FCC RADIO TEST REPORT

FCC ID	:	**2ADWC-AI7688H**
Equipment	:	**802.11b/g/n IoT Module**
Brand Name	:	**Acsip**
Model Name	:	**AI7688H**
Applicant	:	**AcSiP Technology Corporation** **9F, No. 242, Bo'ai St., Shulin Dist, New Taipei 23805, Taiwan**
Manufacturer	:	**Lite-On Technology Corporation** **29F, No.555, Siyuan Rd., Xinzhuang Dist., New Taipei City, Taiwan (R.O.C.)**
Standard	:	**FCC Part 15 Subpart C §15.247**

The product was received on Aug. 11, 2022 and testing was performed from Aug. 18, 2022 to Sep. 30, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory
No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C)

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History of this test report

Report No.	Version	Description	Issue Date
FR280912A	01	Initial issue of report	Oct. 24, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
-	15.247(a)(2)	6dB Bandwidth	-	See Note
-	2.1049	99% Occupied Bandwidth	-	See Note
3.1	15.247(b)	Power Output Measurement	Pass	-
-	15.247(e)	Power Spectral Density	-	See Note
-	15.247(d)	Conducted Band Edges	-	See Note
		Conducted Spurious Emission	-	See Note
3.2	15.247(d)	Radiated Band Edges and Radiated Spurious Emission	Pass	0.11 dB under the limit at 57.160 MHz
3.3	15.207	AC Conducted Emission	Pass	3.13 dB under the limit at 0.371 MHz
3.4	15.203	Antenna Requirement	Pass	-

Note: The module (Model: AI7688H) makes no difference after verifying output power, this report reuses test data from the module report.

Declaration of Conformity:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results. 2. The measurement uncertainty please refer to report "Uncertainty of Evaluation".
Comments and Explanations:
1. The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity. 2. The purpose of different model name is for marketing segmentation.

Reviewed by: Lewis Ho

Report Producer: Dewi Huang

1 General Description

1.1 Product Feature of Equipment Under Test

WCDMA/ LTE, Wi-Fi 2.4GHz 802.11b/g/n/ac, NFC.

Product Specification is subject to this standard	
Sample 1	SKU 1
Sample 2	SKU 2
Sample 3	SKU 3
Antenna Type	WWAN: Fixed External Antenna WLAN: monopole Antenna NFC: PCB Antenna

Antenna information		
2400 MHz ~ 2483.5 MHz	Peak Gain (dBi)	2

Remark: The EUT's information above is declared by manufacturer. Please refer to Comments and Explanations in report summary.

Item	SKU1	SKU2	SKU3
	SC3 (Smart)	**SC3+ (Smart+)**	**IC3 (Intelligent)**
Model	SC3-32A-H SC3-32A-N SC3-40A-H SC3-40A-N	SC3-32A-H SC3-32A-N SC3-40A-H SC3-40A-N	IC3-32A-H IC3-32A-N IC3-40A-H IC3-40A-N
LTE module	X	X	Quectel EG91-NAXD
WIFI module	AI7688H-LO	AI7688H-LO	AI7688H-LO
RFID module	X	REYAX RYORR2L	REYAX RYORR2L
	X	Elatec TWN4 Multi Tech 3M	Elatec TWN4 Multi Tech 3M
with OLED dsplay	V	V	V

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY (TAF Code: 1190)
Remark	The AC Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory.

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

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY, 03CH16-HY

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

FCC designation No.: TW1190 and TW3786

1.4 Applicable Standards

According to the specifications declared by 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 15.247 Meas Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

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

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

The final test modes include the worst data rates for each modulation shown in the table below.

Modulation	Data Rate
802.11b	1 Mbps
802.11g	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0

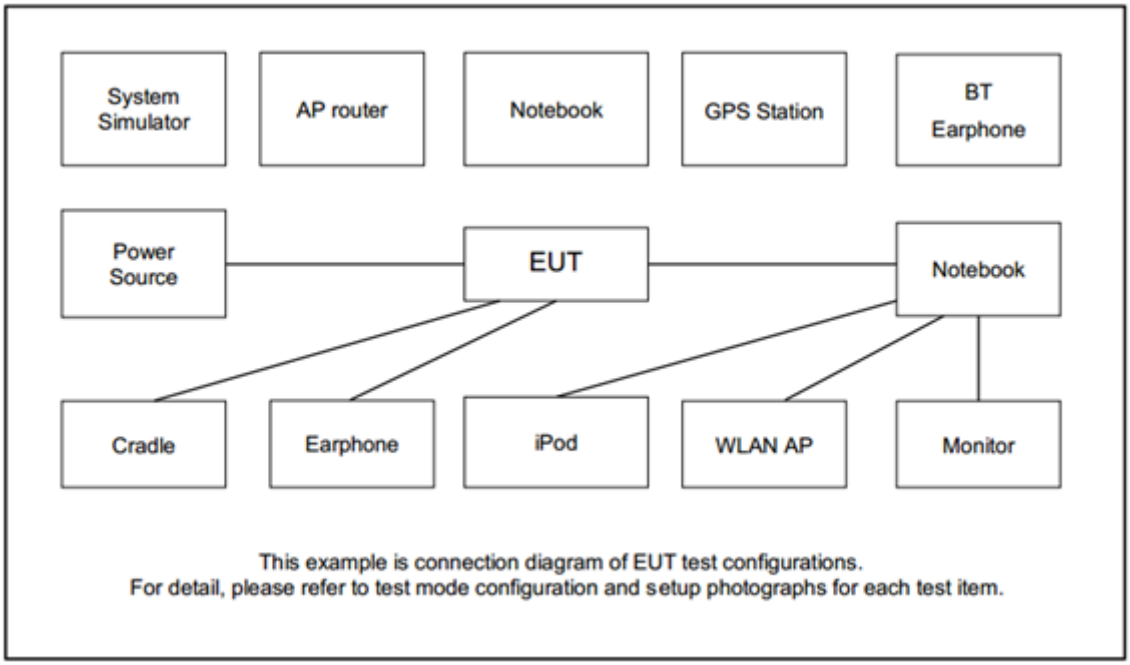
Test Cases	
AC Conducted Emission	Mode 1 :WLAN (2.4GHz) Link

Remark: All the tests were performed with SKU 3.

Ch. #	2400-2483.5 MHz			
	802.11b	802.11g	802.11n HT20	802.11n HT40
Low	01	01	01	03
Middle	06	06	06	06
High	11	11	11	09

Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

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

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna with directional gain greater than 6 dBi 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 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

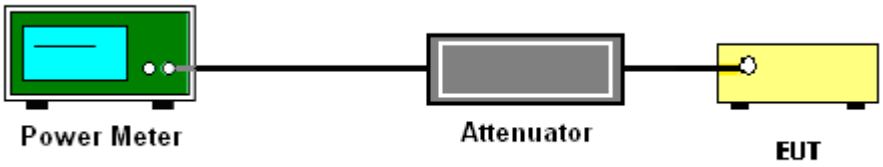
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

1. For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.3 PKPM1
2. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
3. The RF output of EUT is connected to the power meter by RF cable and attenuator. The path loss is compensated to the results for each measurement.
4. Set the maximum power setting and enable the EUT to 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

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 is 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

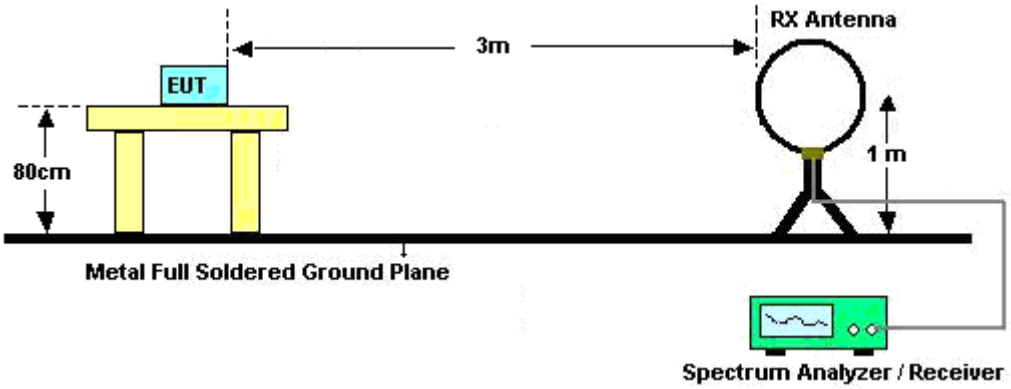
Please refer to the measuring equipment list in this test report.

3.2.3 Test Procedures

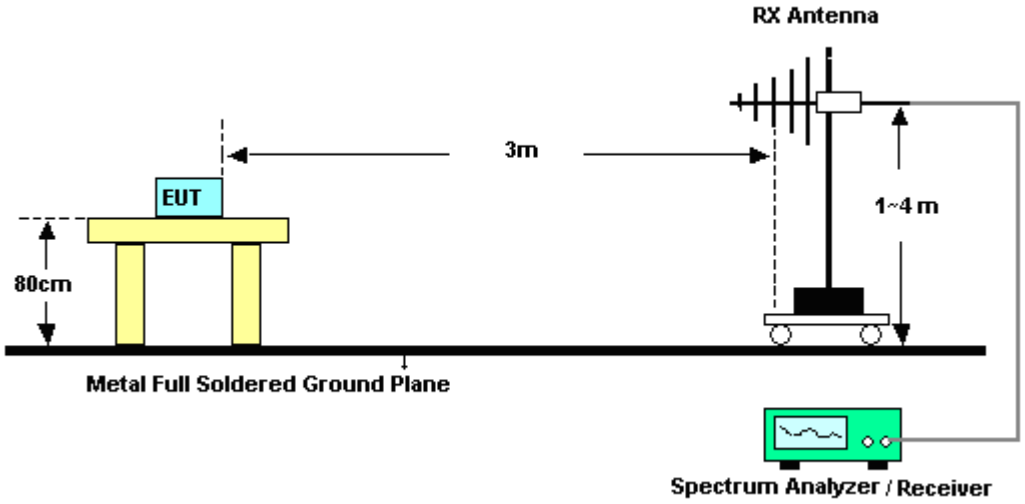
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
4. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as "-".
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".
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= 3 MHz 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

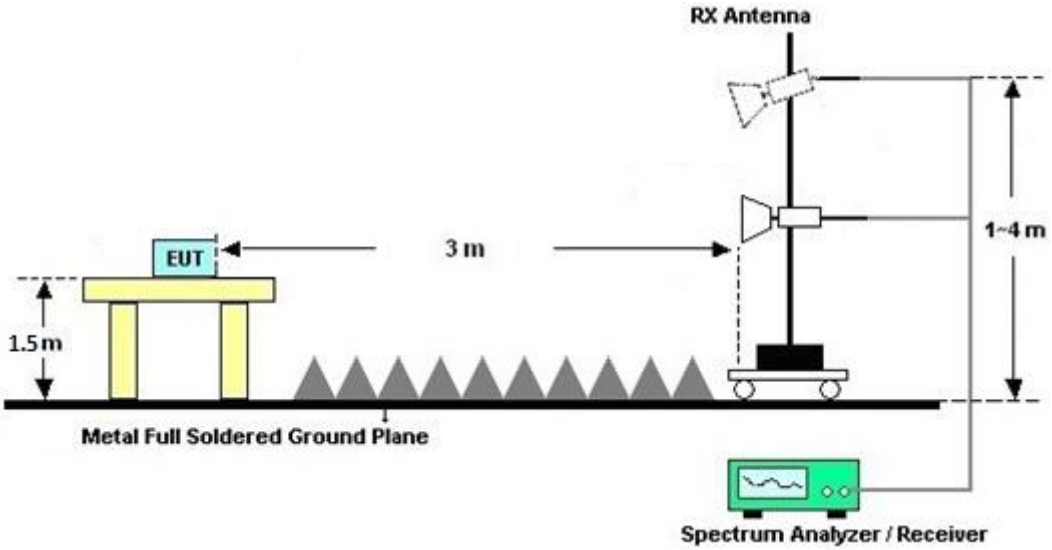
For radiated emissions below 30MHz



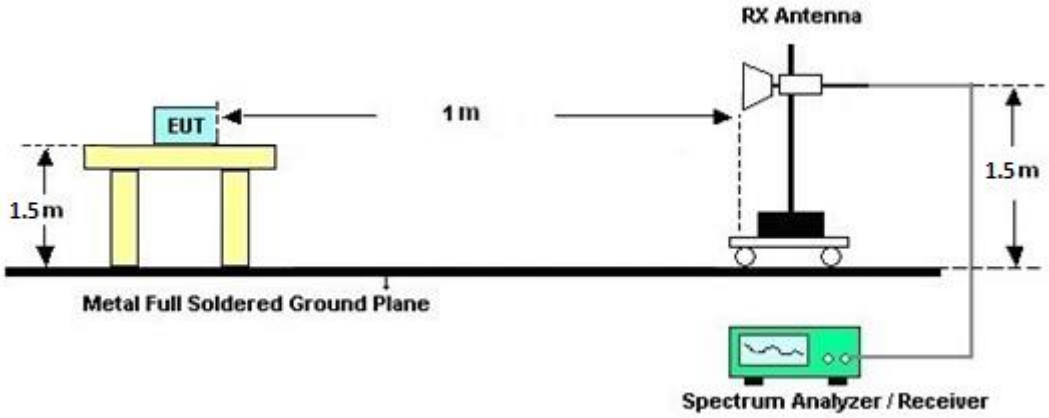
For radiated emissions from 30MHz to 1GHz



For radiated emissions test from 1GHz to 18GHz



For radiated emissions test above 18GHz



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

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

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result comes out very similar.

3.2.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.2.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.3 AC Conducted Emission Measurement

3.3.1 Limit of AC Conducted Emission

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

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

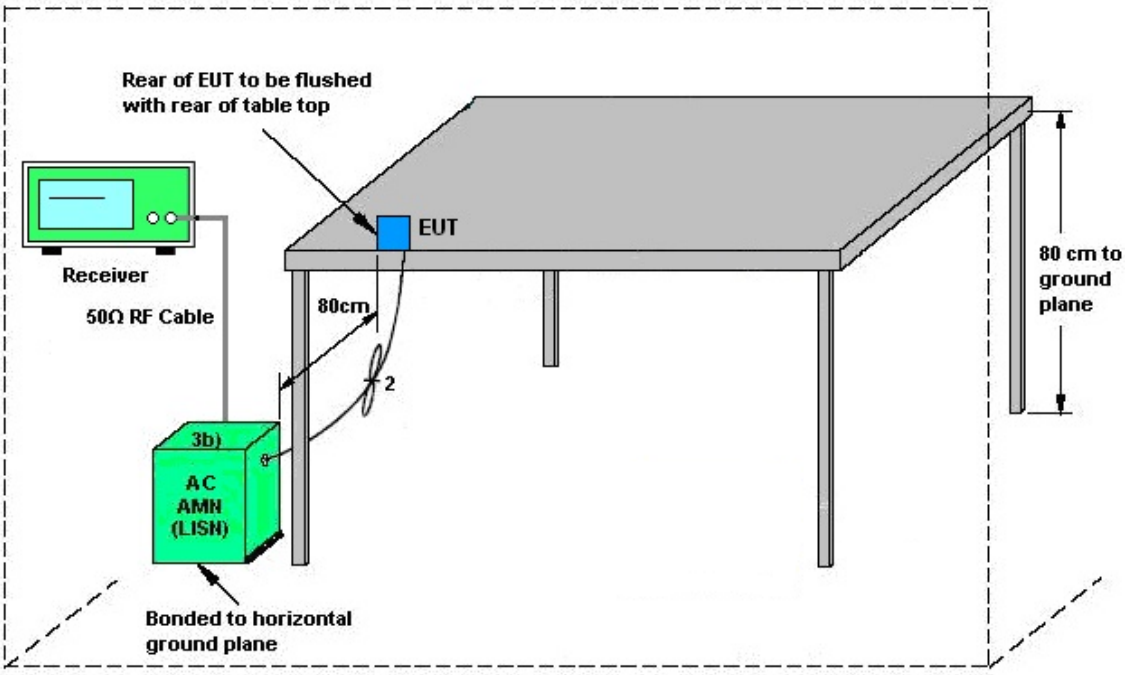
3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.3.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF bandwidth = 9kHz) with Maximum Hold Mode.

3.3.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.3.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.4 Antenna Requirements

3.4.1 Standard Applicable

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.

3.4.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	May 13, 2022	Sep. 07, 2022~ Sep. 30, 2022	May 12, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 24, 2021	Sep. 07, 2022~ Sep. 30, 2022	Dec. 23, 2022	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 30, 2021	Sep. 07, 2022~ Sep. 30, 2022	Nov. 29, 2022	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 04, 2022	Sep. 07, 2022~ Sep. 30, 2022	Jul. 03, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01 N-06	47020 & 06	30MHz~1GHz	Oct. 09, 2021	Sep. 07, 2022~ Sep. 30, 2022	Oct. 08, 2022	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2021	Sep. 07, 2022~ Sep. 30, 2022	Dec. 14, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz~18GHz	Mar. 10, 2022	Sep. 07, 2022~ Sep. 30, 2022	Mar. 09, 2023	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2021	Sep. 07, 2022~ Sep. 30, 2022	Dec. 08, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 27, 2021	Sep. 07, 2022~ Sep. 30, 2022	Dec. 26, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Sep. 07, 2022~ Sep. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Sep. 07, 2022~ Sep. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5757	N/A	Aug. 09, 2022	Sep. 07, 2022~ Sep. 30, 2022	Aug. 08, 2023	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Sep. 07, 2022~ Sep. 30, 2022	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Sep. 07, 2022~ Sep. 30, 2022	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Sep. 07, 2022~ Sep. 30, 2022	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Sep. 07, 2022~ Sep. 30, 2022	N/A	Radiation (03CH16-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 18, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2021	Aug. 18, 2022	Nov. 30, 2022	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2021	Aug. 18, 2022	Nov. 16, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 03, 2021	Aug. 18, 2022	Dec. 02, 2022	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Aug. 18, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Aug. 01, 2022	Aug. 18, 2022	Jul. 31, 2023	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Aug. 18, 2022	Dec. 29, 2022	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Sep. 08, 2022	Nov. 15, 2022	Conducted (TH05-HY)
USB Power Sensor	DARE	RPR3006W	15I00041SNO10 (NO:248)	10MHz~6GHz	Dec. 29, 2021	Sep. 08, 2022	Dec. 28, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz (Internal amp)	Aug. 03, 2022	Sep. 08, 2022	Aug. 02, 2023	Conducted (TH05-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.1 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.8 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.2 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.8dB

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Benny Ku	Temperature:	21~25	°C
Test Date:	2022/9/8	Relative Humidity:	51~54	%

TEST RESULTS DATA
Peak Output Power

2.4GHz Band Single Antenna																
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
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	18.95	-		30.00	-	2.00	-	20.95	-	36.00	-	Pass
11b	1Mbps	1	6	2437	21.12	-		30.00	-	2.00	-	23.12	-	36.00	-	Pass
11b	1Mbps	1	11	2462	20.55	-		30.00	-	2.00	-	22.55	-	36.00	-	Pass
11g	6Mbps	1	1	2412	21.47	-		30.00	-	2.00	-	23.47	-	36.00	-	Pass
11g	6Mbps	1	6	2437	21.36	-		30.00	-	2.00	-	23.36	-	36.00	-	Pass
11g	6Mbps	1	11	2462	20.60	-		30.00	-	2.00	-	22.60	-	36.00	-	Pass
HT20	MCS0	1	1	2412	20.91	-		30.00	-	2.00	-	22.91	-	36.00	-	Pass
HT20	MCS0	1	6	2437	21.40	-		30.00	-	2.00	-	23.40	-	36.00	-	Pass
HT20	MCS0	1	11	2462	20.15	-		30.00	-	2.00	-	22.15	-	36.00	-	Pass
HT40	MCS0	1	3	2422	18.93	-		30.00	-	2.00	-	20.93	-	36.00	-	Pass
HT40	MCS0	1	6	2437	20.70	-		30.00	-	2.00	-	22.70	-	36.00	-	Pass
HT40	MCS0	1	9	2452	18.97	-		30.00	-	2.00	-	20.97	-	36.00	-	Pass

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

Report Number : FR280912A

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power with duty factor (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant1	Ant2	SUM	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	Ant1	Ant2	
11b	1Mbps	1	1	2412	17.25	-		30.00	-	2.00	-	19.25	-	36.00	-	Pass
11b	1Mbps	1	6	2437	19.90	-		30.00	-	2.00	-	21.90	-	36.00	-	Pass
11b	1Mbps	1	11	2462	19.22	-		30.00	-	2.00	-	21.22	-	36.00	-	Pass
11g	6Mbps	1	1	2412	15.57	-		30.00	-	2.00	-	17.57	-	36.00	-	Pass
11g	6Mbps	1	6	2437	16.78	-		30.00	-	2.00	-	18.78	-	36.00	-	Pass
11g	6Mbps	1	11	2462	14.41	-		30.00	-	2.00	-	16.41	-	36.00	-	Pass
HT20	MCS0	1	1	2412	13.89	-		30.00	-	2.00	-	15.89	-	36.00	-	Pass
HT20	MCS0	1	6	2437	16.56	-		30.00	-	2.00	-	18.56	-	36.00	-	Pass
HT20	MCS0	1	11	2462	13.15	-		30.00	-	2.00	-	15.15	-	36.00	-	Pass
HT40	MCS0	1	3	2422	11.02	-		30.00	-	2.00	-	13.02	-	36.00	-	Pass
HT40	MCS0	1	6	2437	15.58	-		30.00	-	2.00	-	17.58	-	36.00	-	Pass
HT40	MCS0	1	9	2452	11.55	-		30.00	-	2.00	-	13.55	-	36.00	-	Pass

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

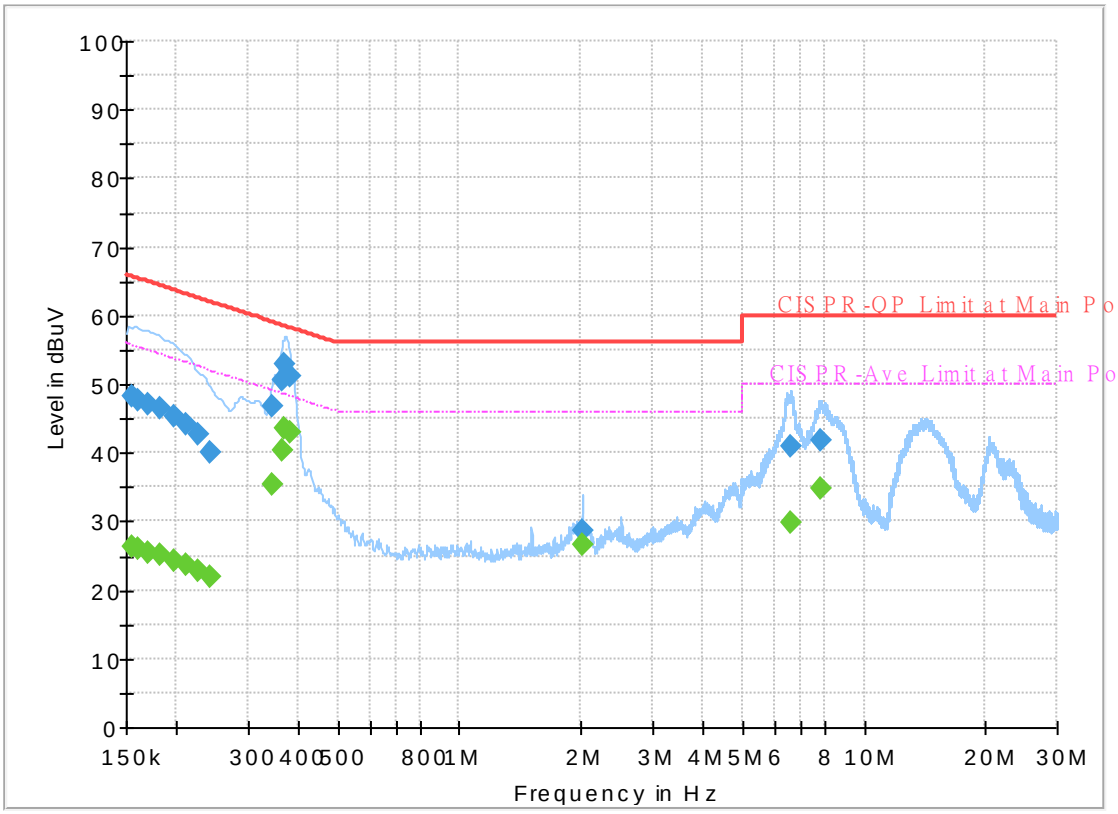
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	280912
Test Mode :	Mode 1
Test Voltage :	240Vac/60Hz
Phase :	Line

Full Spectrum



Final_Result

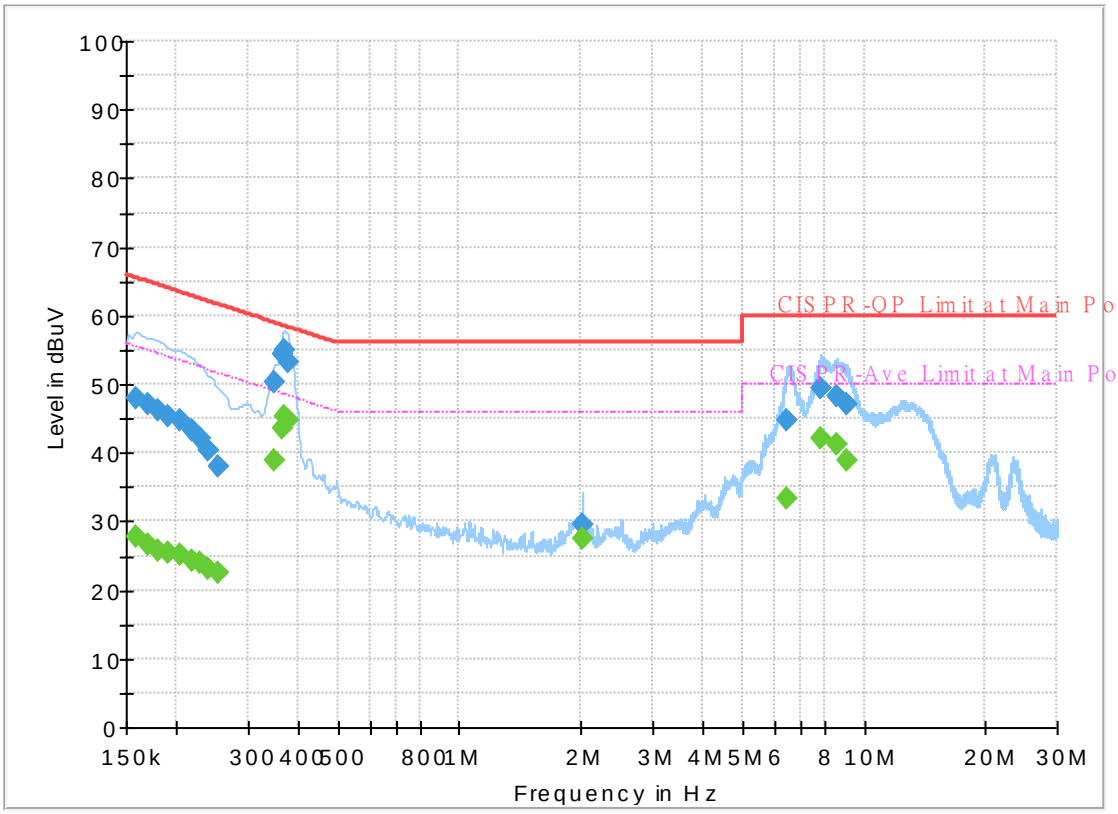
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154500	---	26.36	55.75	29.39	L1	OFF	19.8
0.154500	48.10	---	65.75	17.65	L1	OFF	19.8
0.161250	---	25.97	55.40	29.43	L1	OFF	19.8
0.161250	47.55	---	65.40	17.85	L1	OFF	19.8
0.170250	---	25.49	54.95	29.46	L1	OFF	19.8
0.170250	47.05	---	64.95	17.90	L1	OFF	19.8
0.181500	---	25.17	54.42	29.25	L1	OFF	19.8
0.181500	46.41	---	64.42	18.01	L1	OFF	19.8
0.197250	---	24.16	53.73	29.57	L1	OFF	19.8
0.197250	45.23	---	63.73	18.50	L1	OFF	19.8
0.210750	---	23.58	53.18	29.60	L1	OFF	19.8
0.210750	44.18	---	63.18	19.00	L1	OFF	19.8
0.226500	---	22.85	52.58	29.73	L1	OFF	19.8
0.226500	42.60	---	62.58	19.98	L1	OFF	19.8
0.242250	---	21.98	52.02	30.04	L1	OFF	19.8
0.242250	40.15	---	62.02	21.87	L1	OFF	19.8
0.345750	---	35.50	49.06	13.56	L1	OFF	19.8
0.345750	46.77	---	59.06	12.29	L1	OFF	19.8
0.363750	---	40.39	48.64	8.25	L1	OFF	19.8
0.363750	50.58	---	58.64	8.06	L1	OFF	19.8
0.370500	---	43.67	48.49	4.82	L1	OFF	19.8

0.370500	**52.79**	**---**	**58.49**	**5.70**	**L1**	**OFF**	**19.8**
0.381750	**---**	**42.92**	**48.24**	**5.32**	**L1**	**OFF**	**19.8**
0.381750	**51.08**	**---**	**58.24**	**7.16**	**L1**	**OFF**	**19.8**
2.008500	**---**	**26.65**	**46.00**	**19.35**	**L1**	**OFF**	**19.8**
2.008500	**28.70**	**---**	**56.00**	**27.30**	**L1**	**OFF**	**19.8**
6.558000	**---**	**29.96**	**50.00**	**20.04**	**L1**	**OFF**	**19.9**
6.558000	**40.96**	**---**	**60.00**	**19.04**	**L1**	**OFF**	**19.9**
7.818000	**---**	**34.79**	**50.00**	**15.21**	**L1**	**OFF**	**19.9**
7.818000	**41.74**	**---**	**60.00**	**18.26**	**L1**	**OFF**	**19.9**

EUT Information

Report NO :	280912
Test Mode :	Mode 1
Test Voltage :	240Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.159000	---	27.84	55.52	27.68	N	OFF	19.8
0.159000	47.91	---	65.52	17.61	N	OFF	19.8
0.170250	---	26.59	54.95	28.36	N	OFF	19.8
0.170250	47.03	---	64.95	17.92	N	OFF	19.8
0.179250	---	25.81	54.52	28.71	N	OFF	19.8
0.179250	46.26	---	64.52	18.26	N	OFF	19.8
0.190500	---	25.47	54.02	28.55	N	OFF	19.8
0.190500	45.41	---	64.02	18.61	N	OFF	19.8
0.204000	---	25.08	53.45	28.37	N	OFF	19.8
0.204000	44.60	---	63.45	18.85	N	OFF	19.8
0.217500	---	24.36	52.91	28.55	N	OFF	19.8
0.217500	43.35	---	62.91	19.56	N	OFF	19.8
0.228750	---	23.88	52.50	28.62	N	OFF	19.8
0.228750	42.06	---	62.50	20.44	N	OFF	19.8
0.240000	---	23.19	52.10	28.91	N	OFF	19.8
0.240000	40.37	---	62.10	21.73	N	OFF	19.8
0.253500	---	22.57	51.64	29.07	N	OFF	19.8
0.253500	37.98	---	61.64	23.66	N	OFF	19.8
0.350250	---	38.94	48.96	10.02	N	OFF	19.8
0.350250	50.21	---	58.96	8.75	N	OFF	19.8
0.366000	---	43.70	48.59	4.89	N	OFF	19.8

0.366000	54.34	---	58.59	4.25	N	OFF	19.8
0.370500	---	45.36	48.49	3.13	N	OFF	19.8
0.370500	54.92	---	58.49	3.57	N	OFF	19.8
0.379500	---	44.81	48.29	3.48	N	OFF	19.8
0.379500	53.33	---	58.29	4.96	N	OFF	19.8
2.010750	---	27.50	46.00	18.50	N	OFF	19.8
2.010750	29.57	---	56.00	26.43	N	OFF	19.8
6.479250	---	33.25	50.00	16.75	N	OFF	19.9
6.479250	44.66	---	60.00	15.34	N	OFF	19.9
7.840500	---	41.98	50.00	8.02	N	OFF	19.9
7.840500	49.49	---	60.00	10.51	N	OFF	19.9
8.522250	---	41.12	50.00	8.88	N	OFF	20.0
8.522250	48.19	---	60.00	11.81	N	OFF	20.0
9.062250	---	38.82	50.00	11.18	N	OFF	20.0
9.062250	47.10	---	60.00	12.90	N	OFF	20.0

Appendix C. Radiated Spurious Emission

Test Engineer :	Karl Hou and Andy Yang	Temperature :	18~25°C
		Relative Humidity :	50~65%

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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		2385.075	57.12	-16.88	74	42.5	27.34	17.35	30.07	303	64	P	H
		2385.075	45.13	-8.87	54	30.51	27.34	17.35	30.07	303	64	A	H
	*	2412	108.68	-	-	93.88	27.47	17.4	30.07	303	64	P	H
	*	2412	105.48	-	-	90.68	27.47	17.4	30.07	303	64	A	H
													H
													H
		2379.615	56.44	-17.56	74	41.86	27.32	17.34	30.08	303	117	P	V
		2384.97	45.89	-8.11	54	31.27	27.34	17.35	30.07	303	117	A	V
	*	2412	109.53	-	-	94.73	27.47	17.4	30.07	303	117	P	V
	*	2412	106.44	-	-	91.64	27.47	17.4	30.07	303	117	A	V
													V
													V
802.11b CH 06 2437MHz		2388.68	55.85	-18.15	74	41.21	27.35	17.36	30.07	295	64	P	H
		2388.96	46.16	-7.84	54	31.51	27.36	17.36	30.07	295	64	A	H
	*	2437	112.06	-	-	97.06	27.62	17.44	30.06	295	64	P	H
	*	2437	108.92	-	-	93.92	27.62	17.44	30.06	295	64	A	H
		2485.65	57.12	-16.88	74	41.81	27.84	17.51	30.04	295	64	P	H
		2484.81	47.19	-6.81	54	31.88	27.84	17.51	30.04	295	64	A	H
		2389.38	56.4	-17.6	74	41.75	27.36	17.36	30.07	306	115	P	V
		2389.1	47.82	-6.18	54	33.17	27.36	17.36	30.07	306	115	A	V
	*	2437	112.71	-	-	97.71	27.62	17.44	30.06	306	115	P	V
	*	2437	109.55	-	-	94.55	27.62	17.44	30.06	306	115	A	V
		2487.54	57.24	-16.76	74	41.92	27.85	17.51	30.04	306	115	P	V
		2484.95	47.29	-6.71	54	31.98	27.84	17.51	30.04	306	115	A	V

802.11b CH 11 2462MHz	*	2462	112.08	-	-	96.91	27.75	17.47	30.05	292	66	P	H
	*	2462	108.91	-	-	93.74	27.75	17.47	30.05	292	66	A	H
		2485.56	60.48	-13.52	74	45.17	27.84	17.51	30.04	292	66	P	H
		2486.72	52.55	-1.45	54	37.23	27.85	17.51	30.04	292	66	A	H
													H
													H
	*	2462	111.48	-	-	96.31	27.75	17.47	30.05	296	114	P	V
	*	2462	108.34	-	-	93.17	27.75	17.47	30.05	296	114	A	V
		2486.68	60.18	-13.82	74	44.86	27.85	17.51	30.04	296	114	P	V
		2486.72	52.65	-1.35	54	37.33	27.85	17.51	30.04	296	114	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)	Margin (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		3618	50	-24	74	76.65	29.6	10.15	66.4	287	222	P	H
		3618	44.38	-9.62	54	71.03	29.6	10.15	66.4	287	222	A	H
		4824	52.17	-21.83	74	74.57	32.44	11.32	66.16	100	128	P	H
		4824	50.17	-3.83	54	72.57	32.44	11.32	66.16	100	128	A	H
													H
													H
													H
													H
													H
													H
													H
													H
		3618	52.15	-21.85	74	78.8	29.6	10.15	66.4	399	88	P	V
		3618	46.51	-7.49	54	73.16	29.6	10.15	66.4	399	88	A	V
		4824	54.72	-19.28	74	77.12	32.44	11.32	66.16	376	79	P	V
		4824	53.09	-0.91	54	75.49	32.44	11.32	66.16	376	79	A	V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		3655	53.83	-20.17	74	80.46	29.61	10.17	66.41	283	220	P	H
		3655	48.67	-5.33	54	75.3	29.61	10.17	66.41	283	220	A	H
		4874	52.15	-21.85	74	74.22	32.7	11.35	66.12	111	134	P	H
		4874	50.47	-3.53	54	72.54	32.7	11.35	66.12	111	134	A	H
		7311	45.34	-28.66	74	60.43	37.13	13.5	65.72	-	-	P	H
													H
													H
													H
													H
													H
													H
802.11b CH 06 2437MHz													H
		3655	54.75	-19.25	74	81.38	29.61	10.17	66.41	400	88	P	V
		3655	49.75	-4.25	54	76.38	29.61	10.17	66.41	400	88	A	V
		4874	53.69	-20.31	74	75.76	32.7	11.35	66.12	211	86	P	V
		4874	51.87	-2.13	54	73.94	32.7	11.35	66.12	211	86	A	V
		7311	44.92	-29.08	74	60.01	37.13	13.5	65.72	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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 11 2462MHz		3693	53.36	-20.64	74	79.92	29.69	10.18	66.43	284	220	P	H
		3693	48.31	-5.69	54	74.87	29.69	10.18	66.43	284	220	A	H
		4924	53.89	-20.11	74	75.65	32.94	11.38	66.08	107	134	P	H
		4924	51.75	-2.25	54	73.51	32.94	11.38	66.08	107	134	A	H
		7386	43.63	-30.37	74	59.24	36.76	13.39	65.76	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		3693	54.96	-19.04	74	81.52	29.69	10.18	66.43	398	88	P	V
		3693	49.93	-4.07	54	76.49	29.69	10.18	66.43	398	88	A	V
		4924	54.51	-19.49	74	76.27	32.94	11.38	66.08	232	79	P	V
		4924	52.74	-1.26	54	74.5	32.94	11.38	66.08	232	79	A	V
		7386	44.21	-29.79	74	59.82	36.76	13.39	65.76	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

2.4GHz 2400~2483.5MHz

WIFI 802.11g (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Margin (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		2389.485	62.98	-11.02	74	48.33	27.36	17.36	30.07	261	319	P	H
		2390	52.32	-1.68	54	37.67	27.36	17.36	30.07	261	319	A	H
	*	2412	109.91	-	-	95.11	27.47	17.4	30.07	261	319	P	H
	*	2412	102.71	-	-	87.91	27.47	17.4	30.07	261	319	A	H
													H
													H
		2389.905	64.89	-9.11	74	50.24	27.36	17.36	30.07	301	117	P	V
		2390	52.49	-1.51	54	37.84	27.36	17.36	30.07	301	117	A	V
	*	2412	110.95	-	-	96.15	27.47	17.4	30.07	301	117	P	V
	*	2412	103.5	-	-	88.7	27.47	17.4	30.07	301	117	A	V
													V
													V
802.11g CH 06 2437MHz		2389.52	56.83	-17.17	74	42.18	27.36	17.36	30.07	330	60	P	H
		2389.8	46.27	-7.73	54	31.62	27.36	17.36	30.07	330	60	A	H
	*	2437	111.7	-	-	96.7	27.62	17.44	30.06	330	60	P	H
	*	2437	104.17	-	-	89.17	27.62	17.44	30.06	330	60	A	H
		2492.37	56.81	-17.19	74	41.46	27.87	17.52	30.04	330	60	P	H
		2485.65	46.79	-7.21	54	31.48	27.84	17.51	30.04	330	60	A	H
		2387.42	57.66	-16.34	74	43.03	27.35	17.35	30.07	324	114	P	V
		2389.24	47.06	-6.94	54	32.41	27.36	17.36	30.07	324	114	A	V
	*	2437	112.2	-	-	97.2	27.62	17.44	30.06	324	114	P	V
	*	2437	104.77	-	-	89.77	27.62	17.44	30.06	324	114	A	V
		2493.07	57.95	-16.05	74	42.6	27.87	17.52	30.04	324	114	P	V
		2483.5	46.79	-7.21	54	31.49	27.83	17.51	30.04	324	114	A	V

802.11g CH 11 2462MHz	*	2462	108.69	-	-	93.52	27.75	17.47	30.05	204	57	P	H
	*	2462	101.45	-	-	86.28	27.75	17.47	30.05	204	57	A	H
		2483.52	63.84	-10.16	74	48.54	27.83	17.51	30.04	204	57	P	H
		2483.52	52.91	-1.09	54	37.61	27.83	17.51	30.04	204	57	A	H
													H
													H
	*	2462	109.19	-	-	94.02	27.75	17.47	30.05	317	112	P	V
	*	2462	101.63	-	-	86.46	27.75	17.47	30.05	317	112	A	V
		2484.04	63.15	-10.85	74	47.84	27.84	17.51	30.04	317	112	P	V
		2483.52	51.65	-2.35	54	36.35	27.83	17.51	30.04	317	112	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)	Margin (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)
		3618	44.59	-29.41	74	71.24	29.6	10.15	66.4	-	-	P	H
		4824	45.86	-28.14	74	68.26	32.44	11.32	66.16	-	-	P	H
													H
													H
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													H
													H
													H
													H
802.11g CH 01 2412MHz													H
		3618	46.57	-27.43	74	73.22	29.6	10.15	66.4	-	-	P	V
		4824	51.8	-22.2	74	74.2	32.44	11.32	66.16	249	78	P	V
		4824	41.51	-12.49	54	63.91	32.44	11.32	66.16	249	78	A	V
													V
													V
													V
													V
													V
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													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		3655	47.14	-26.86	74	73.77	29.61	10.17	66.41	-	-	P	H
		4874	47.02	-26.98	74	69.09	32.7	11.35	66.12	-	-	P	H
		7311	45.4	-28.6	74	60.49	37.13	13.5	65.72	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11g CH 06 2437MHz													H
		3655	51.68	-22.32	74	78.31	29.61	10.17	66.41	400	86	P	V
		3655	42.82	-11.18	54	69.45	29.61	10.17	66.41	400	86	A	V
		4874	51.67	-22.33	74	73.74	32.7	11.35	66.12	342	78	P	V
		4874	42.22	-11.78	54	64.29	32.7	11.35	66.12	342	78	A	V
		7311	45.44	-28.56	74	60.53	37.13	13.5	65.72	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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 11 2462MHz		3690	47.29	-26.71	74	73.85	29.68	10.18	66.42	-	-	P	H
		4924	44.88	-29.12	74	66.64	32.94	11.38	66.08	-	-	P	H
		7386	44.13	-29.87	74	59.74	36.76	13.39	65.76	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		3690	47.88	-26.12	74	74.44	29.68	10.18	66.42	-	-	P	V
		4924	46.62	-27.38	74	68.38	32.94	11.38	66.08	-	-	P	V
		7386	43.76	-30.24	74	59.37	36.76	13.39	65.76	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		2389.59	60.61	-13.39	74	45.96	27.36	17.36	30.07	306	66	P	H
		2390	51.16	-2.84	54	36.51	27.36	17.36	30.07	306	66	A	H
	*	2412	107.5	-	-	92.7	27.47	17.4	30.07	306	66	P	H
	*	2412	99.91	-	-	85.11	27.47	17.4	30.07	306	66	A	H
802.11n													H
HT20													H
CH 01		2390	62.57	-11.43	74	47.92	27.36	17.36	30.07	305	117	P	V
2412MHz		2390	52.34	-1.66	54	37.69	27.36	17.36	30.07	305	117	A	V
	*	2412	109	-	-	94.2	27.47	17.4	30.07	305	117	P	V
	*	2412	101.45	-	-	86.65	27.47	17.4	30.07	305	117	A	V
													V
													V
		2381.54	55.83	-18.17	74	41.24	27.33	17.34	30.08	327	56	P	H
		2389.8	45.79	-8.21	54	31.14	27.36	17.36	30.07	327	56	A	H
	*	2437	111.55	-	-	96.55	27.62	17.44	30.06	327	56	P	H
	*	2437	104.29	-	-	89.29	27.62	17.44	30.06	327	56	A	H
802.11n		2484.81	57.9	-16.1	74	42.59	27.84	17.51	30.04	327	56	P	H
HT20		2485.79	46.51	-7.49	54	31.2	27.84	17.51	30.04	327	56	A	H
CH 06		2386.3	56.85	-17.15	74	42.22	27.35	17.35	30.07	294	115	P	V
2437MHz		2389.8	46.8	-7.2	54	32.15	27.36	17.36	30.07	294	115	A	V
	*	2437	111.96	-	-	96.96	27.62	17.44	30.06	294	115	P	V
	*	2437	104.16	-	-	89.16	27.62	17.44	30.06	294	115	A	V
		2483.97	57.41	-16.59	74	42.1	27.84	17.51	30.04	294	115	P	V
		2483.5	47.22	-6.78	54	31.92	27.83	17.51	30.04	294	115	A	V

	*	2462	107.48	-	-	92.31	27.75	17.47	30.05	313	62	P	H
	*	2462	99.9	-	-	84.73	27.75	17.47	30.05	313	62	A	H
		2484.4	64.17	-9.83	74	48.86	27.84	17.51	30.04	313	62	P	H
		2483.52	52.5	-1.5	54	37.2	27.83	17.51	30.04	313	62	A	H
802.11n													H
HT20													H
CH 11	*	2462	107.55	-	-	92.38	27.75	17.47	30.05	292	117	P	V
2462MHz	*	2462	100.33	-	-	85.16	27.75	17.47	30.05	292	117	A	V
		2483.84	64.46	-9.54	74	49.15	27.84	17.51	30.04	292	117	P	V
		2483.56	52.76	-1.24	54	37.46	27.83	17.51	30.04	292	117	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)	Margin (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)
		3618	44.24	-29.76	74	70.89	29.6	10.15	66.4	-	-	P	H
		4824	43.97	-30.03	74	66.37	32.44	11.32	66.16	-	-	P	H
													H
													H
802.11n													H
HT20													H
CH 01		3618	44.76	-29.24	74	71.41	29.6	10.15	66.4	-	-	P	V
2412MHz		4824	47.67	-26.33	74	70.07	32.44	11.32	66.16	-	-	P	V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		3660	47.89	-26.11	74	74.51	29.62	10.17	66.41	-	-	P	H
		4874	45.4	-28.6	74	67.47	32.7	11.35	66.12	-	-	P	H
		7311	45.06	-28.94	74	60.15	37.13	13.5	65.72	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11n													H
HT20													H
CH 06		3660	47.95	-26.05	74	74.57	29.62	10.17	66.41	-	-	P	V
2437MHz		4874	47.97	-26.03	74	70.04	32.7	11.35	66.12	-	-	P	V
		7311	46.13	-27.87	74	61.22	37.13	13.5	65.72	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		3690	47.88	-26.12	74	74.44	29.68	10.18	66.42	-	-	P	H
		4924	43.87	-30.13	74	65.63	32.94	11.38	66.08	-	-	P	H
		7386	44.8	-29.2	74	60.41	36.76	13.39	65.76	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11n													H
HT20													H
CH 11		3690	47.89	-26.11	74	74.45	29.68	10.18	66.42	-	-	P	V
2462MHz		4924	46.1	-27.9	74	67.86	32.94	11.38	66.08	-	-	P	V
		7386	44.17	-29.83	74	59.78	36.76	13.39	65.76	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

2.4GHz 2400~2483.5MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		2389.94	61.16	-12.84	74	46.51	27.36	17.36	30.07	301	69	P	H
		2389.94	50.86	-3.14	54	36.21	27.36	17.36	30.07	301	69	A	H
	*	2422	101.97	-	-	87.09	27.53	17.41	30.06	301	69	P	H
	*	2422	94.46	-	-	79.58	27.53	17.41	30.06	301	69	A	H
802.11n		2499.58	56.07	-17.93	74	40.68	27.9	17.53	30.04	301	69	P	H
HT40		2489.92	46.86	-7.14	54	31.53	27.86	17.51	30.04	301	69	A	H
CH 03		2389.66	65.09	-8.91	74	50.44	27.36	17.36	30.07	303	118	P	V
2422MHz		2389.94	53.12	-0.88	54	38.47	27.36	17.36	30.07	303	118	A	V
	*	2422	103.82	-	-	88.94	27.53	17.41	30.06	303	118	P	V
	*	2422	96.37	-	-	81.49	27.53	17.41	30.06	303	118	A	V
		2483.5	56.62	-17.38	74	41.32	27.83	17.51	30.04	303	118	P	V
		2499.44	46.77	-7.23	54	31.38	27.9	17.53	30.04	303	118	A	V
		2389.38	58.67	-15.33	74	44.02	27.36	17.36	30.07	327	66	P	H
		2389.94	49.74	-4.26	54	35.09	27.36	17.36	30.07	327	66	A	H
	*	2437	107.58	-	-	92.58	27.62	17.44	30.06	327	66	P	H
	*	2437	100	-	-	85	27.62	17.44	30.06	327	66	A	H
802.11n		2483.69	60.09	-13.91	74	44.79	27.83	17.51	30.04	327	66	P	H
HT40		2483.55	50.6	-3.4	54	35.3	27.83	17.51	30.04	327	66	A	H
CH 06		2389.94	61.59	-12.41	74	46.94	27.36	17.36	30.07	295	91	P	V
2437MHz		2389.52	51.64	-2.36	54	36.99	27.36	17.36	30.07	295	91	A	V
	*	2437	106.94	-	-	91.94	27.62	17.44	30.06	295	91	P	V
	*	2437	99.8	-	-	84.8	27.62	17.44	30.06	295	91	A	V
		2485.86	63.2	-10.8	74	47.89	27.84	17.51	30.04	295	91	P	V
		2483.62	52.71	-1.29	54	37.41	27.83	17.51	30.04	295	91	A	V

		2375.66	55.62	-18.38	74	41.07	27.3	17.33	30.08	324	62	P	H
		2389.38	46.08	-7.92	54	31.43	27.36	17.36	30.07	324	62	A	H
	*	2452	104.21	-	-	89.09	27.71	17.46	30.05	324	62	P	H
	*	2452	96.68	-	-	81.56	27.71	17.46	30.05	324	62	A	H
802.11n		2484.67	65.12	-8.88	74	49.81	27.84	17.51	30.04	324	62	P	H
HT40		2484.39	52.8	-1.2	54	37.49	27.84	17.51	30.04	324	62	A	H
CH 09		2385.32	55.9	-18.1	74	41.28	27.34	17.35	30.07	291	119	P	V
2452MHz		2389.52	46.85	-7.15	54	32.2	27.36	17.36	30.07	291	119	A	V
	*	2452	103.07	-	-	87.95	27.71	17.46	30.05	291	119	P	V
	*	2452	95.59	-	-	80.47	27.71	17.46	30.05	291	119	A	V
		2484.74	64.07	-9.93	74	48.76	27.84	17.51	30.04	291	119	P	V
		2483.5	52.88	-1.12	54	37.58	27.83	17.51	30.04	291	119	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)	Margin (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)
		3630	42.77	-31.23	74	69.41	29.6	10.16	66.4	-	-	P	H
		4844	40.82	-33.18	74	63.07	32.56	11.33	66.14	-	-	P	H
		7266	45.24	-28.76	74	60.16	37.2	13.57	65.69	-	-	P	H
													H
802.11n													H
HT40													H
CH 03		3630	41.87	-32.13	74	68.51	29.6	10.16	66.4	-	-	P	V
2422MHz		4844	42.5	-31.5	74	64.75	32.56	11.33	66.14	-	-	P	V
		7266	44.94	-29.06	74	59.86	37.2	13.57	65.69	-	-	P	V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		3645	45.93	-28.07	74	72.58	29.6	10.16	66.41	-	-	P	H
		4874	42.49	-31.51	74	64.56	32.7	11.35	66.12	-	-	P	H
		7311	44.98	-29.02	74	60.07	37.13	13.5	65.72	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11n													H
HT40													H
CH 06		3660	46.53	-27.47	74	73.15	29.62	10.17	66.41	-	-	P	V
2437MHz		4874	46.32	-27.68	74	68.39	32.7	11.35	66.12	-	-	P	V
		7311	44.81	-29.19	74	59.9	37.13	13.5	65.72	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Margin (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)
		3675	42.27	-31.73	74	68.87	29.65	10.17	66.42	-	-	P	H
		4904	41.3	-32.7	74	63.22	32.82	11.36	66.1	-	-	P	H
		7356	44.6	-29.4	74	60.02	36.88	13.44	65.74	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
802.11n													H
HT40													H
CH 09		3675	43.8	-30.2	74	70.4	29.65	10.17	66.42	-	-	P	V
2452MHz		4904	42.33	-31.67	74	64.25	32.82	11.36	66.1	-	-	P	V
		7356	45.09	-28.91	74	60.51	36.88	13.44	65.74	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission above 18GHz

2.4GHz WIFI 802.11n HT40 (SHF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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)
		23456	39.93	-34.07	74	58.13	38.82	-3.01	54.01	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT40		21528	38.63	-35.37	74	58.47	38.1	-3.24	54.7	-	-	P	V
SHF													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission below 1GHz

2.4GHz WIFI 802.11n HT40 (LF)

WIFI	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					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)
		78.5	36.89	-3.11	40	54.6	13.26	1.32	32.29	225	279	Q	H
		103.72	38.13	-5.37	43.5	52.39	16.41	1.57	32.24	-	-	P	H
		310.33	29.72	-16.28	46	39.96	19.42	2.69	32.35	-	-	P	H
		584.84	28.47	-17.53	46	31.69	25.63	3.76	32.61	-	-	P	H
		829.28	30.87	-15.13	46	30.07	28.54	4.49	32.23	-	-	P	H
		954.41	34.01	-11.99	46	29.83	30.67	4.81	31.3	-	-	P	H
													H
													H
													H
													H
2.4GHz													H
802.11n													H
HT40		57.16	39.89	-0.11	40	58.9	12.25	1.05	32.31	100	318	Q	V
LF		71.71	36.47	-3.53	40	55.14	12.36	1.25	32.28	100	285	Q	V
		78.5	37.71	-2.29	40	55.42	13.26	1.32	32.29	100	300	Q	V
		125.06	35.49	-8.01	43.5	48.59	17.49	1.7	32.29	100	2	Q	V
		622.67	28.26	-17.74	46	30.97	26.05	3.86	32.62	-	-	P	V
		945.68	33.45	-12.55	46	29.63	30.4	4.79	31.37	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.

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 Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
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. Margin (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. Margin (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. Margin (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 D. Radiated Spurious Emission Plots

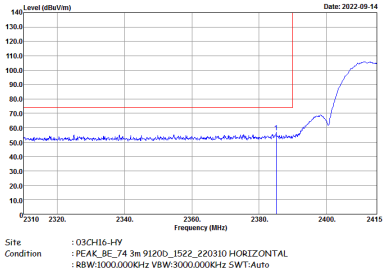
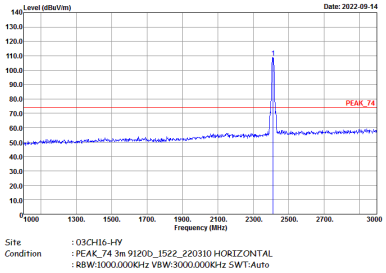
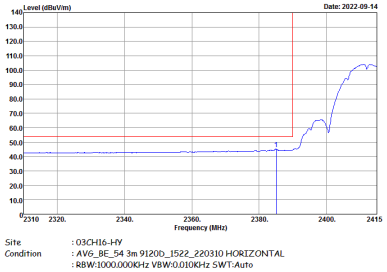
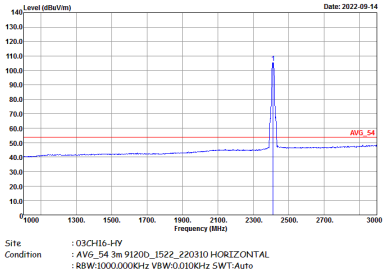
Test Engineer :	Karl Hou and Andy Yang	**Temperature :**	18~25°C
		Relative Humidity :	50~65%

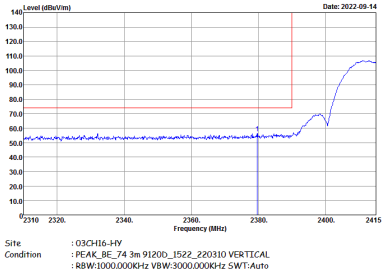
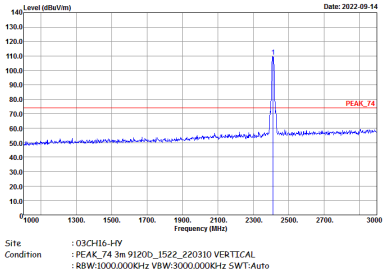
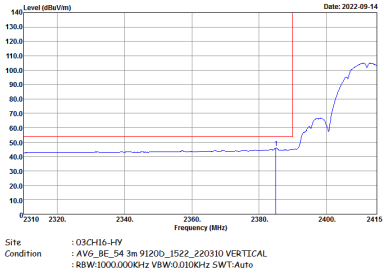
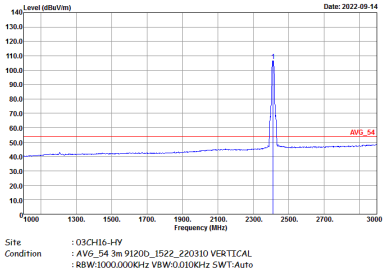
Note symbol

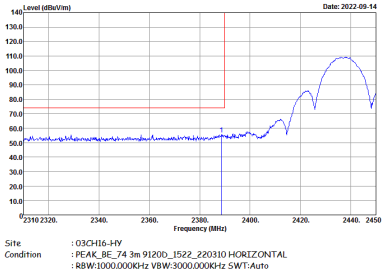
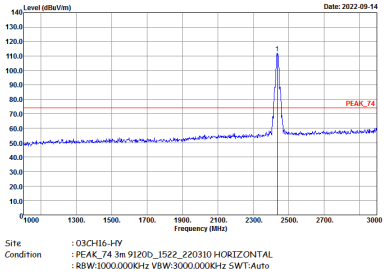
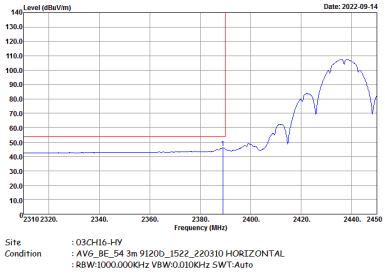
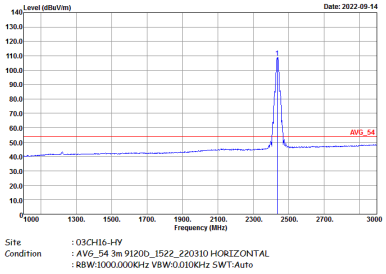
-L	**Low channel location**
-R	**High channel location**

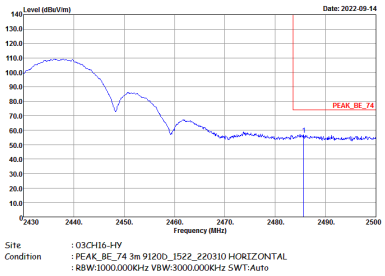
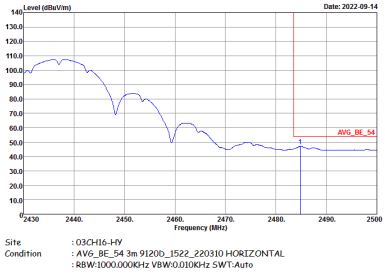
2.4GHz 2400~2483.5MHz

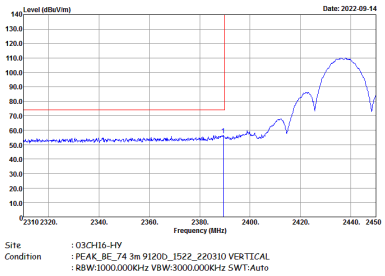
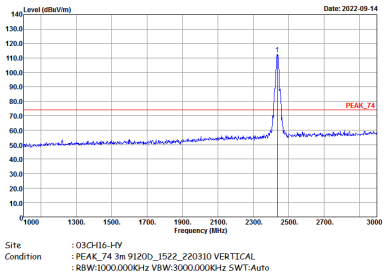
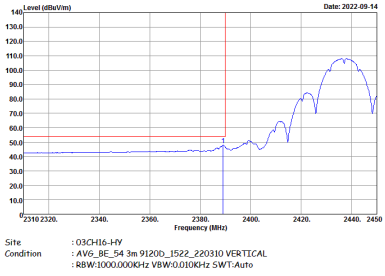
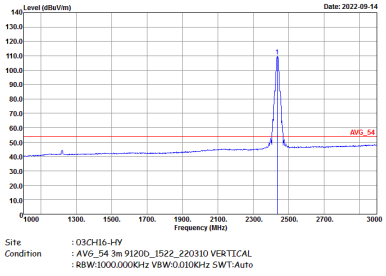
WIFI 802.11b (Band Edge @ 3m)

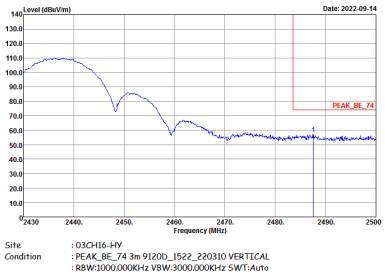
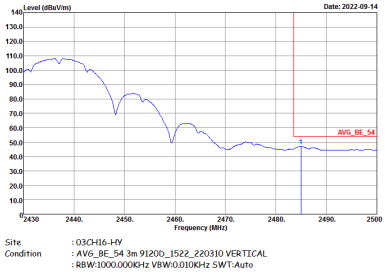
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

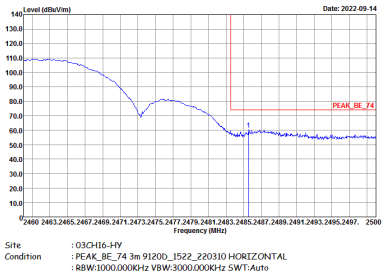
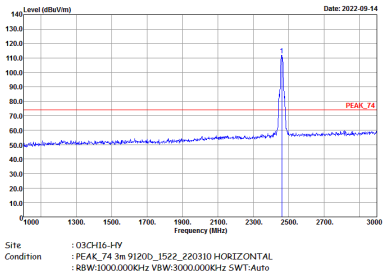
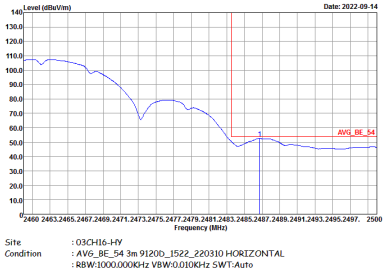
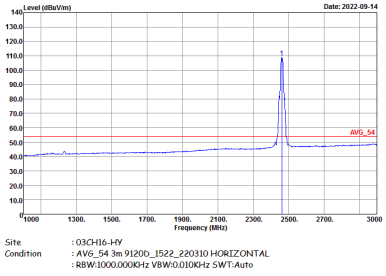
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

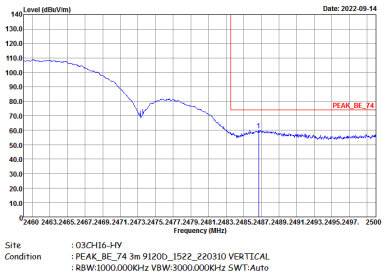
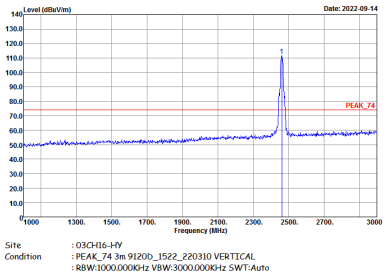
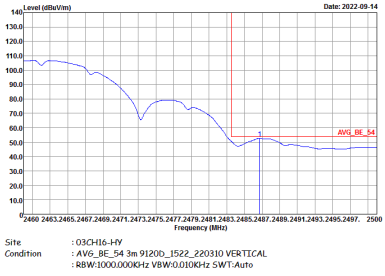
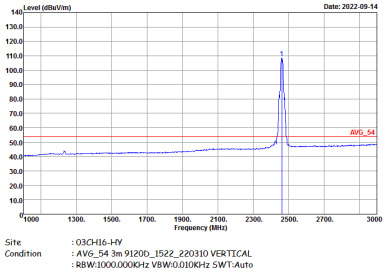
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

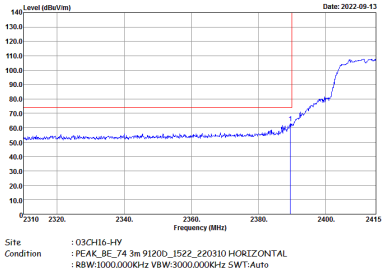
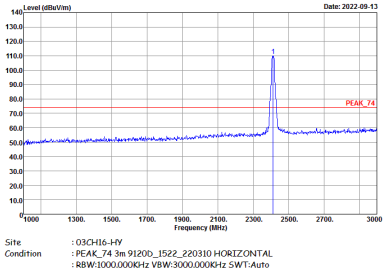
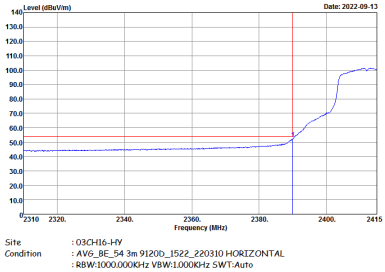
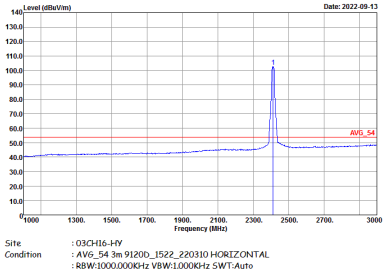
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

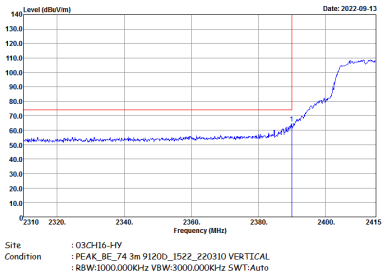
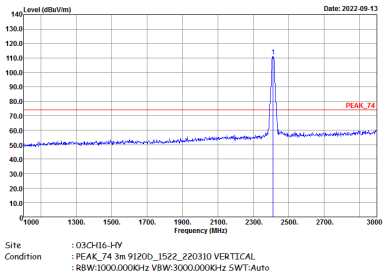
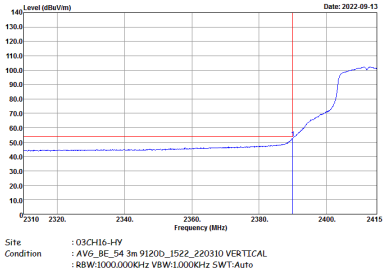
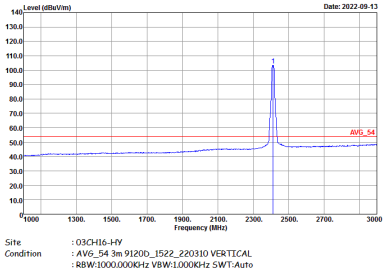
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

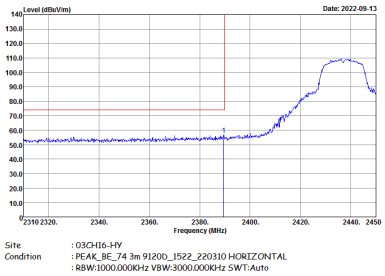
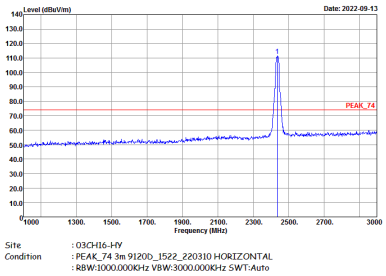
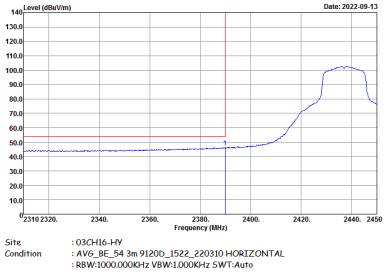
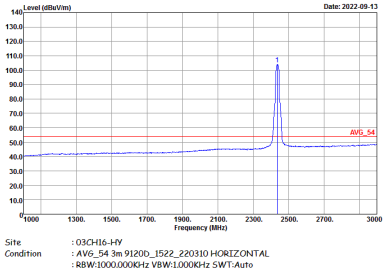
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto

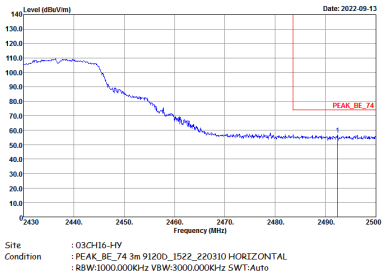
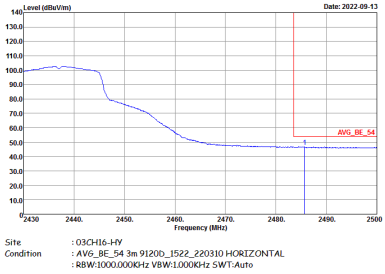
2.4GHz 2400~2483.5MHz

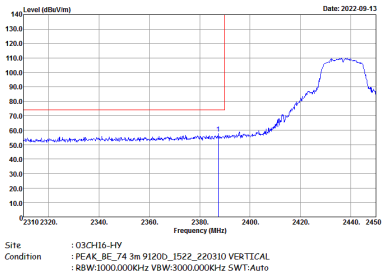
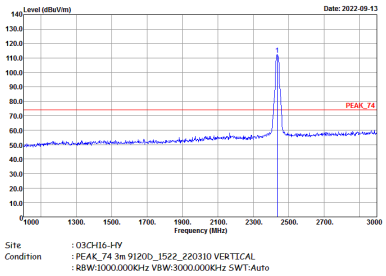
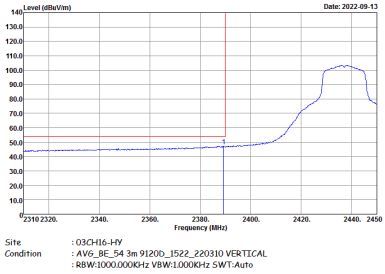
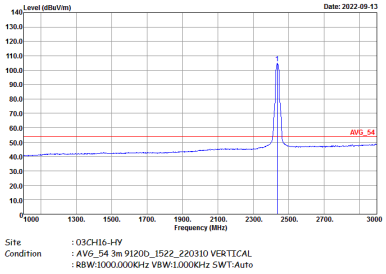
WIFI 802.11g (Band Edge @ 3m)

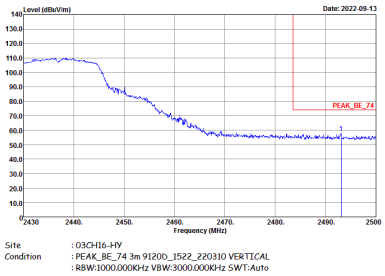
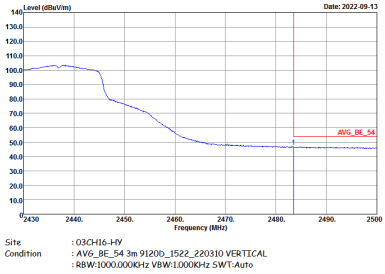
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

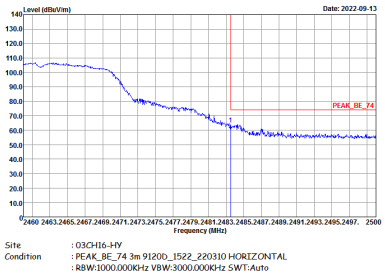
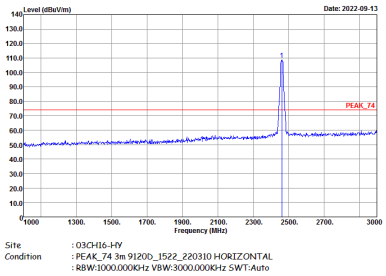
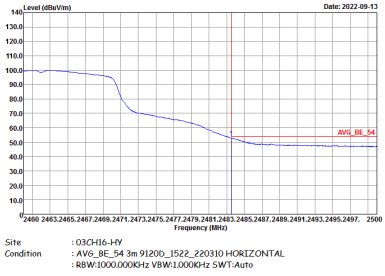
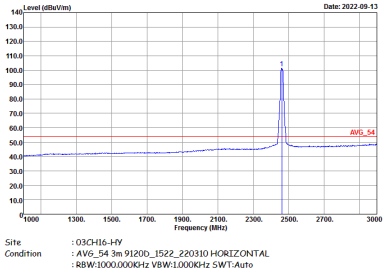
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

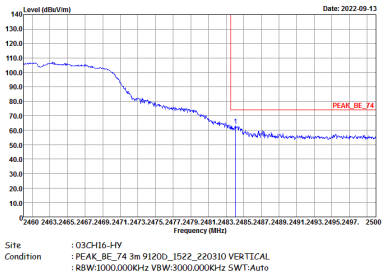
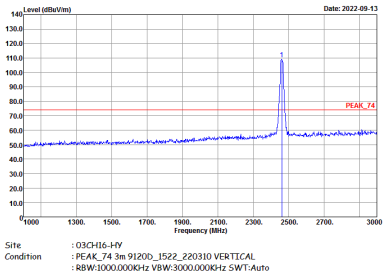
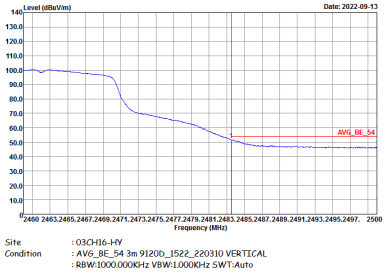
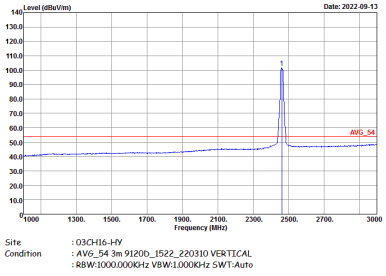
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

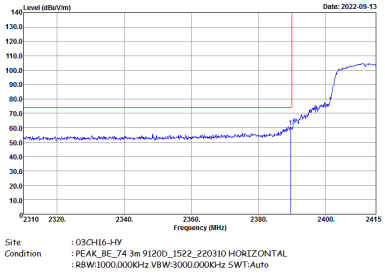
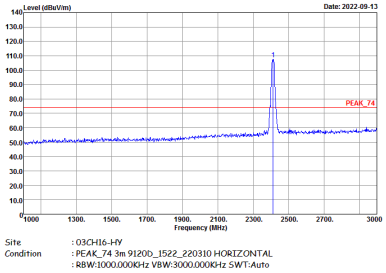
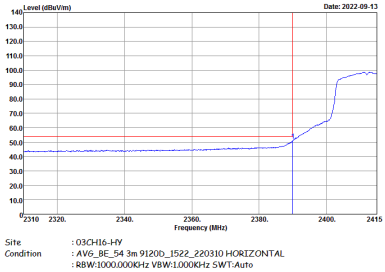
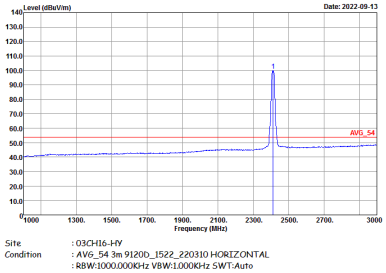
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

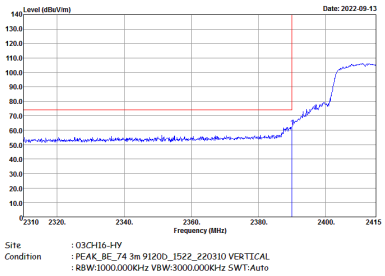
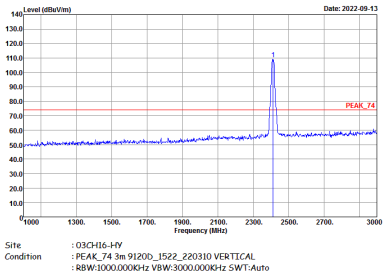
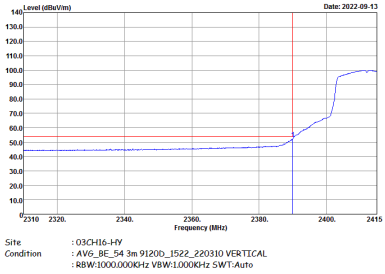
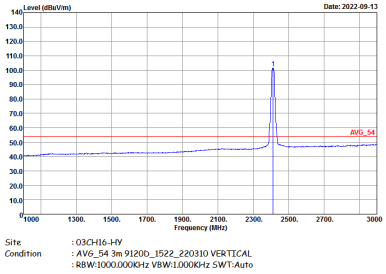
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

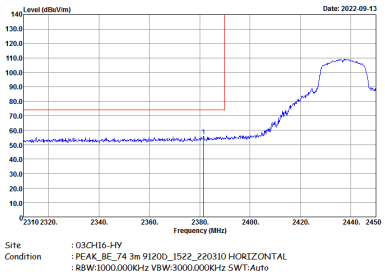
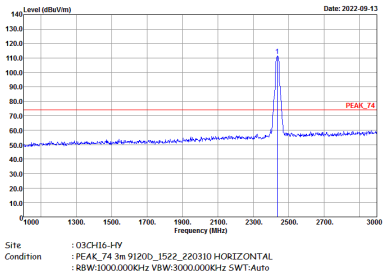
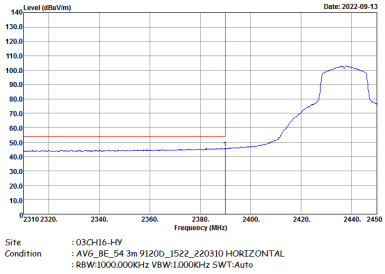
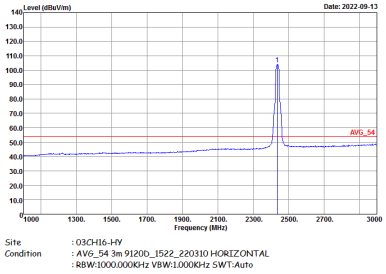
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

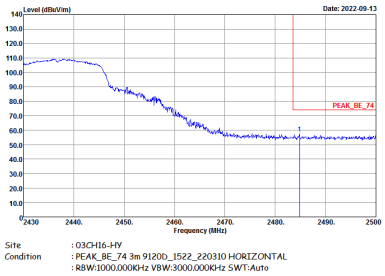
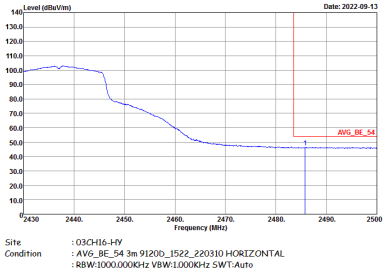
2.4GHz 2400~2483.5MHz

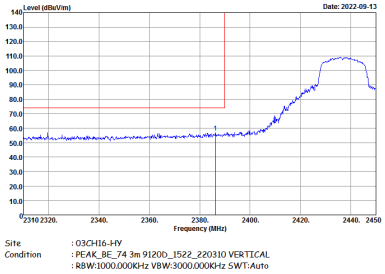
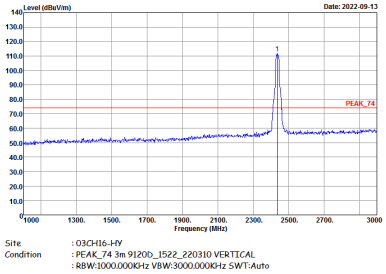
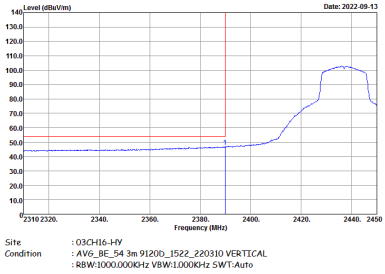
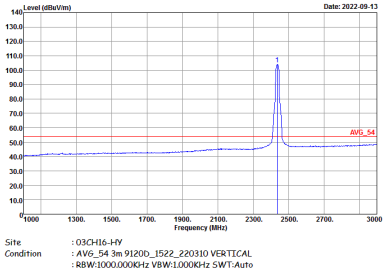
WIFI 802.11n HT20 (Band Edge @ 3m)

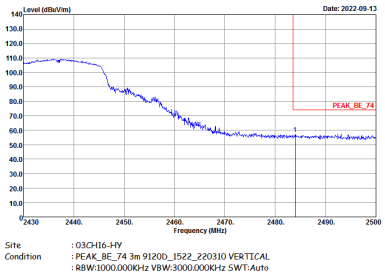
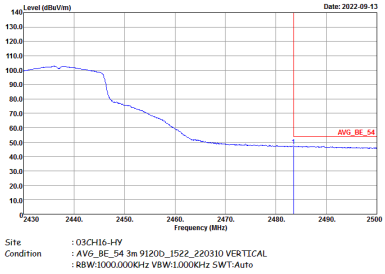
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Fundamental
Peak		
Avg.		

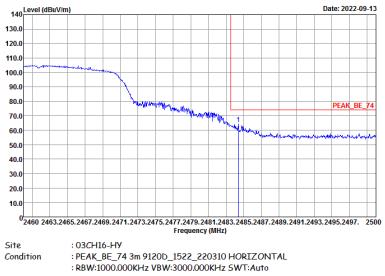
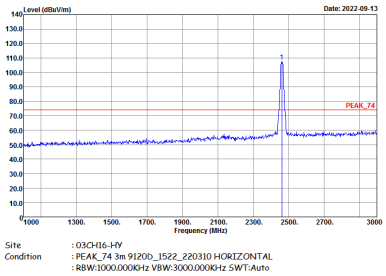
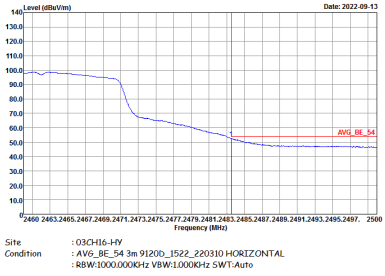
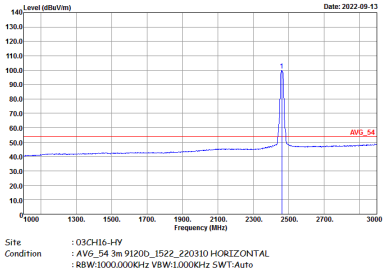
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Vertical	Fundamental
Peak		
Avg.		

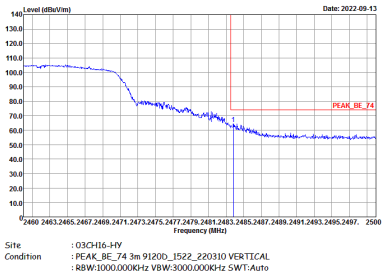
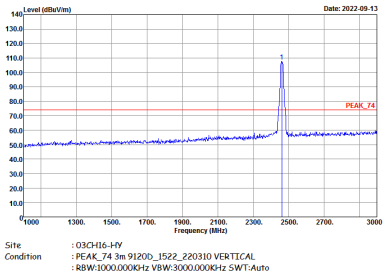
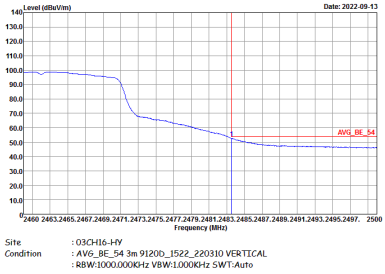
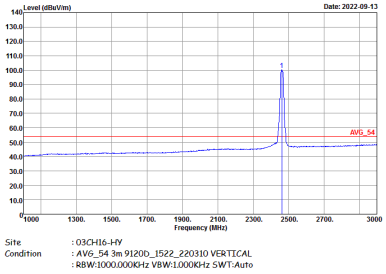
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

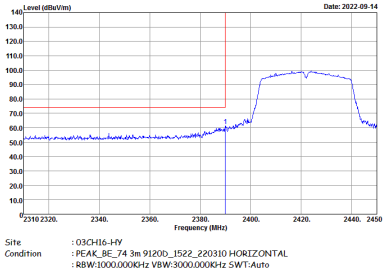
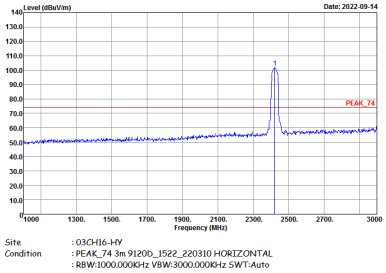
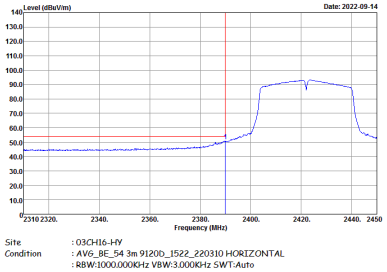
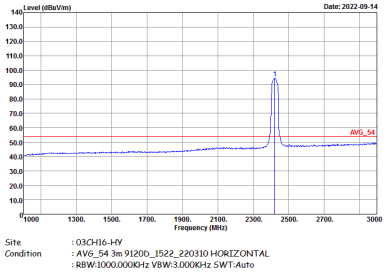
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH06 2437MHz - R	
1	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

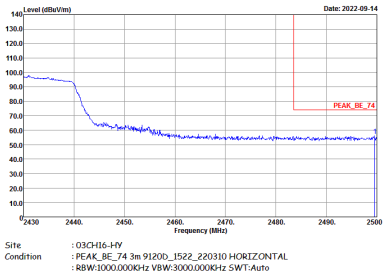
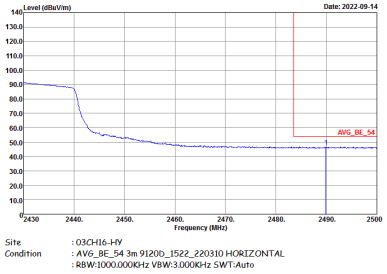
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto

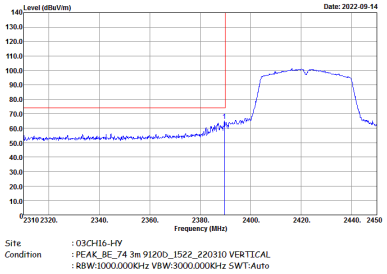
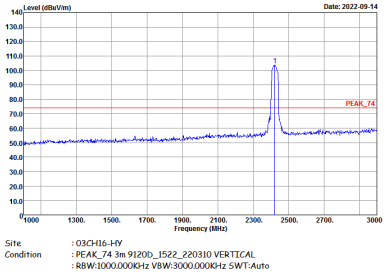
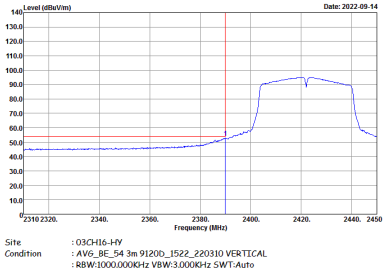
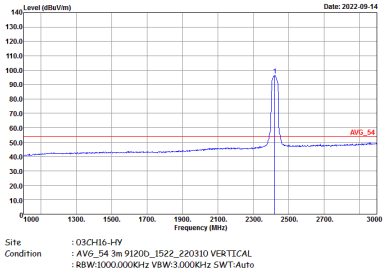
WIFI	2.4GHz 2400~2483.5MHz Fundamental @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Vertical	Fundamental
Peak		
Avg.		

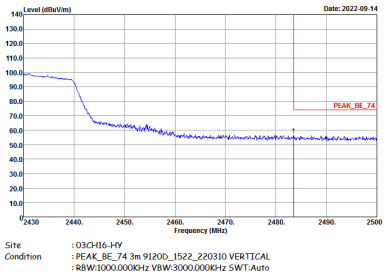
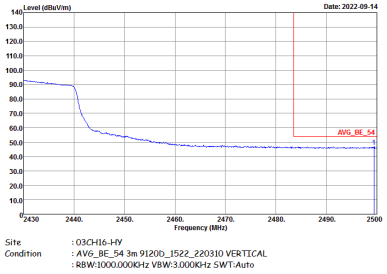
2.4GHz 2400~2483.5MHz

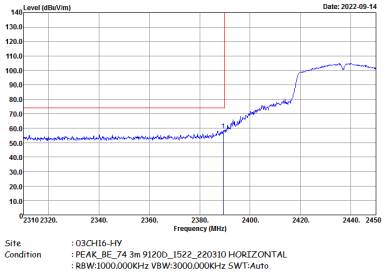
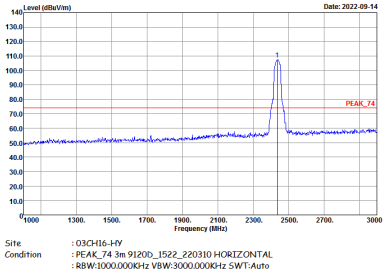
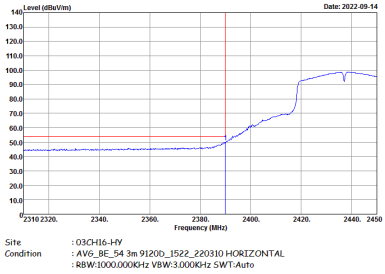
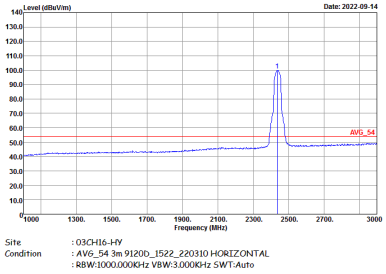
WIFI 802.11n HT40 (Band Edge @ 3m)

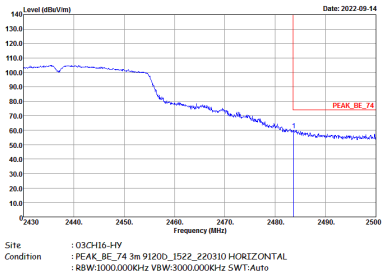
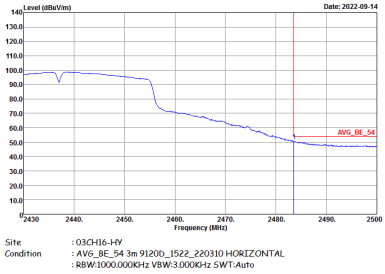
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

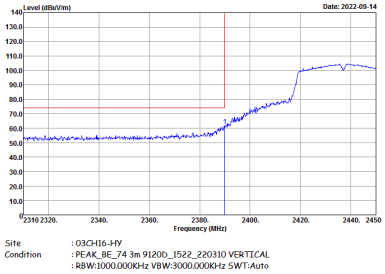
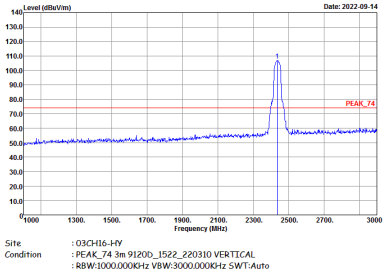
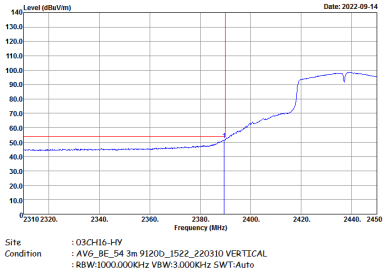
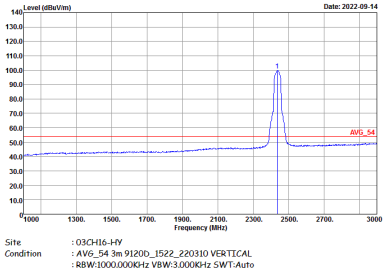
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Horizontal	Fundamental
Peak		Left Blank
Avg.		Left Blank

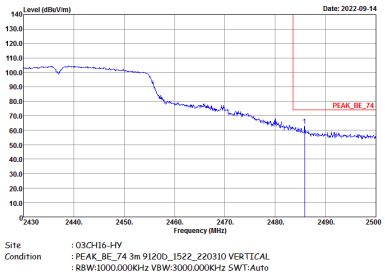
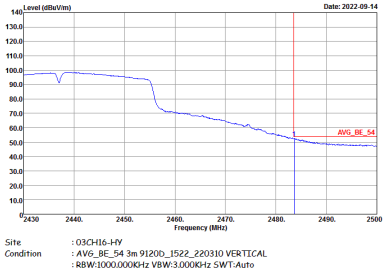
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

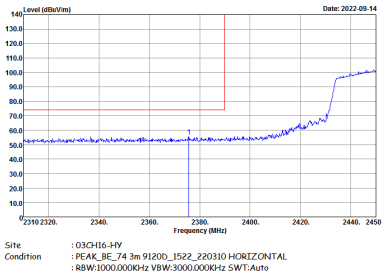
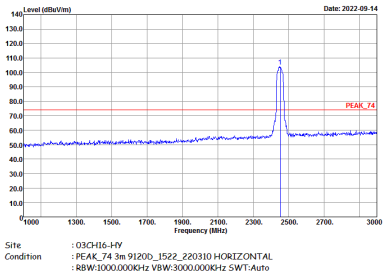
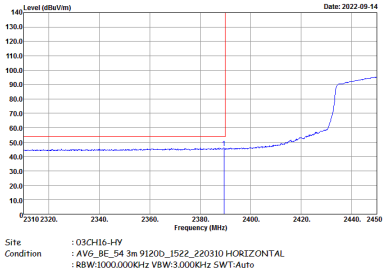
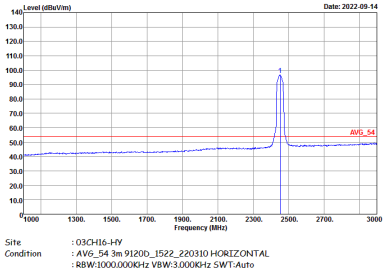
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH03 2422MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

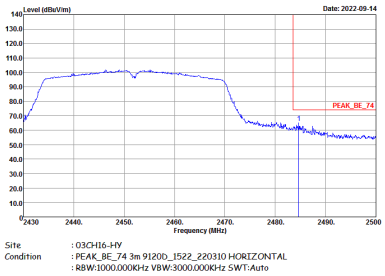
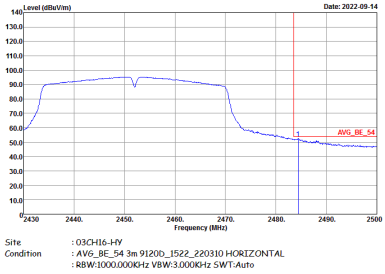
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		

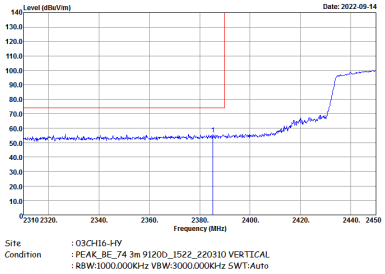
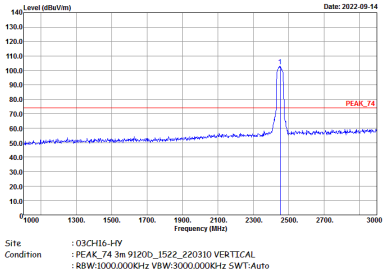
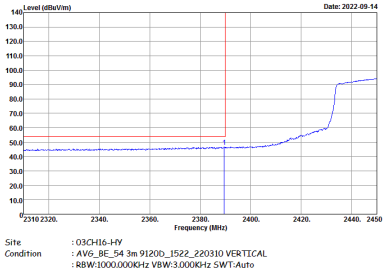
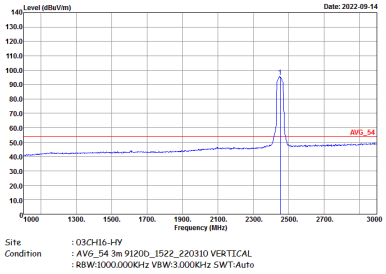
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

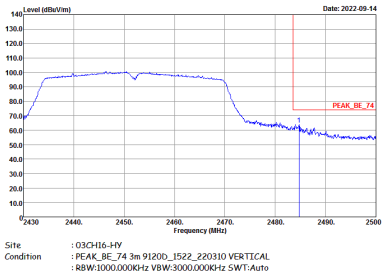
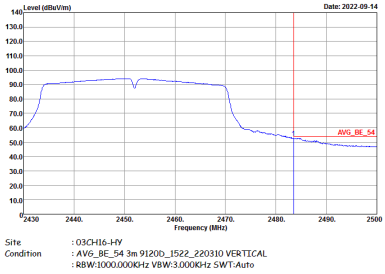
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH06 2437MHz - 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	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto

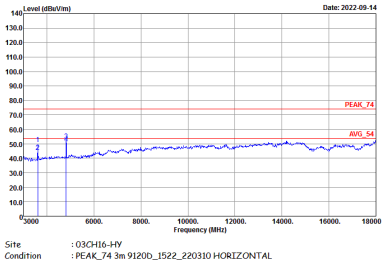
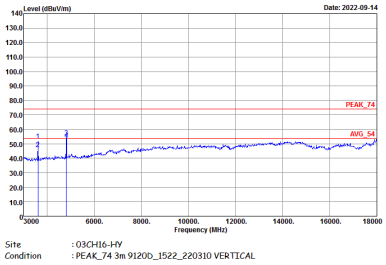
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

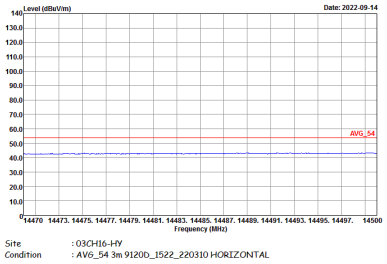
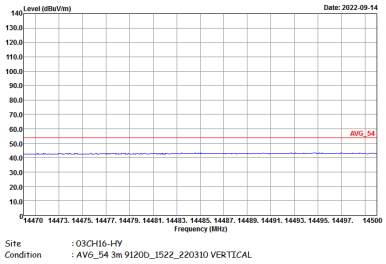
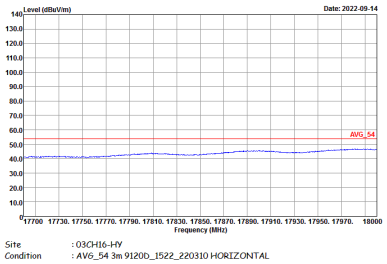
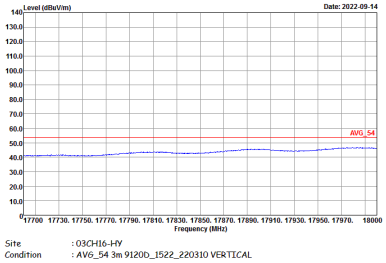
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		

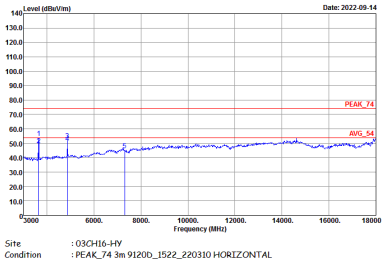
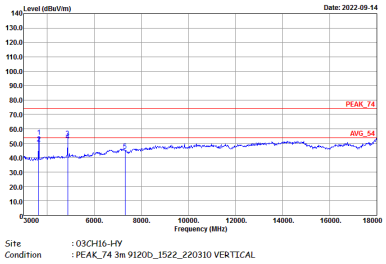
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11n HT40 CH09 2452MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

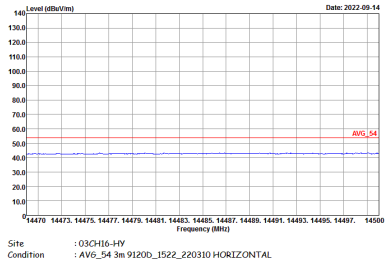
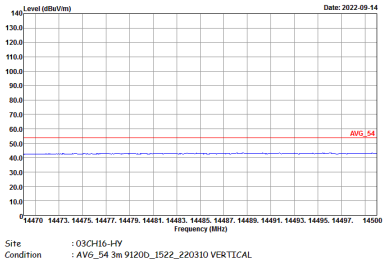
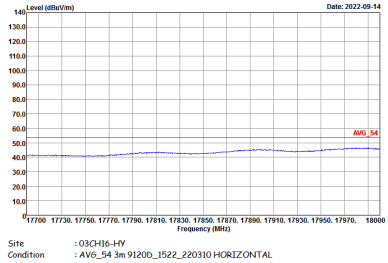
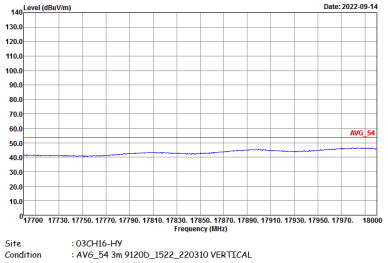
2.4GHz 2400~2483.5MHz

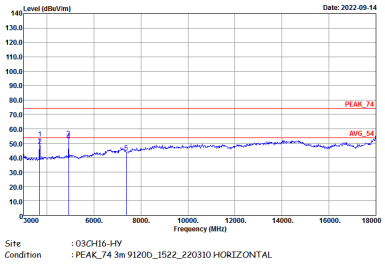
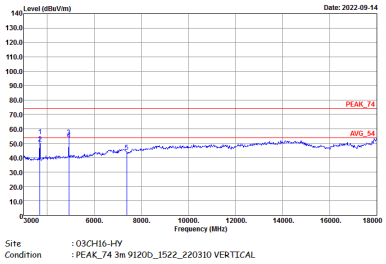
WIFI 802.11b (Harmonic @ 3m)

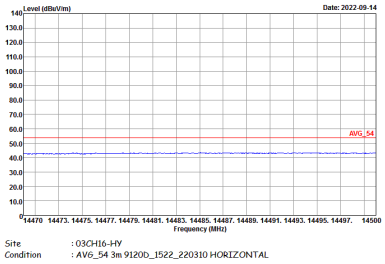
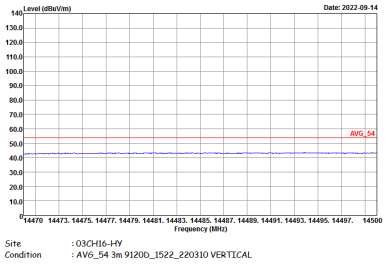
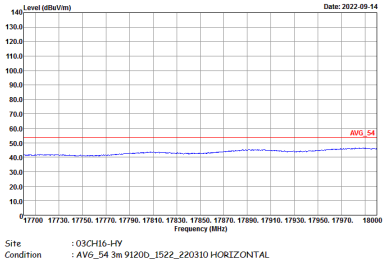
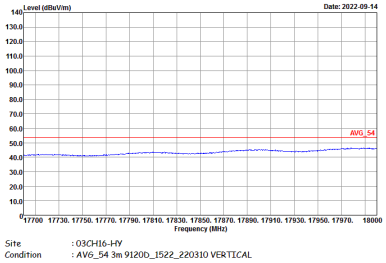
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

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

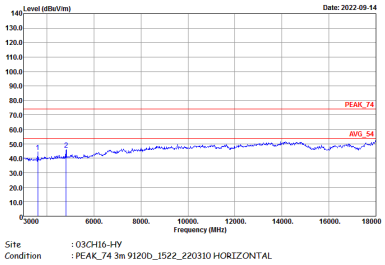
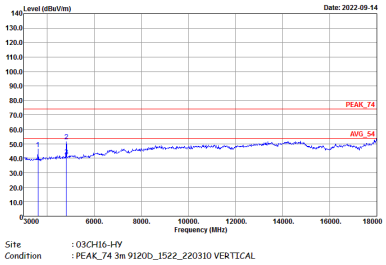
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL

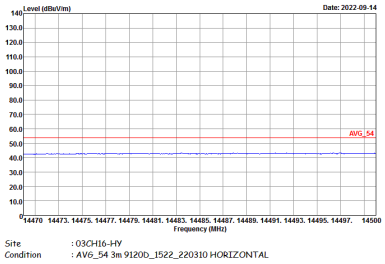
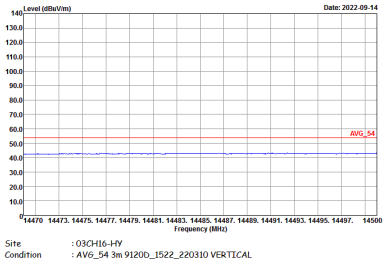
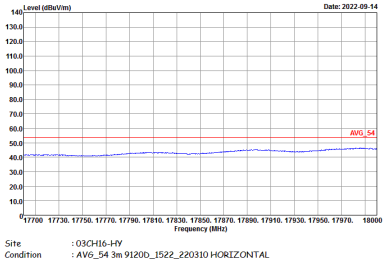
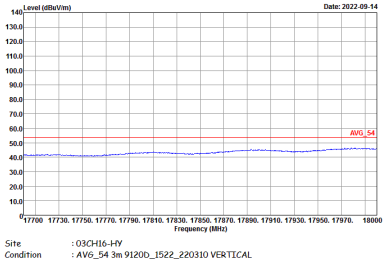
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

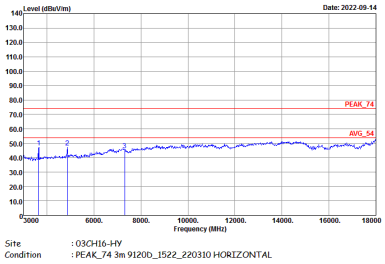
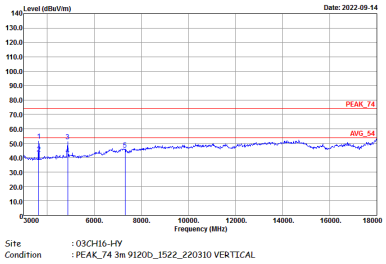
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

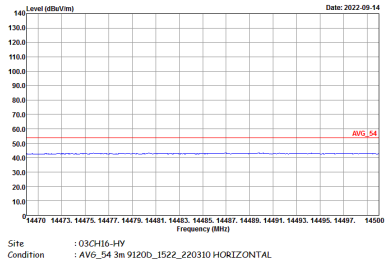
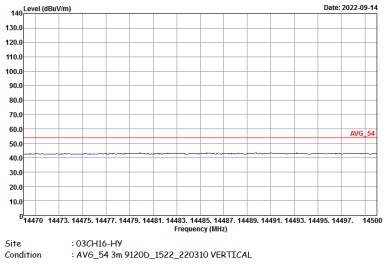
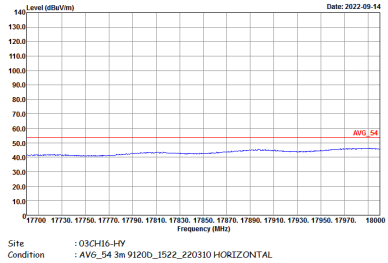
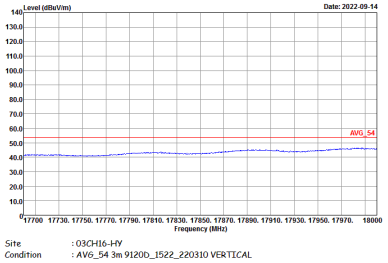
2.4GHz 2400~2483.5MHz

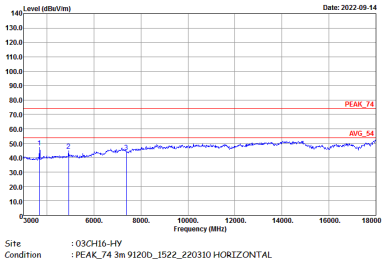
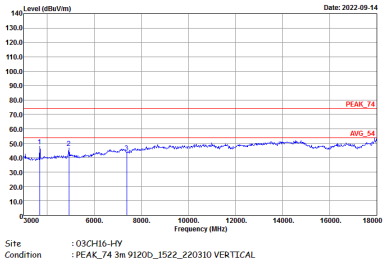
WIFI 802.11g (Harmonic @ 3m)

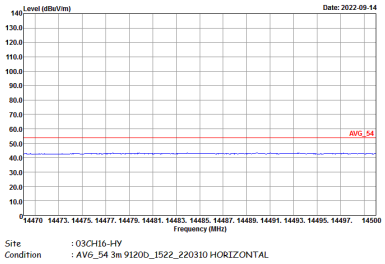
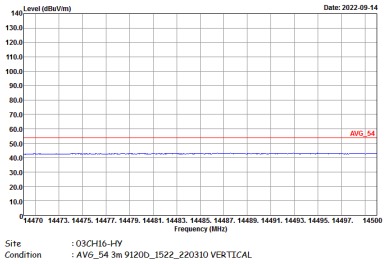
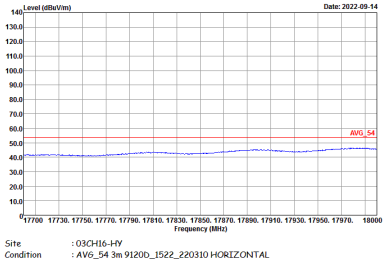
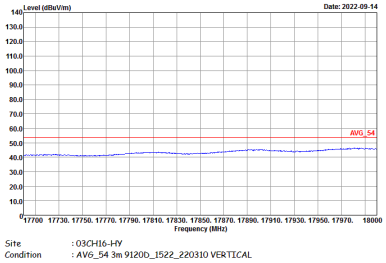
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

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

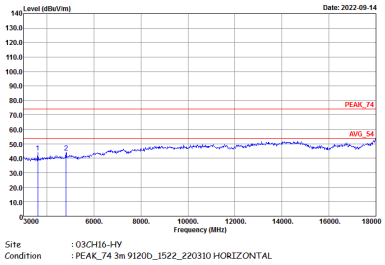
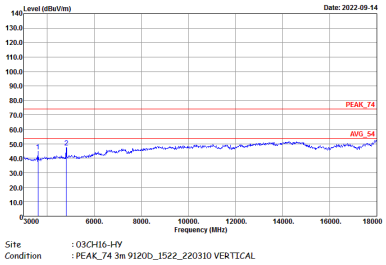
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

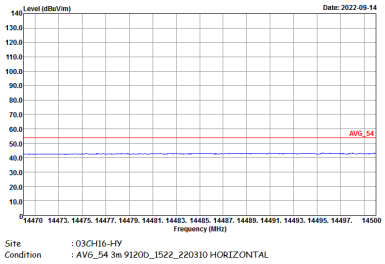
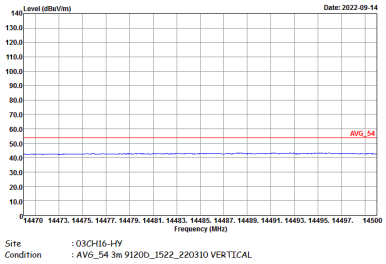
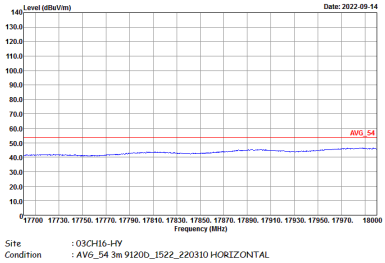
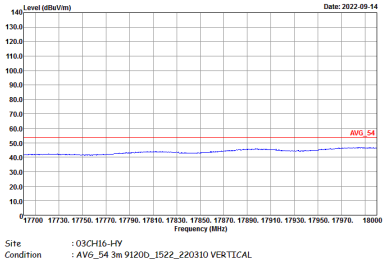
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

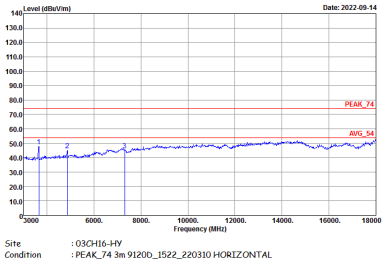
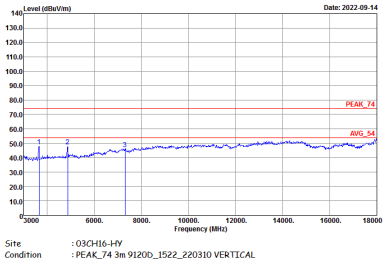
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

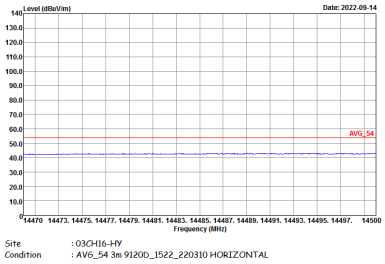
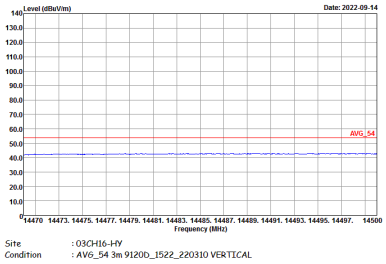
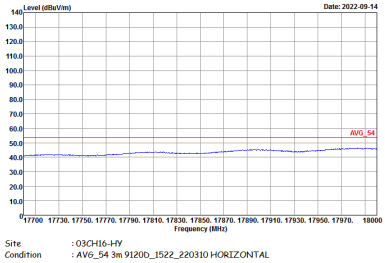
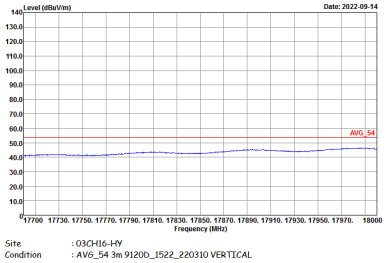
2.4GHz 2400~2483.5MHz

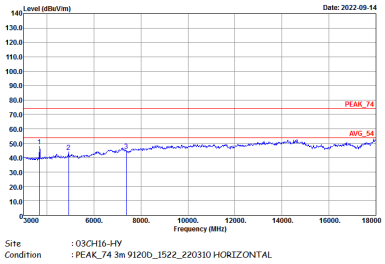
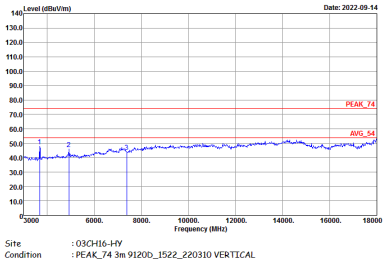
WIFI 802.11n HT20 (Harmonic @ 3m)

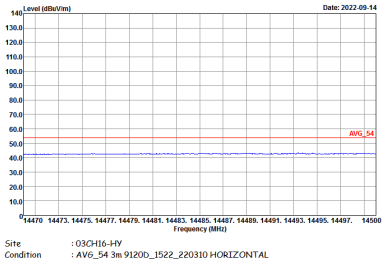
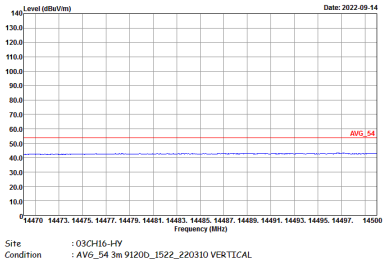
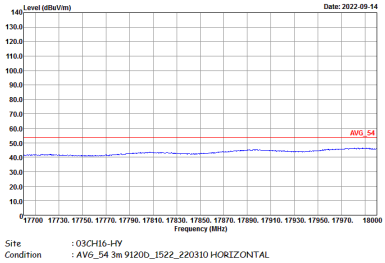
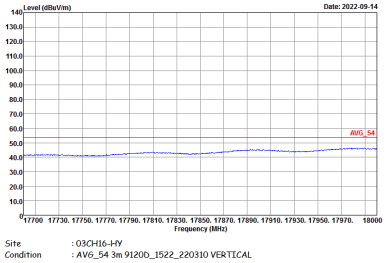
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH01 2412MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

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

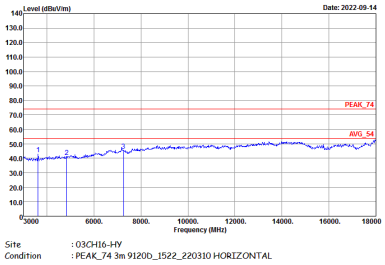
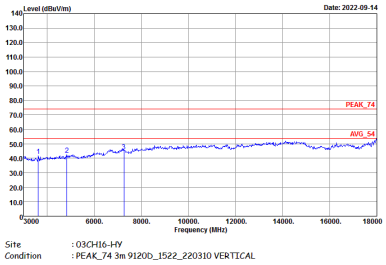
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH06 2437MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

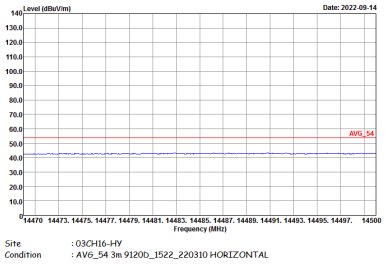
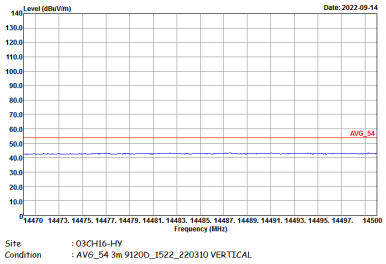
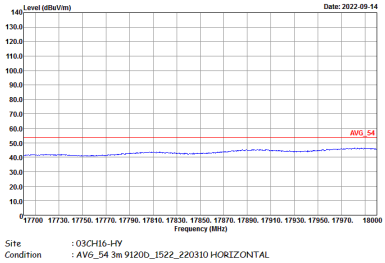
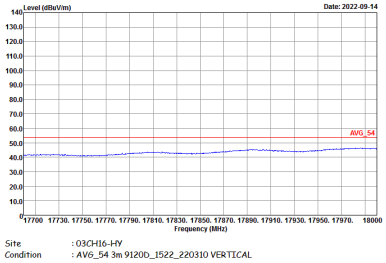
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
Peak Avg.		

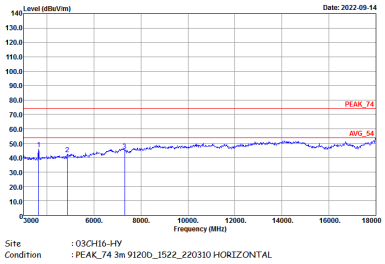
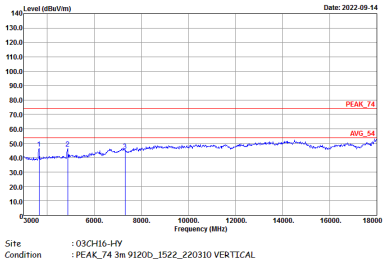
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT20 CH11 2462MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

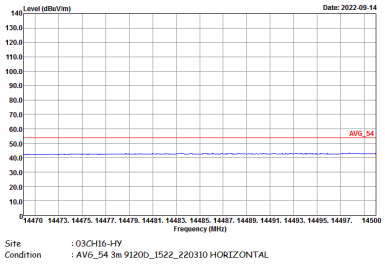
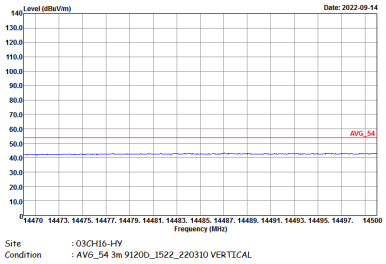
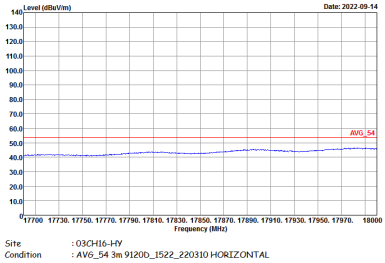
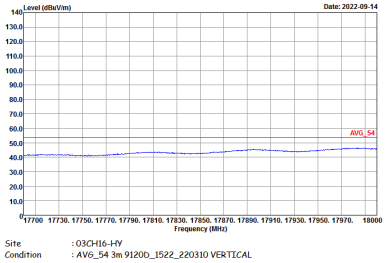
2.4GHz 2400~2483.5MHz

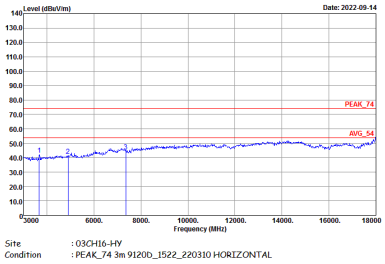
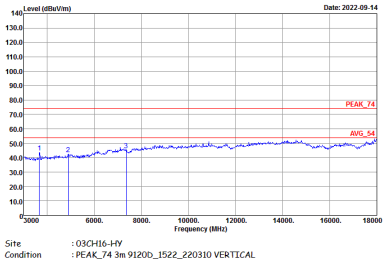
WIFI 802.11n HT40 (Harmonic @ 3m)

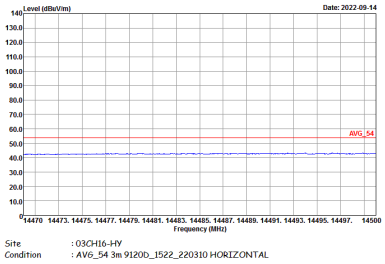
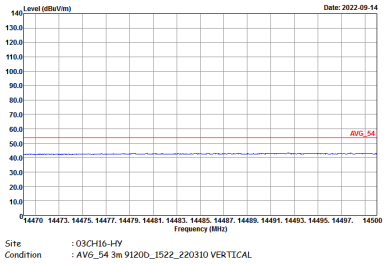
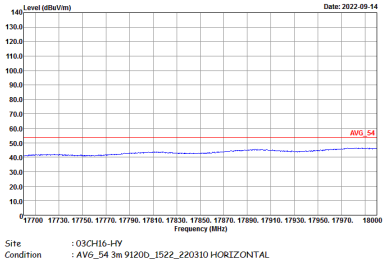
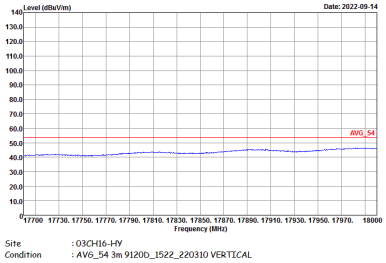
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH03 2422MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

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

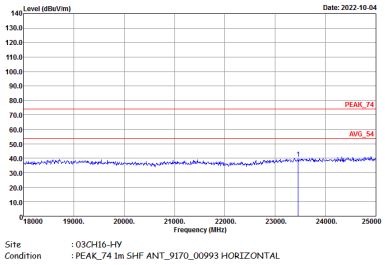
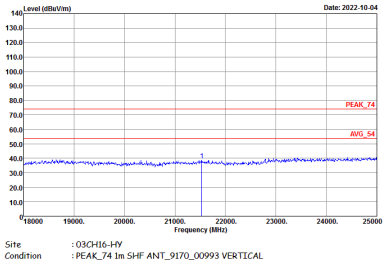
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH06 2437MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AVG_54 3m 9120D_1522_220310 VERTICAL

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11n HT40 CH09 2452MHz	
1	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

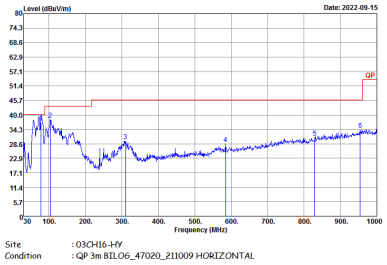
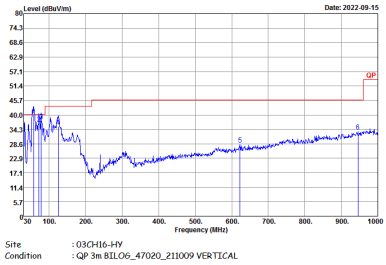
Emission above 18GHz

2.4GHz WIFI 802.11n HT40 (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11n HT40 SHF	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

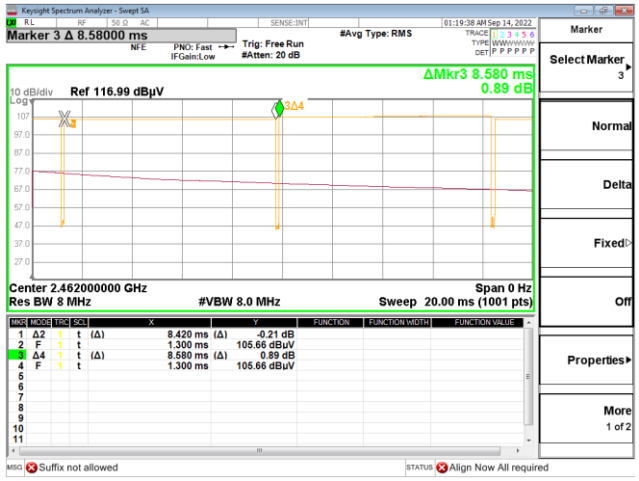
2.4GHz WIFI 802.11n HT40 (LF)

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

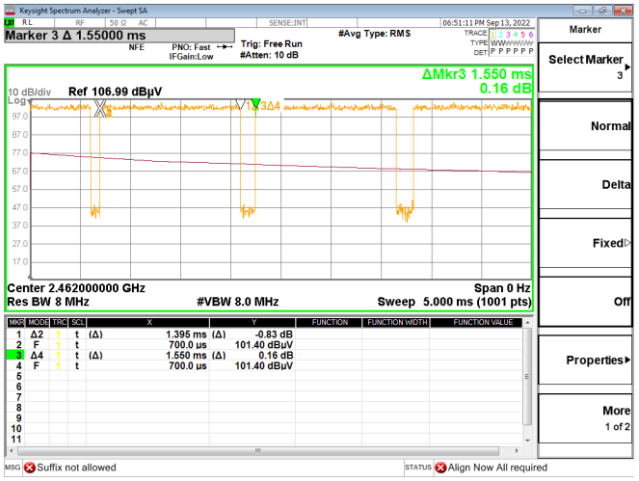
Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
802.11b	98.14	-	-	10Hz
802.11g	90.00	1395	0.72	1kHz
2.4GHz 802.11n HT20	94.22	1305	0.77	1kHz
2.4GHz 802.11n HT40	76.06	648	1.54	3kHz

802.11b



802.11g



2.4GHz 802.11n HT20

2.4GHz 802.11n HT40