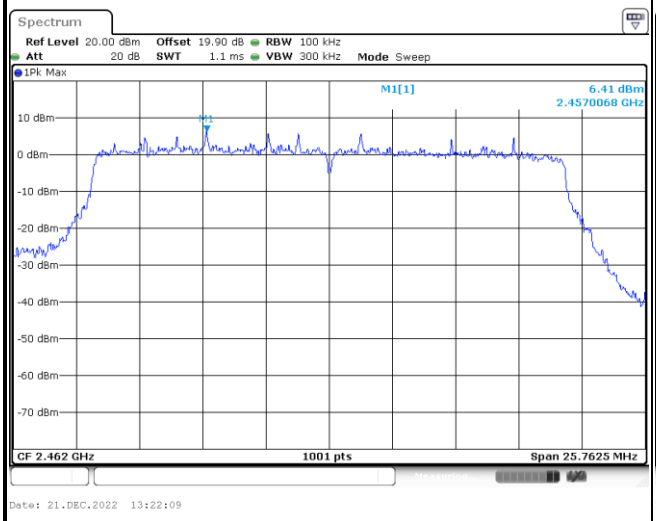
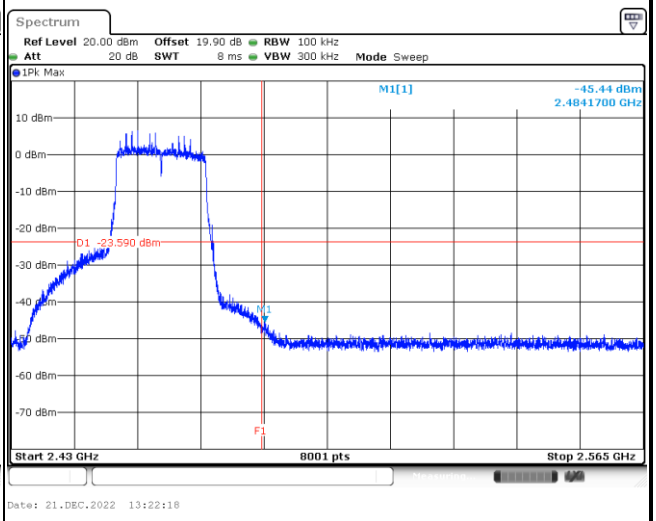
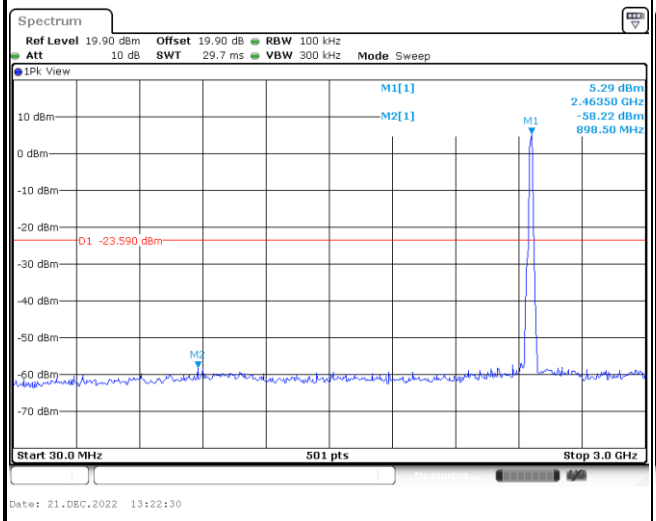
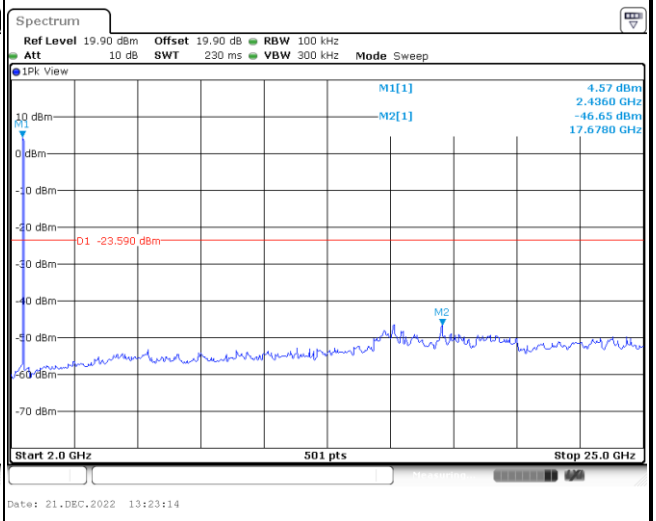
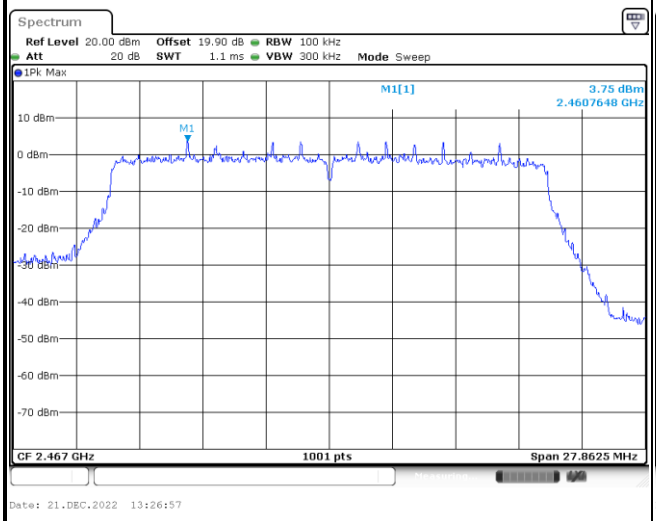
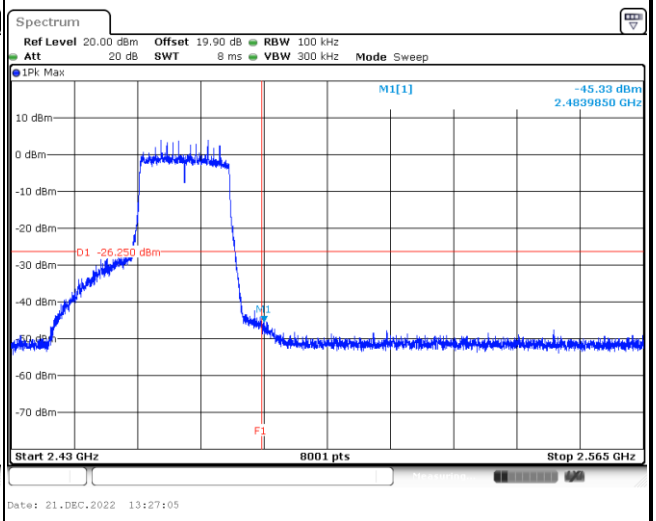
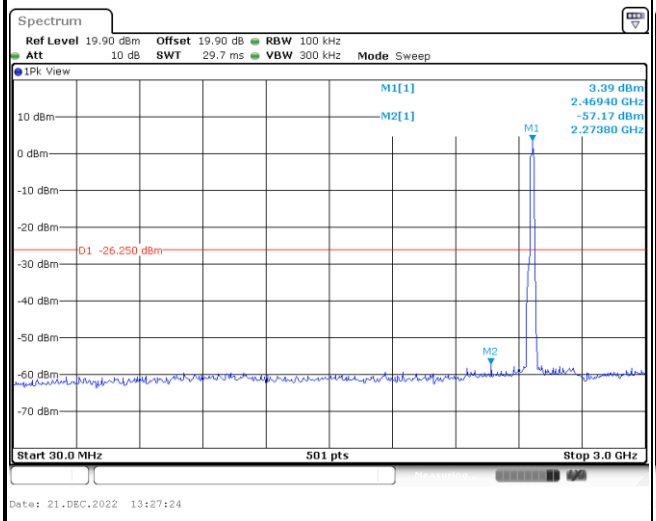
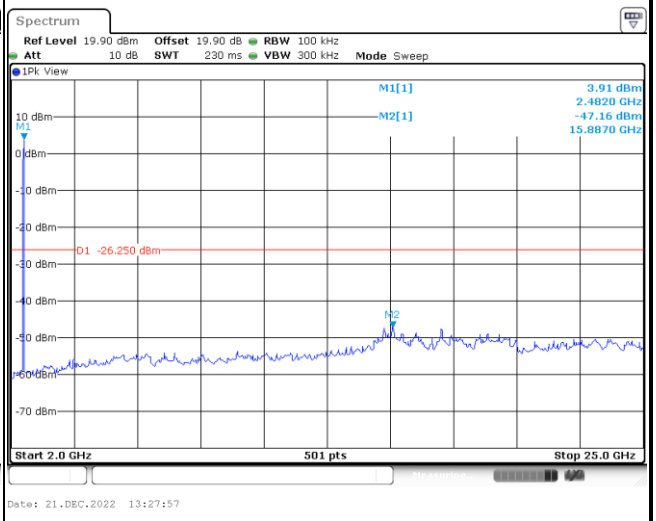
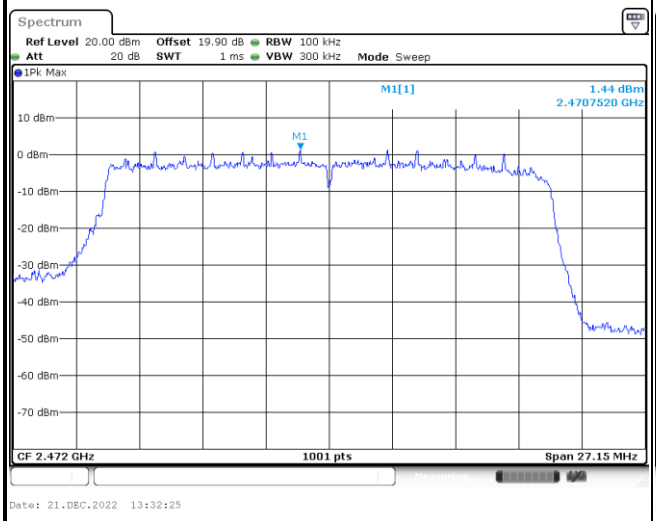
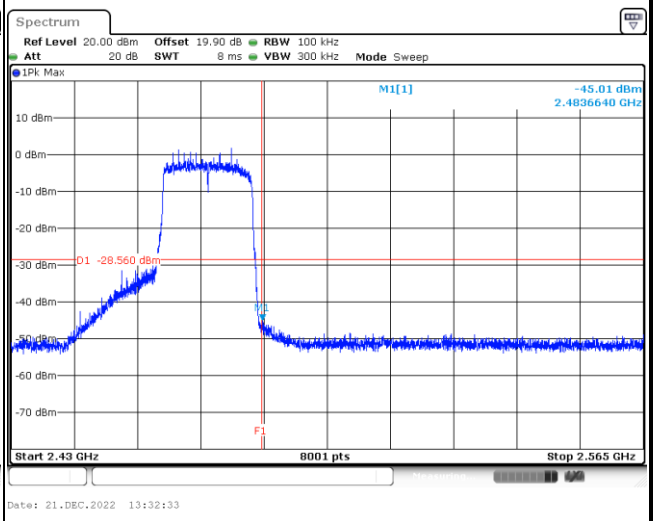
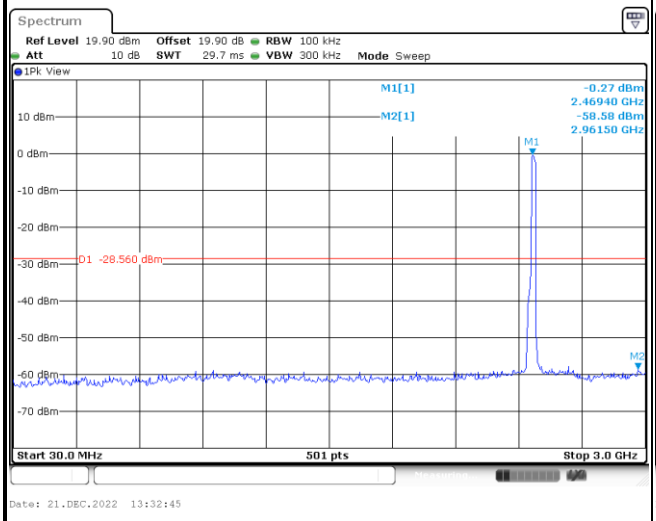
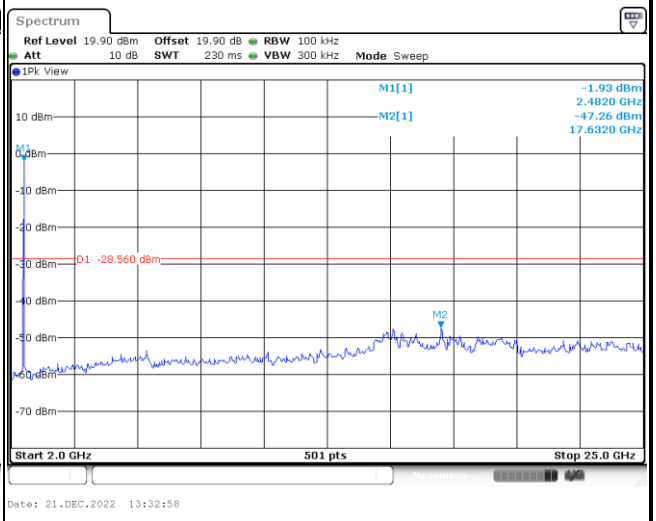
Test Mode :	802.11ax HE20	Test Channel :	11 Full RU

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	12 Full RU

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

Test Mode :	802.11ax HE20	Test Channel :	13 Full Ru

100kHz PSD reference Level	High Channel Plot
	
Spurious Emission 30MHz~3GHz	**Spurious Emission 2GHz~25GHz**
	

3.5 Radiated Band Edges and Spurious Emission Measurement

3.5.1 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

3.5.2 Measuring Instruments

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

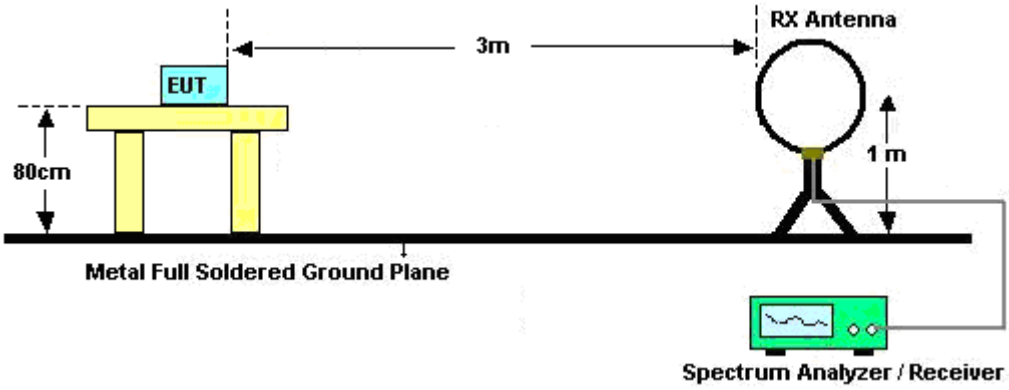
3.5.3 Test Procedures

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 “-“.

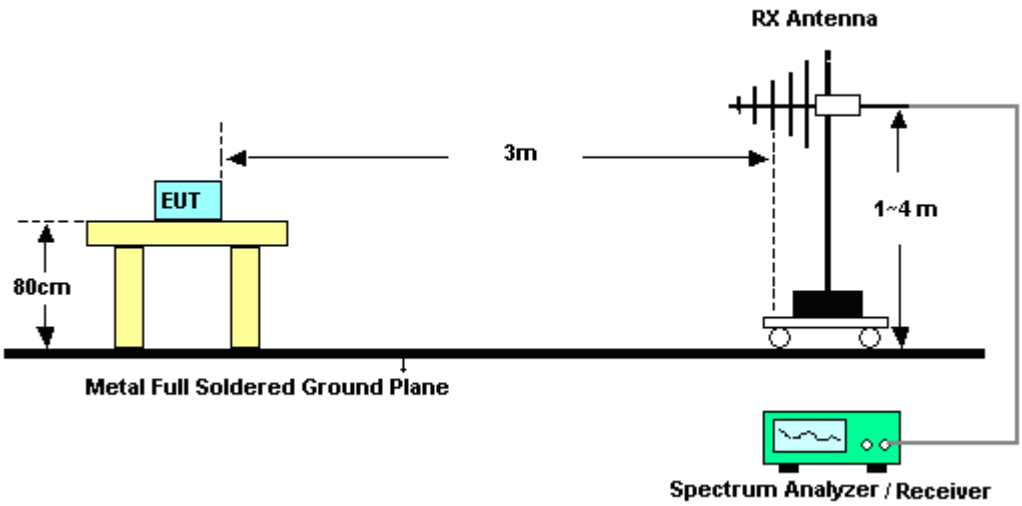
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with 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.

3.5.4 Test Setup

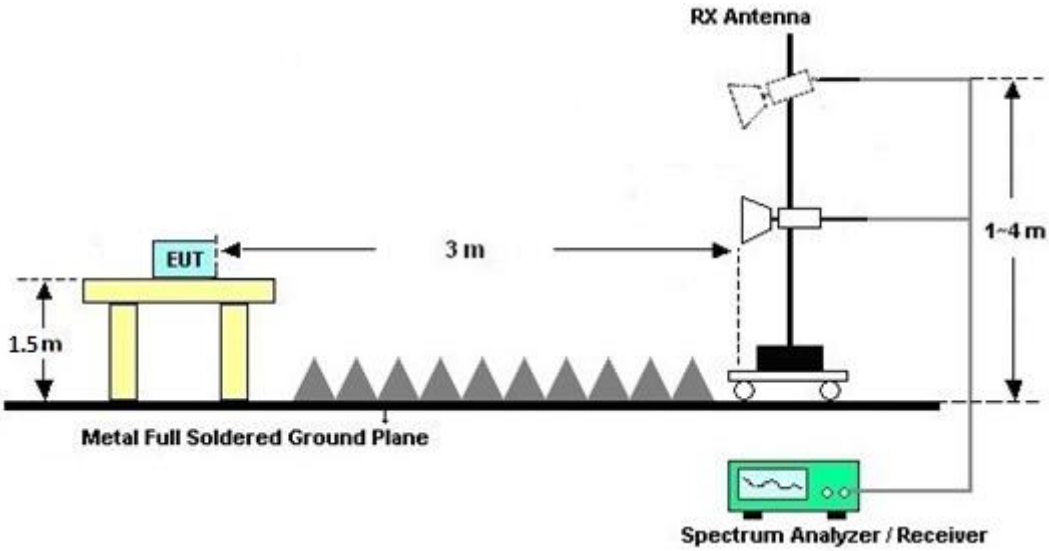
For radiated emissions below 30MHz



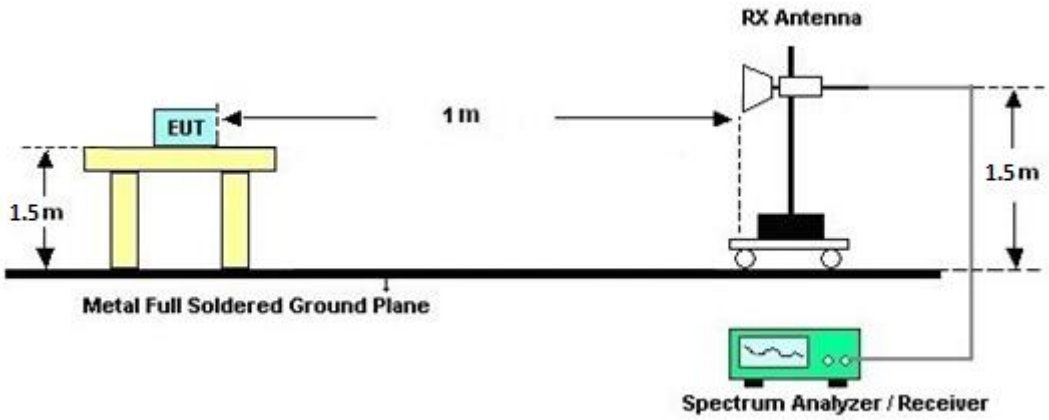
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.5.5 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.

3.5.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.5.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.6 AC Conducted Emission Measurement

3.6.1 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.

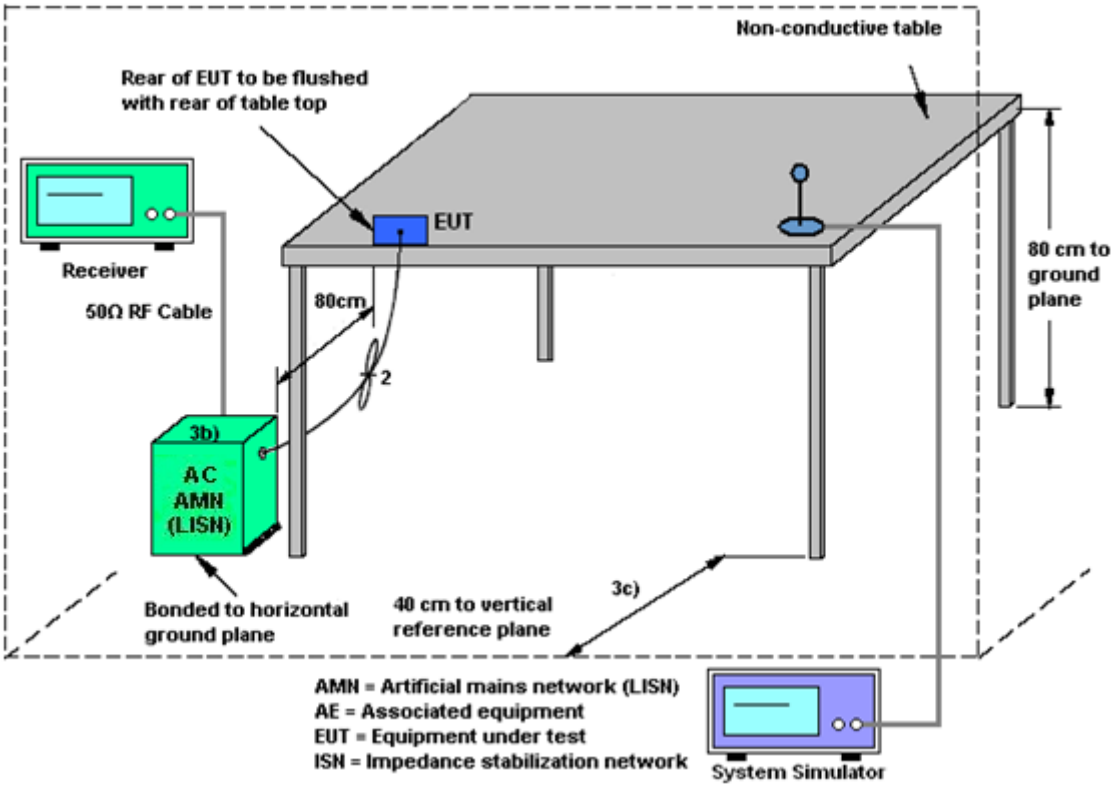
3.6.2 Measuring Instruments

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

3.6.3 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.

3.6.4 Test Setup



3.6.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.7 Antenna Requirements

3.7.1 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.

3.7.2 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	Sep. 20, 2022	Dec. 10, 2022~ Feb. 06, 2023	Sep. 19, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz~40GHz	Dec. 07, 2022	Dec. 10, 2022~ Feb. 06, 2023	Dec. 06, 2023	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz-40GHz	Nov. 24, 2022	Dec. 10, 2022~ Feb. 06, 2023	Nov. 23, 2023	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1GHz	Jul. 04, 2022	Dec. 10, 2022~ Feb. 06, 2023	Jul. 03, 2023	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N-06	47020 & 06	30MHz~1GHz	Oct. 08, 2022	Dec. 10, 2022~ Feb. 06, 2023	Oct. 07, 2023	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2022	Dec. 15, 2022~ Feb. 06, 2023	Dec. 14, 2023	Radiation (03CH16-HY)
Signal Analyzer	Keysight	N9010B	MY62170278	N/A	Sep. 11, 2022	Dec. 10, 2022~ Feb. 06, 2023	Sep. 10, 2023	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1522	1GHz~18GHz	Mar. 10, 2022	Dec. 10, 2022~ Feb. 06, 2023	Mar. 09, 2023	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2022	Dec. 10, 2022~ Feb. 06, 2023	Dec. 08, 2023	Radiation (03CH16-HY)
Preamplifier	EMEC	EM1G18G	060812	1GHz~18GHz	Dec. 26, 2022	Dec. 26, 2022~ Feb. 06, 2023	Dec. 25, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	805935/4	N/A	Aug. 09, 2022	Dec. 10, 2022~ Feb. 06, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	802434/4	N/A	Aug. 09, 2022	Dec. 10, 2022~ Feb. 06, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5 757	N/A	Aug. 09, 2022	Dec. 10, 2022~ Feb. 06, 2023	Aug. 08, 2023	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Dec. 10, 2022~ Feb. 06, 2023	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Dec. 10, 2022~ Feb. 06, 2023	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Dec. 10, 2022~ Feb. 06, 2023	N/A	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-000451	N/A	N/A	Dec. 10, 2022~ Feb. 06, 2023	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	Dec. 07, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2022	Dec. 07, 2022	Nov. 30, 2023	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2022	Dec. 07, 2022	Nov. 16, 2023	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 17, 2022	Dec. 07, 2022	Nov. 16, 2023	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Dec. 07, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-F N	00691	N/A	Aug. 01, 2022	Dec. 07, 2022	Jul. 31, 2023	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Dec. 07, 2022	Dec. 29, 2022	Conduction (CO05-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 17. 2022	Nov. 24, 2022~ Feb. 06, 2023	Nov. 16. 2023	Conducted (TH05-HY)
USB Power Sensor	DARE	RPR3006W	17I00015SNO36 (NO:35)	10MHz~6GHz	Sep. 04, 2022	Nov. 24, 2022~ Feb. 06, 2023	Sep. 03, 2023	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101905	10Hz - 40GHz	Aug. 03, 2022	Nov. 24, 2022~ Feb. 06, 2023	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))	3.50 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.50 dB

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.60 dB

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.50 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.60 dB

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu	Temperature:	21~25	°C
Test Date:	2022/11/24~2023/02/06	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band Single Antenna										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant3	Ant4	Ant3	Ant4		
11b	1Mbps	1	1	2412	13.49	13.39	9.08	8.10	0.50	Pass
11b	1Mbps	1	6	2437	13.24	13.34	7.62	8.10	0.50	Pass
11b	1Mbps	1	11	2462	13.39	13.39	8.56	8.10	0.50	Pass
11b	1Mbps	1	12	2467	13.44	13.44	9.06	9.06	0.50	Pass
11b	1Mbps	1	13	2472	13.19	13.29	8.56	8.08	0.50	Pass

2.4GHz Band MIMO										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
					Ant3	Ant4	Ant3	Ant4		
11g	6Mbps	2	1	2412	18.53	18.18	16.12	16.38	0.50	Pass
11g	6Mbps	2	6	2437	21.68	20.23	16.36	16.34	0.50	Pass
11g	6Mbps	2	11	2462	18.63	18.33	16.10	15.74	0.50	Pass
11g	6Mbps	2	12	2467	18.63	18.28	16.12	16.36	0.50	Pass
11g	6Mbps	2	13	2472	17.98	17.73	16.10	16.36	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band Single Antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant3	Ant4	SUM	Ant3	Ant4	Ant3	Ant4	Ant3	Ant4	Ant3	Ant4	
11b	1Mbps	1	1	2412	22.90	22.50		30.00	30.00	-3.20	-2.10	19.70	20.40	36.00	36.00	Pass
11b	1Mbps	1	6	2437	22.80	22.60		30.00	30.00	-3.20	-2.10	19.60	20.50	36.00	36.00	Pass
11b	1Mbps	1	11	2462	22.70	22.70		30.00	30.00	-3.20	-2.10	19.50	20.60	36.00	36.00	Pass
11b	1Mbps	1	12	2467	22.70	22.10		30.00	30.00	-3.20	-2.10	19.50	20.00	36.00	36.00	Pass
11b	1Mbps	1	13	2472	19.00	19.70		30.00	30.00	-3.20	-2.10	15.80	17.60	36.00	36.00	Pass

2.4GHz Band MIMO																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
					Ant3	Ant4	SUM	Ant3	Ant4	Ant3	Ant4	Ant3	Ant4	Ant3	Ant4	
11g	6Mbps	2	1	2412	21.20	21.00	24.11	30.00		-2.10		22.01		36.00		Pass
11g	6Mbps	2	6	2437	22.80	22.30	25.57	30.00		-2.10		23.47		36.00		Pass
11g	6Mbps	2	11	2462	20.10	19.40	22.77	30.00		-2.10		20.67		36.00		Pass
11g	6Mbps	2	12	2467	15.80	15.20	18.52	30.00		-2.10		16.42		36.00		Pass
11g	6Mbps	2	13	2472	12.80	12.90	15.86	30.00		-2.10		13.76		36.00		Pass
HT20	MCS0	2	1	2412	20.10	20.20	23.16	30.00		-2.10		21.06		36.00		Pass
HT20	MCS0	2	6	2437	22.80	22.30	25.57	30.00		-2.10		23.47		36.00		Pass
HT20	MCS0	2	11	2462	18.60	17.90	21.27	30.00		-2.10		19.17		36.00		Pass
HT20	MCS0	2	12	2467	16.10	15.60	18.87	30.00		-2.10		16.77		36.00		Pass
HT20	MCS0	2	13	2472	14.20	13.90	17.06	30.00		-2.10		14.96		36.00		Pass
VHT20	MCS0	2	1	2412	20.10	20.30	23.21	30.00		-2.10		21.11		36.00		Pass
VHT20	MCS0	2	6	2437	22.80	22.40	25.61	30.00		-2.10		23.51		36.00		Pass
VHT20	MCS0	2	11	2462	18.60	18.00	21.32	30.00		-2.10		19.22		36.00		Pass
VHT20	MCS0	2	12	2467	16.10	15.70	18.91	30.00		-2.10		16.81		36.00		Pass
VHT20	MCS0	2	13	2472	14.20	14.00	17.11	30.00		-2.10		15.01		36.00		Pass

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band Single Antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant3	Ant4	Worse + 3.01	Ant3	Ant4	Ant3	Ant4	
11b	1Mbps	1	1	2412	2.05	0.63		-3.20	-2.10	8.00	8.00	Pass
11b	1Mbps	1	6	2437	0.33	0.50		-3.20	-2.10	8.00	8.00	Pass
11b	1Mbps	1	11	2462	0.53	1.48		-3.20	-2.10	8.00	8.00	Pass
11b	1Mbps	1	12	2467	0.87	0.19		-3.20	-2.10	8.00	8.00	Pass
11b	1Mbps	1	13	2472	-2.38	-2.78		-3.20	-2.10	8.00	8.00	Pass

2.4GHz Band MIMO												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
					Ant3	Ant4	Worse + 3.01	Ant3	Ant4	Ant3	Ant4	
11g	6Mbps	2	1	2412	-4.46	-4.61	-1.45	0.38		8.00		Pass
11g	6Mbps	2	6	2437	-2.42	-3.03	0.59	0.38		8.00		Pass
11g	6Mbps	2	11	2462	-4.67	-6.12	-1.66	0.38		8.00		Pass
11g	6Mbps	2	12	2467	-9.39	-10.30	-6.38	0.38		8.00		Pass
11g	6Mbps	2	13	2472	-13.47	-13.34	-10.33	0.38		8.00		Pass

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

TEST RESULTS DATA
6dB and 99% Occupied Bandwidth

2.4GHz Band MIMO											
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	99% Occupied BW (MHz)		6dB BW (MHz)		6dB BW Limit (MHz)	Pass/Fail
						Ant3	Ant4	Ant3	Ant4		
HE20	MCS0	2	1	2412	Full	19.73	19.68	18.48	18.93	0.50	Pass
HE20	MCS0	2	6	2437	Full	20.93	21.13	18.80	18.78	0.50	Pass
HE20	MCS0	2	11	2462	Full	19.78	19.73	18.45	17.18	0.50	Pass
HE20	MCS0	2	12	2467	Full	19.88	19.78	18.68	18.58	0.50	Pass
HE20	MCS0	2	13	2472	Full	19.33	19.38	18.18	18.10	0.50	Pass

TEST RESULTS DATA
Average Output Power

2.4GHz Band MIMO																		
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Average Conducted Power (dBm)			Conducted Power Limit (dBm)		DG (dBi)		EIRP Power (dBm)		EIRP Power Limit (dBm)		Pass /Fail
						Ant3	Ant4	SUM	Ant3	Ant4	Ant3	Ant4	Ant3	Ant4	Ant3	Ant4	
HE20	MCS0	2	1	2412	Full	20.20	20.30	23.26	30.00		-2.10		21.16		36.00		Pass
HE20	MCS0	2	1	2412	26/0	8.80	9.70	12.28	30.00		-2.10		10.18		36.00		Pass
HE20	MCS0	2	1	2412	52/37	11.40	12.00	14.72	30.00		-2.10		12.62		36.00		Pass
HE20	MCS0	2	1	2412	106/53	14.10	14.60	17.37	30.00		-2.10		15.27		36.00		Pass
HE20	MCS0	2	6	2437	Full	22.90	22.40	25.67	30.00		-2.10		23.57		36.00		Pass
HE20	MCS0	2	6	2437	26/4	14.20	13.90	17.06	30.00		-2.10		14.96		36.00		Pass
HE20	MCS0	2	6	2437	52/38	16.80	16.20	19.52	30.00		-2.10		17.42		36.00		Pass
HE20	MCS0	2	6	2437	106/53	19.20	18.80	22.01	30.00		-2.10		19.91		36.00		Pass
HE20	MCS0	2	11	2462	Full	18.70	18.00	21.37	30.00		-2.10		19.27		36.00		Pass
HE20	MCS0	2	11	2462	26/8	8.70	7.90	11.33	30.00		-2.10		9.23		36.00		Pass
HE20	MCS0	2	11	2462	52/40	11.40	11.10	14.26	30.00		-2.10		12.16		36.00		Pass
HE20	MCS0	2	11	2462	106/54	14.00	13.50	16.77	30.00		-2.10		14.67		36.00		Pass
HE20	MCS0	2	12	2467	Full	16.20	15.70	18.97	30.00		-2.10		16.87		36.00		Pass
HE20	MCS0	2	12	2467	26/8	7.00	6.80	9.91	30.00		-2.10		7.81		36.00		Pass
HE20	MCS0	2	12	2467	52/40	9.30	8.90	12.11	30.00		-2.10		10.01		36.00		Pass
HE20	MCS0	2	12	2467	106/54	12.50	11.90	15.22	30.00		-2.10		13.12		36.00		Pass
HE20	MCS0	2	13	2472	Full	14.30	14.00	17.16	30.00		-2.10		15.06		36.00		Pass
HE20	MCS0	2	13	2472	26/8	4.70	5.10	7.91	30.00		-2.10		5.81		36.00		Pass
HE20	MCS0	2	13	2472	52/40	7.30	7.10	10.21	30.00		-2.10		8.11		36.00		Pass
HE20	MCS0	2	13	2472	106/54	10.10	10.10	13.11	30.00		-2.10		11.01		36.00		Pass

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

TEST RESULTS DATA
Peak Power Spectral Density

2.4GHz Band MIMO													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	RU Config.	Peak PSD (dBm/3kHz)			DG (dBi)		Peak PSD Limit (dBm/3kHz)		Pass/Fail
						Ant3	Ant4	Worse + 3.01	Ant3	Ant4	Ant3	Ant4	
HE20	MCS0	2	1	2412	Full	-7.71	-7.94	-4.70	0.38		8.00		Pass
HE20	MCS0	2	1	2412	26/0	-8.47	-7.80	-4.79	0.38		8.00		Pass
HE20	MCS0	2	1	2412	52/37	-8.97	-7.85	-4.84	0.38		8.00		Pass
HE20	MCS0	2	1	2412	106/53	-8.89	-8.02	-5.01	0.38		8.00		Pass
HE20	MCS0	2	6	2437	Full	-3.11	-3.12	-0.10	0.38		8.00		Pass
HE20	MCS0	2	6	2437	26/4	-3.14	-3.55	-0.13	0.38		8.00		Pass
HE20	MCS0	2	6	2437	52/38	-3.27	-3.55	-0.26	0.38		8.00		Pass
HE20	MCS0	2	6	2437	106/53	-3.41	-4.22	-0.40	0.38		8.00		Pass
HE20	MCS0	2	11	2462	Full	-7.82	-8.63	-4.81	0.38		8.00		Pass
HE20	MCS0	2	11	2462	26/8	-8.28	-8.70	-5.27	0.38		8.00		Pass
HE20	MCS0	2	11	2462	52/40	-8.26	-7.97	-4.96	0.38		8.00		Pass
HE20	MCS0	2	11	2462	106/54	-8.26	-8.42	-5.25	0.38		8.00		Pass
HE20	MCS0	2	12	2467	Full	-9.87	-10.36	-6.86	0.38		8.00		Pass
HE20	MCS0	2	12	2467	26/8	-10.13	-11.01	-7.12	0.38		8.00		Pass
HE20	MCS0	2	12	2467	52/40	-10.02	-11.20	-7.01	0.38		8.00		Pass
HE20	MCS0	2	12	2467	106/54	-10.04	-10.16	-7.03	0.38		8.00		Pass
HE20	MCS0	2	13	2472	Full	-12.45	-12.56	-9.44	0.38		8.00		Pass
HE20	MCS0	2	13	2472	26/8	-12.56	-12.51	-9.50	0.38		8.00		Pass
HE20	MCS0	2	13	2472	52/40	-12.79	-13.18	-9.78	0.38		8.00		Pass
HE20	MCS0	2	13	2472	106/54	-12.50	-12.52	-9.49	0.38		8.00		Pass

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

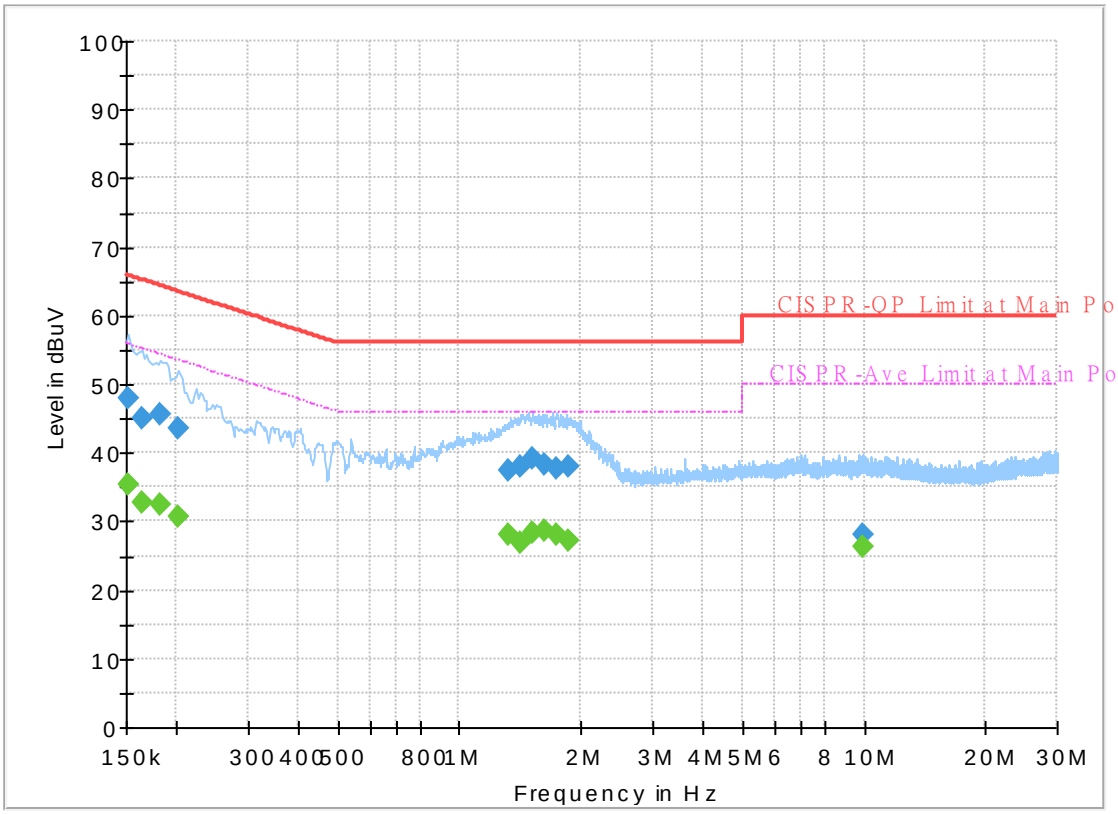
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	262403-04
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



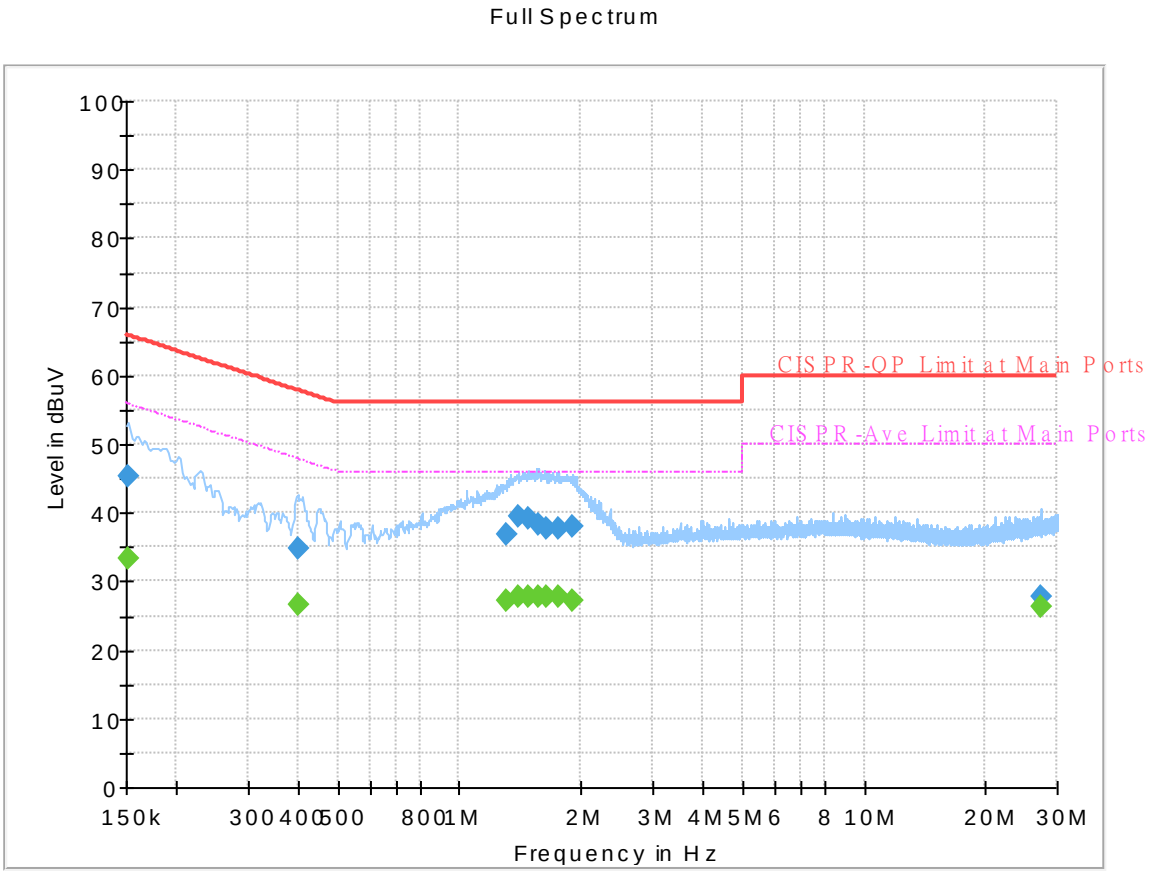
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	35.44	55.88	20.44	L1	OFF	19.8
0.152250	48.02	---	65.88	17.86	L1	OFF	19.8
0.163500	---	32.62	55.28	22.66	L1	OFF	19.8
0.163500	45.06	---	65.28	20.22	L1	OFF	19.8
0.181500	---	32.53	54.42	21.89	L1	OFF	19.8
0.181500	45.49	---	64.42	18.93	L1	OFF	19.8
0.201750	---	30.57	53.54	22.97	L1	OFF	19.8
0.201750	43.55	---	63.54	19.99	L1	OFF	19.8
1.322250	---	28.00	46.00	18.00	L1	OFF	19.8
1.322250	37.52	---	56.00	18.48	L1	OFF	19.8
1.410000	---	26.95	46.00	19.05	L1	OFF	19.9
1.410000	38.11	---	56.00	17.89	L1	OFF	19.9
1.515750	---	28.44	46.00	17.56	L1	OFF	19.9
1.515750	39.20	---	56.00	16.80	L1	OFF	19.9
1.623750	---	28.68	46.00	17.32	L1	OFF	19.9
1.623750	38.27	---	56.00	17.73	L1	OFF	19.9
1.747500	---	27.97	46.00	18.03	L1	OFF	19.9
1.747500	37.76	---	56.00	18.24	L1	OFF	19.9
1.864500	---	27.33	46.00	18.67	L1	OFF	19.9
1.864500	37.88	---	56.00	18.12	L1	OFF	19.9
9.980250	---	26.42	50.00	23.58	L1	OFF	20.2

9.980250	**28.16**	**---**	**60.00**	**31.84**	**L1**	**OFF**	**20.2**

EUT Information

Report NO :	262403-04
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	33.31	55.88	22.57	N	OFF	19.8
0.152250	45.38	---	65.88	20.50	N	OFF	19.8
0.397500	---	26.60	47.91	21.31	N	OFF	19.8
0.397500	34.84	---	57.91	23.07	N	OFF	19.8
1.302000	---	27.08	46.00	18.92	N	OFF	19.8
1.302000	36.98	---	56.00	19.02	N	OFF	19.8
1.394250	---	27.65	46.00	18.35	N	OFF	19.8
1.394250	39.51	---	56.00	16.49	N	OFF	19.8
1.475250	---	27.82	46.00	18.18	N	OFF	19.8
1.475250	39.14	---	56.00	16.86	N	OFF	19.8
1.567500	---	27.88	46.00	18.12	N	OFF	19.8
1.567500	38.29	---	56.00	17.71	N	OFF	19.8
1.648500	---	27.84	46.00	18.16	N	OFF	19.8
1.648500	37.81	---	56.00	18.19	N	OFF	19.8
1.756500	---	27.73	46.00	18.27	N	OFF	19.8
1.756500	37.73	---	56.00	18.27	N	OFF	19.8
1.902750	---	27.22	46.00	18.78	N	OFF	19.8
1.902750	38.08	---	56.00	17.92	N	OFF	19.8
27.435750	---	26.21	50.00	23.79	N	OFF	20.9
27.435750	27.77	---	60.00	32.23	N	OFF	20.9

Appendix C. Radiated Spurious Emission

Test Engineer :	Andy Yang, Karl Hou and Steven Wu	Temperature :	18~23°C
		Relative Humidity :	50~65%

<Open Mode>

2.4GHz 2400~2483.5MHz

WIFI 802.11b (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
3		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2375.94	53.87	-20.13	74	39.71	27.3	17.33	30.47	102	307	P	H
		2389.275	43.51	-10.49	54	29.26	27.36	17.36	30.47	102	307	A	H
	*	2412	107.45	-	-	93.04	27.47	17.4	30.46	102	307	P	H
	*	2412	104.32	-	-	89.91	27.47	17.4	30.46	102	307	A	H
													H
		2351.055	54	-20	74	40	27.2	17.33	30.48	379	154	P	V
		2389.17	43.03	-10.97	54	28.78	27.36	17.36	30.47	379	154	A	V
	*	2412	103.76	-	-	89.35	27.47	17.4	30.46	379	154	P	V
	*	2412	100.64	-	-	86.23	27.47	17.4	30.46	379	154	A	V
													V
802.11b CH 06 2437MHz		2365.86	55.15	-18.85	74	41.05	27.26	17.31	30.47	105	302	P	H
		2387.84	42.71	-11.29	54	28.48	27.35	17.35	30.47	105	302	A	H
	*	2437	110.33	-	-	95.72	27.62	17.44	30.45	105	302	P	H
	*	2437	107.02	-	-	92.41	27.62	17.44	30.45	105	302	A	H
		2491.32	54.77	-19.23	74	39.81	27.87	17.52	30.43	105	302	P	H
		2494.19	43.62	-10.38	54	28.65	27.88	17.52	30.43	105	302	A	H
		2346.26	54.19	-19.81	74	40.2	27.2	17.27	30.48	400	354	P	V
		2387	42.59	-11.41	54	28.36	27.35	17.35	30.47	400	354	A	V
	*	2437	102.85	-	-	88.24	27.62	17.44	30.45	400	354	P	V
	*	2437	99.53	-	-	84.92	27.62	17.44	30.45	400	354	A	V
		2497.13	54.71	-19.29	74	39.72	27.89	17.53	30.43	400	354	P	V
		2494.96	43.57	-10.43	54	28.6	27.88	17.52	30.43	400	354	A	V

802.11b CH 11 2462MHz	*	2462	110.48	-	-	95.7	27.75	17.47	30.44	100	228	P	H
	*	2462	107.2	-	-	92.42	27.75	17.47	30.44	100	228	A	H
		2486.8	54.91	-19.09	74	39.98	27.85	17.51	30.43	100	228	P	H
		2484.96	44.07	-9.93	54	29.15	27.84	17.51	30.43	100	228	A	H
													H
													H
	*	2462	106.05	-	-	91.27	27.75	17.47	30.44	400	353	P	V
	*	2462	102.71	-	-	87.93	27.75	17.47	30.44	400	353	A	V
		2490.84	55.36	-18.64	74	40.41	27.86	17.52	30.43	400	353	P	V
		2485.2	43.67	-10.33	54	28.75	27.84	17.51	30.43	400	353	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 3	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 12 2467MHz	*	2467	109.33	-	-	94.52	27.77	17.48	30.44	100	315	P	H
	*	2467	106.07	-	-	91.26	27.77	17.48	30.44	100	315	A	H
		2483.56	59.11	-14.89	74	44.21	27.83	17.51	30.44	100	315	P	H
		2483.52	49.62	-4.38	54	34.72	27.83	17.51	30.44	100	315	A	H
													H
													H
	*	2467	107.34	-	-	92.53	27.77	17.48	30.44	400	167	P	V
	*	2467	104.2	-	-	89.39	27.77	17.48	30.44	400	167	A	V
		2483.6	56.71	-17.29	74	41.81	27.83	17.51	30.44	400	167	P	V
		2483.52	47.79	-6.21	54	32.89	27.83	17.51	30.44	400	167	A	V
													V
													V
802.11b CH 13 2472MHz	*	2472	107.97	-	-	93.13	27.79	17.49	30.44	100	306	P	H
	*	2472	105.03	-	-	90.19	27.79	17.49	30.44	100	306	A	H
		2485.48	59.4	-14.6	74	44.48	27.84	17.51	30.43	100	306	P	H
		2485.76	51.85	-2.15	54	36.93	27.84	17.51	30.43	100	306	A	H
													H
													H
	*	2472	105.44	-	-	90.6	27.79	17.49	30.44	400	153	P	V
	*	2472	102.32	-	-	87.48	27.79	17.49	30.44	400	153	A	V
		2485.6	57.48	-16.52	74	42.56	27.84	17.51	30.43	400	153	P	V
		2485.72	49.19	-4.81	54	34.27	27.84	17.51	30.43	400	153	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. 3	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		4824	45.16	-28.84	74	68.04	32.44	11.32	66.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	43.84	-30.16	74	66.72	32.44	10.81	66.64	-	-	P	V
													V
													V
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WIFI Ant. 3	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 06 2437MHz		4874	45.96	-28.04	74	68.5	32.7	11.35	66.59	-	-	P	H
		7311	45.49	-28.51	74	61.19	37.13	13.5	66.33	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4874	43.84	-30.16	74	66.38	32.7	11.35	66.59	-	-	P	V
		7311	46.38	-27.62	74	62.08	37.13	13.5	66.33	-	-	P	V
													V
													V
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													V
													V
													V
													V
													V

WIFI Ant. 3	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		4924	46.11	-27.89	74	68.33	32.94	11.38	66.54	-	-	P	H
		7386	46.16	-27.84	74	62.37	36.76	13.39	66.36	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4924	42.79	-31.21	74	65.01	32.94	11.38	66.54	-	-	P	V
		7386	46.03	-27.97	74	62.24	36.76	13.39	66.36	-	-	P	V
													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.												

WIFI Ant. 3	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 12 2467MHz		4934	46.85	-27.15	74	68.99	33	11.39	66.53	-	-	P	H
		7401	49.96	-24.04	74	66.27	36.69	13.37	66.37	100	118	P	H
		7401	44.64	-9.36	54	60.95	36.69	13.37	66.37	100	118	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4934	44.59	-29.41	74	66.73	33	11.39	66.53	-	-	P	V
		7401	49.75	-24.25	74	66.06	36.69	13.37	66.37	100	279	P	V
		7401	44.38	-9.62	54	60.69	36.69	13.37	66.37	100	279	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 3	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 13 2472MHz		4944	43.32	-30.68	74	64.93	33.06	11.4	66.07	-	-	P	H
		7416	42.87	-31.13	74	58.64	36.6	13.41	65.78	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4944	42.57	-31.43	74	64.18	33.06	11.4	66.07	-	-	P	V
		7416	43.93	-30.07	74	59.7	36.6	13.41	65.78	-	-	P	V
													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 802.11b (Band Edge @ 3m)

WIFI Ant. 4	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		2389.065	54.85	-19.15	74	40.6	27.36	17.36	30.47	174	148	P	H
		2388.96	43.09	-10.91	54	28.84	27.36	17.36	30.47	174	148	A	H
	*	2412	110.02	-	-	95.61	27.47	17.4	30.46	174	148	P	H
	*	2412	106.53	-	-	92.12	27.47	17.4	30.46	174	148	A	H
													H
													H
		2379.195	53.85	-20.15	74	39.66	27.32	17.36	30.47	382	48	P	V
		2389.065	42.52	-11.48	54	28.27	27.36	17.36	30.47	382	48	A	V
	*	2412	107.41	-	-	93	27.47	17.4	30.46	382	48	P	V
	*	2412	104.27	-	-	89.86	27.47	17.4	30.46	382	48	A	V
													V
													V
802.11b CH 06 2437MHz		2322.04	53.57	-20.43	74	39.64	27.2	17.22	30.49	165	149	P	H
		2389.38	42.37	-11.63	54	28.12	27.36	17.36	30.47	165	149	A	H
	*	2437	111.98	-	-	97.37	27.62	17.44	30.45	165	149	P	H
	*	2437	109	-	-	94.39	27.62	17.44	30.45	165	149	A	H
		2498.32	54.48	-19.52	74	39.49	27.89	17.53	30.43	165	149	P	H
		2486.77	43.25	-10.75	54	28.32	27.85	17.51	30.43	165	149	A	H
		2314.76	54.19	-19.81	74	40.28	27.2	17.2	30.49	374	66	P	V
		2388.82	42.87	-11.13	54	28.62	27.36	17.36	30.47	374	66	A	V
	*	2437	109.8	-	-	95.19	27.62	17.44	30.45	374	66	P	V
	*	2437	106.82	-	-	92.21	27.62	17.44	30.45	374	66	A	V
		2492.58	55.69	-18.31	74	40.73	27.87	17.52	30.43	374	66	P	V
		2499.58	43.71	-10.29	54	28.71	27.9	17.53	30.43	374	66	A	V

802.11b CH 11 2462MHz	*	2462	110.65	-	-	95.87	27.75	17.47	30.44	155	211	P	H
	*	2462	107.53	-	-	92.75	27.75	17.47	30.44	155	211	A	H
		2486.8	54.72	-19.28	74	39.79	27.85	17.51	30.43	155	211	P	H
		2484.8	43.98	-10.02	54	29.06	27.84	17.51	30.43	155	211	A	H
													H
													H
	*	2462	108.51	-	-	93.73	27.75	17.47	30.44	400	45	P	V
	*	2462	105.29	-	-	90.51	27.75	17.47	30.44	400	45	A	V
		2486.88	55.54	-18.46	74	40.61	27.85	17.51	30.43	400	45	P	V
		2484.96	43.79	-10.21	54	28.87	27.84	17.51	30.43	400	45	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 4	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 12 2467MHz	*	2467	111.73	-	-	96.92	27.77	17.48	30.44	105	145	P	H
	*	2467	108.48	-	-	93.67	27.77	17.48	30.44	105	145	A	H
		2483.88	59.12	-14.88	74	44.21	27.84	17.51	30.44	105	145	P	H
		2484.2	52.01	-1.99	54	37.1	27.84	17.51	30.44	105	145	A	H
													H
													H
	*	2467	109.25	-	-	94.44	27.77	17.48	30.44	400	49	P	V
	*	2467	106.12	-	-	91.31	27.77	17.48	30.44	400	49	A	V
		2483.8	57.22	-16.78	74	42.31	27.84	17.51	30.44	400	49	P	V
		2484.4	50.07	-3.93	54	35.15	27.84	17.51	30.43	400	49	A	V
													V
													V
802.11b CH 13 2472MHz	*	2472	108.6	-	-	93.76	27.79	17.49	30.44	100	143	P	H
	*	2472	105.71	-	-	90.87	27.79	17.49	30.44	100	143	A	H
		2485.92	59.74	-14.26	74	44.82	27.84	17.51	30.43	100	143	P	H
		2485.72	51.47	-2.53	54	36.55	27.84	17.51	30.43	100	143	A	H
													H
													H
	*	2472	105.41	-	-	90.57	27.79	17.49	30.44	400	49	P	V
	*	2472	102.54	-	-	87.7	27.79	17.49	30.44	400	49	A	V
		2486.72	57.87	-16.13	74	42.94	27.85	17.51	30.43	400	49	P	V
		2486	49.48	-4.52	54	34.56	27.84	17.51	30.43	400	49	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. 4	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		4824	45.78	-28.22	74	68.66	32.44	11.32	66.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	43.69	-30.31	74	66.57	32.44	11.32	66.64	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 4	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)
		4874	42.49	-31.51	74	65.03	32.7	11.35	66.59	-	-	P	H
		7311	44.76	-29.24	74	60.46	37.13	13.5	66.33	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11b CH 06 2437MHz													H
		4874	42.27	-31.73	74	64.81	32.7	11.35	66.59	-	-	P	V
		7311	44.71	-29.29	74	60.41	37.13	13.5	66.33	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 4	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		4924	45	-29	74	67.22	32.94	11.38	66.54	-	-	P	H
		7386	44.28	-29.72	74	60.49	36.76	13.39	66.36	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4924	41.99	-32.01	74	64.21	32.94	11.38	66.54	-	-	P	V
		7386	43.11	-30.89	74	59.32	36.76	13.39	66.36	-	-	P	V
													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.												

WIFI Ant. 4	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 12 2467MHz		4934	43.73	-30.27	74	65.87	33	11.39	66.53	-	-	P	H
		7401	43.5	-30.5	74	59.81	36.69	13.37	66.37	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4934	42.38	-31.62	74	64.52	33	11.39	66.53	-	-	P	V
		7401	44.02	-29.98	74	60.33	36.69	13.37	66.37	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 4	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 13 2472MHz		4944	44.19	-29.81	74	65.8	33.06	11.4	66.07	-	-	P	H
		7416	43.02	-30.98	74	58.79	36.6	13.41	65.78	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4944	42.61	-31.39	74	64.22	33.06	11.4	66.07	-	-	P	V
		7416	42.81	-31.19	74	58.58	36.6	13.41	65.78	-	-	P	V
													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 802.11g (Band Edge @ 3m)

WIFI Ant. 3+4	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		2389.275	60.85	-13.15	74	46.6	27.36	17.36	30.47	100	235	P	H
		2390	51.97	-2.03	54	37.72	27.36	17.36	30.47	100	235	A	H
	*	2412	111.48	-	-	97.07	27.47	17.4	30.46	100	235	P	H
	*	2412	104.56	-	-	90.15	27.47	17.4	30.46	100	235	A	H
													H
													H
		2389.905	60.63	-13.37	74	46.38	27.36	17.36	30.47	345	55	P	V
		2390	47.48	-6.52	54	33.23	27.36	17.36	30.47	345	55	A	V
	*	2412	109.1	-	-	94.69	27.47	17.4	30.46	345	55	P	V
	*	2412	101.18	-	-	86.77	27.47	17.4	30.46	345	55	A	V
													V
													V
802.11g CH 06 2437MHz		2389.38	60.57	-13.43	74	46.32	27.36	17.36	30.47	100	208	P	H
		2389.94	46.37	-7.63	54	32.12	27.36	17.36	30.47	100	208	A	H
	*	2437	116.98	-	-	102.37	27.62	17.44	30.45	100	208	P	H
	*	2437	109.71	-	-	95.1	27.62	17.44	30.45	100	208	A	H
		2483.55	57.38	-16.62	74	42.48	27.83	17.51	30.44	100	208	P	H
		2483.5	46.55	-7.45	54	31.65	27.83	17.51	30.44	100	208	A	H
		2387.84	55.7	-18.3	74	41.47	27.35	17.35	30.47	400	50	P	V
		2387.98	44.42	-9.58	54	30.19	27.35	17.35	30.47	400	50	A	V
	*	2437	110.05	-	-	95.44	27.62	17.44	30.45	400	50	P	V
	*	2437	101	-	-	86.39	27.62	17.44	30.45	400	50	A	V
		2483.97	56.04	-17.96	74	41.13	27.84	17.51	30.44	400	50	P	V
		2484.04	45.72	-8.28	54	30.81	27.84	17.51	30.44	400	50	A	V

802.11g CH 11 2462MHz	*	2462	113.71	-	-	98.93	27.75	17.47	30.44	100	231	P	H
	*	2462	106.09	-	-	91.31	27.75	17.47	30.44	100	231	A	H
		2483.6	63.01	-10.99	74	48.11	27.83	17.51	30.44	100	231	P	H
		2483.52	52.03	-1.97	54	37.13	27.83	17.51	30.44	100	231	A	H
													H
													H
	*	2462	108.95	-	-	94.17	27.75	17.47	30.44	359	156	P	V
	*	2462	101.1	-	-	86.32	27.75	17.47	30.44	359	156	A	V
		2483.92	58.36	-15.64	74	43.45	27.84	17.51	30.44	359	156	P	V
		2483.52	48.42	-5.58	54	33.52	27.83	17.51	30.44	359	156	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 3+4	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 12 2467MHz	*	2467	110.02	-	-	95.21	27.77	17.48	30.44	100	210	P	H
	*	2467	101.98	-	-	87.17	27.77	17.48	30.44	100	210	A	H
		2483.88	60.63	-13.37	74	45.72	27.84	17.51	30.44	100	210	P	H
		2483.52	51.61	-2.39	54	36.71	27.83	17.51	30.44	100	210	A	H
													H
													H
	*	2467	105.6	-	-	90.79	27.77	17.48	30.44	400	72	P	V
	*	2467	97.46	-	-	82.65	27.77	17.48	30.44	400	72	A	V
		2484.16	58.34	-15.66	74	43.43	27.84	17.51	30.44	400	72	P	V
		2483.84	47.85	-6.15	54	32.94	27.84	17.51	30.44	400	72	A	V
													V
													V
802.11g CH 13 2472MHz	*	2472	107.21	-	-	92.37	27.79	17.49	30.44	100	210	P	H
	*	2472	99.71	-	-	84.87	27.79	17.49	30.44	100	210	A	H
		2483.6	61.04	-12.96	74	46.14	27.83	17.51	30.44	100	210	P	H
		2483.52	51.61	-2.39	54	36.71	27.83	17.51	30.44	100	210	A	H
													H
													H
	*	2472	103.18	-	-	88.34	27.79	17.49	30.44	400	52	P	V
	*	2472	95.67	-	-	80.83	27.79	17.49	30.44	400	52	A	V
		2485.8	57.17	-16.83	74	42.25	27.84	17.51	30.43	400	52	P	V
		2484.84	47.41	-6.59	54	32.49	27.84	17.51	30.43	400	52	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. 3+4	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		4824	45.46	-28.54	74	68.34	32.44	11.32	66.64	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4824	43.9	-30.1	74	66.78	32.44	11.32	66.64	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 3+4	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 06 2437MHz		4874	45.08	-28.92	74	67.62	32.7	11.35	66.59	-	-	P	H
		7311	49.98	-24.02	74	65.68	37.13	13.5	66.33	-	-	P	H
		7311	39.41	-14.59	54	55.11	37.13	13.5	66.33	-	-	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4874	43.88	-30.12	74	66.42	32.7	11.35	66.59	-	-	P	V
		7311	51.46	-22.54	74	67.16	37.13	13.5	66.33	-	-	P	V
		7311	39.75	-14.25	54	55.45	37.13	13.5	66.33	-	-	A	V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 3+4	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		4924	41.87	-32.13	74	63.63	32.94	11.38	66.08	-	-	P	H
		7386	43.44	-30.56	74	59.05	36.76	13.39	65.76	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4924	40.32	-33.68	74	62.08	32.94	11.38	66.08	-	-	P	V
		7386	43.21	-30.79	74	58.82	36.76	13.39	65.76	-	-	P	V
													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.												

WIFI Ant. 3+4	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)
		4934	40.56	-33.44	74	62.25	33	11.39	66.08	-	-	P	H
		7401	43.51	-30.49	74	59.22	36.69	13.37	65.77	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11g CH 12 2467MHz													H
		4934	40.52	-33.48	74	62.21	33	11.39	66.08	-	-	P	V
		7401	42.76	-31.24	74	58.47	36.69	13.37	65.77	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 3+4	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 13 2472MHz		4944	40.98	-33.02	74	62.59	33.06	11.4	66.07	-	-	P	H
		7416	43.36	-30.64	74	59.13	36.6	13.41	65.78	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		4944	40.28	-33.72	74	61.89	33.06	11.4	66.07	-	-	P	V
		7416	42.96	-31.04	74	58.73	36.6	13.41	65.78	-	-	P	V
													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 802.11ax HE20 Full (Band Edge @ 3m)

WIFI Ant. 3+4	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)
802.11ax HE20 Full CH 01 2412MHz		2389.485	60.83	-13.17	74	46.58	27.36	17.36	30.47	100	299	P	H
		2389.905	51.88	-2.12	54	37.63	27.36	17.36	30.47	100	299	A	H
	*	2412	109.66	-	-	95.25	27.47	17.4	30.46	100	299	P	H
	*	2412	100.62	-	-	86.21	27.47	17.4	30.46	100	299	A	H
													H
													H
		2390	58.5	-15.5	74	44.25	27.36	17.36	30.47	393	55	P	V
		2390	48.61	-5.39	54	34.36	27.36	17.36	30.47	393	55	A	V
	*	2418	108.01	-	-	93.55	27.51	17.41	30.46	393	55	P	V
	*	2412	98.82	-	-	84.41	27.47	17.4	30.46	393	55	A	V
													V
													V
802.11ax HE20 Full CH 06 2437MHz		2389.52	59.3	-14.7	74	45.05	27.36	17.36	30.47	100	153	P	H
		2389.94	47.91	-6.09	54	33.66	27.36	17.36	30.47	100	153	A	H
	*	2437	114.97	-	-	100.36	27.62	17.44	30.45	100	153	P	H
	*	2437	106.5	-	-	91.89	27.62	17.44	30.45	100	153	A	H
		2484.39	58.64	-15.36	74	43.72	27.84	17.51	30.43	100	153	P	H
		2483.5	47.7	-6.3	54	32.8	27.83	17.51	30.44	100	153	A	H
		2389.52	57.98	-16.02	74	43.73	27.36	17.36	30.47	400	52	P	V
		2389.8	45.6	-8.4	54	31.35	27.36	17.36	30.47	400	52	A	V
	*	2437	107.88	33.88	74	93.27	27.62	17.44	30.45	400	52	P	V
	*	2437	98.67	44.67	54	84.06	27.62	17.44	30.45	400	52	A	V
		2483.97	56.63	-17.37	74	41.72	27.84	17.51	30.44	400	52	P	V
		2484.04	46.6	-7.4	54	31.69	27.84	17.51	30.44	400	52	A	V

WIFI Ant. 3+4	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)
	*	2462	111.52	-	-	96.74	27.75	17.47	30.44	109	224	P	H
	*	2462	102.77	-	-	87.99	27.75	17.47	30.44	109	224	A	H
		2483.72	62.63	-11.37	74	47.73	27.83	17.51	30.44	109	224	P	H
		2483.52	51.59	-2.41	54	36.69	27.83	17.51	30.44	109	224	A	H
802.11ax													H
HE20 Full													H
CH 11	*	2462	106.14	-	-	91.36	27.75	17.47	30.44	400	153	P	V
2462MHz	*	2462	96.79	-	-	82.01	27.75	17.47	30.44	400	153	A	V
		2483.8	59.07	-14.93	74	44.16	27.84	17.51	30.44	400	153	P	V
		2483.56	49.2	-4.8	54	34.3	27.83	17.51	30.44	400	153	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

WIFI Ant. 3+4	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)
	*	2467	108.94	-	-	94.13	27.77	17.48	30.44	100	212	P	H
	*	2467	99.76	-	-	84.95	27.77	17.48	30.44	100	212	A	H
		2483.68	61.35	-12.65	74	46.45	27.83	17.51	30.44	100	212	P	H
		2483.56	51.56	-2.44	54	36.66	27.83	17.51	30.44	100	212	A	H
802.11ax													H
HE20 Full													H
CH 12	*	2467	105.73	-	-	90.92	27.77	17.48	30.44	400	50	P	V
2467MHz	*	2467	96.25	-	-	81.44	27.77	17.48	30.44	400	50	A	V
		2483.8	58.39	-15.61	74	43.48	27.84	17.51	30.44	400	50	P	V
		2483.52	48.76	-5.24	54	33.86	27.83	17.51	30.44	400	50	A	V
													V
													V
	*	2472	107.95	-	-	93.11	27.79	17.49	30.44	100	211	P	H
	*	2472	98.4	-	-	83.56	27.79	17.49	30.44	100	211	A	H
		2484.36	60.24	-13.76	74	45.33	27.84	17.51	30.44	100	211	P	H
		2483.52	51.64	-2.36	54	36.74	27.83	17.51	30.44	100	211	A	H
802.11ax													H
HE20 Full													H
CH 13	*	2472	104.96	-	-	90.12	27.79	17.49	30.44	400	54	P	V
2472MHz	*	2472	95.06	-	-	80.22	27.79	17.49	30.44	400	54	A	V
		2484.04	59.09	-14.91	74	44.18	27.84	17.51	30.44	400	54	P	V
		2483.52	49.34	-4.66	54	34.44	27.83	17.51	30.44	400	54	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 802.11 ax HE20 Full (Harmonic @ 3m)

WIFI Ant. 3+4	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)
		4824	39.93	-34.07	74	62.33	32.44	11.32	66.16	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 01		4824	39.91	-34.09	74	62.31	32.44	11.32	66.16	-	-	P	V
2412MHz													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 3+4	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)
		4874	44.06	-29.94	74	66.6	32.7	11.35	66.59	-	-	P	H
		7311	45.7	-28.3	74	61.4	37.13	13.5	66.33	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 06		4874	43.4	-30.6	74	65.94	32.7	11.35	66.59	-	-	P	V
2437MHz		7311	45.8	-28.2	74	61.5	37.13	13.5	66.33	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

		4924	40.9	-33.1	74	62.66	32.94	11.38	66.08	-	-	P	H
		7386	43.64	-30.36	74	59.25	36.76	13.39	65.76	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 11		4924	41.23	-32.77	74	62.99	32.94	11.38	66.08	-	-	P	V
2462MHz		7386	43.95	-30.05	74	59.56	36.76	13.39	65.76	-	-	P	V
													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.

WIFI Ant. 3+4	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)
		4934	40.67	-33.33	74	62.36	33	11.39	66.08	-	-	P	H
		7401	43.98	-30.02	74	59.69	36.69	13.37	65.77	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 12		4934	40.67	-33.33	74	62.36	33	11.39	66.08	-	-	P	V
2467MHz		7401	44.2	-29.8	74	59.91	36.69	13.37	65.77	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

WIFI Ant. 3+4	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)
		4944	40.27	-33.73	74	61.88	33.06	11.4	66.07	-	-	P	H
		7416	43.24	-30.76	74	59.01	36.6	13.41	65.78	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
802.11ax													H
HE20 Full													H
CH 13		4944	40.45	-33.55	74	62.06	33.06	11.4	66.07	-	-	P	V
2472MHz		7416	43.31	-30.69	74	59.08	36.6	13.41	65.78	-	-	P	V
													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 802.11g (SHF)

WIFI Ant.	Note	Frequency	Level	Margin	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
3+4		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
2.4GHz 802.11g SHF		19600	41.12	-32.88	74	61.28	37.86	-2.96	55.06	-	-	P	H
		31418	42.34	-31.66	74	60.22	40.56	-1.94	56.5	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		19624	41.8	-32.2	74	61.91	37.9	-2.96	55.05	-	-	P	V
		31320	42.49	-31.51	74	59.82	40.99	-1.94	56.38	-	-	P	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 802.11g (LF)

WIFI Ant. 3+4	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)
2.4GHz 802.11g LF		33.78	23.17	-16.83	40	32.14	22.62	0.61	32.2	-	-	P	H
		95.61	29.22	-14.28	43.5	44.67	15.3	1.51	32.26	-	-	P	H
		189.57	27.74	-15.76	43.5	43.03	14.88	2.15	32.32	-	-	P	H
		396.6	23.37	-22.63	46	30.99	21.72	3.06	32.4	-	-	P	H
		643.7	28.71	-17.29	46	31.44	25.95	3.93	32.61	-	-	P	H
		934.2	33.61	-12.39	46	30.66	29.65	4.76	31.46	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.32	31.1	-8.9	40	40.31	22.37	0.62	32.2	-	-	P	V
		95.61	24.39	-19.11	43.5	39.84	15.3	1.51	32.26	-	-	P	V
		163.38	25.17	-18.33	43.5	39.32	16.18	1.97	32.3	-	-	P	V
		496	26.3	-19.7	46	31.59	23.84	3.41	32.54	-	-	P	V
		762.7	30.02	-15.98	46	30.51	27.63	4.29	32.41	-	-	P	V
		958	33.8	-12.2	46	29.91	30.32	4.83	31.26	-	-	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	Note	Frequency	Level	Margin	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.					Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
3		(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 :	Andy Yang, Karl Hou and Steven Wu	**Temperature :**	18~23°C
		Relative Humidity :	50~65%

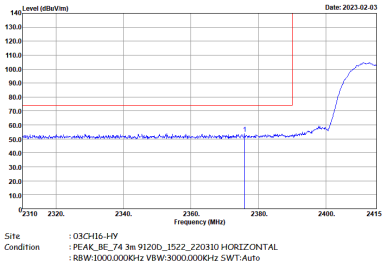
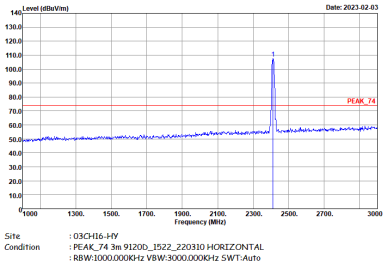
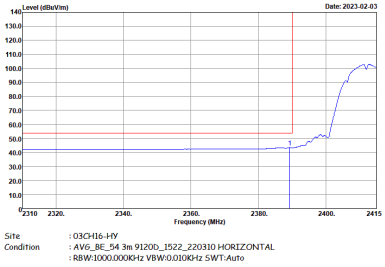
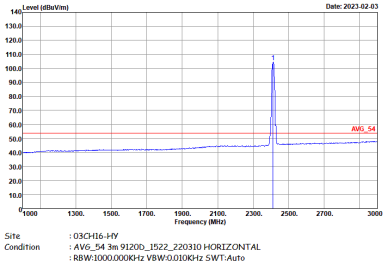
Note symbol

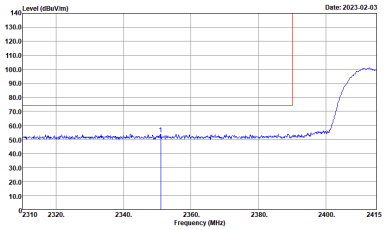
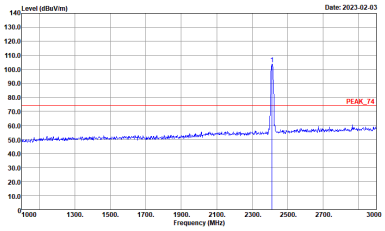
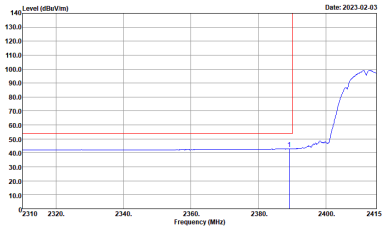
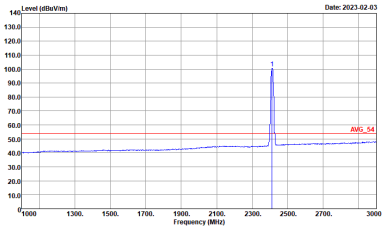
-L	**Low channel location**
-R	**High channel location**

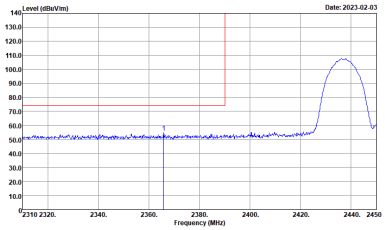
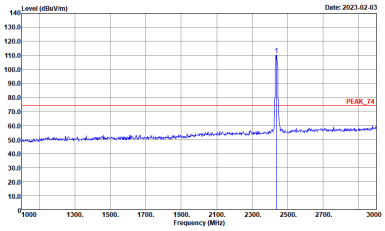
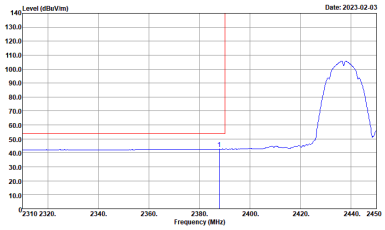
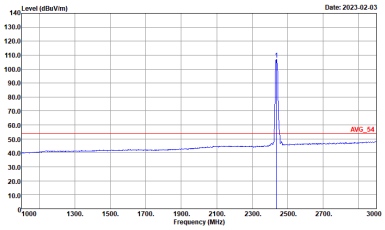
<Open Mode>

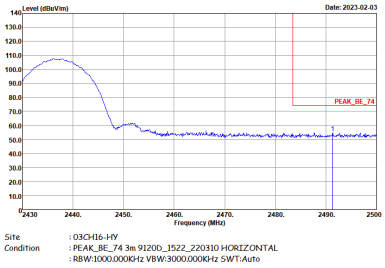
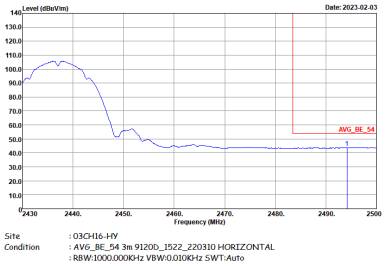
2.4GHz 2400~2483.5MHz

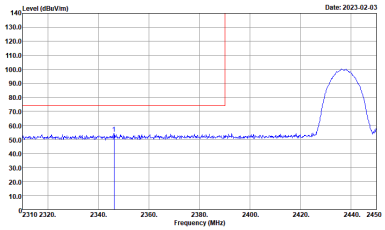
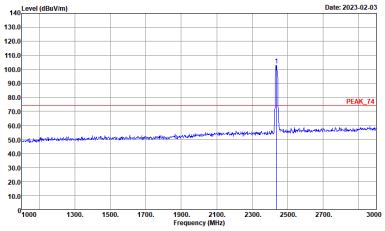
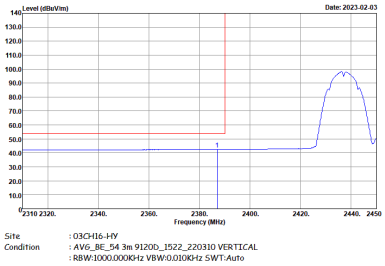
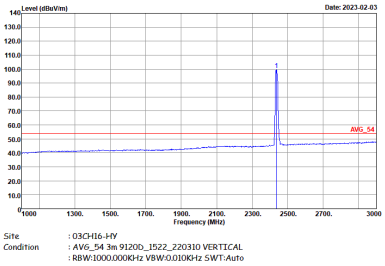
WIFI 802.11b (Band Edge @ 3m)

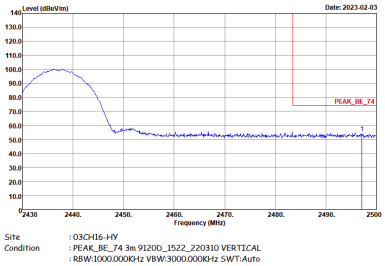
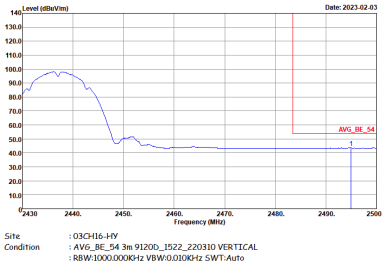
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
3	Horizontal	Fundamental
Peak		
Avg.		

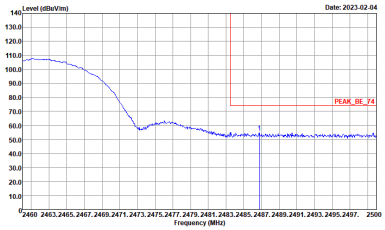
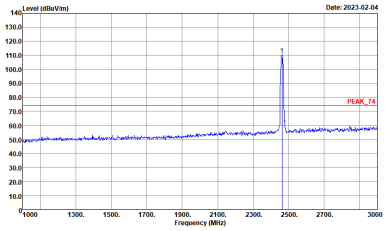
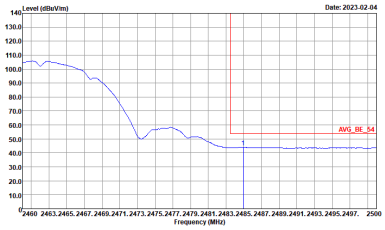
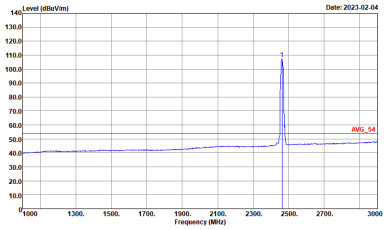
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz 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

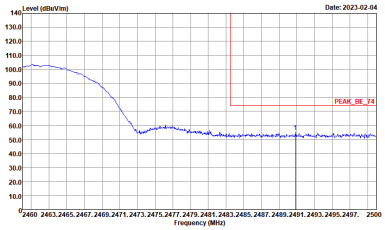
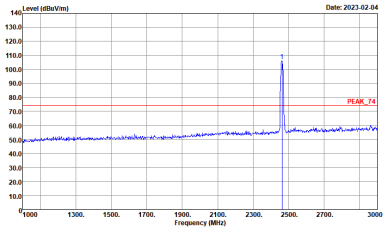
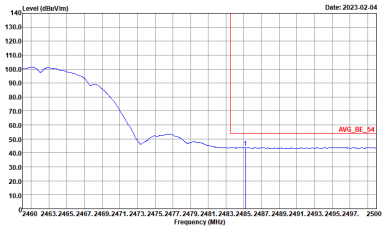
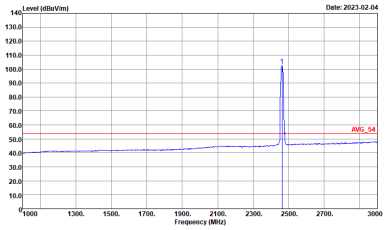
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
3	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz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

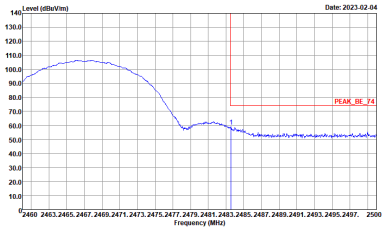
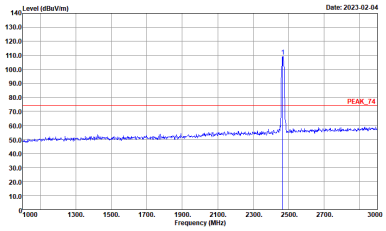
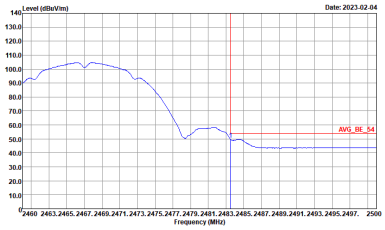
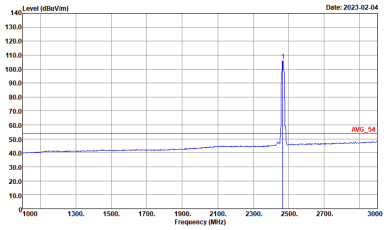
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
3	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

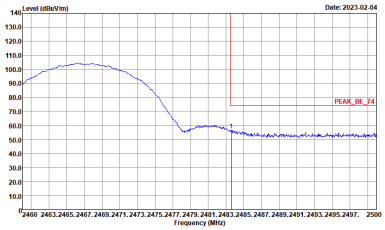
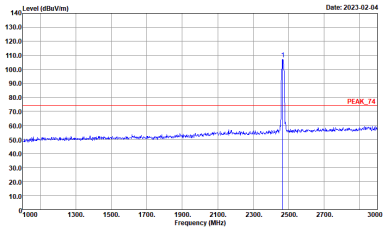
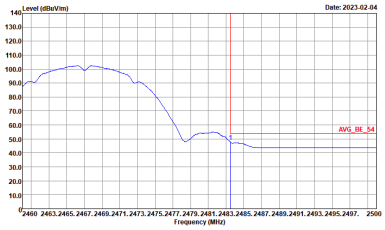
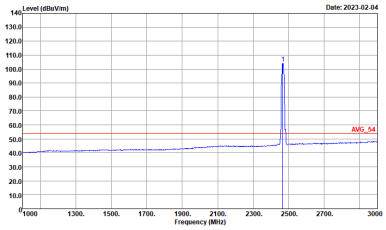
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
3	Vertical	Fundamental
Peak		
Avg.		

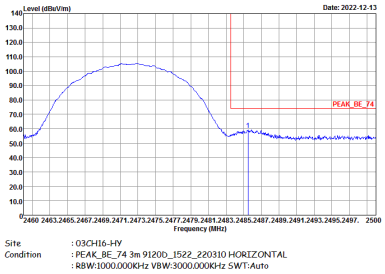
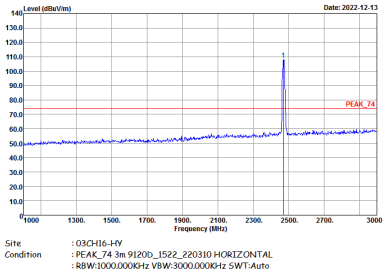
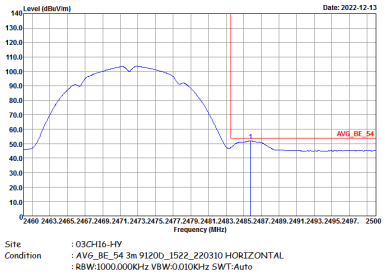
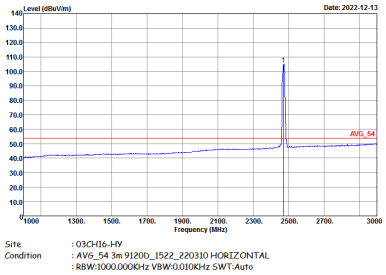
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
3	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

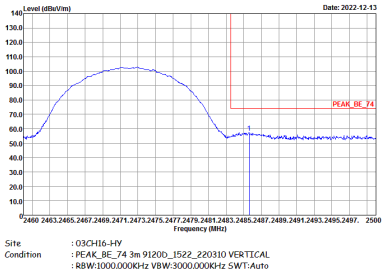
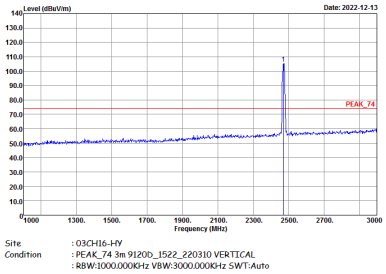
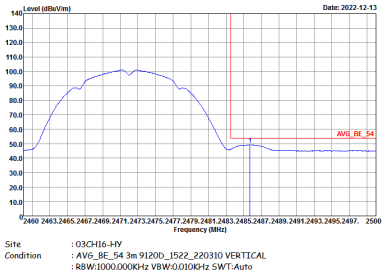
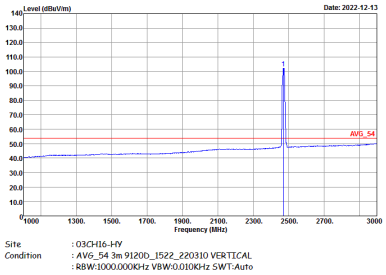
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
3	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz 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	
3	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 CH12 2467MHz	
3	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

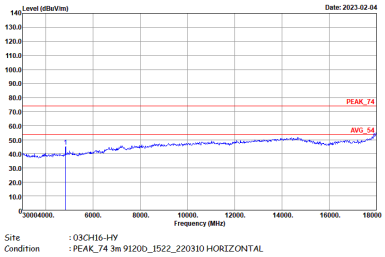
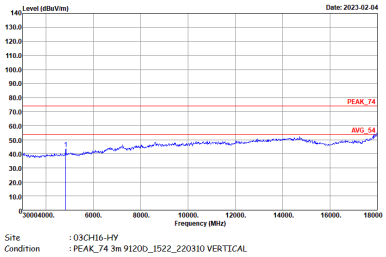
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
3	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz 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

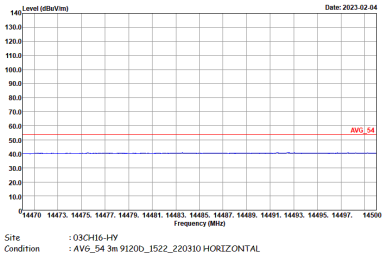
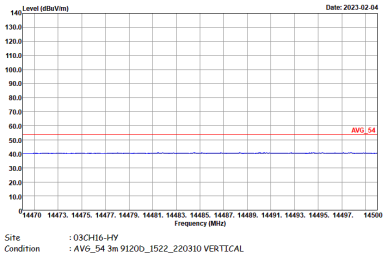
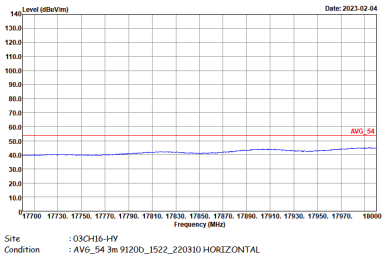
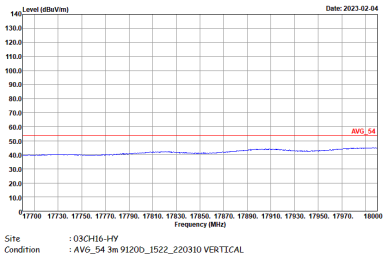
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
3	Horizontal	Fundamental
Peak		
Avg.		

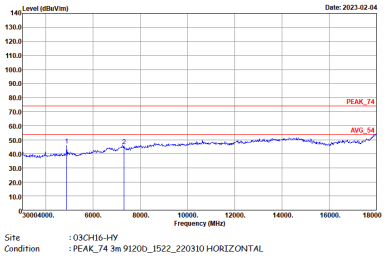
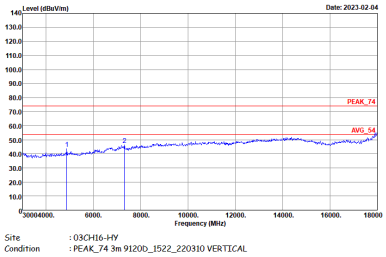
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
3	Vertical	Fundamental
Peak		
Avg.		

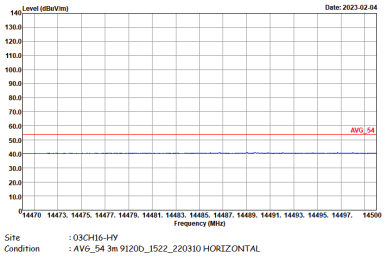
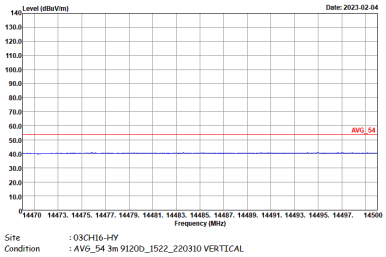
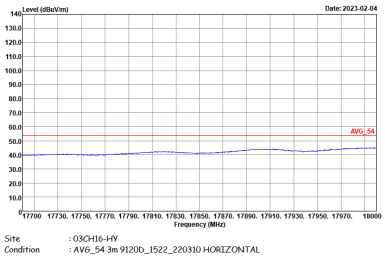
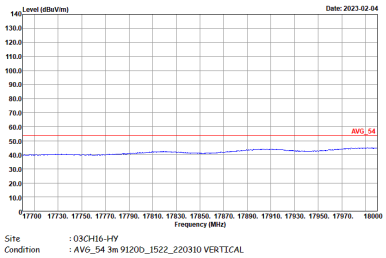
2.4GHz 2400~2483.5MHz

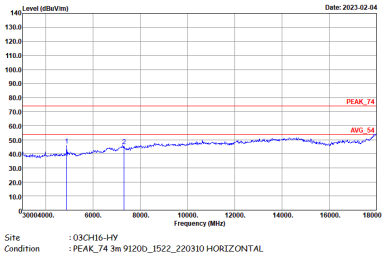
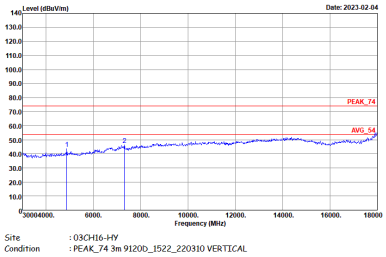
WIFI 802.11b (Harmonic @ 3m)

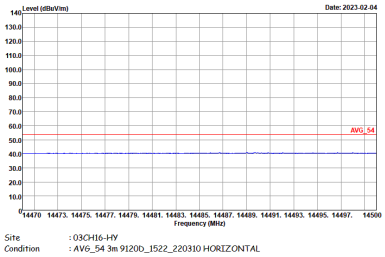
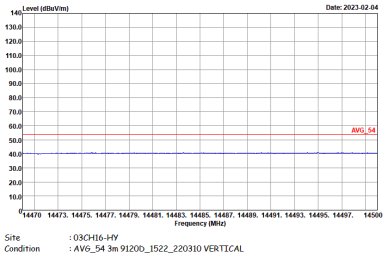
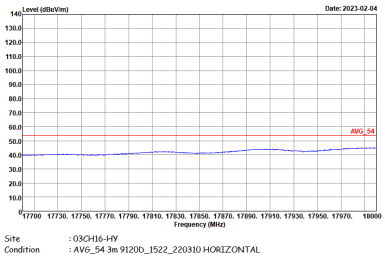
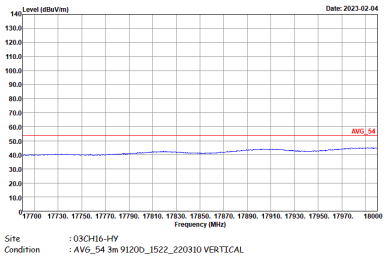
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
3	Horizontal	Vertical
Peak Avg.		

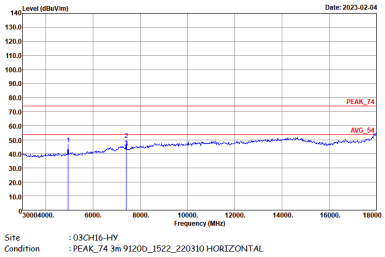
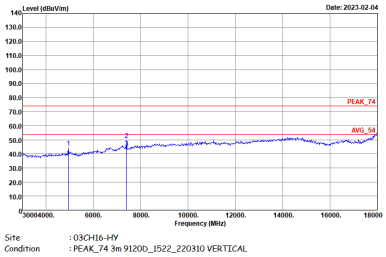
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
3	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

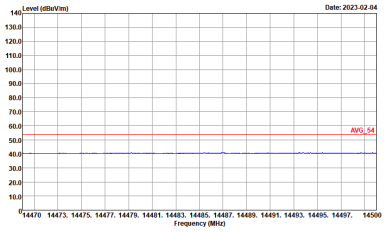
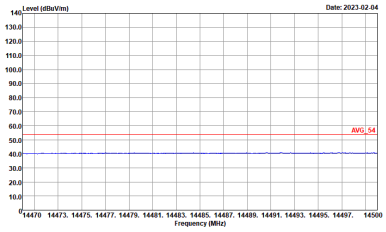
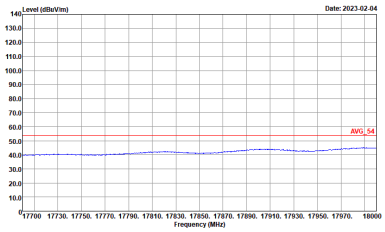
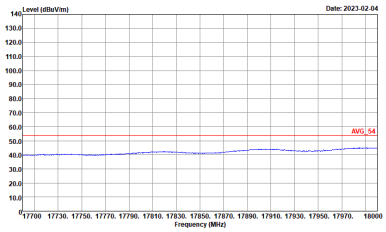
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
3	Horizontal	Vertical
Peak Avg.		

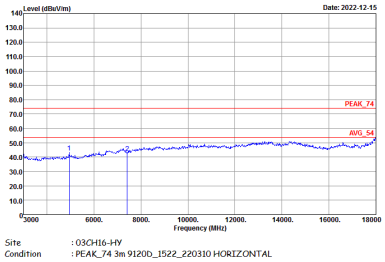
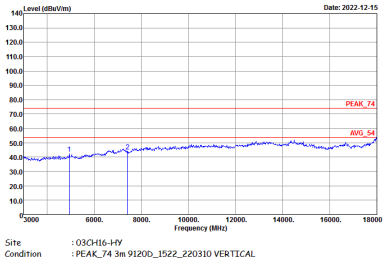
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
3	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

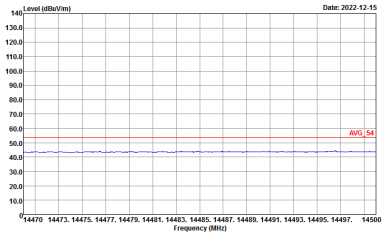
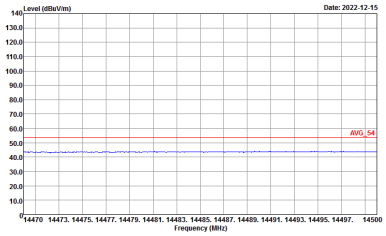
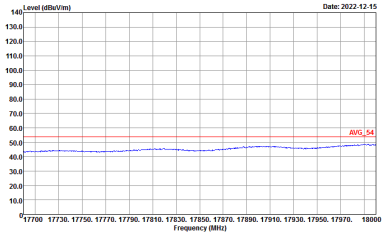
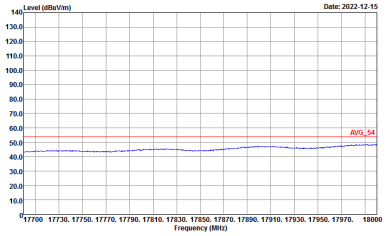
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
3	Horizontal	Vertical
Peak Avg.		

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

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
3	Horizontal	Vertical
Peak Avg.		

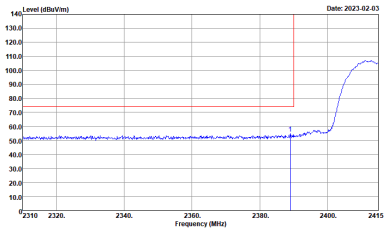
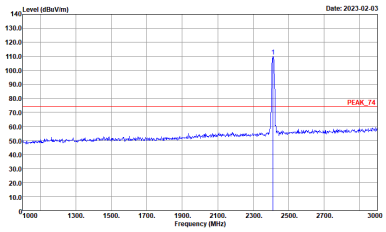
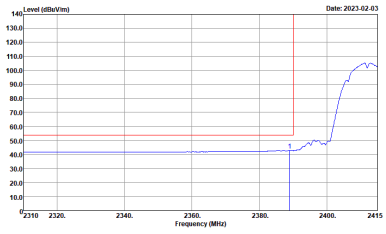
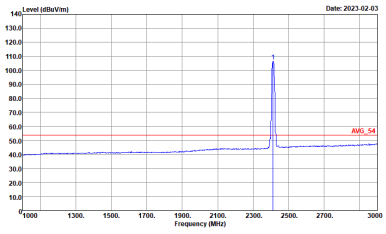
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
3	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

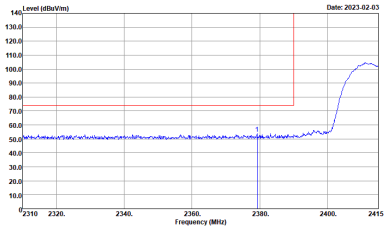
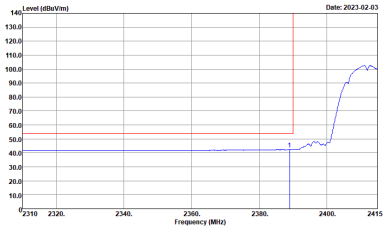
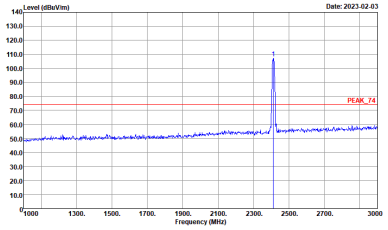
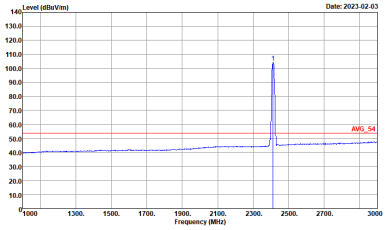
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
3	Horizontal	Vertical
Peak Avg.		

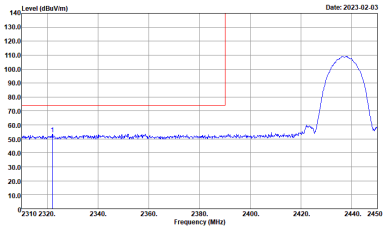
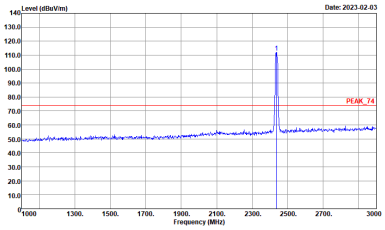
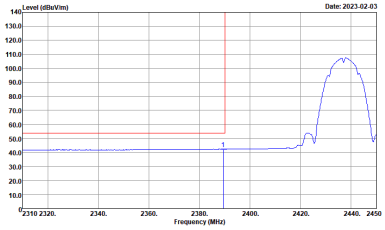
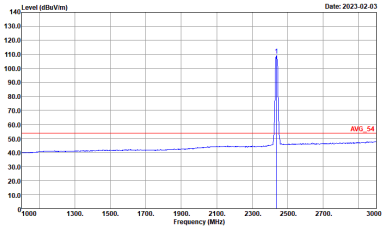
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
3	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

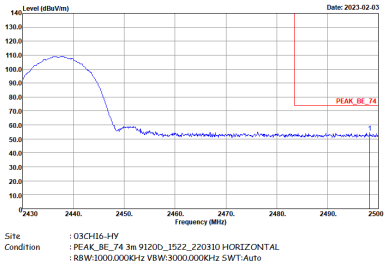
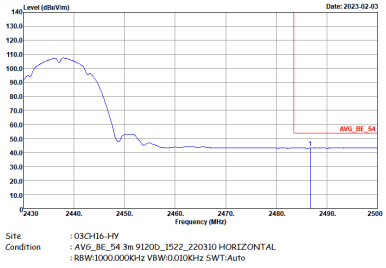
2.4GHz 2400~2483.5MHz

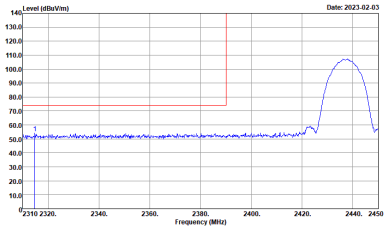
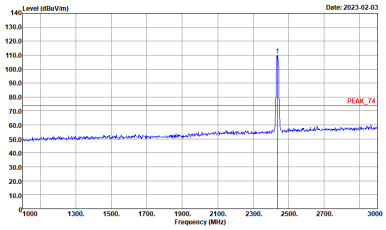
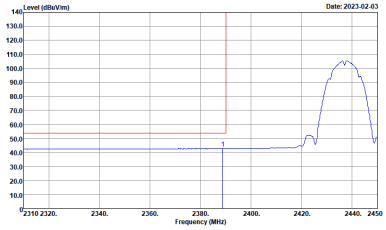
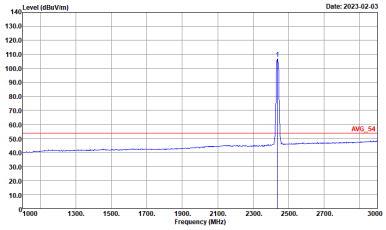
WIFI 802.11b (Band Edge @ 3m)

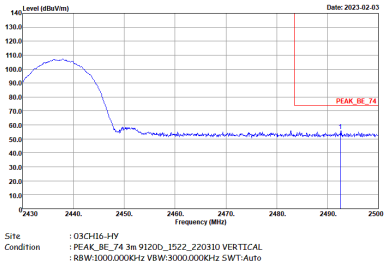
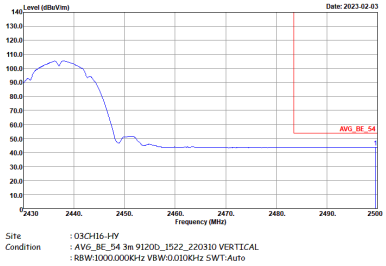
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
4	Horizontal	Fundamental
Peak		
Avg.		

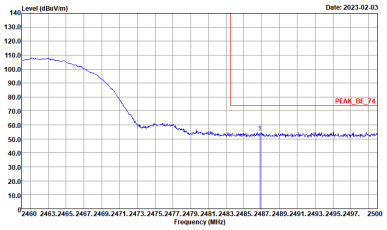
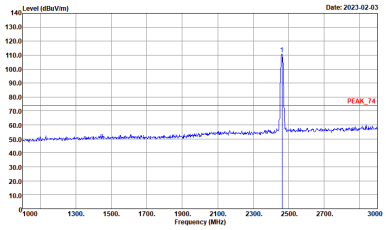
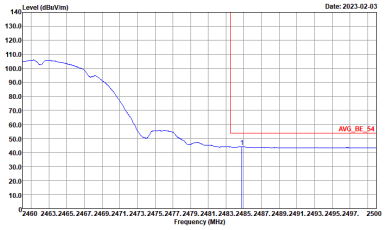
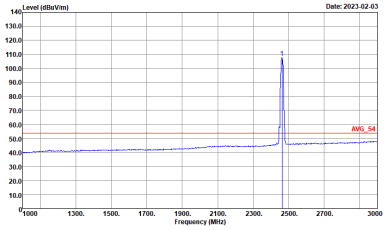
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH01 2412MHz	
4	Vertical	Fundamental
Peak		
Avg.		

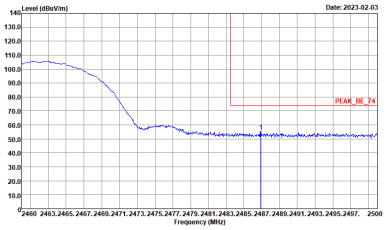
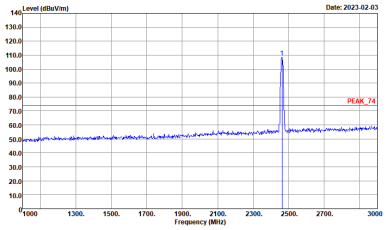
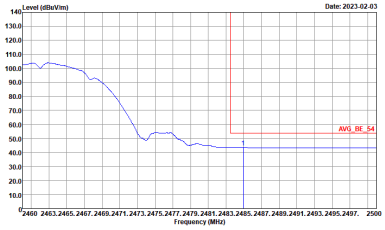
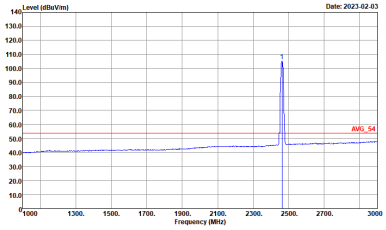
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz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

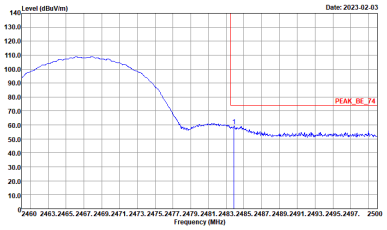
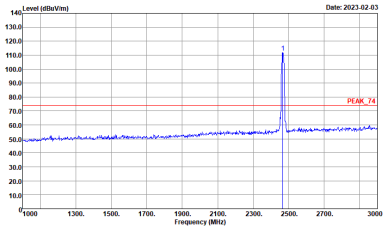
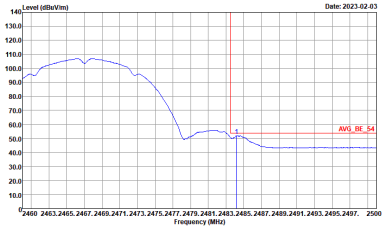
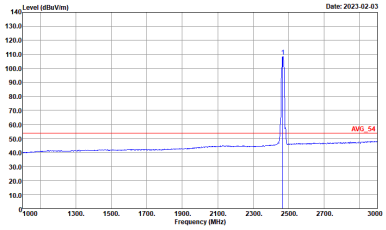
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

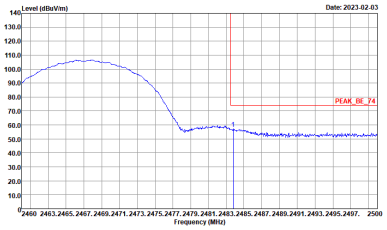
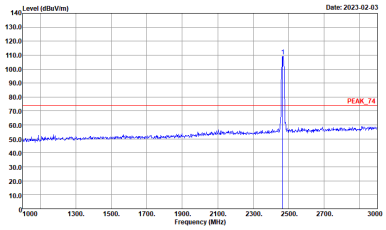
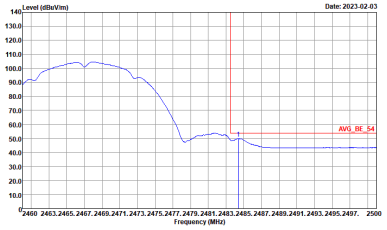
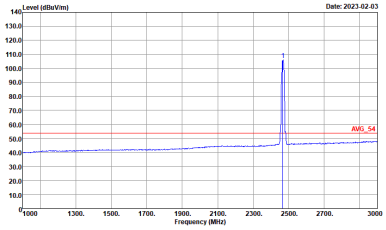
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - L	
4	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz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

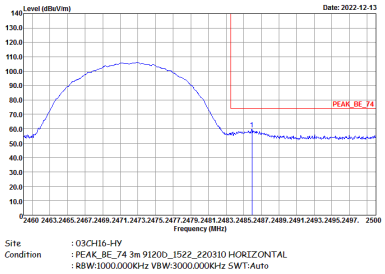
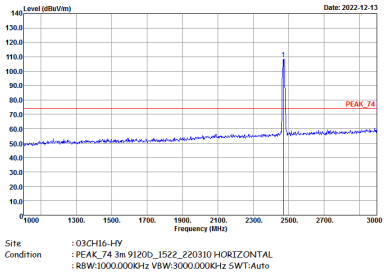
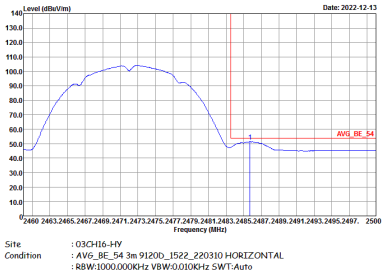
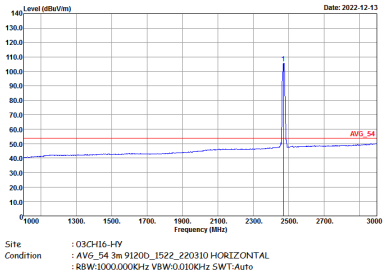
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH06 2437MHz - R	
4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

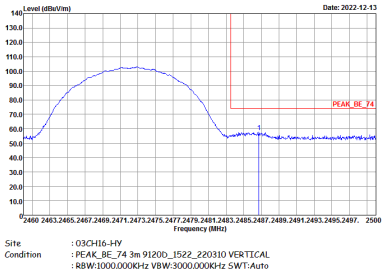
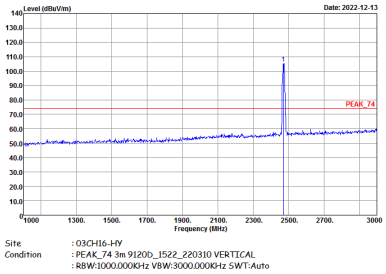
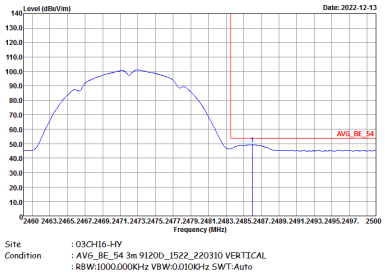
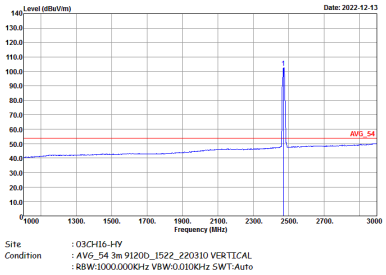
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH11 2462MHz	
4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz 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	
4	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 CH12 2467MHz	
4	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

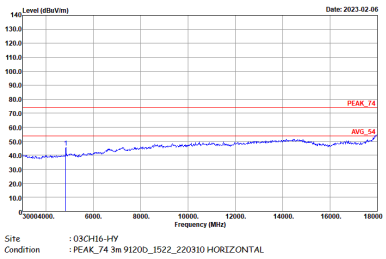
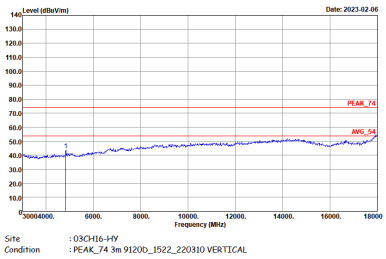
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH12 2467MHz	
4	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz 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

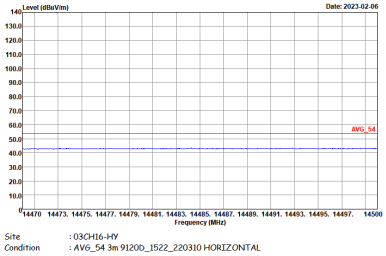
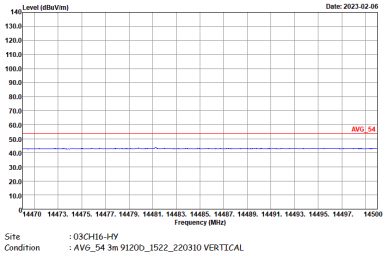
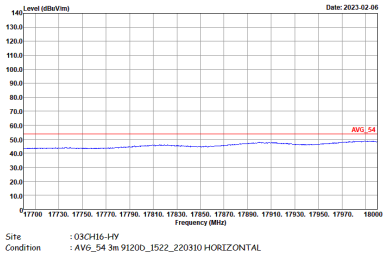
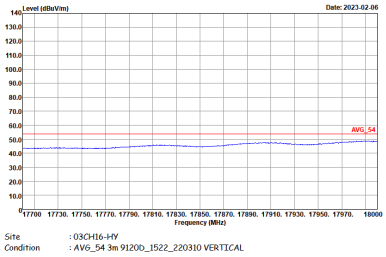
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
4	Horizontal	Fundamental
Peak		
Avg.		

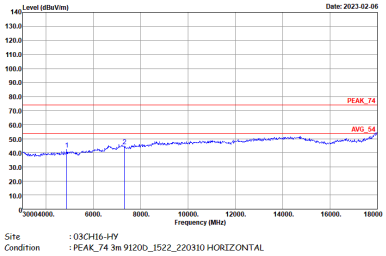
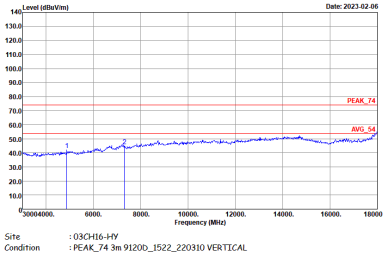
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11b CH13 2472MHz	
4	Vertical	Fundamental
Peak		
Avg.		

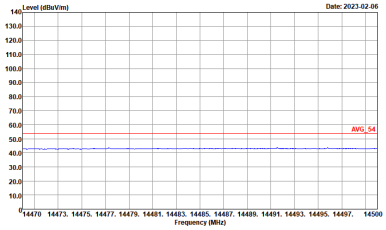
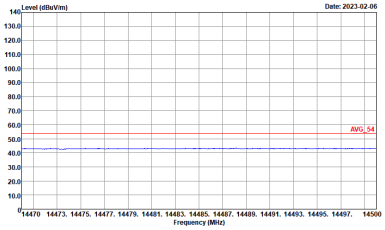
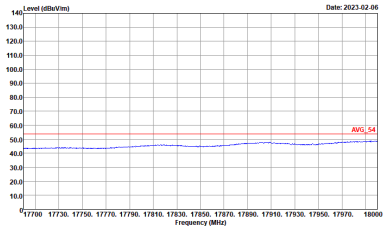
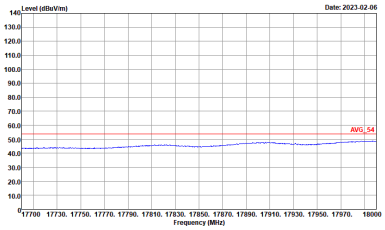
2.4GHz 2400~2483.5MHz

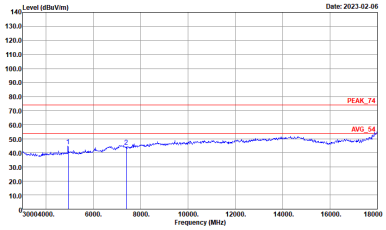
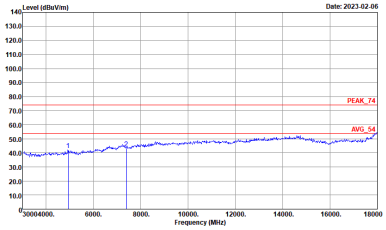
WIFI 802.11b (Harmonic @ 3m)

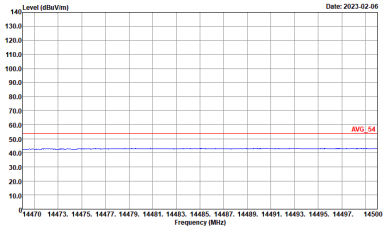
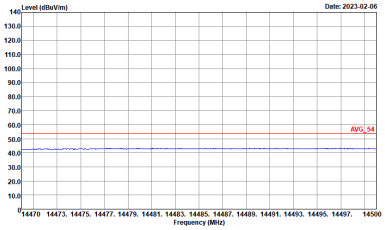
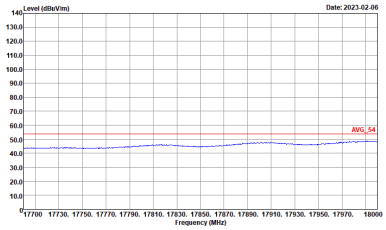
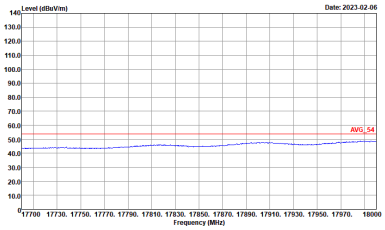
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
4	Horizontal	Vertical
Peak Avg.		

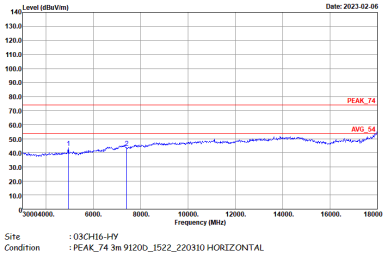
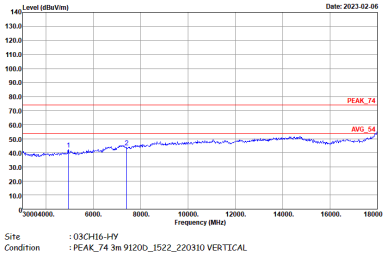
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH01 2412MHz	
4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

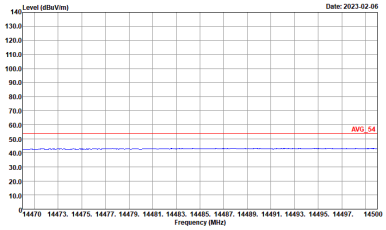
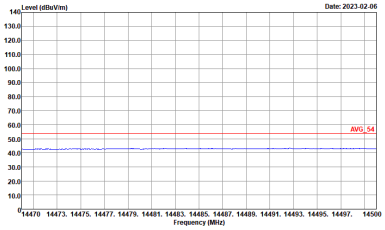
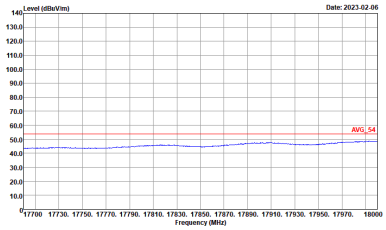
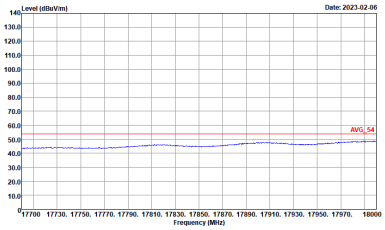
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
4	Horizontal	Vertical
Peak Avg.		

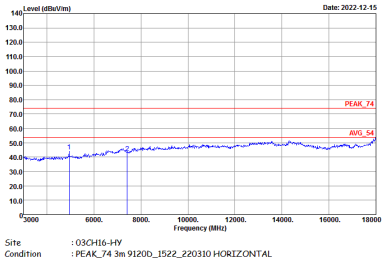
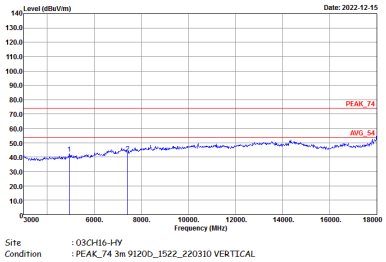
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH06 2437MHz	
4	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL

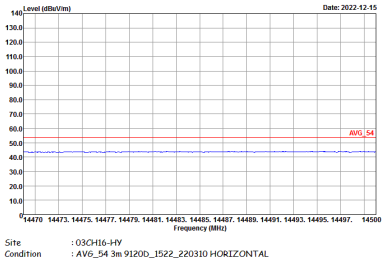
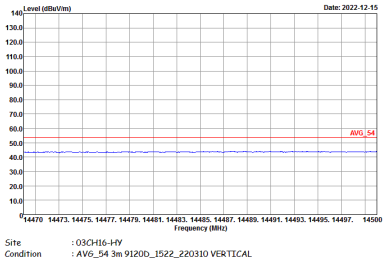
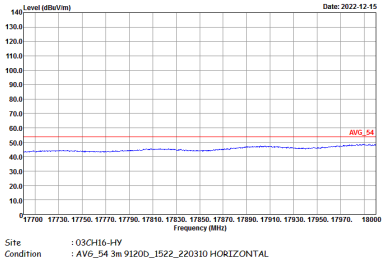
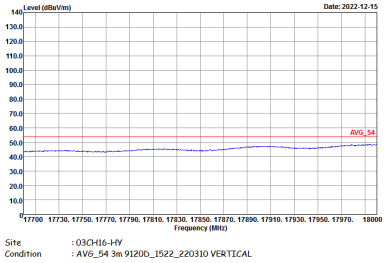
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
4	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH11 2462MHz	
4	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
4	Horizontal	Vertical
Peak Avg.		

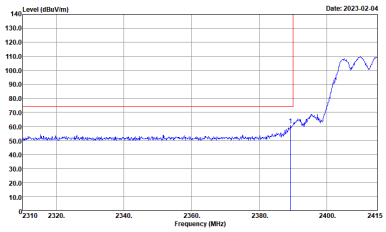
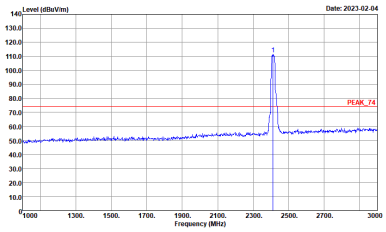
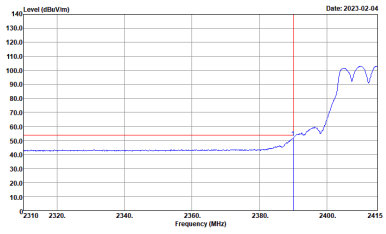
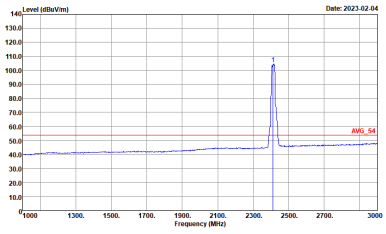
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH12 2467MHz	
4	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL

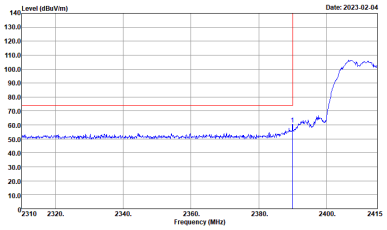
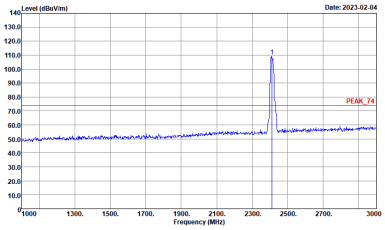
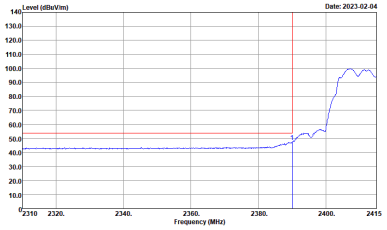
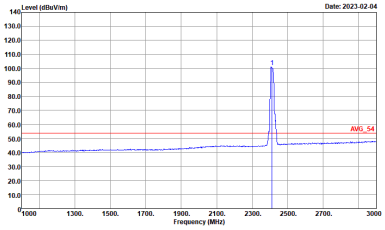
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
4	Horizontal	Vertical
Peak Avg.		

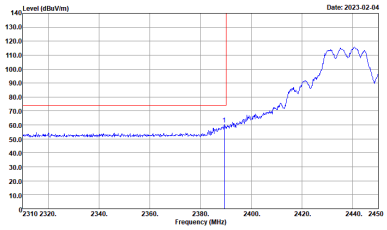
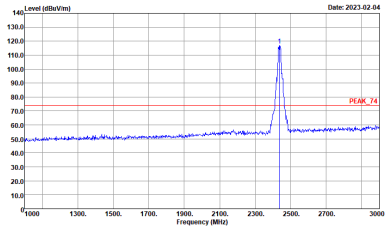
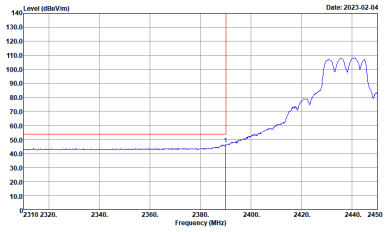
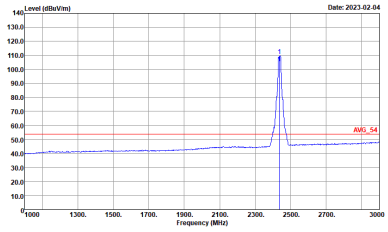
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11b CH13 2472MHz	
4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

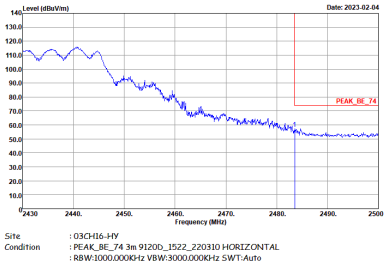
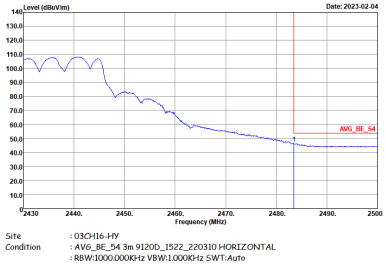
2.4GHz 2400~2483.5MHz

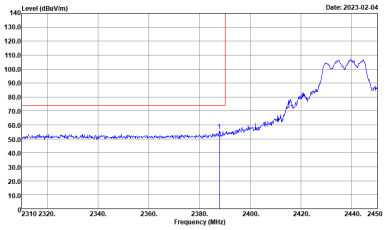
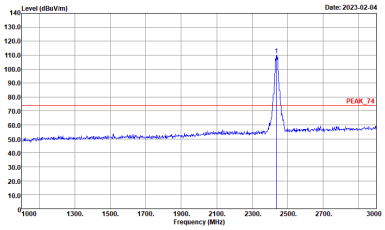
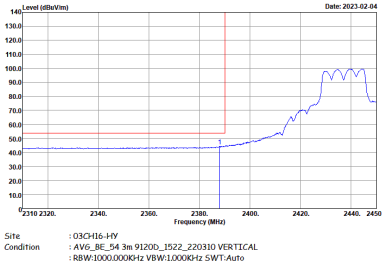
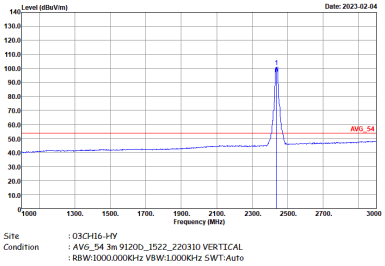
WIFI 802.11g (Band Edge @ 3m)

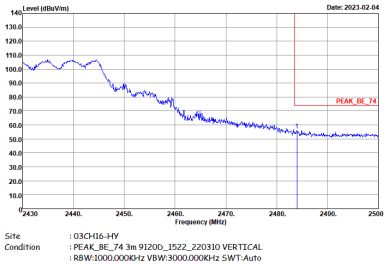
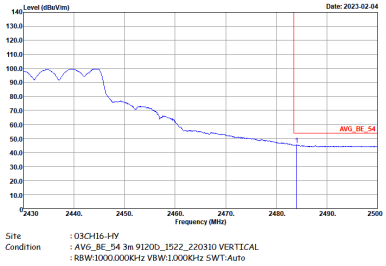
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

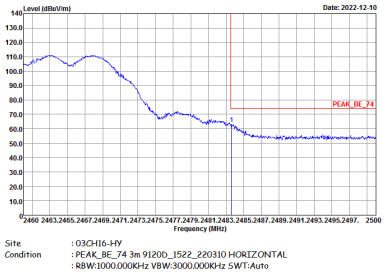
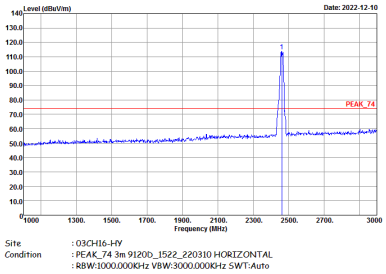
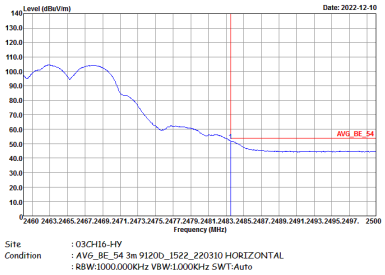
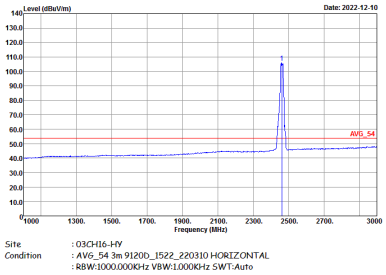
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH01 2412MHz	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz 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

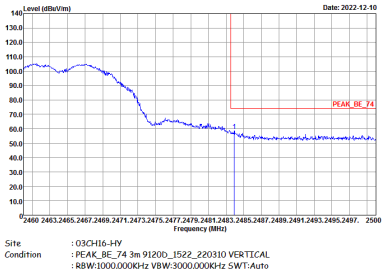
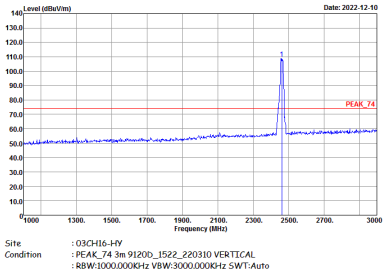
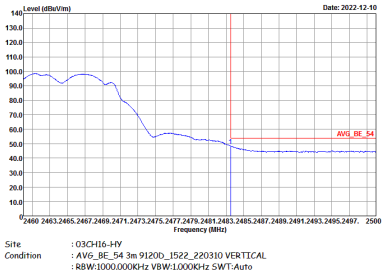
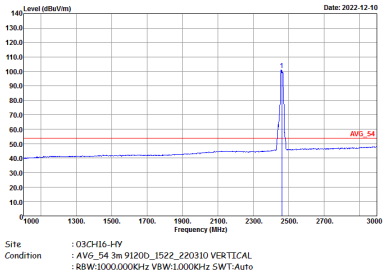
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
3+4	Horizontal	Fundamental
Peak		
Avg.		

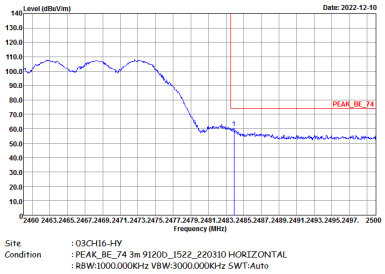
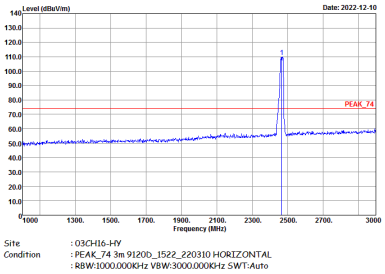
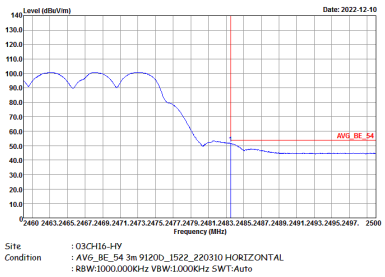
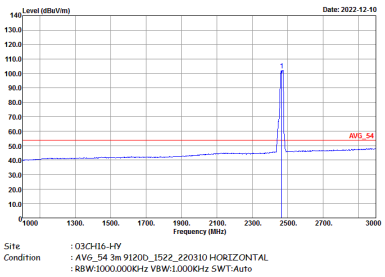
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

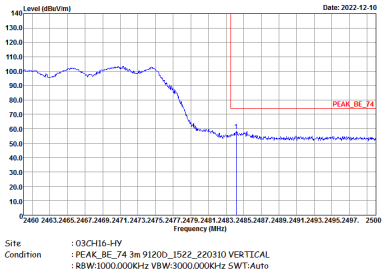
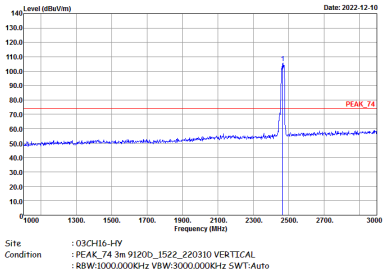
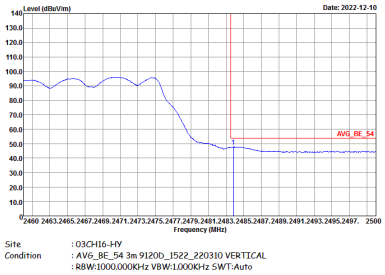
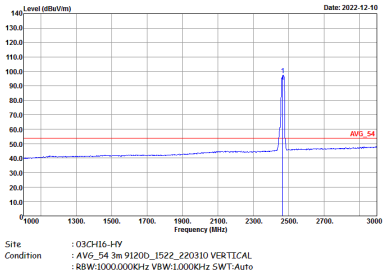
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - L	
3+4	Vertical	Fundamental
Peak		
Avg.		

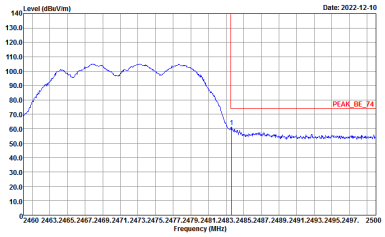
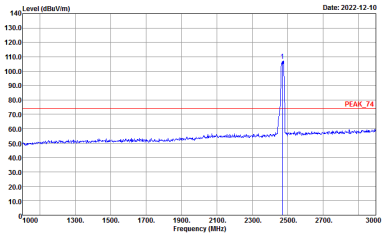
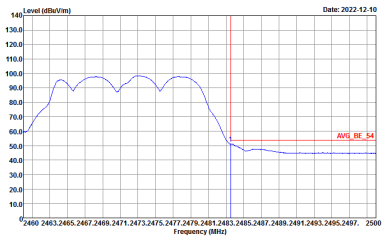
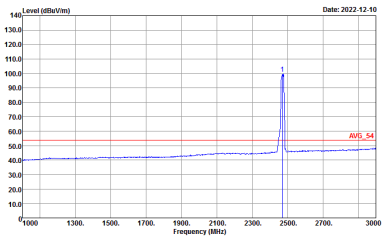
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH06 2437MHz - R	
3+4	Vertical	Fundamental
Peak		Left Blank
Avg.		Left Blank

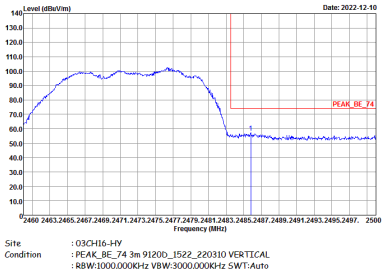
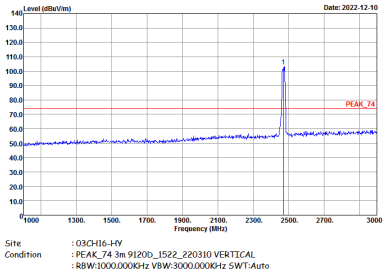
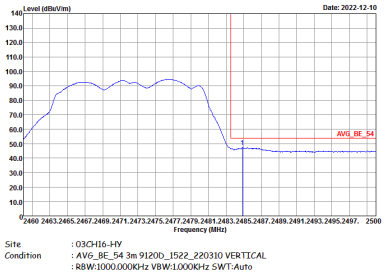
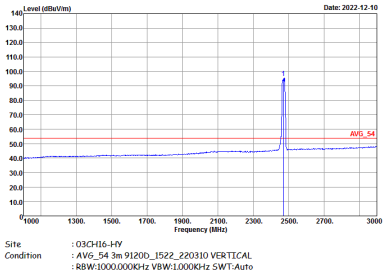
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH11 2462MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

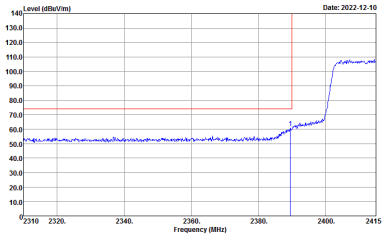
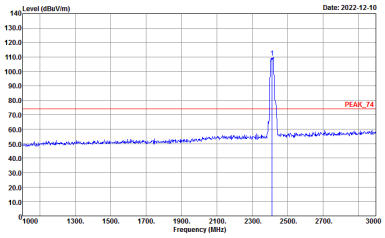
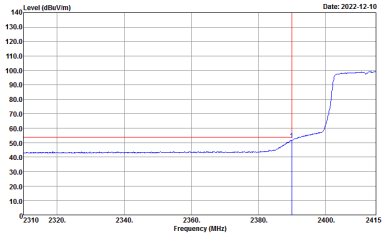
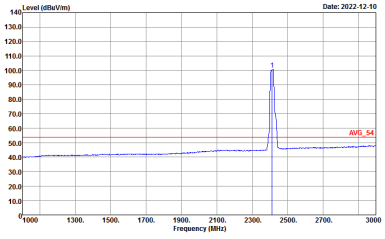
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH12 2467MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

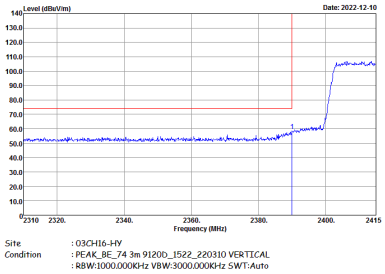
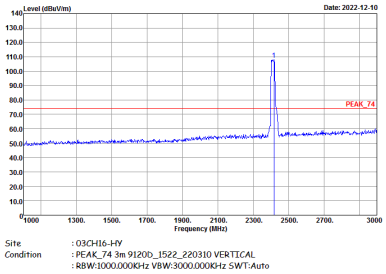
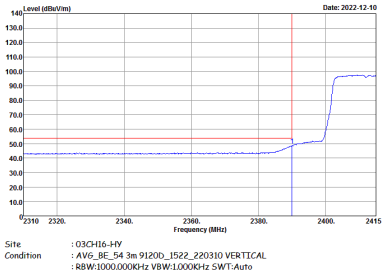
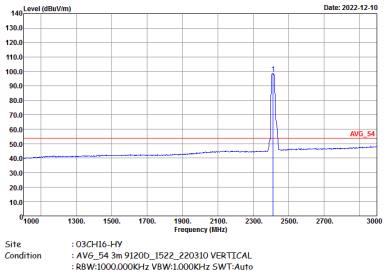
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz 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

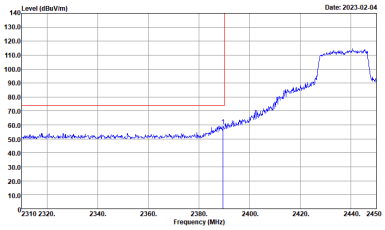
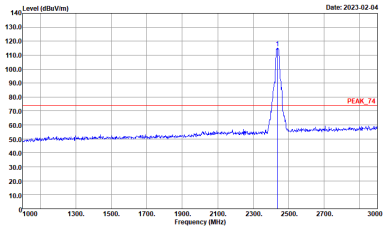
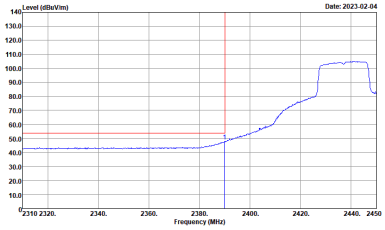
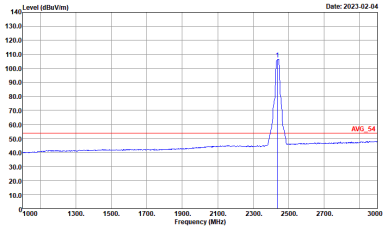
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11g CH13 2472MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

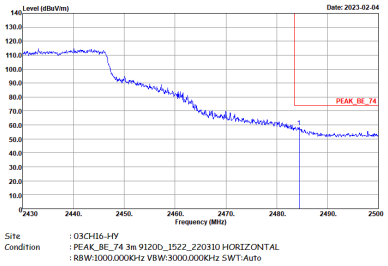
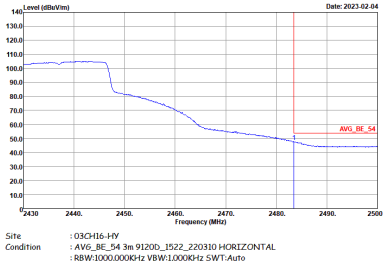
2.4GHz 2400~2483.5MHz

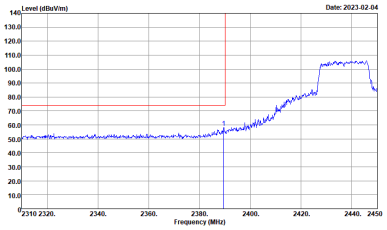
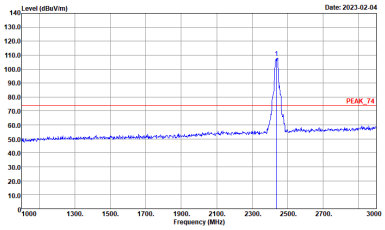
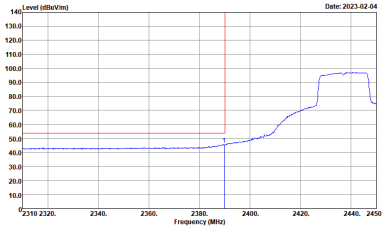
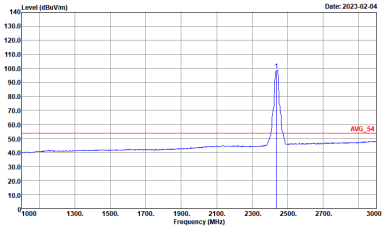
WIFI 802.11ax HE20 Full (Band Edge @ 3m)

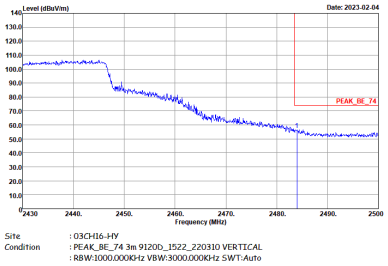
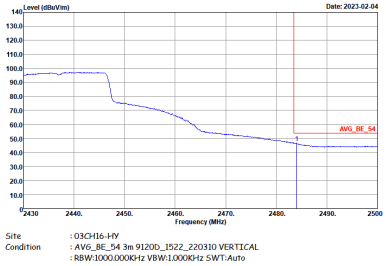
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

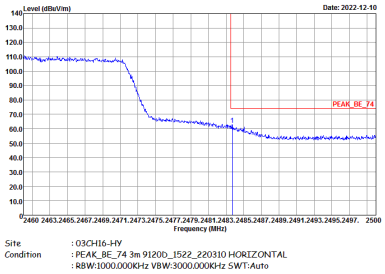
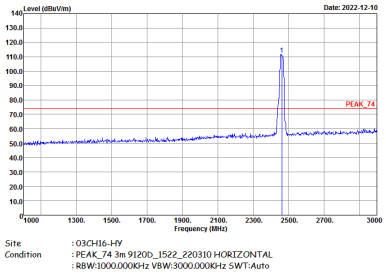
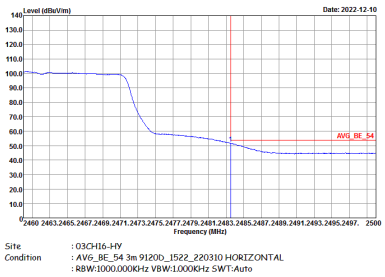
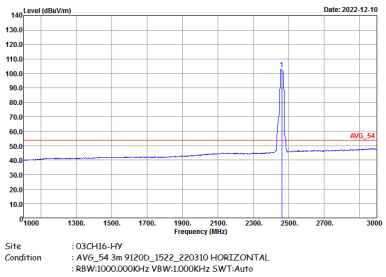
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH01 2412MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

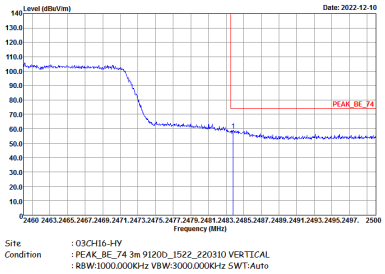
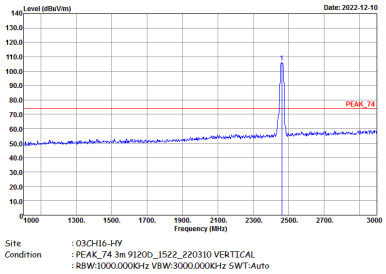
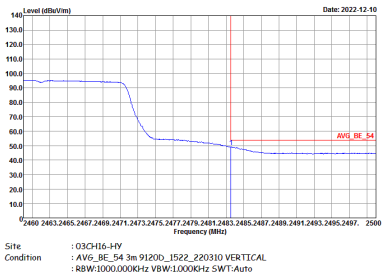
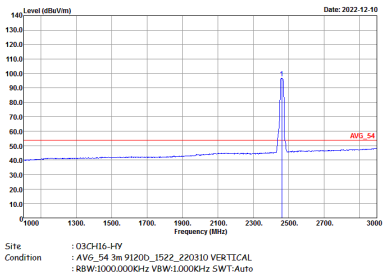
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : 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

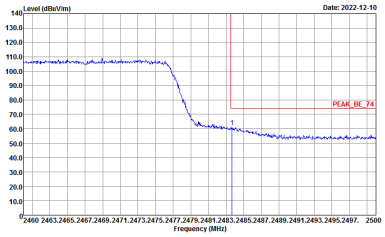
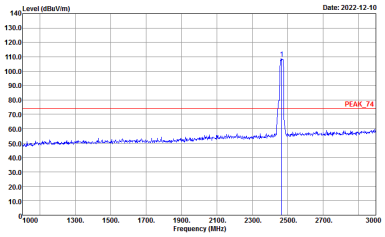
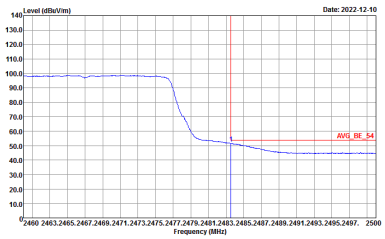
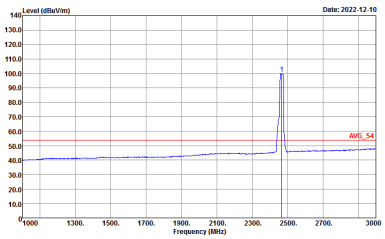
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
3+4	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

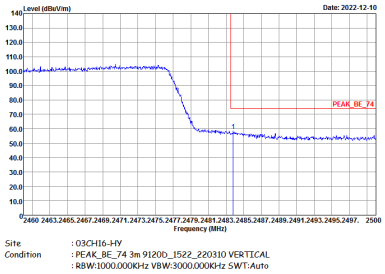
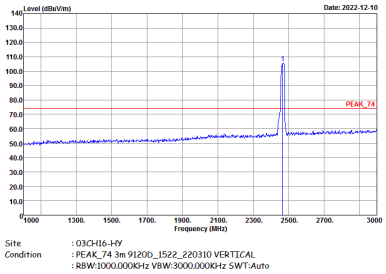
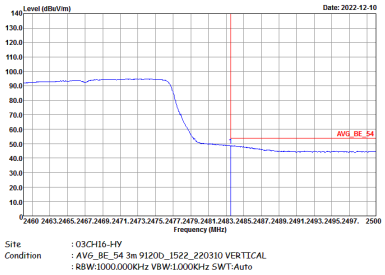
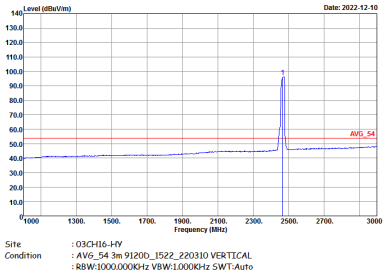
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - L	
3+4	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL : RBW:1000.000KHz 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

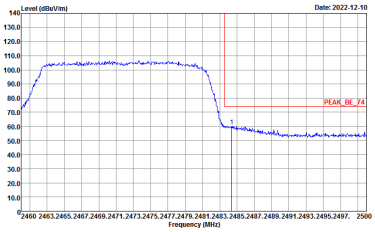
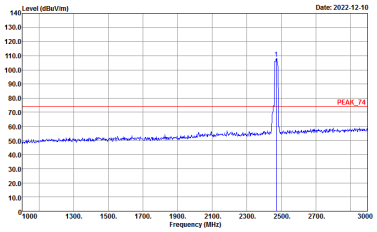
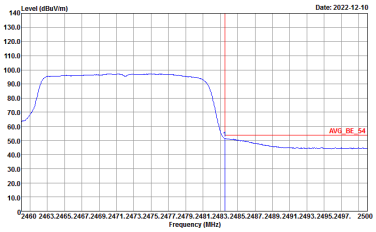
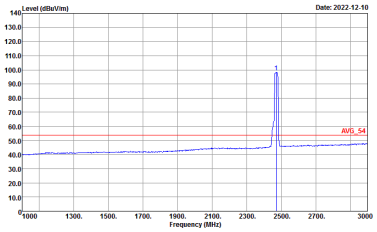
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH06 2437MHz - R	
3+4	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

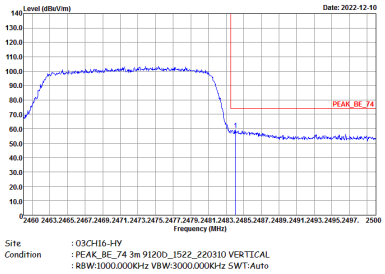
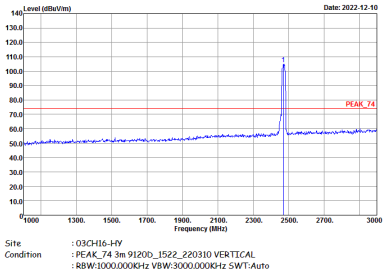
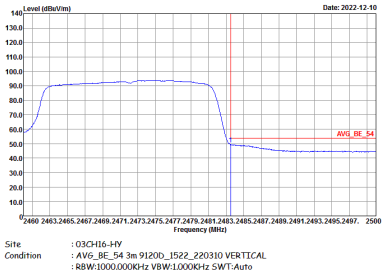
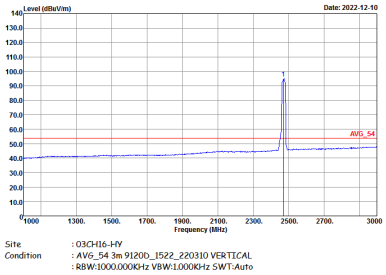
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
3+4	Horizontal	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH11 2462MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH12 2467MHz	
3+4	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

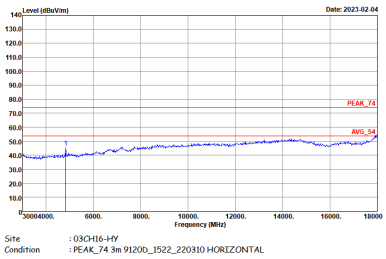
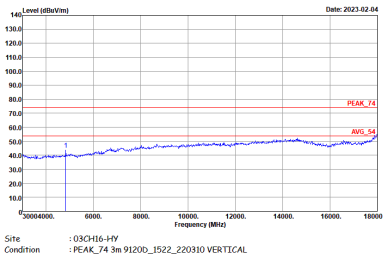
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH12 2467MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

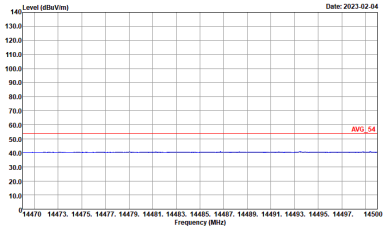
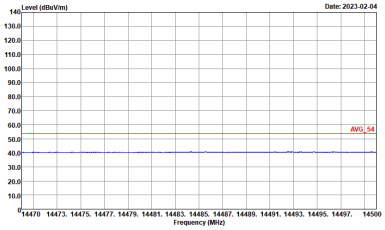
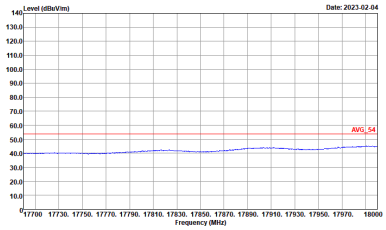
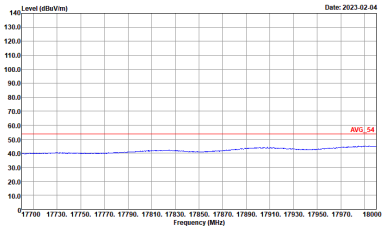
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH13 2472MHz	
3+4	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL : RBW:1000.000KHz 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

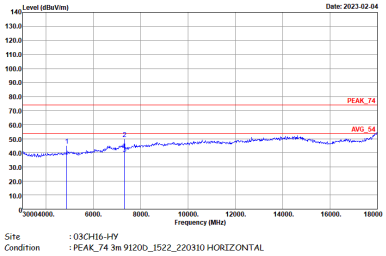
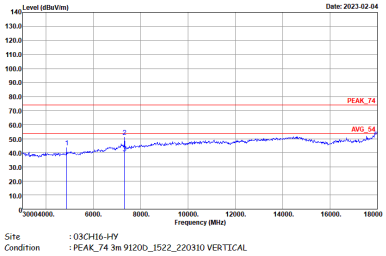
WIFI	2.4GHz 2400~2483.5MHz Band Edge @ 3m	
ANT	802.11ax HE20 Full CH13 2472MHz	
3+4	Vertical	Fundamental
Peak		
Avg.		

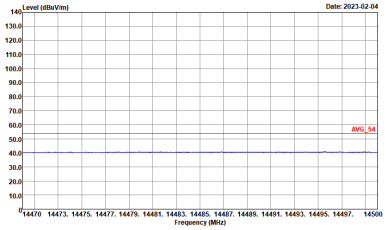
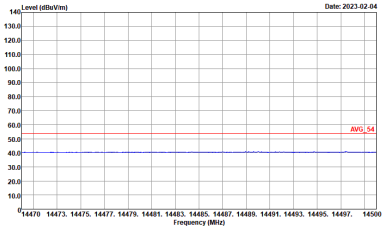
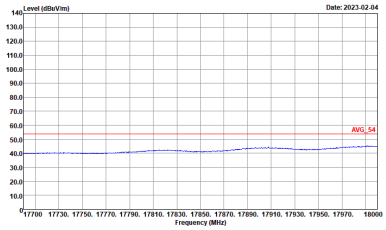
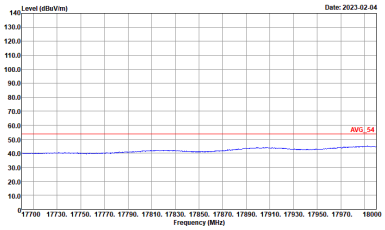
2.4GHz 2400~2483.5MHz

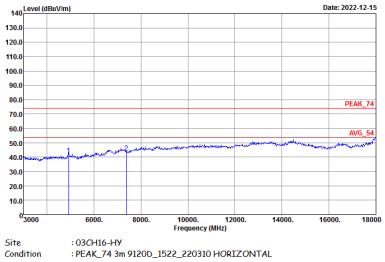
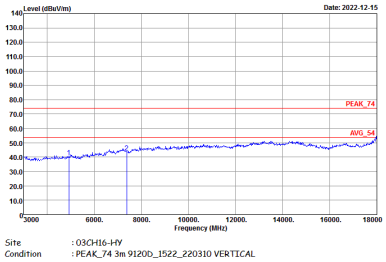
WIFI 802.11g (Harmonic @ 3m)

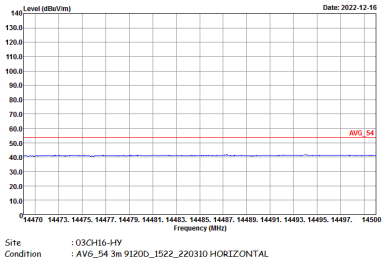
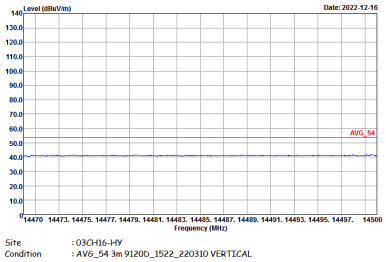
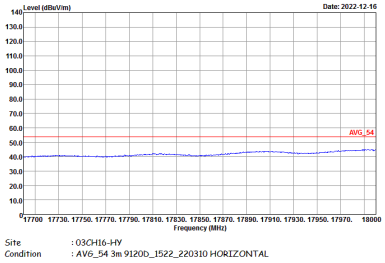
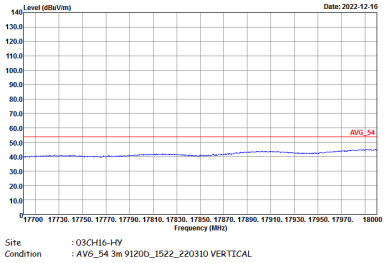
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
3+4	Horizontal	Vertical
Peak Avg.		

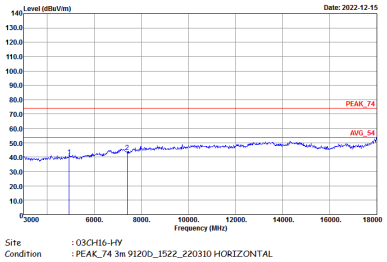
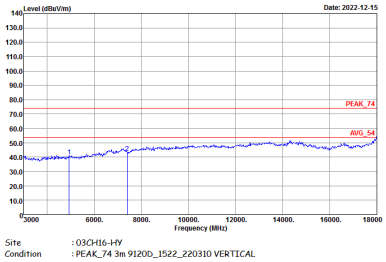
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH01 2412MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL

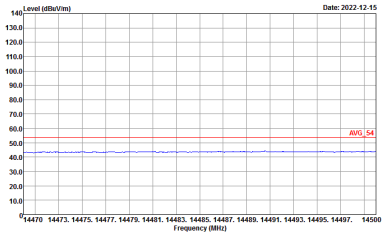
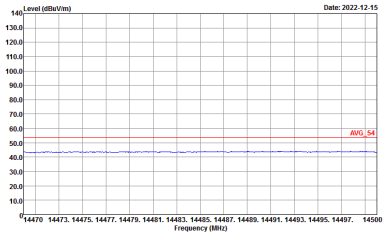
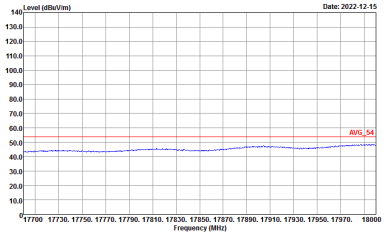
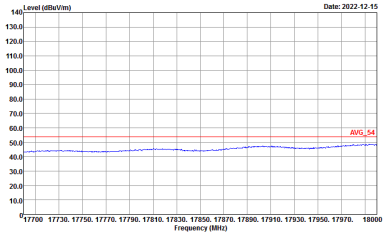
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
3+4	Horizontal	Vertical
Peak Avg.		

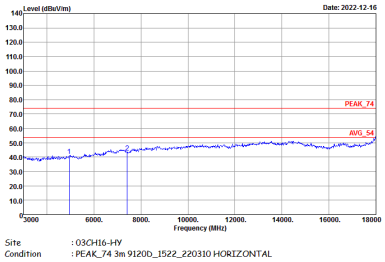
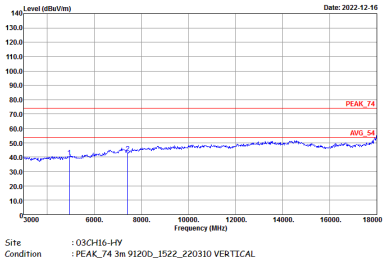
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH06 2437MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL
17.7G ~18G Avg	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : AV6_54 3m 9120D_1522_220310 VERTICAL

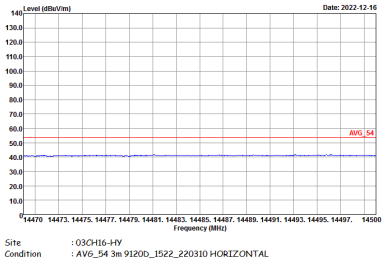
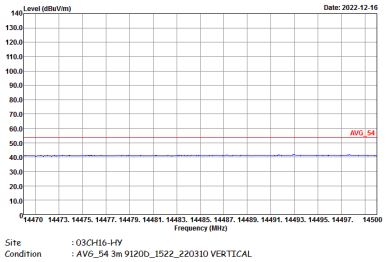
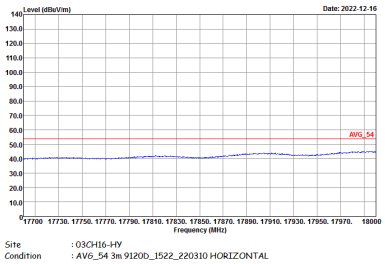
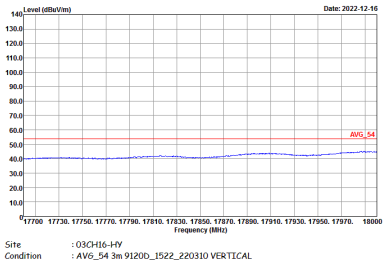
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH11 2462MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH12 2467MHz	
3+4	Horizontal	Vertical
Peak Avg.		

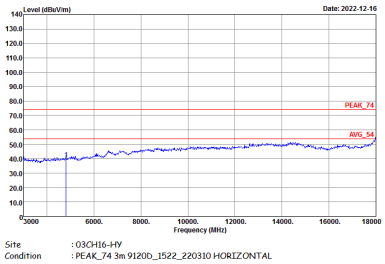
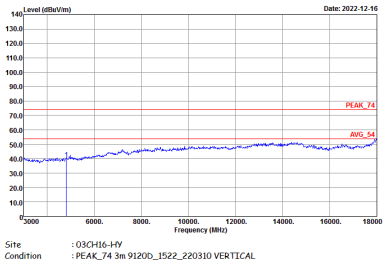
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH12 2467MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

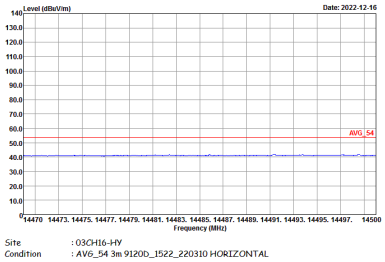
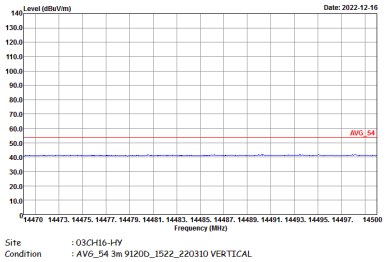
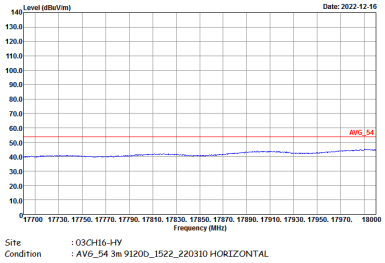
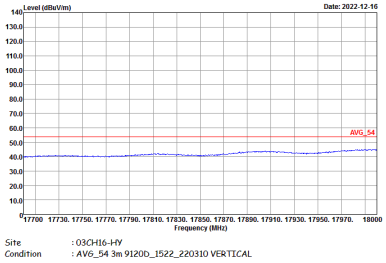
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH13 2472MHz	
3+4	Horizontal	Vertical
Peak Avg.		

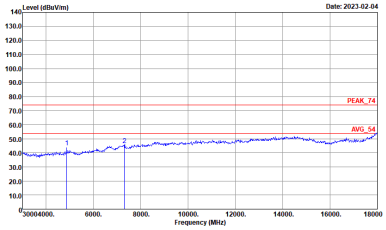
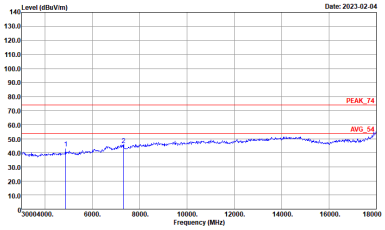
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11g CH13 2472MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

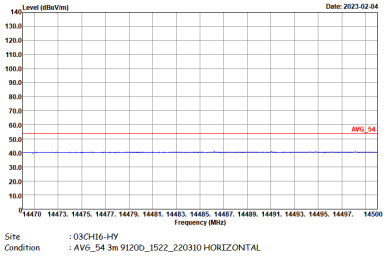
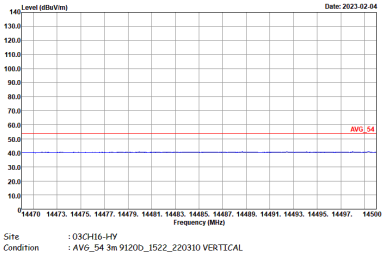
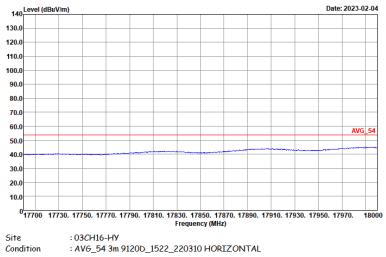
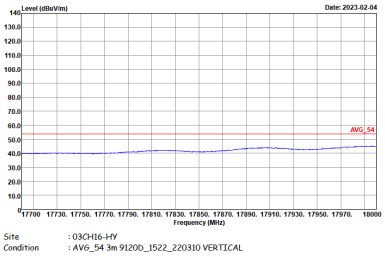
2.4GHz 2400~2483.5MHz

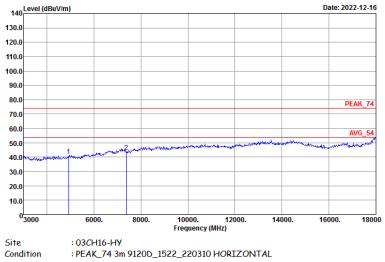
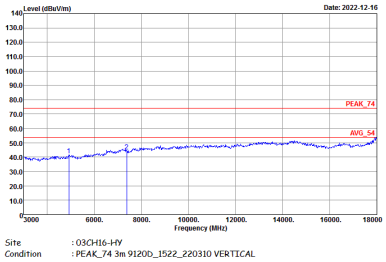
WIFI 802.11 ax HE20 Full (Harmonic @ 3m)

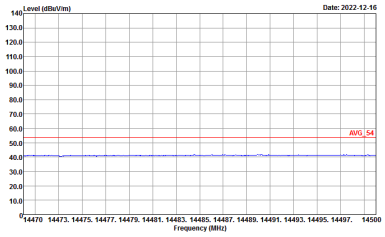
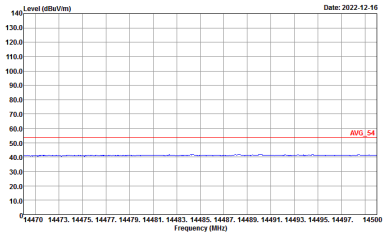
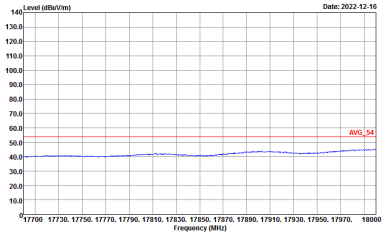
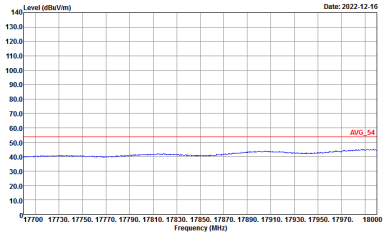
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
3+4	Horizontal	Vertical
Peak Avg.		

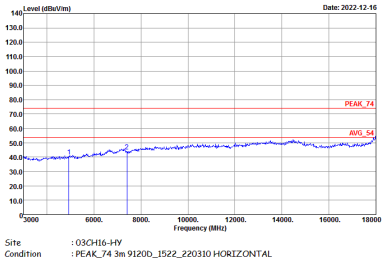
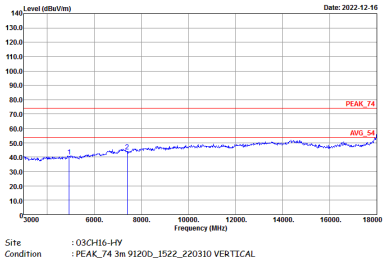
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH01 2412MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

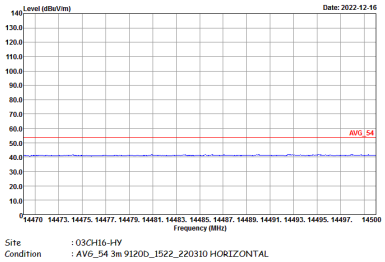
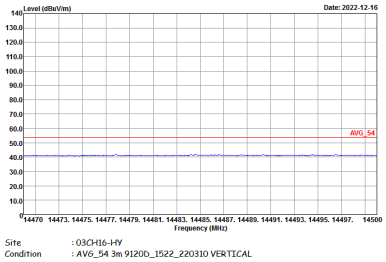
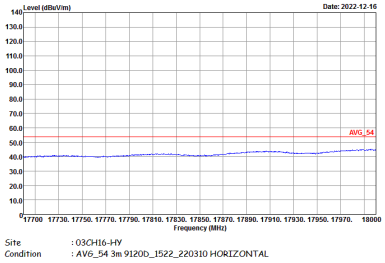
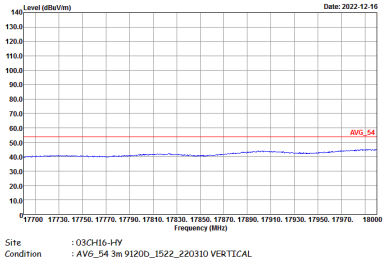
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
3+4	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK_74 3m 9120D_1522_220310 VERTICAL

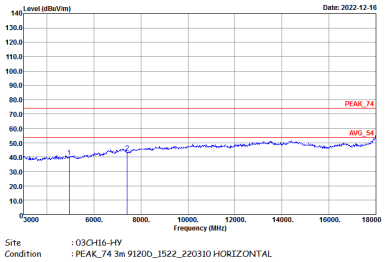
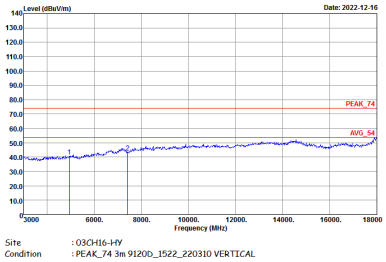
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH06 2437MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

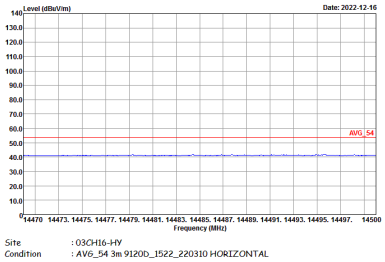
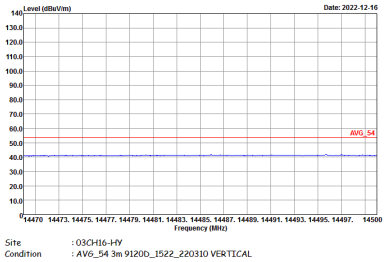
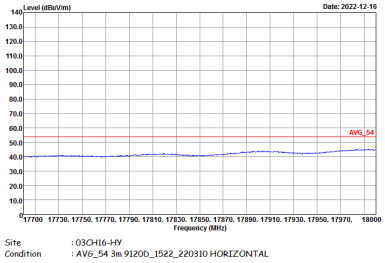
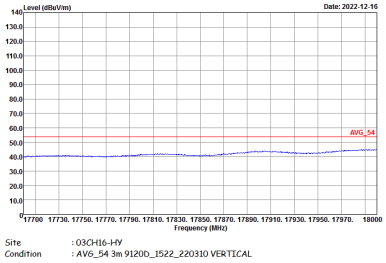
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH11 2462MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH12 2467MHz	
3+4	Horizontal	Vertical
Peak Avg.		

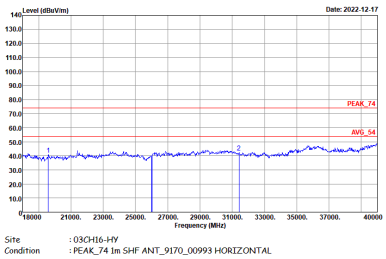
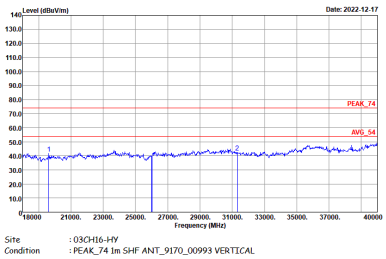
WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH12 2467MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH13 2472MHz	
3+4	Horizontal	Vertical
Peak Avg.		

WIFI	2.4GHz 2400~2483.5MHz Harmonic @ 3m	
ANT	802.11 ax HE20 Full CH13 2472MHz	
3+4	Horizontal	Vertical
14.47G ~14.5G Avg.		
17.7G ~18G Avg		

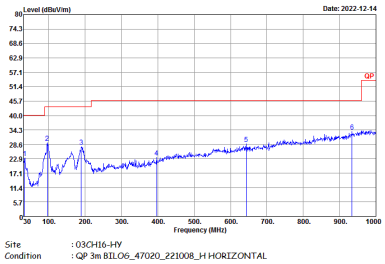
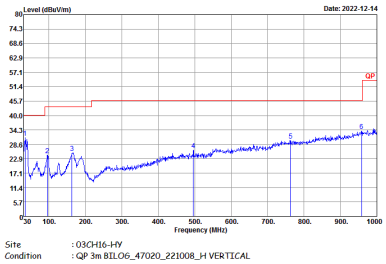
Emission above 18GHz

2.4GHz WIFI 802.11g (SHF @ 1m)

WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g SHF	
3+4	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

2.4GHz WIFI 802.11g (LF)

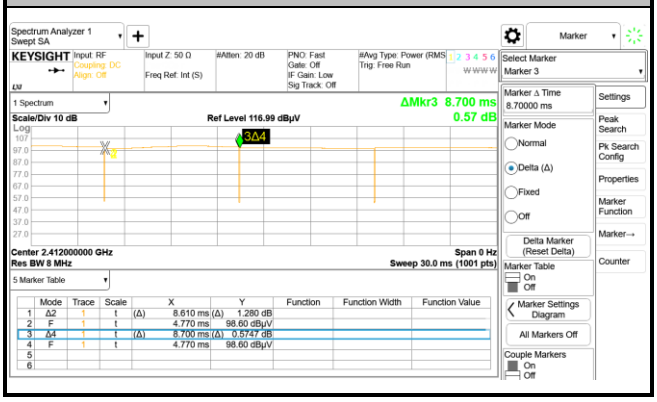
WIFI	2.4GHz 2400~2483.5MHz	
ANT	802.11g LF	
3+4	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
3	802.11b	98.97	-	-	10Hz
4	802.11b	98.28	-	-	10Hz
3+4	802.11b	98.28	-	-	10Hz
3+4	802.11g	93.46	1430	0.70	1kHz
3+4	2.4GHz 802.11ax HE20 Full RU	96.02	2410	0.41	1kHz

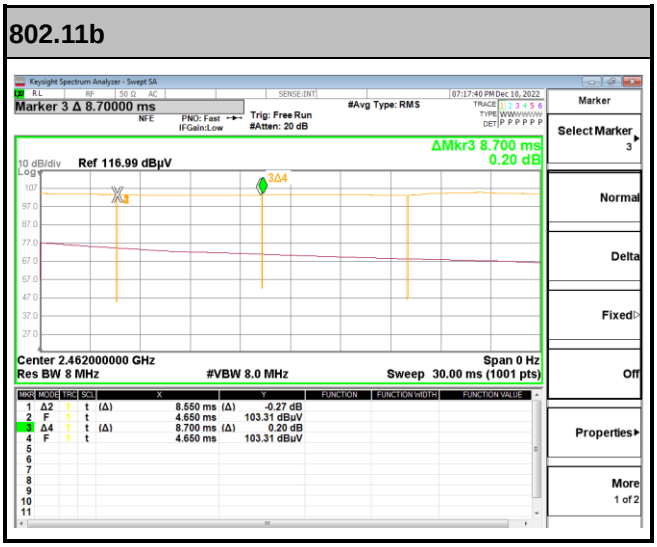
<Ant. 3>

802.11b

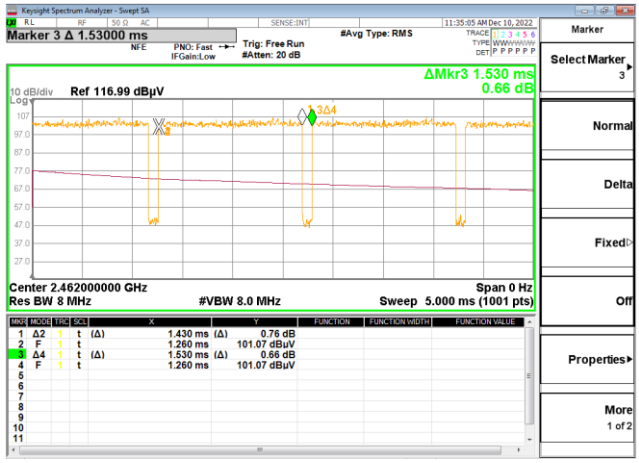
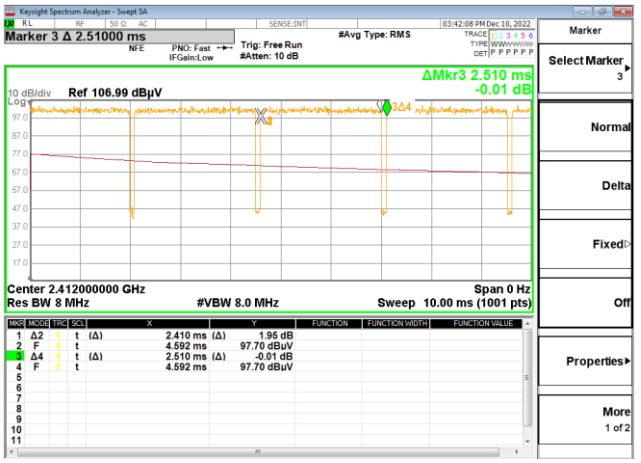


<Ant. 4>

802.11b



MIMO <Ant. 3+4>

802.11g	802.11ax HE20 Full RU
	

————THE END————