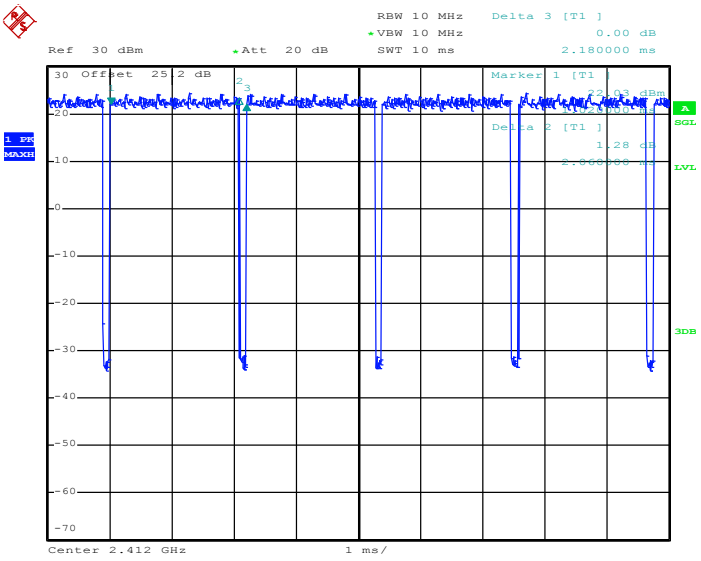
Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor (dB)
802.11b	98.80	-	-	10Hz	0.05
802.11g	94.50	2060.00	0.49	1kHz	0.25
2.4GHz 802.11n HT20	93.20	1920.00	0.52	1kHz	0.31
2.4GHz 802.11n HT40	89.62	950.00	1.05	3kHz	0.48
2.4GHz 802.11ac VTH20	93.20	1920.00	0.52	1kHz	0.31
2.4GHz 802.11ac VTH40	88.79	950.00	1.05	3kHz	0.52

802.11b



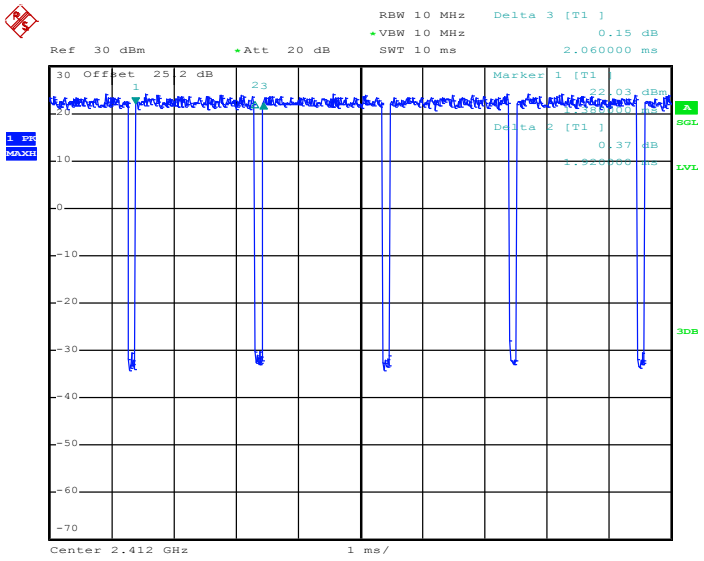
Date: 24.JUL.2018 03:29:38

802.11g



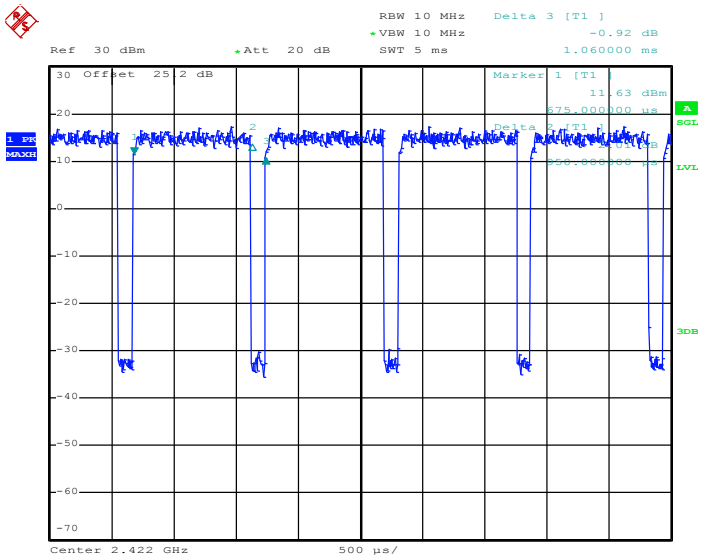
Date: 24.JUL.2018 03:44:53

802.11n HT20



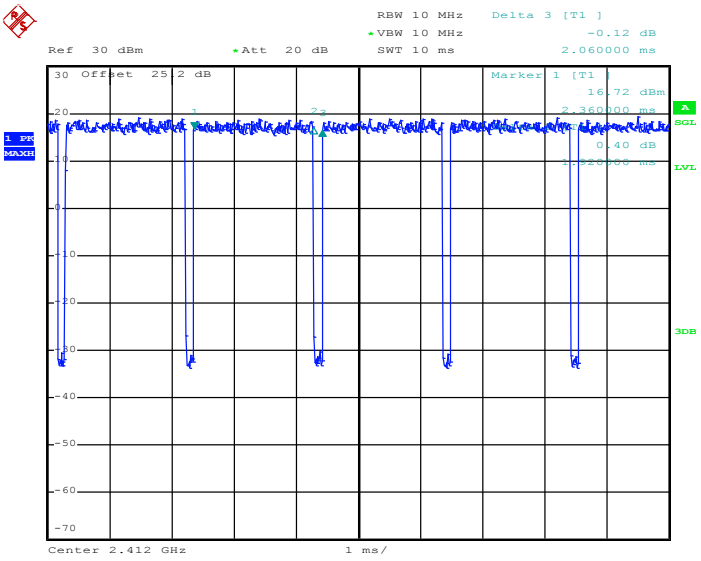
Date: 24.JUL.2018 03:51:49

802.11n HT40



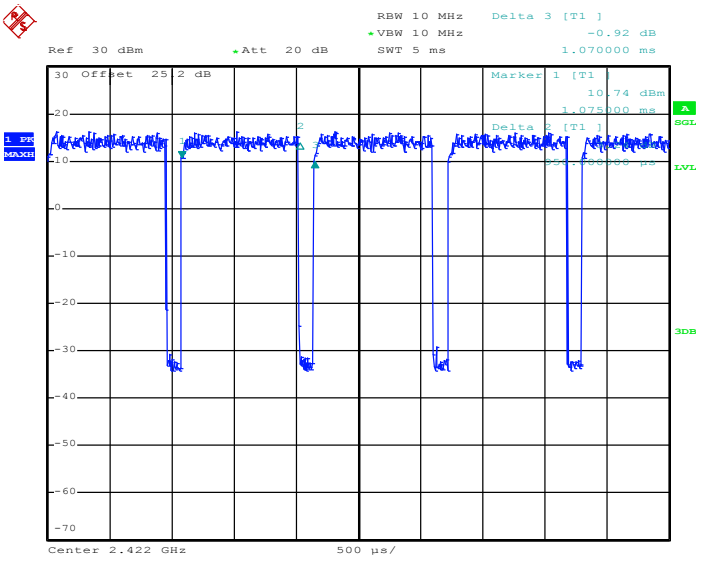
Date: 24.JUL.2018 04:13:37

802.11ac VHT20



Date: 24.JUL.2018 04:23:20

802.11ac VHT40



Date: 24.JUL.2018 04:31:18