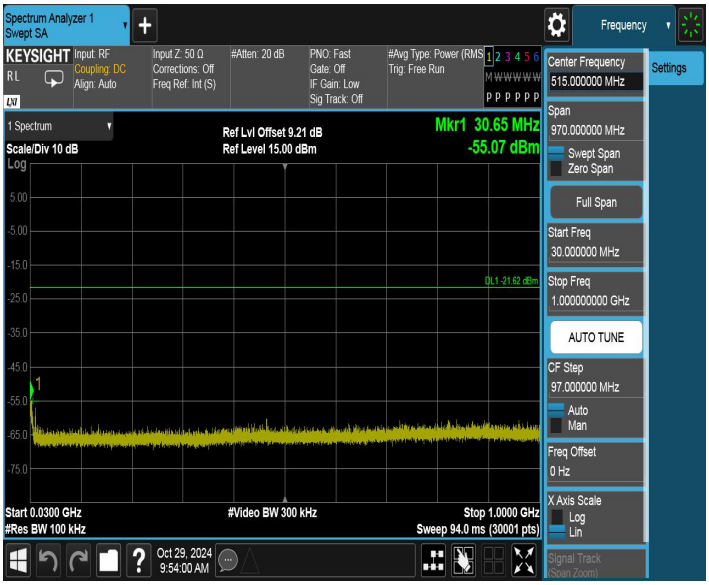
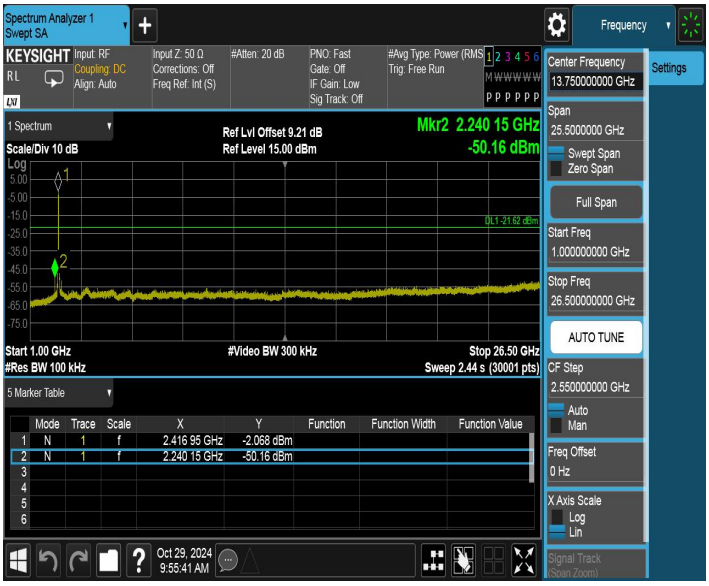
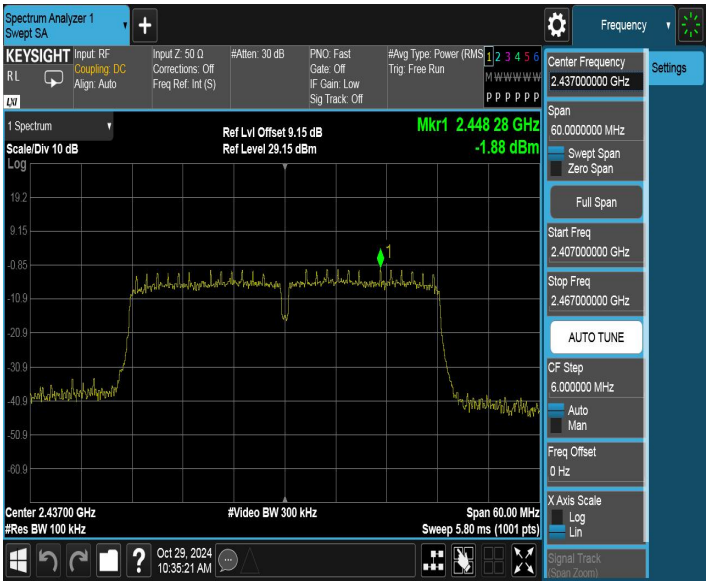


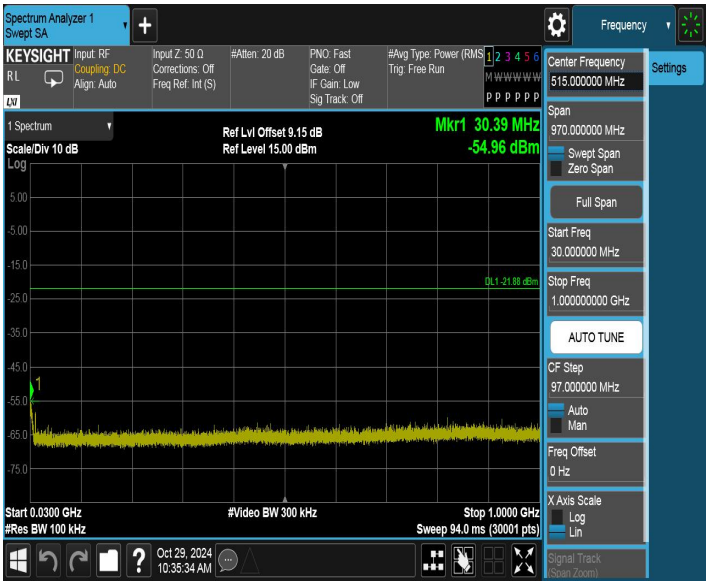
11N40SISO_Ant1_2422_1000~26500



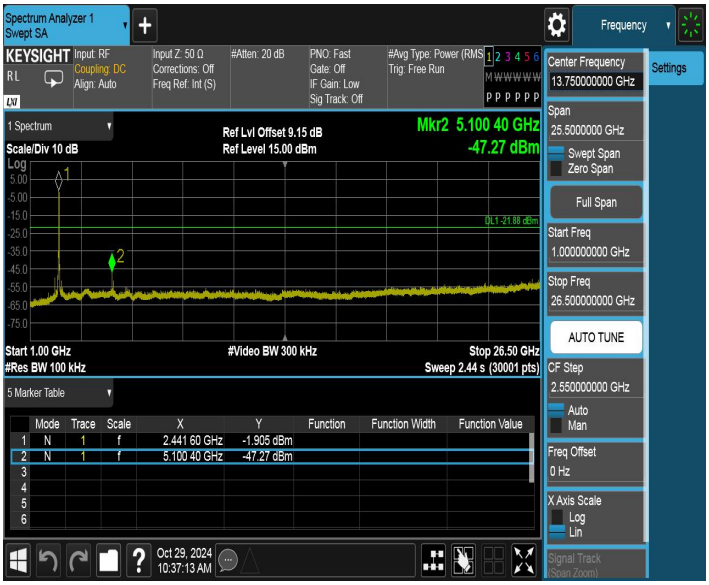
11N40SISO_Ant1_2437_0~Reference



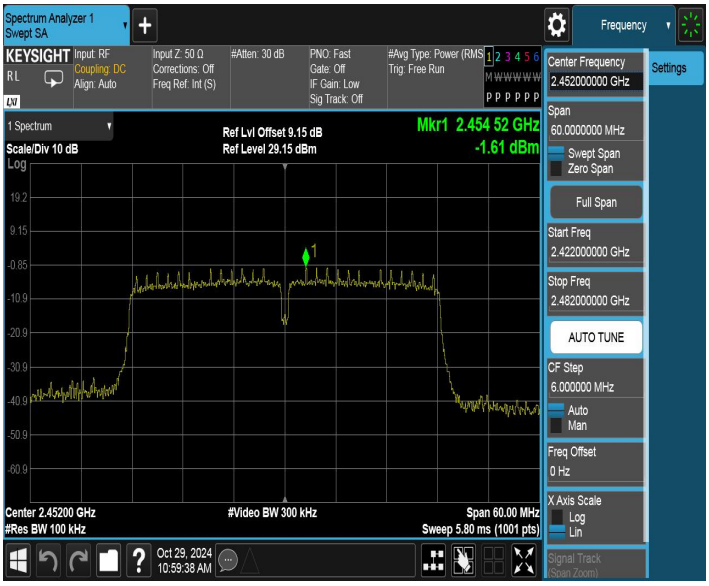
11N40SISO_Ant1_2437_30~1000



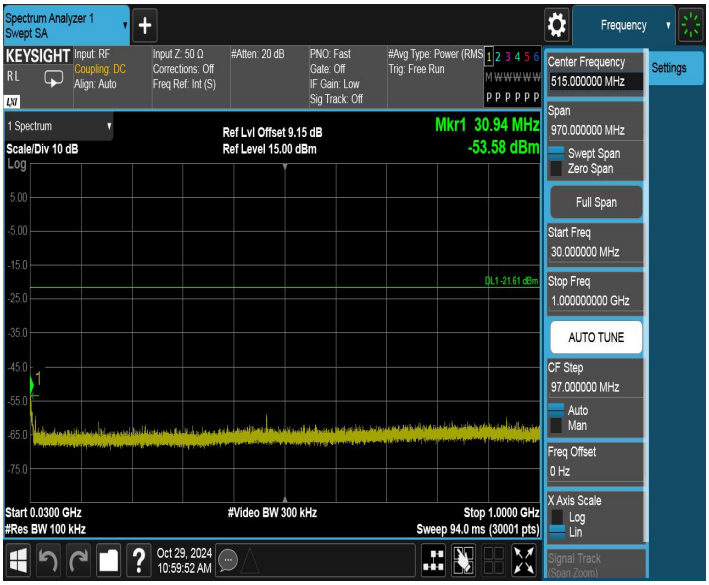
11N40SISO_Ant1_2437_1000~26500



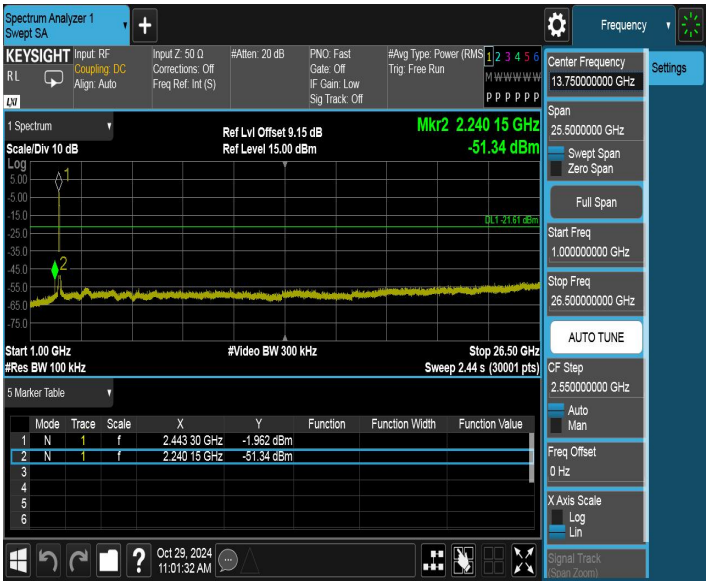
11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



11N40SISO_Ant1_2452_1000~26500



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 – 0.490	2400/F (kHz)	300
0.490 – 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

ANSI C63.10-2013 – Section 6.6.4.3

7.6.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold

7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

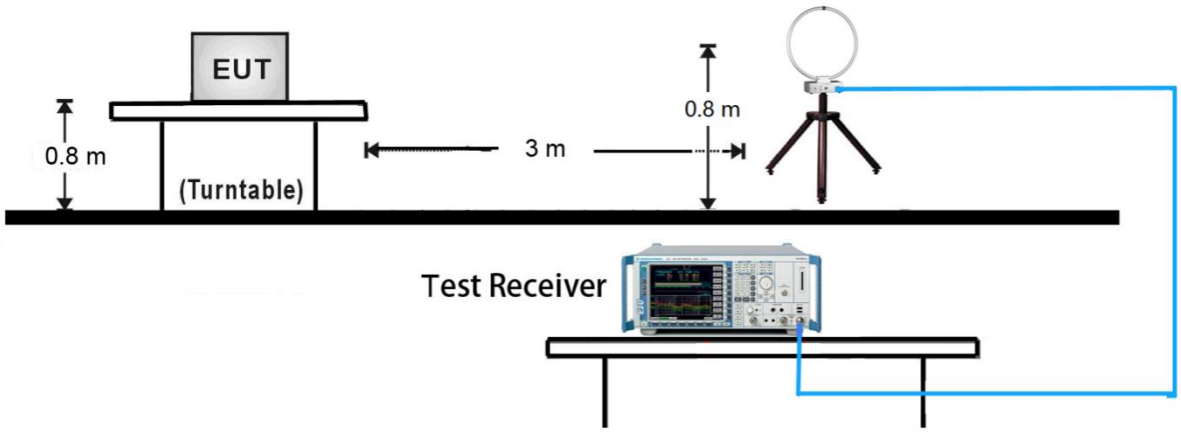
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

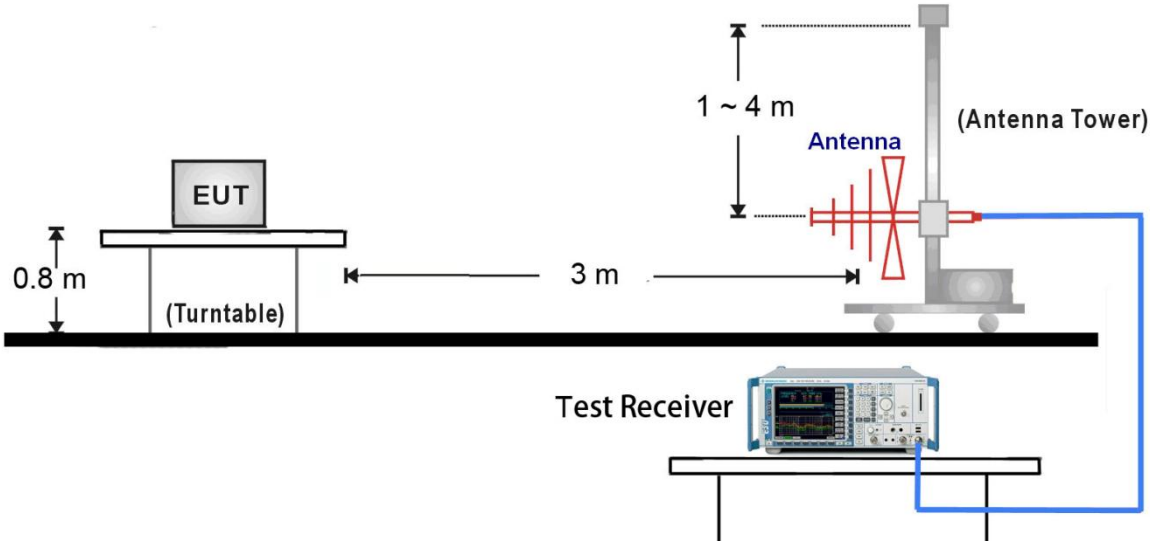
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Power Average (RMS)
5. Number of sweep point = 2001 (Number of sweep points must be ≥ 2 x span / RBW)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces.

7.6.4. Test Setup

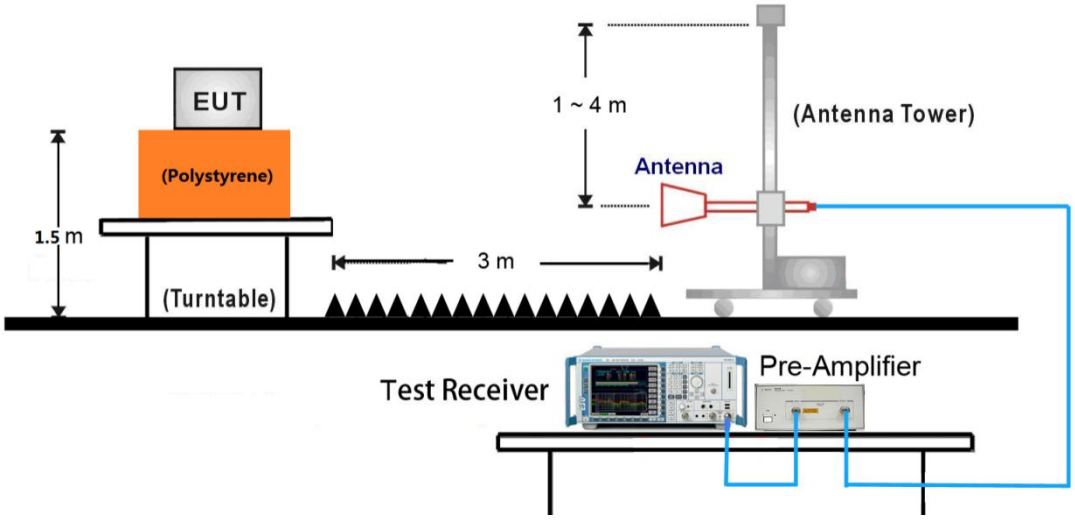
9kHz ~ 30MHz Test Setup:



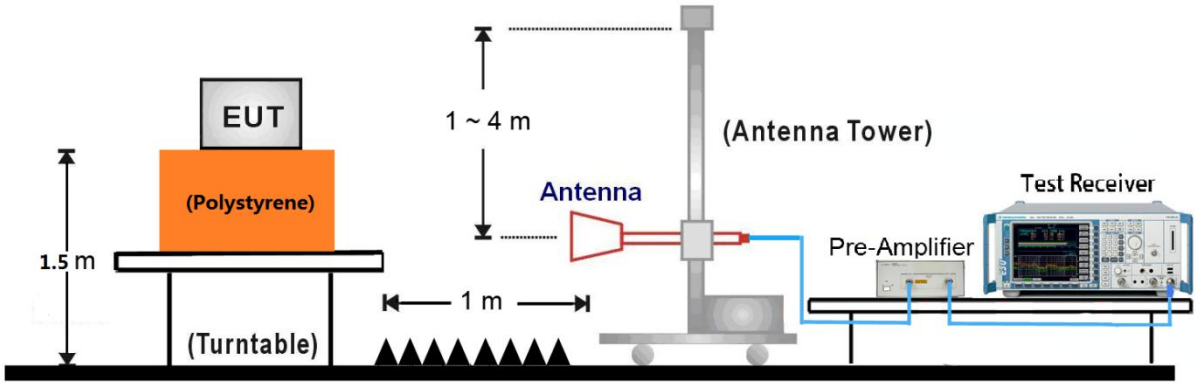
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:



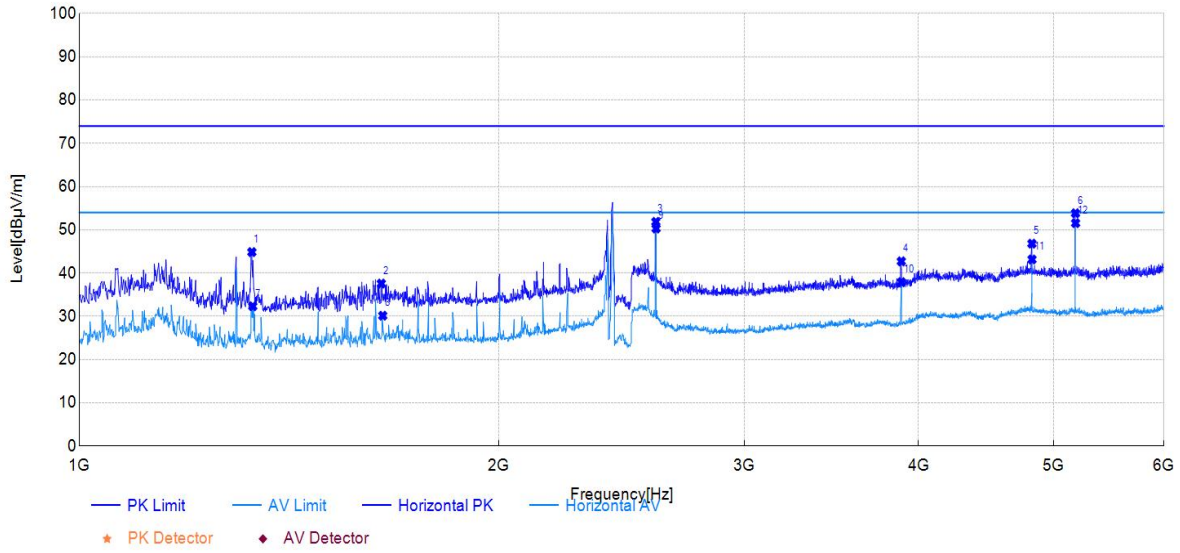
7.6.5. Test Result

The worst case of Radiated Emission above 1GHz:

1GHz – 6GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

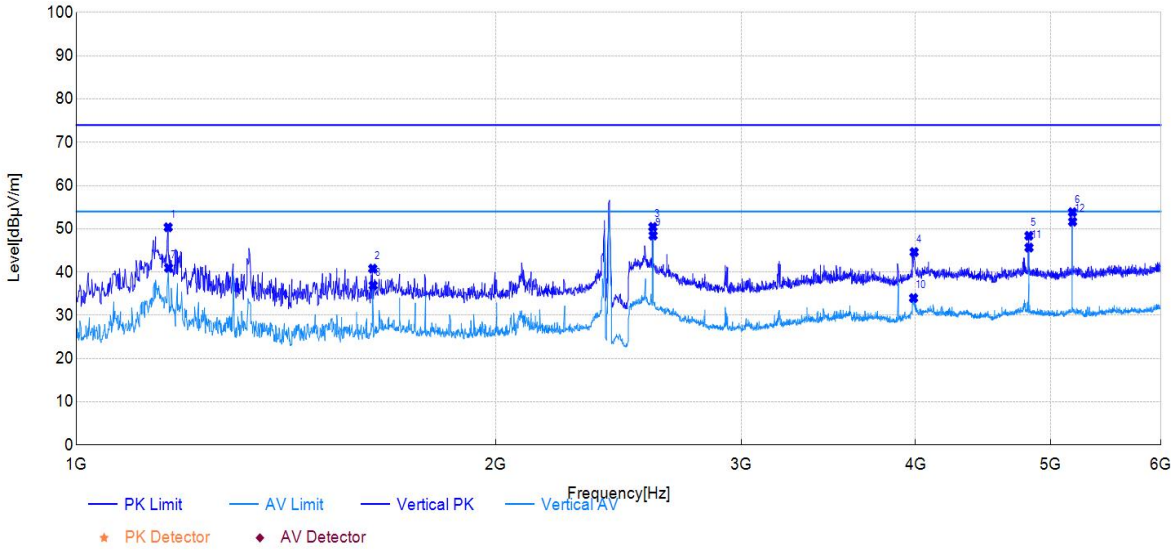


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1330.00	44.85	-22.68	74.00	29.15	PK	Horizontal
1647.00	37.57	-20.73	74.00	36.43	PK	Horizontal
2592.00	51.84	-15.55	74.00	22.16	PK	Horizontal
3888.00	42.71	-9.37	74.00	31.29	PK	Horizontal
4824.00	46.80	-6.72	74.00	27.20	PK	Horizontal
5184.00	53.83	-6.22	74.00	20.17	PK	Horizontal
1332.00	32.32	-22.66	54.00	21.68	AV	Horizontal
1651.00	30.14	-20.70	54.00	23.86	AV	Horizontal
2593.00	50.30	-15.55	54.00	3.70	AV	Horizontal
3889.00	37.90	-9.36	54.00	16.10	AV	Horizontal
4825.00	43.14	-6.71	54.00	10.86	AV	Horizontal
5185.00	51.54	-6.22	54.00	2.46	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



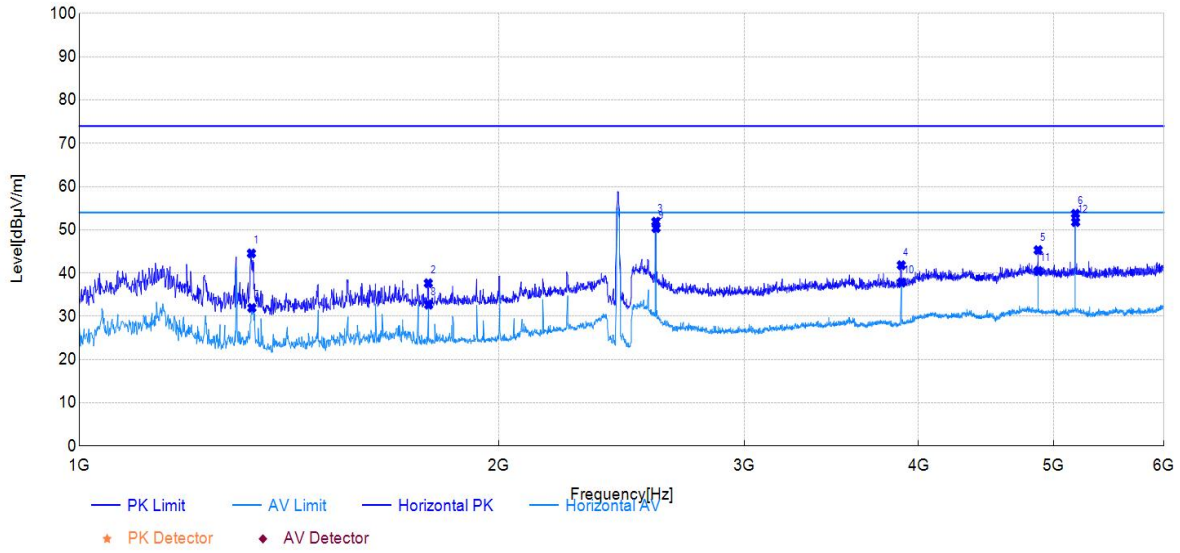
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1164.00	50.35	-22.58	74.00	23.65	PK	Vertical
1632.00	40.79	-20.15	74.00	33.21	PK	Vertical
2592.00	50.43	-15.76	74.00	23.57	PK	Vertical
3991.00	44.62	-8.33	74.00	29.38	PK	Vertical
4824.00	48.38	-7.28	74.00	25.62	PK	Vertical
5184.00	53.84	-6.67	74.00	20.16	PK	Vertical
1165.00	40.96	-22.59	54.00	13.04	AV	Vertical
1633.00	36.90	-20.15	54.00	17.10	AV	Vertical
2593.00	48.44	-15.76	54.00	5.56	AV	Vertical
3987.00	33.99	-8.35	54.00	20.01	AV	Vertical
4825.00	45.66	-7.27	54.00	8.34	AV	Vertical
5185.00	51.63	-6.66	54.00	2.37	AV	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

1GHz – 6GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

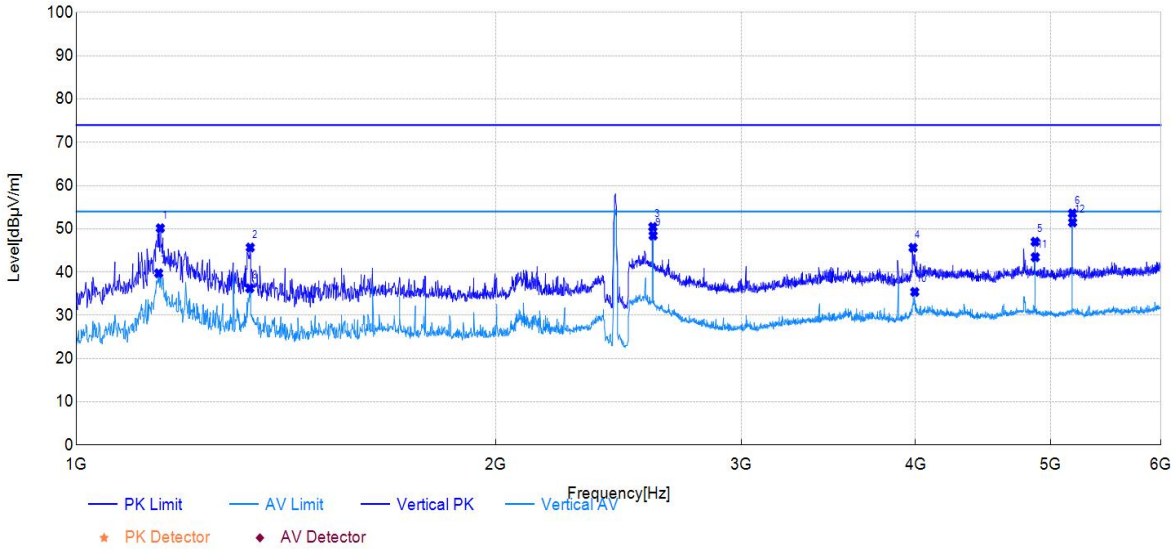


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1329.00	44.54	-22.69	74.00	29.46	PK	Horizontal
1780.00	37.64	-19.65	74.00	36.36	PK	Horizontal
2592.00	51.88	-15.55	74.00	22.12	PK	Horizontal
3888.00	41.82	-9.37	74.00	32.18	PK	Horizontal
4874.00	45.31	-6.58	74.00	28.69	PK	Horizontal
5184.00	53.71	-6.22	74.00	20.29	PK	Horizontal
1330.00	31.94	-22.68	54.00	22.06	AV	Horizontal
1781.00	32.69	-19.64	54.00	21.31	AV	Horizontal
2593.00	50.39	-15.55	54.00	3.61	AV	Horizontal
3889.00	37.81	-9.36	54.00	16.19	AV	Horizontal
4875.00	40.48	-6.57	54.00	13.52	AV	Horizontal
5185.00	51.78	-6.22	54.00	2.22	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



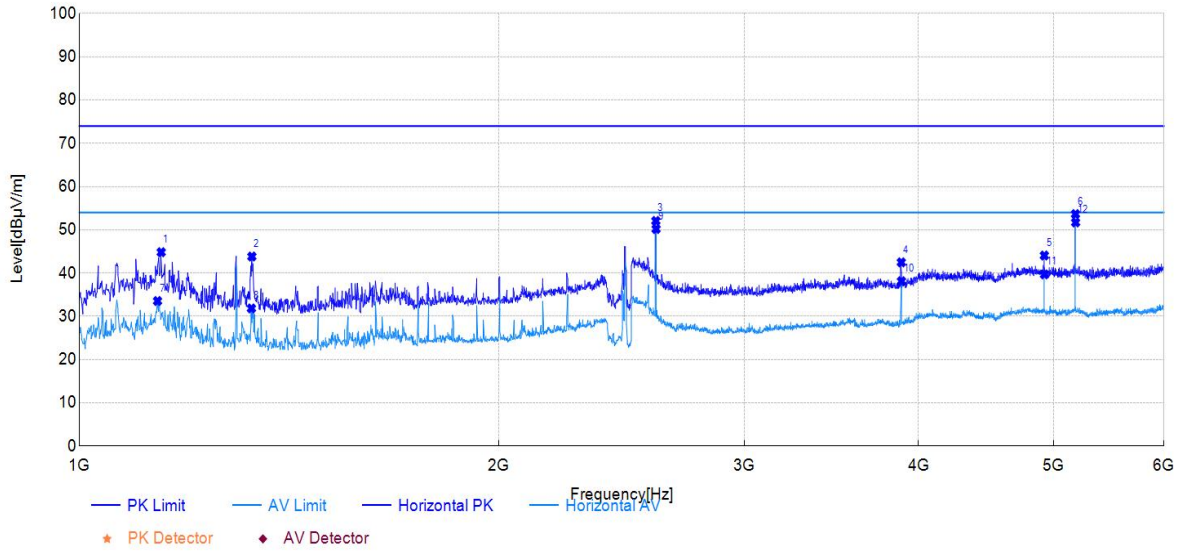
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1149.00	50.14	-22.63	74.00	23.86	PK	Vertical
1333.00	45.68	-21.76	74.00	28.32	PK	Vertical
2592.00	50.43	-15.76	74.00	23.57	PK	Vertical
3984.00	45.63	-8.37	74.00	28.37	PK	Vertical
4874.00	47.01	-7.18	74.00	26.99	PK	Vertical
5184.00	53.55	-6.67	74.00	20.45	PK	Vertical
1146.00	39.73	-22.65	54.00	14.27	AV	Vertical
1332.00	36.24	-21.76	54.00	17.76	AV	Vertical
2593.00	48.43	-15.76	54.00	5.57	AV	Vertical
3995.00	35.40	-8.31	54.00	18.60	AV	Vertical
4875.00	43.43	-7.17	54.00	10.57	AV	Vertical
5185.00	51.46	-6.66	54.00	2.54	AV	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

1GHz – 6GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

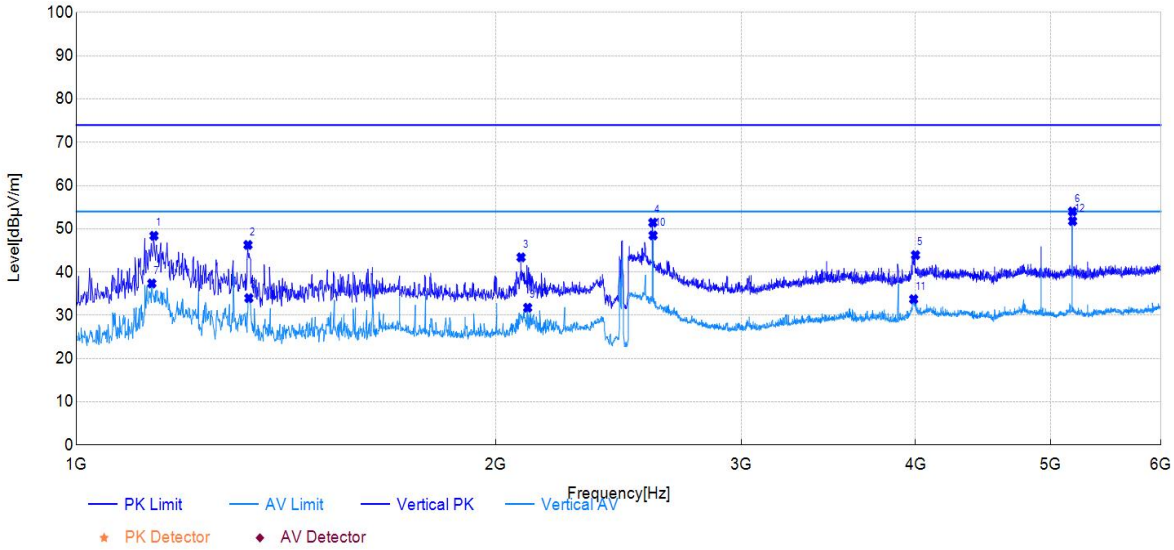


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1145.00	44.82	-23.66	74.00	29.18	PK	Horizontal
1330.00	43.83	-22.68	74.00	30.17	PK	Horizontal
2592.00	52.05	-15.55	74.00	21.95	PK	Horizontal
3888.00	42.48	-9.37	74.00	31.52	PK	Horizontal
4924.00	44.06	-6.39	74.00	29.94	PK	Horizontal
5184.00	53.64	-6.22	74.00	20.36	PK	Horizontal
1138.00	33.54	-23.70	54.00	20.46	AV	Horizontal
1329.00	31.83	-22.69	54.00	22.17	AV	Horizontal
2593.00	50.19	-15.55	54.00	3.81	AV	Horizontal
3889.00	38.11	-9.36	54.00	15.89	AV	Horizontal
4925.00	39.69	-6.38	54.00	14.31	AV	Horizontal
5185.00	51.70	-6.22	54.00	2.30	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



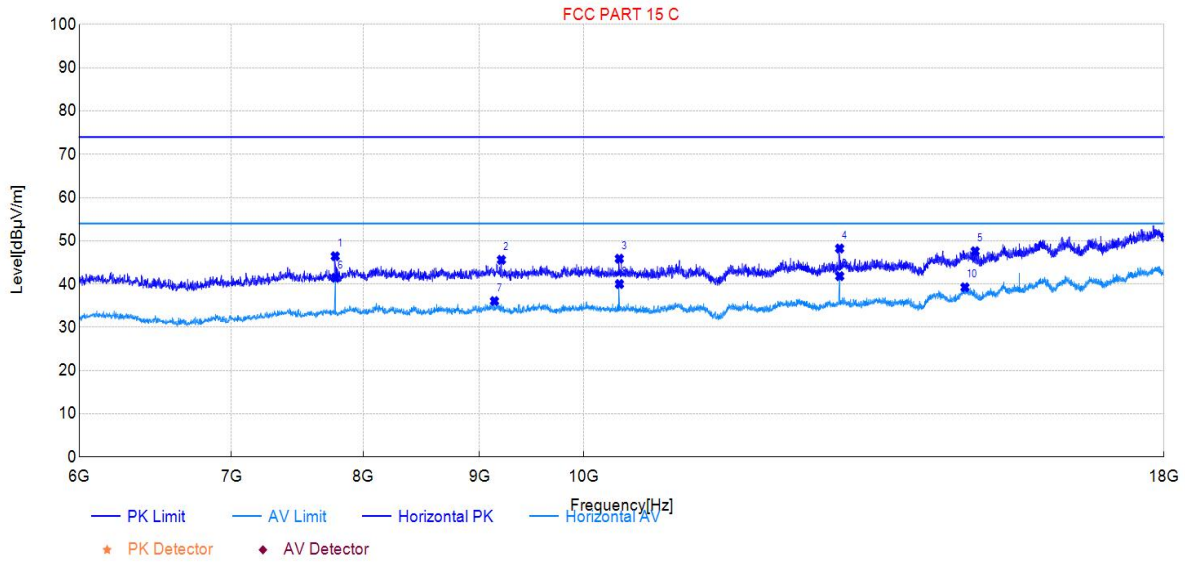
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1137.00	48.38	-22.68	74.00	25.62	PK	Vertical
1328.00	46.27	-21.79	74.00	27.73	PK	Vertical
2085.00	43.40	-17.44	74.00	30.60	PK	Vertical
2592.00	51.43	-15.76	74.00	22.57	PK	Vertical
4000.00	43.93	-8.28	74.00	30.07	PK	Vertical
5184.00	54.00	-6.67	74.00	20.00	PK	Vertical
1133.00	37.36	-22.69	54.00	16.64	AV	Vertical
1330.00	33.97	-21.78	54.00	20.03	AV	Vertical
2108.00	31.75	-17.36	54.00	22.25	AV	Vertical
2593.00	48.47	-15.76	54.00	5.53	AV	Vertical
3988.00	33.73	-8.35	54.00	20.27	AV	Vertical
5185.00	51.77	-6.66	54.00	2.23	AV	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

6GHz – 18GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

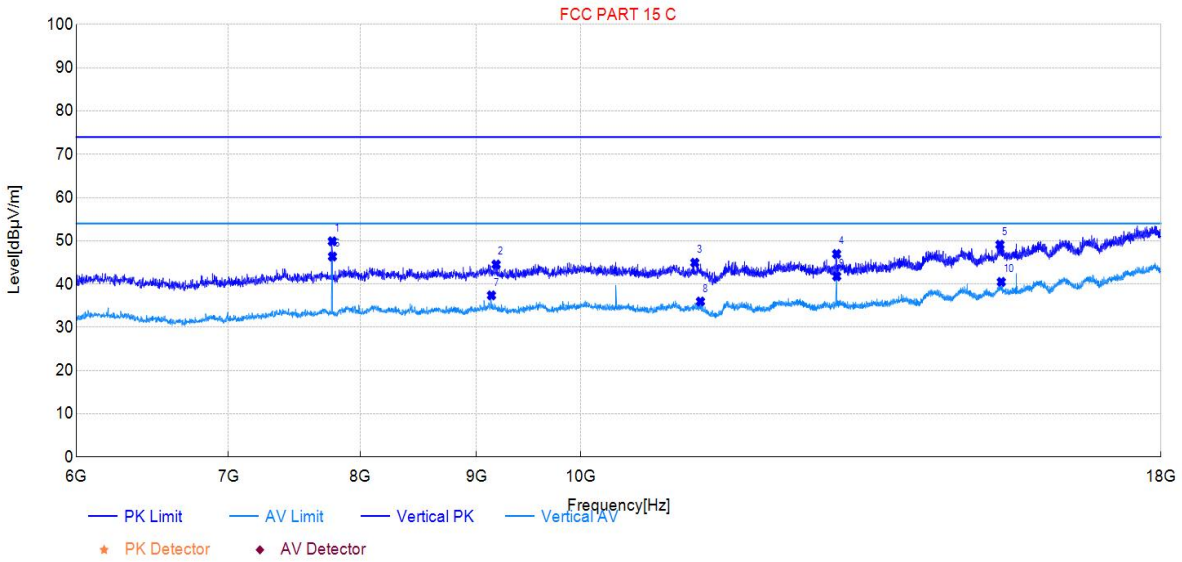


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
7776.00	46.43	-2.98	74.00	27.57	PK	Horizontal
9201.00	45.60	-1.19	74.00	28.40	PK	Horizontal
10368.00	45.86	0.15	74.00	28.14	PK	Horizontal
12960.00	48.22	2.32	74.00	25.78	PK	Horizontal
14866.50	47.60	5.05	74.00	26.40	PK	Horizontal
7777.50	41.44	-2.99	54.00	12.56	AV	Horizontal
9136.50	36.06	-0.92	54.00	17.94	AV	Horizontal
10369.50	40.00	0.15	54.00	14.00	AV	Horizontal
12961.50	41.83	2.33	54.00	12.17	AV	Horizontal
14713.50	39.24	5.39	54.00	14.76	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



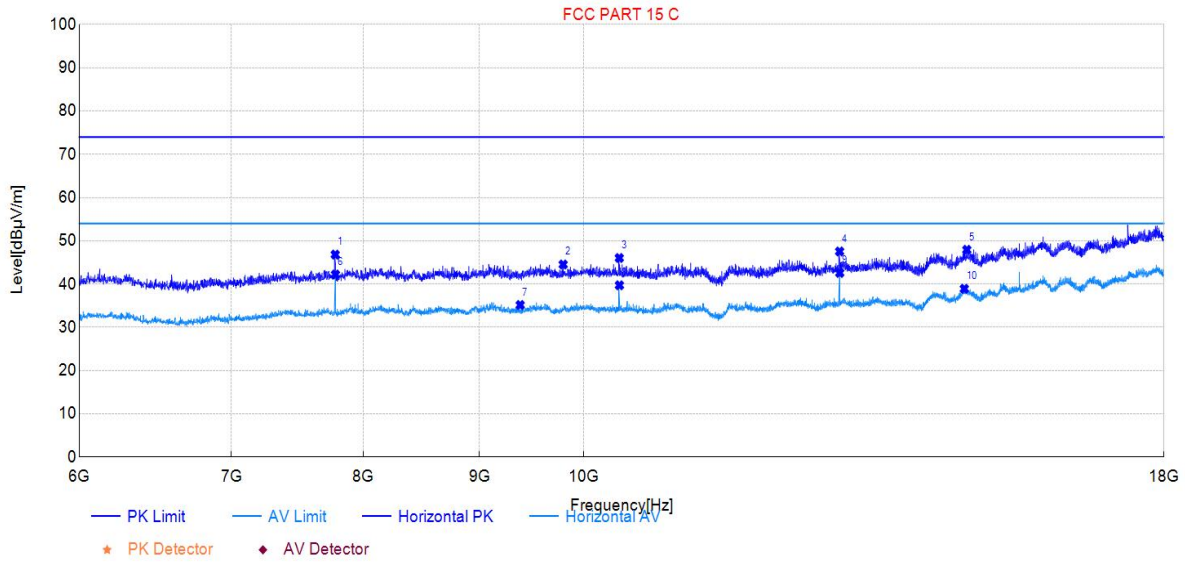
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
7776.00	49.89	-2.98	74.00	24.11	PK	Vertical
9180.00	44.52	-1.10	74.00	29.48	PK	Vertical
11226.00	44.94	1.02	74.00	29.06	PK	Vertical
12960.00	46.95	1.96	74.00	27.05	PK	Vertical
15291.00	49.11	6.94	74.00	24.89	PK	Vertical
7777.50	46.37	-2.99	54.00	7.63	AV	Vertical
9136.50	37.38	-0.92	54.00	16.62	AV	Vertical
11290.50	35.97	1.13	54.00	18.03	AV	Vertical
12961.50	41.79	1.97	54.00	12.21	AV	Vertical
15312.00	40.49	7.03	54.00	13.51	AV	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

6GHz – 18GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

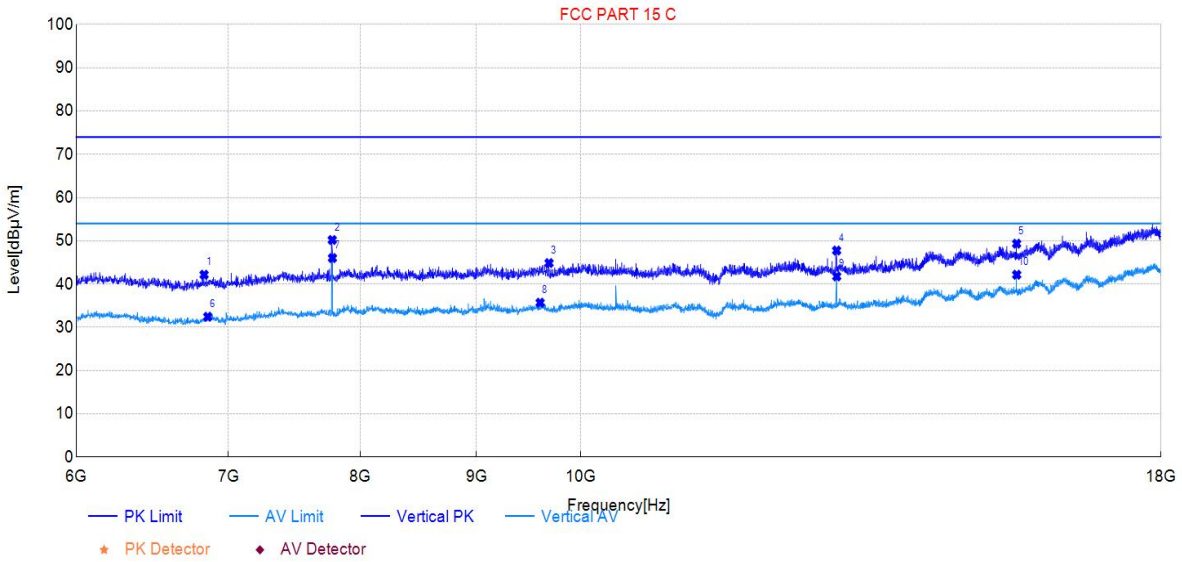


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
7776.00	46.81	-2.98	74.00	27.19	PK	Horizontal
9795.00	44.52	-0.28	74.00	29.48	PK	Horizontal
10368.00	46.03	0.15	74.00	27.97	PK	Horizontal
12960.00	47.54	2.32	74.00	26.46	PK	Horizontal
14742.00	47.92	5.41	74.00	26.08	PK	Horizontal
7777.50	42.21	-2.99	54.00	11.79	AV	Horizontal
9378.00	35.16	-0.80	54.00	18.84	AV	Horizontal
10369.50	39.72	0.15	54.00	14.28	AV	Horizontal
12961.50	42.58	2.33	54.00	11.42	AV	Horizontal
14704.50	38.91	5.38	54.00	15.09	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



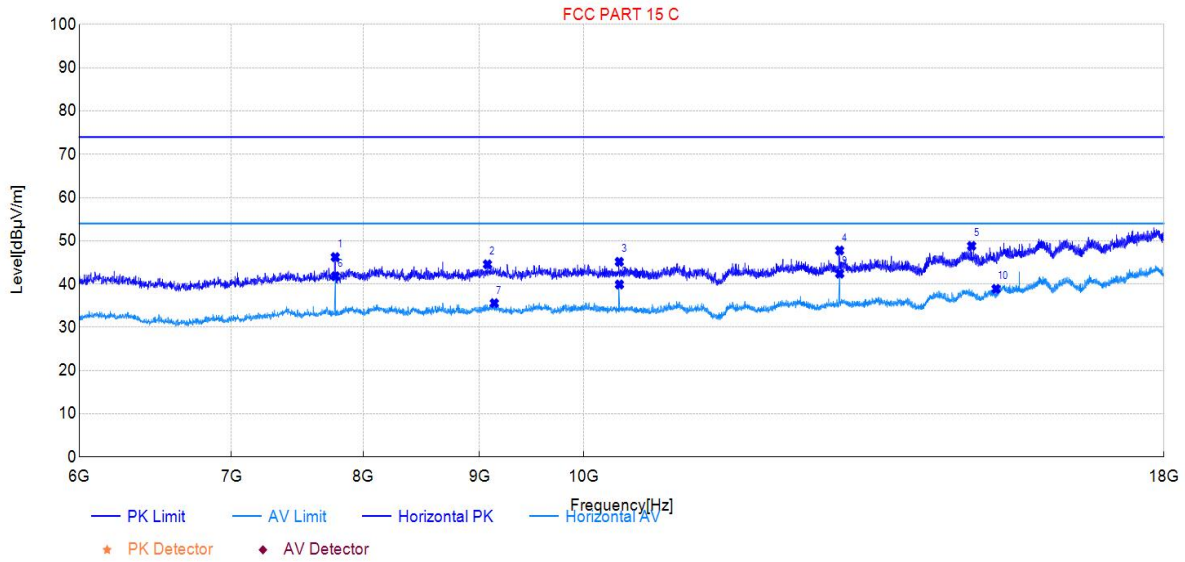
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
6829.50	42.16	-4.66	74.00	31.84	PK	Vertical
7776.00	50.19	-2.98	74.00	23.81	PK	Vertical
9685.50	44.85	-0.89	74.00	29.15	PK	Vertical
12960.00	47.75	1.96	74.00	26.25	PK	Vertical
15552.00	49.34	6.89	74.00	24.66	PK	Vertical
6855.00	32.44	-4.54	54.00	21.56	AV	Vertical
7777.50	46.01	-2.99	54.00	7.99	AV	Vertical
9598.50	35.69	-0.11	54.00	18.31	AV	Vertical
12961.50	41.77	1.97	54.00	12.23	AV	Vertical
15553.50	42.16	6.89	54.00	11.84	AV	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

6GHz – 18GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

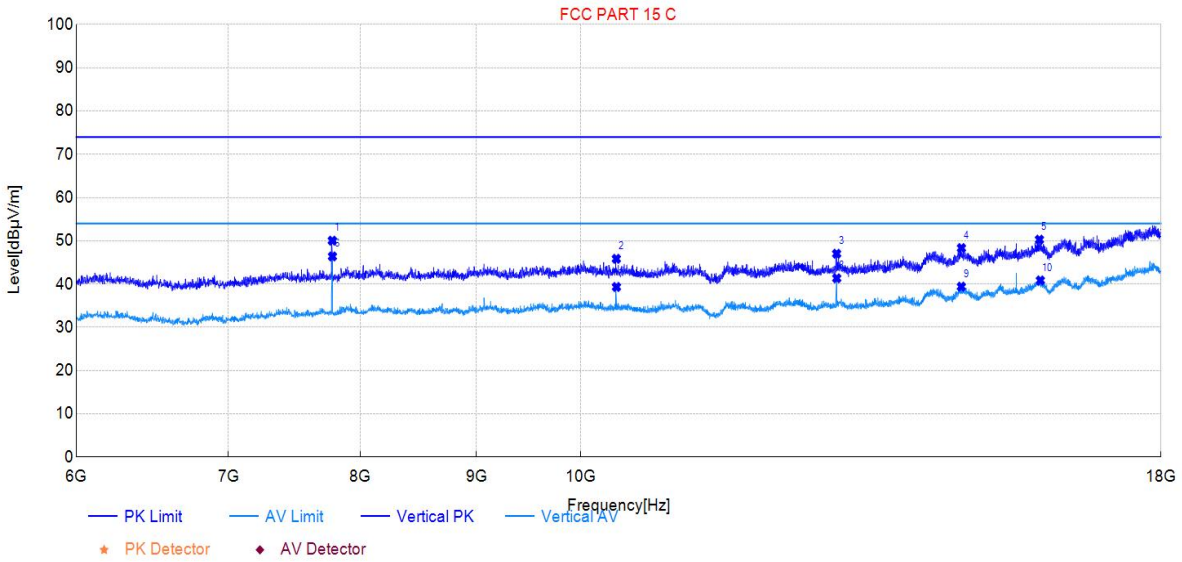


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
7776.00	46.23	-2.98	74.00	27.77	PK	Horizontal
9072.00	44.56	-0.78	74.00	29.44	PK	Horizontal
10368.00	45.14	0.15	74.00	28.86	PK	Horizontal
12960.00	47.76	2.32	74.00	26.24	PK	Horizontal
14814.00	48.82	5.36	74.00	25.18	PK	Horizontal
7777.50	41.81	-2.99	54.00	12.19	AV	Horizontal
9135.00	35.58	-0.91	54.00	18.42	AV	Horizontal
10369.50	39.90	0.15	54.00	14.10	AV	Horizontal
12961.50	42.41	2.33	54.00	11.59	AV	Horizontal
15184.50	38.88	5.61	54.00	15.12	AV	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
7776.00	50.04	-2.98	74.00	23.96	PK	Vertical
10368.00	45.83	0.50	74.00	28.17	PK	Vertical
12960.00	47.02	1.96	74.00	26.98	PK	Vertical
14706.00	48.33	5.60	74.00	25.67	PK	Vertical
15915.00	50.27	9.30	74.00	23.73	PK	Vertical
7777.50	46.39	-2.99	54.00	7.61	AV	Vertical
10369.50	39.33	0.50	54.00	14.67	AV	Vertical
12961.50	41.34	1.97	54.00	12.66	AV	Vertical
14704.50	39.41	5.60	54.00	14.59	AV	Vertical
15930.00	40.84	9.29	54.00	13.16	AV	Vertical

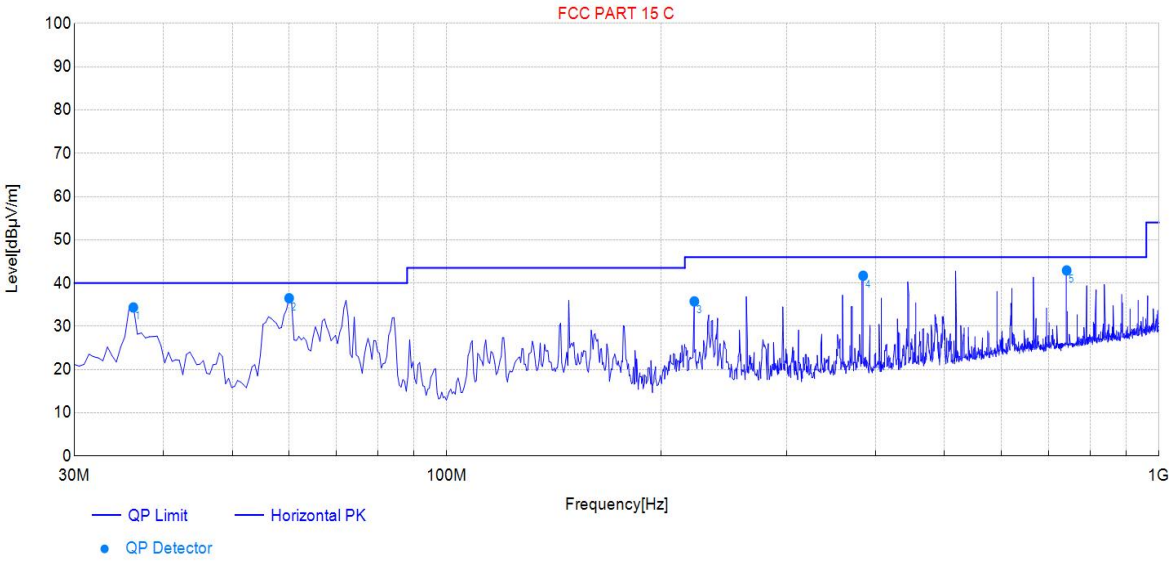
Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 26.5GHz), therefore no data appear in the report.

The worst case of Radiated Emission below 1GHz:

30MHz – 1GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

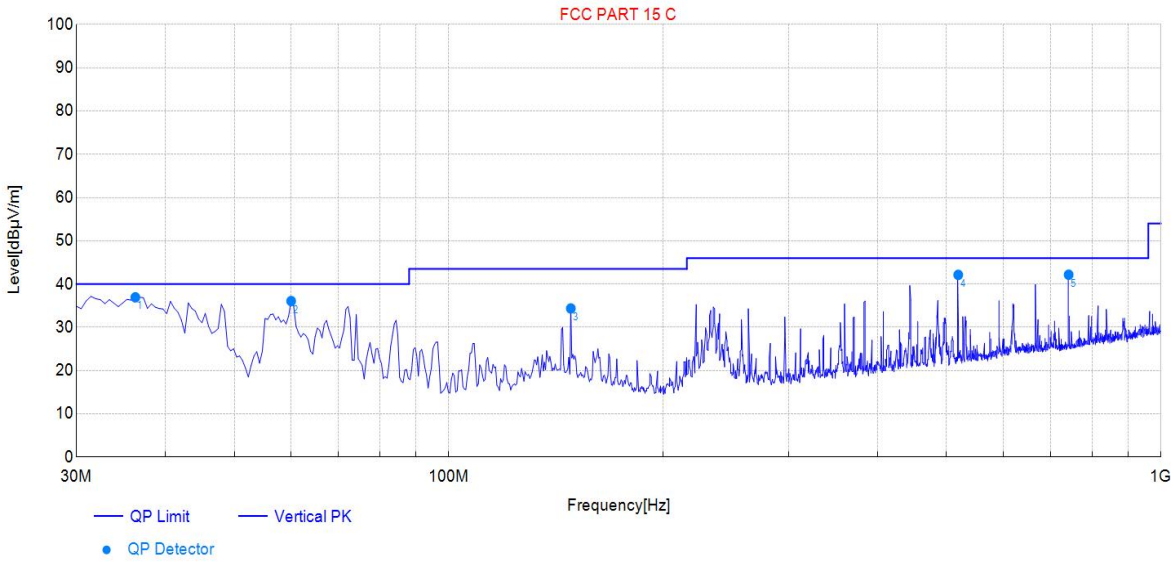


Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.31	14.26	34.37	40.00	5.63	100	360	Horizontal
2	60.09	13.64	36.50	40.00	3.50	100	7	Horizontal
3	222.64	12.33	35.76	46.00	10.24	100	20	Horizontal
4	384.23	16.67	41.69	46.00	4.31	100	27	Horizontal
5	741.85	23.14	42.92	46.00	3.08	100	195	Horizontal

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph

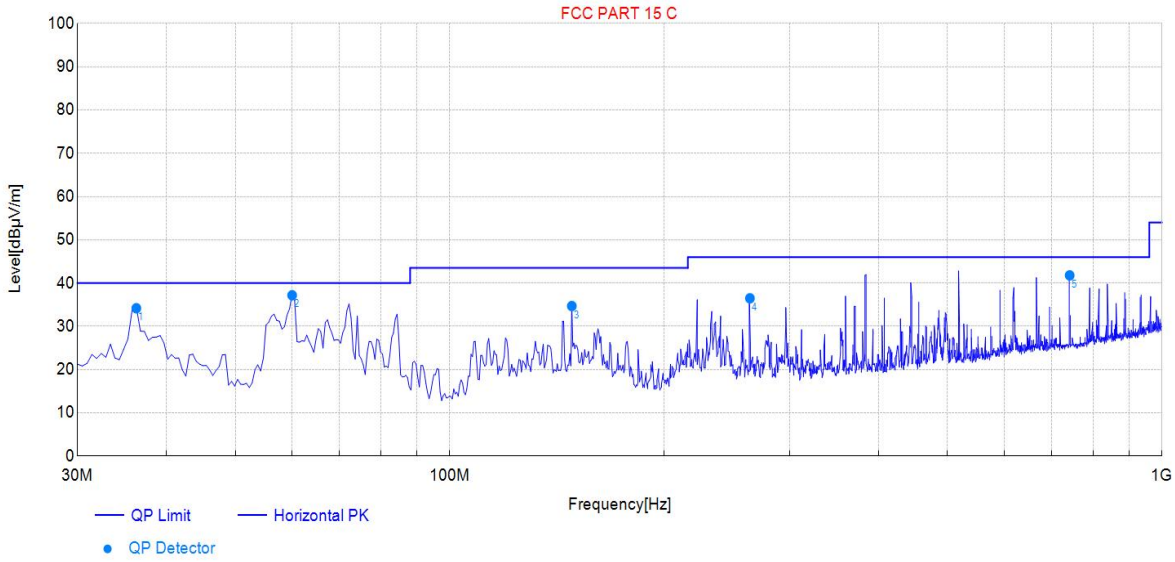


Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.31	14.26	36.94	40.00	3.06	100	281	Vertical
2	60.09	13.64	36.07	40.00	3.93	100	267	Vertical
3	148.40	15.15	34.37	43.50	9.13	100	343	Vertical
4	519.12	19.41	42.14	46.00	3.86	100	154	Vertical
5	741.85	23.14	42.16	46.00	3.84	100	147	Vertical

30MHz – 1GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

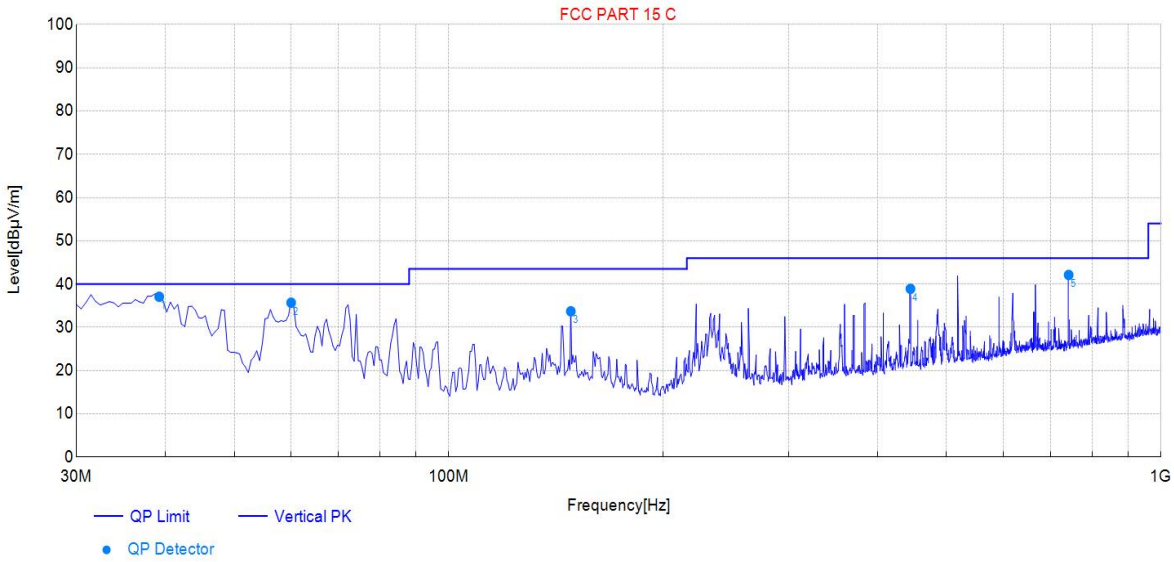
Test Graph



Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.31	14.26	34.19	40.00	5.81	100	2	Horizontal
2	60.09	13.64	37.18	40.00	2.82	100	0	Horizontal
3	148.40	15.15	34.69	43.50	8.81	100	167	Horizontal
4	263.89	13.73	36.48	46.00	9.52	100	36	Horizontal
5	741.85	23.14	41.78	46.00	4.22	100	194	Horizontal

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



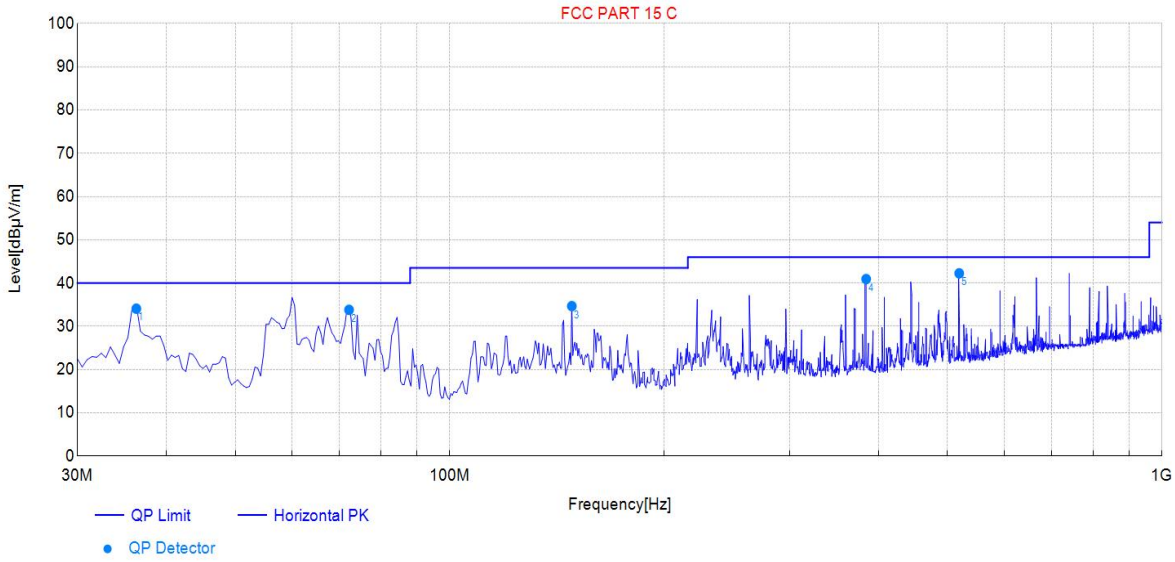
Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	39.22	14.68	37.08	40.00	2.92	100	238	Vertical
2	60.09	13.64	35.70	40.00	4.30	100	273	Vertical
3	148.40	15.15	33.71	43.50	9.79	100	343	Vertical
4	444.88	18.23	38.90	46.00	7.10	100	100	Vertical
5	741.85	23.14	42.11	46.00	3.89	100	138	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

30MHz – 1GHz Test Data

EUT:	AI Recorder II	Polarity:	Horizontal
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

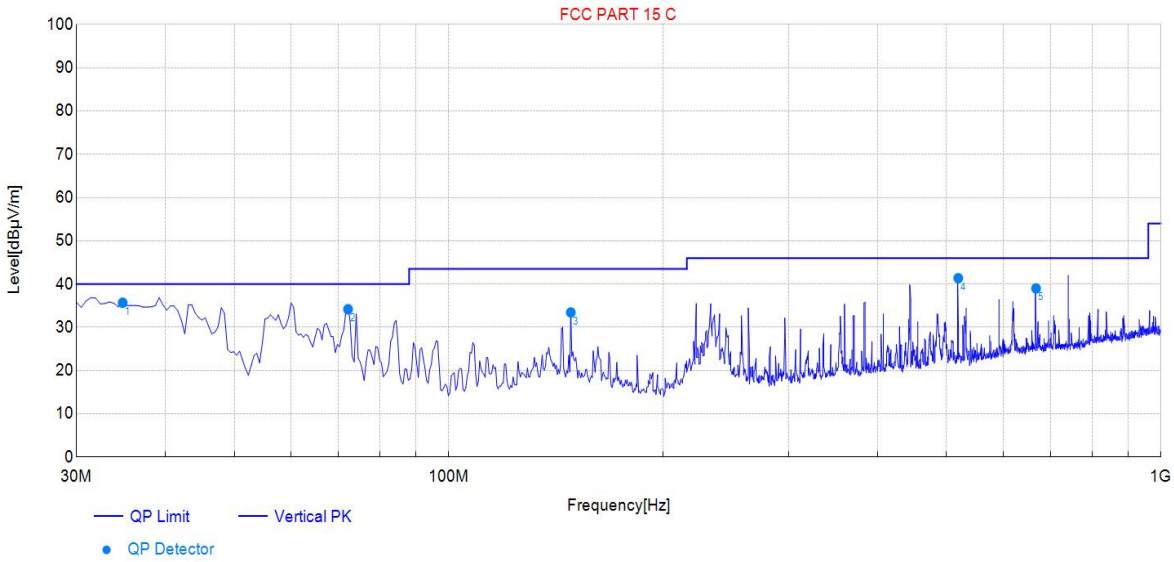
Test Graph



Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.31	14.26	34.09	40.00	5.91	100	360	Horizontal
2	72.22	11.45	33.82	40.00	6.18	100	360	Horizontal
3	148.40	15.15	34.68	43.50	8.82	100	156	Horizontal
4	384.23	16.67	40.94	46.00	5.06	100	26	Horizontal
5	519.12	19.41	42.25	46.00	3.75	100	346	Horizontal

EUT:	AI Recorder II	Polarity:	Vertical
Model:	CAM18	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC 14V
Environment:	Temp: 19℃; Humi:56%	Engineer:	Chuang Li

Test Graph



Final Data List								
NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Polarity
1	34.85	14.06	35.69	40.00	4.31	100	243	Vertical
2	72.22	11.45	34.18	40.00	5.82	100	80	Vertical
3	148.40	15.15	33.44	43.50	10.06	100	350	Vertical
4	519.12	19.41	41.37	46.00	4.63	100	153	Vertical
5	667.61	22.13	39.01	46.00	6.99	100	118	Vertical

Note 1: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.7. Restricted Band Edge Measurement

7.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1] 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.25 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.7.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.7.3. Test Setting

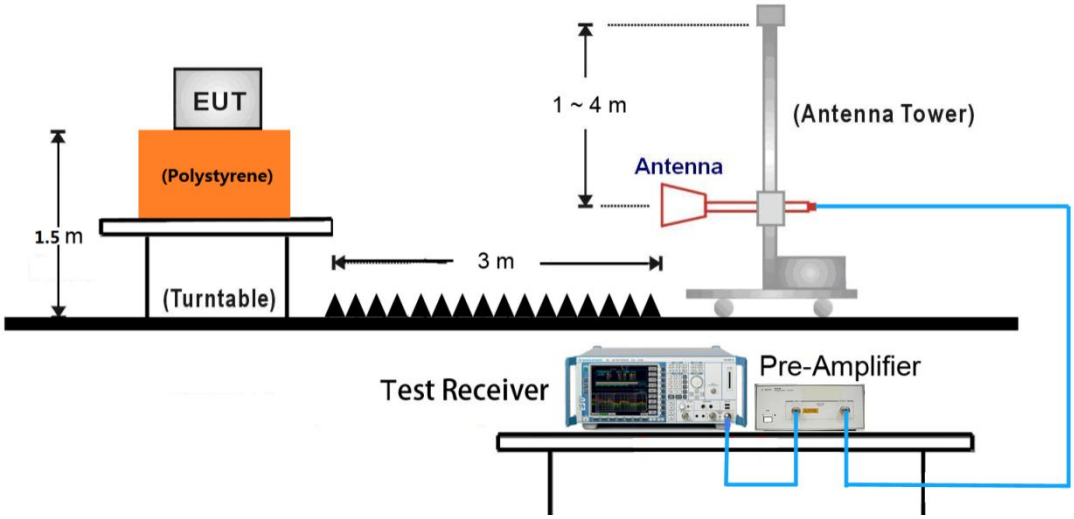
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Power Average (RMS)
5. Number of sweep point = 2001 (Number of sweep points must be ≥ 2 x span / RBW)
6. Sweep time = auto
7. Trace (RMS) averaging was performed over at least 100 traces.

7.7.4. Test Setup

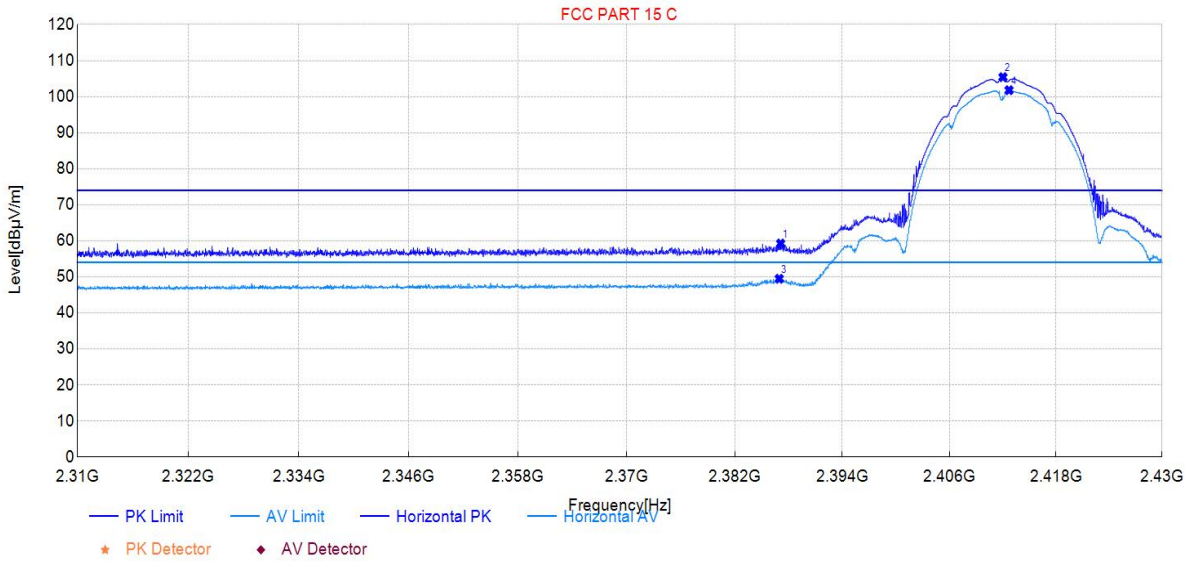


7.7.5. Test Result

802.11b

Test Mode:	802.11b	Test Date:	2024-10-26
Test Channel:	2412	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

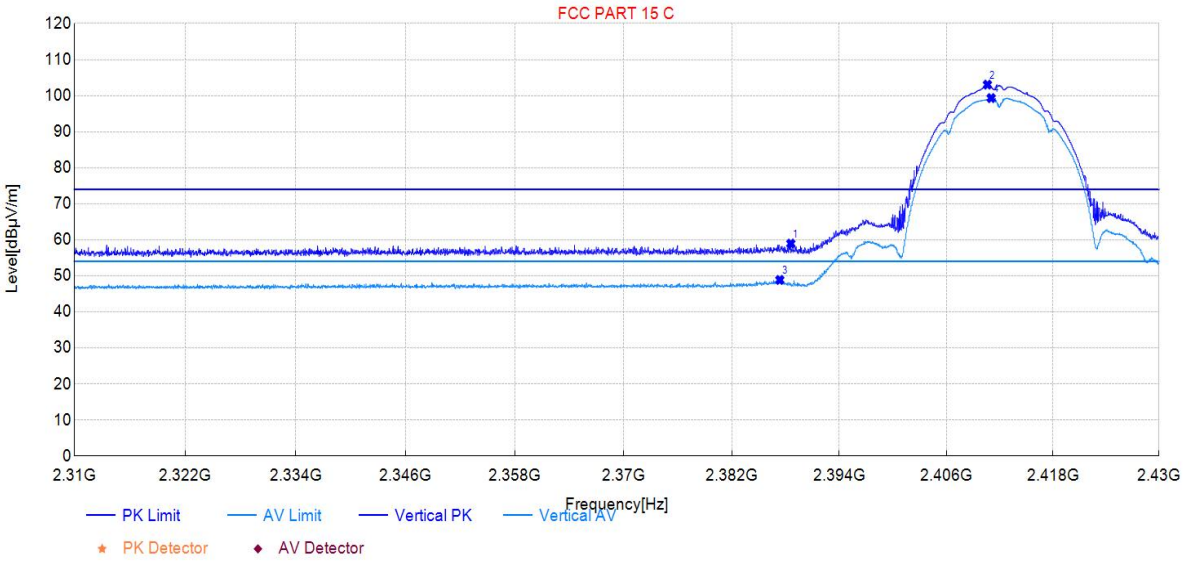
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2387.12	59.26	36.09	74.00	14.74	150	18	Peak	Horizontal
2412.03	105.42	36.18	74.00	-31.42	150	26	Peak	Horizontal
2386.97	49.47	36.08	54.00	4.53	150	35	Average	Horizontal
2412.72	101.80	36.18	54.00	-47.80	150	26	Average	Horizontal

Test Mode:	802.11b	Test Date:	2024-10-26
Test Channel:	2412	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

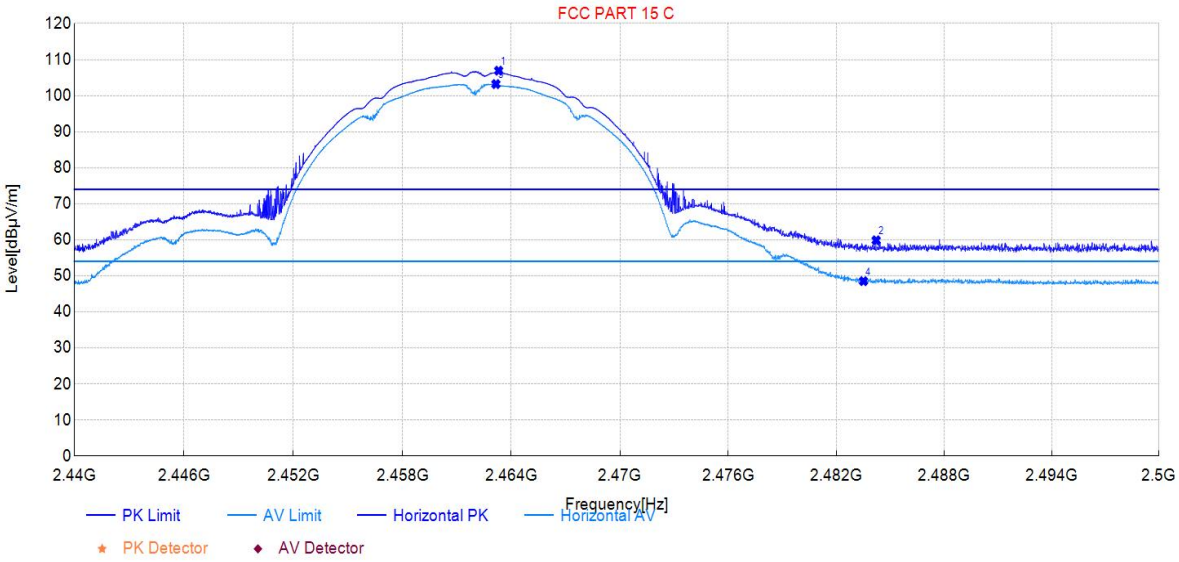
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2388.59	58.95	35.95	74.00	15.05	150	175	Peak	Vertical
2410.62	103.06	36.00	74.00	-29.06	150	46	Peak	Vertical
2387.36	48.87	35.95	54.00	5.13	150	155	Average	Vertical
2411.04	99.33	36.00	54.00	-45.33	150	46	Average	Vertical

Test Mode:	802.11b	Test Date:	2024-10-26
Test Channel:	2462	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

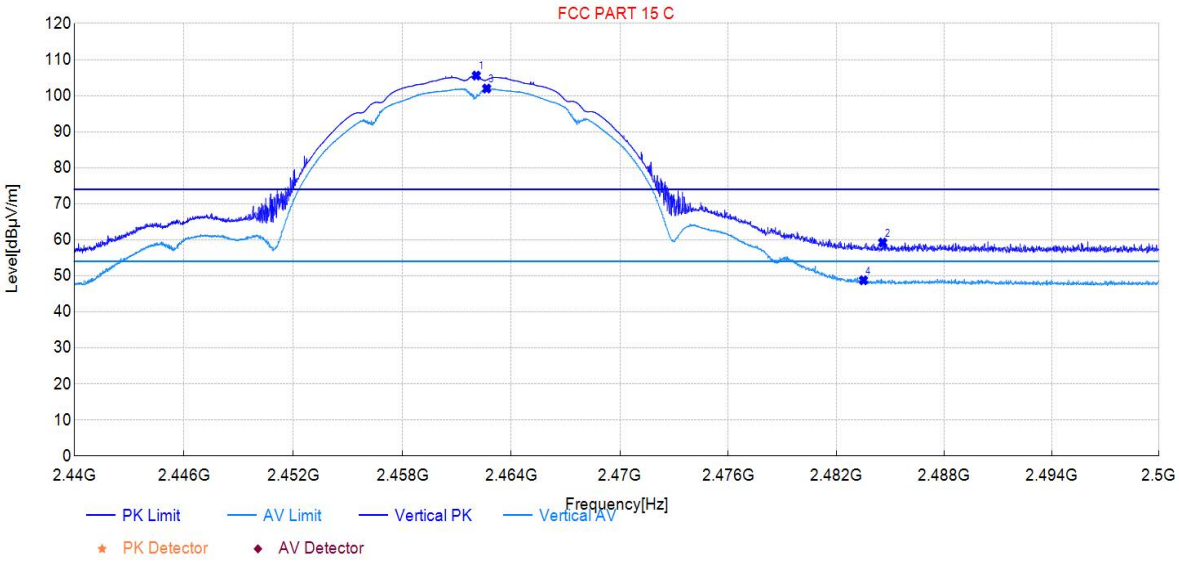
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2463.30	106.93	36.31	74.00	-32.93	150	21	Peak	Horizontal
2484.22	59.86	36.36	74.00	14.14	150	21	Peak	Horizontal
2463.15	103.22	36.31	54.00	-49.22	150	21	Average	Horizontal
2483.51	48.53	36.36	54.00	5.47	150	26	Average	Horizontal

Test Mode:	802.11b	Test Date:	2024-10-26
Test Channel:	2462	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

Test Graph

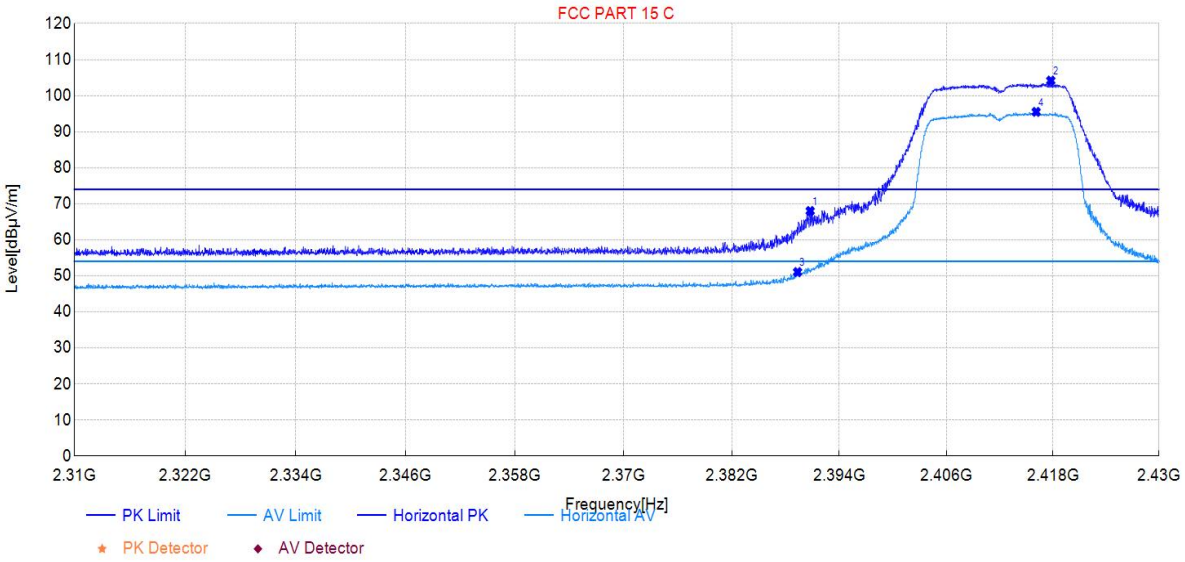


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2462.07	100.15	105.58	36.06	74.00	-31.58	150	46	Vertical
2484.58	56.18	59.24	36.08	74.00	14.76	150	147	Vertical
2462.64	93.78	101.98	36.06	54.00	-47.98	150	46	Vertical
2483.51	47.28	48.77	36.08	54.00	5.23	150	46	Vertical

802.11g

Test Mode:	802.11g	Test Date:	2024-10-26
Test Channel:	2412	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

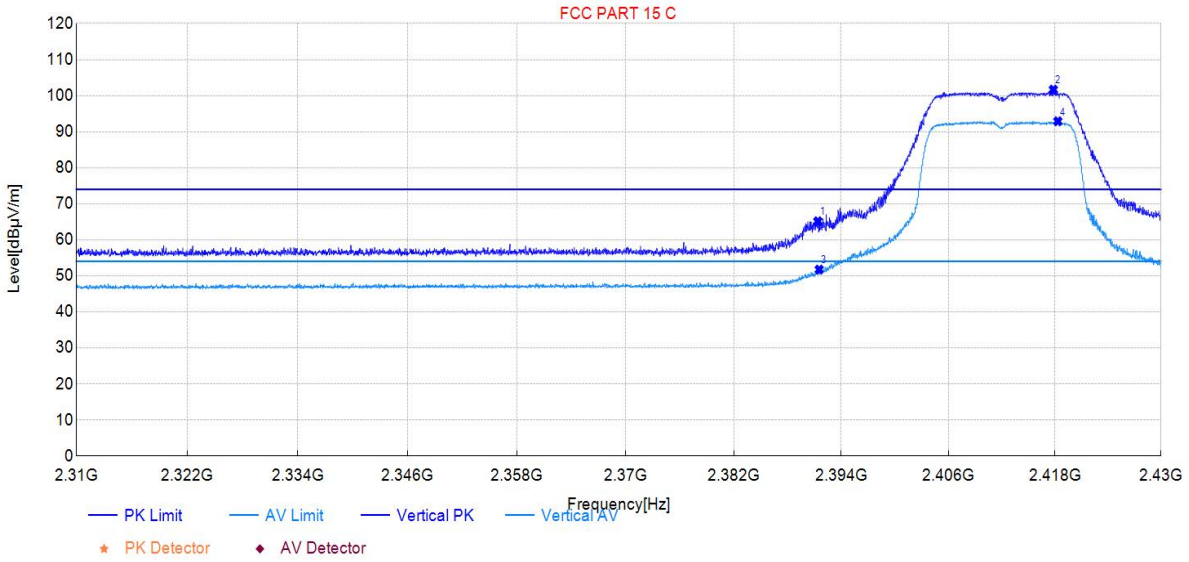
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2390.75	68.02	36.11	74.00	5.98	150	27	Peak	Horizontal
2417.76	104.18	36.19	74.00	-30.18	150	27	Peak	Horizontal
2389.34	51.06	36.09	54.00	2.94	150	14	Average	Horizontal
2416.11	95.51	36.19	54.00	-41.51	150	27	Average	Horizontal

Test Mode:	802.11g	Test Date:	2024-10-26
Test Channel:	2412	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

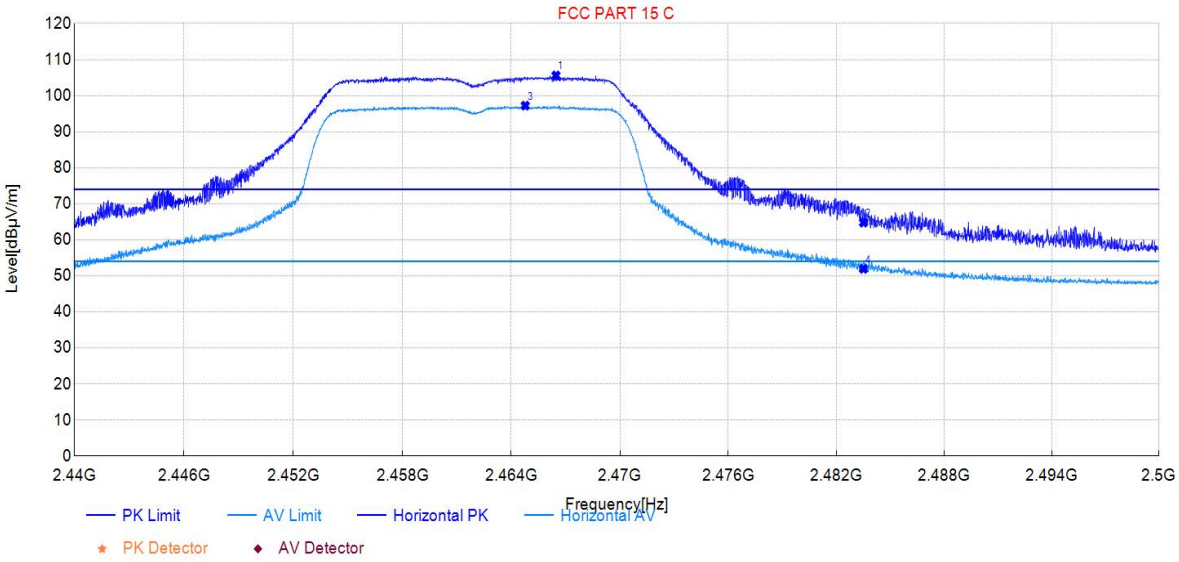
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2391.38	65.14	35.96	74.00	8.86	150	160	Peak	Vertical
2417.82	101.67	36.01	74.00	-27.67	150	46	Peak	Vertical
2391.53	51.74	35.96	54.00	2.26	150	123	Average	Vertical
2418.33	92.89	36.01	54.00	-38.89	150	46	Average	Vertical

Test Mode:	802.11g	Test Date:	2024-10-26
Test Channel:	2462	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

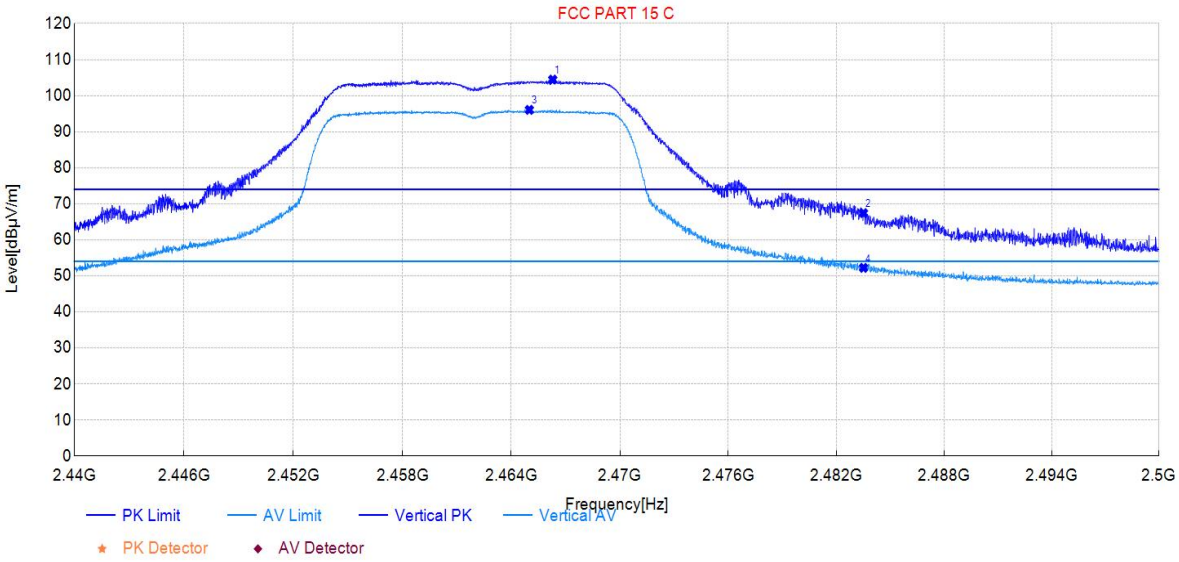
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2466.47	105.60	36.32	74.00	-31.60	150	22	Peak	Horizontal
2483.51	64.77	36.36	74.00	9.23	150	35	Peak	Horizontal
2464.77	97.23	36.32	54.00	-43.23	150	22	Average	Horizontal
2483.51	51.94	36.36	54.00	2.06	150	32	Average	Horizontal

Test Mode:	802.11g	Test Date:	2024-10-26
Test Channel:	2462	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

Test Graph

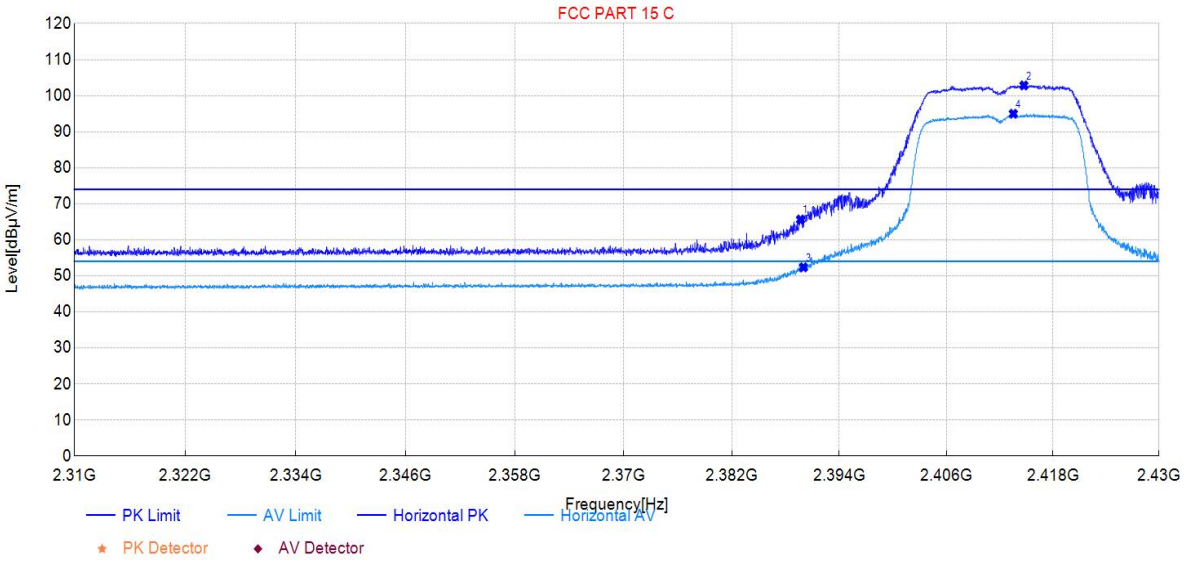


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2466.29	104.46	36.07	74.00	-30.46	150	46	Peak	Vertical
2483.51	67.42	36.08	74.00	6.58	150	54	Peak	Vertical
2465.00	96.07	36.06	54.00	-42.07	150	46	Average	Vertical
2483.51	52.22	36.08	54.00	1.78	150	155	Average	Vertical

802.11n20SISO

Test Mode:	802.11n20SISO	Test Date:	2024-10-26
Test Channel:	2412	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

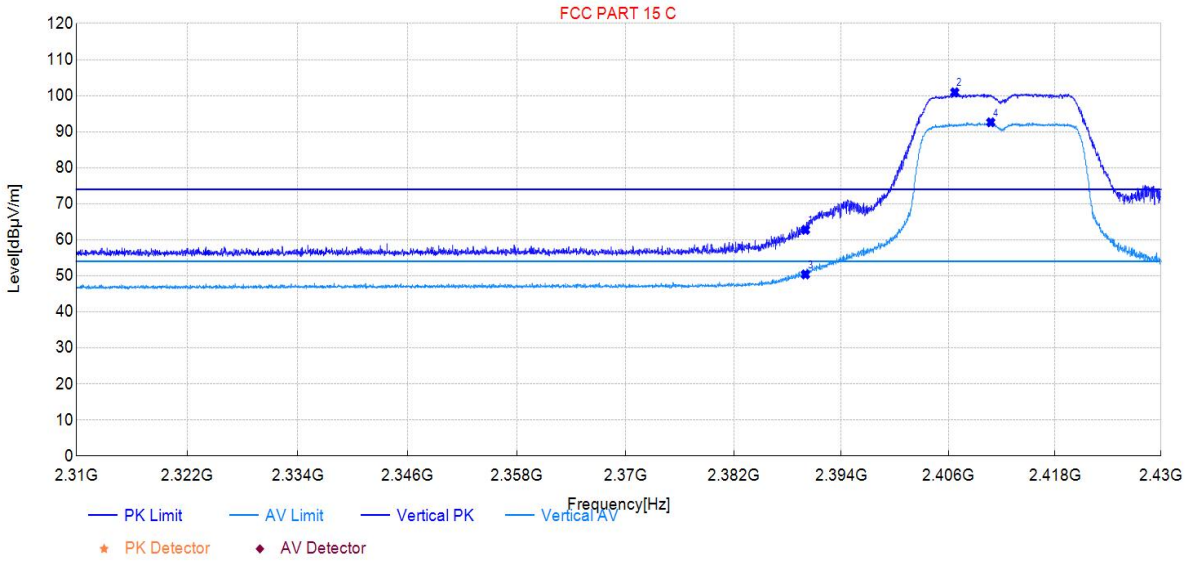
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2389.67	65.63	36.10	74.00	8.37	150	38	Peak	Horizontal
2414.73	102.84	36.19	74.00	-28.84	150	25	Peak	Horizontal
2390.00	52.37	36.10	54.00	1.63	150	25	Average	Horizontal
2413.53	94.98	36.18	54.00	-40.98	150	38	Average	Horizontal

Test Mode:	802.11n20SISO	Test Date:	2024-10-26
Test Channel:	2412	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

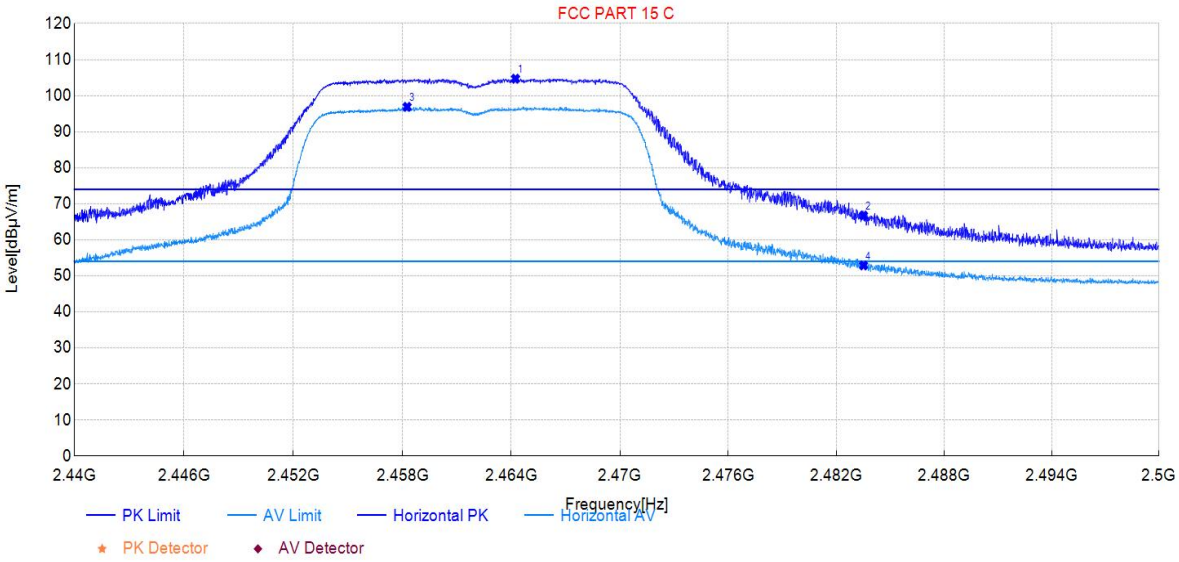
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2390.00	62.77	35.95	74.00	11.23	150	294	Peak	Vertical
2406.71	100.94	36.00	74.00	-26.94	150	155	Peak	Vertical
2390.00	50.40	35.95	54.00	3.60	150	122	Average	Vertical
2410.77	92.61	36.00	54.00	-38.61	150	46	Average	Vertical

Test Mode:	802.11n20SISO	Test Date:	2024-10-26
Test Channel:	2462	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

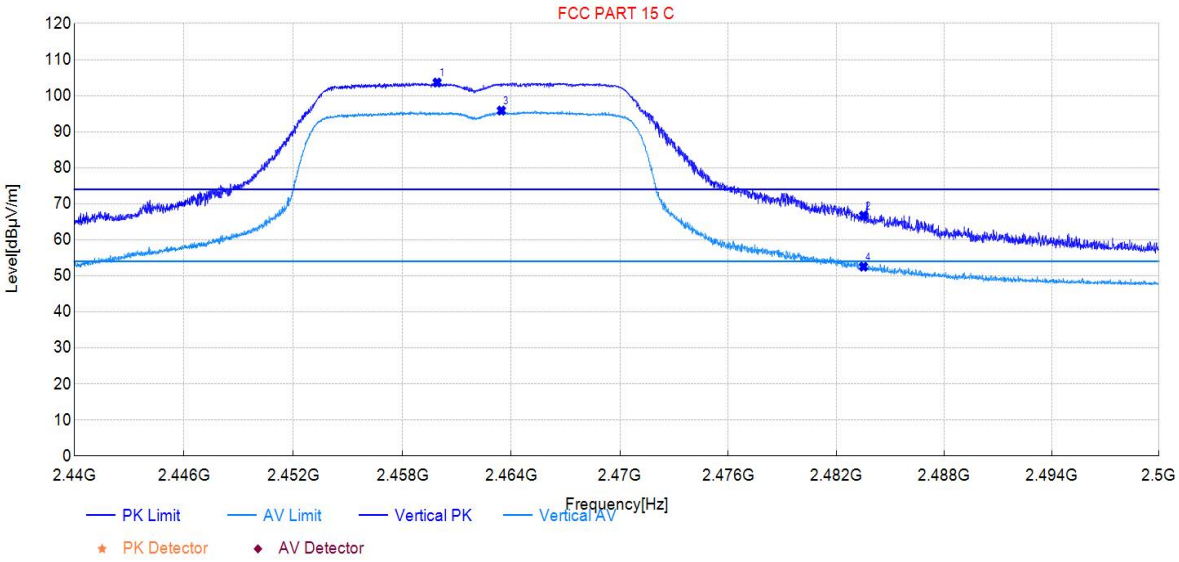
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2464.23	104.71	36.31	74.00	-30.71	150	23	Peak	Horizontal
2483.51	66.74	36.36	74.00	7.26	150	15	Peak	Horizontal
2458.26	96.90	36.30	54.00	-42.90	150	23	Average	Horizontal
2483.51	52.89	36.36	54.00	1.11	150	15	Average	Horizontal

Test Mode:	802.11n20SISO	Test Date:	2024-10-26
Test Channel:	2462	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

Test Graph

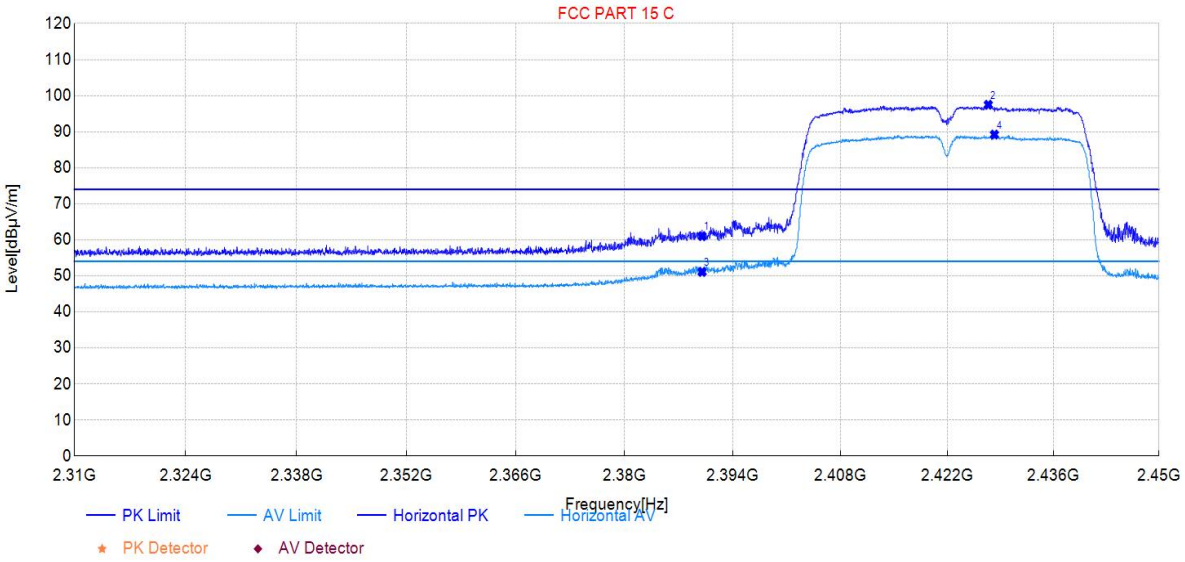


Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2459.91	103.64	36.06	74.00	-29.64	150	156	Peak	Vertical
2483.51	66.72	36.08	74.00	7.28	150	147	Peak	Vertical
2463.45	95.86	36.06	54.00	-41.86	150	156	Average	Vertical
2483.51	52.55	36.08	54.00	1.45	150	45	Average	Vertical

802.11n40SISO

Test Mode:	802.11n40SISO	Test Date:	2024-10-26
Test Channel:	2422	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

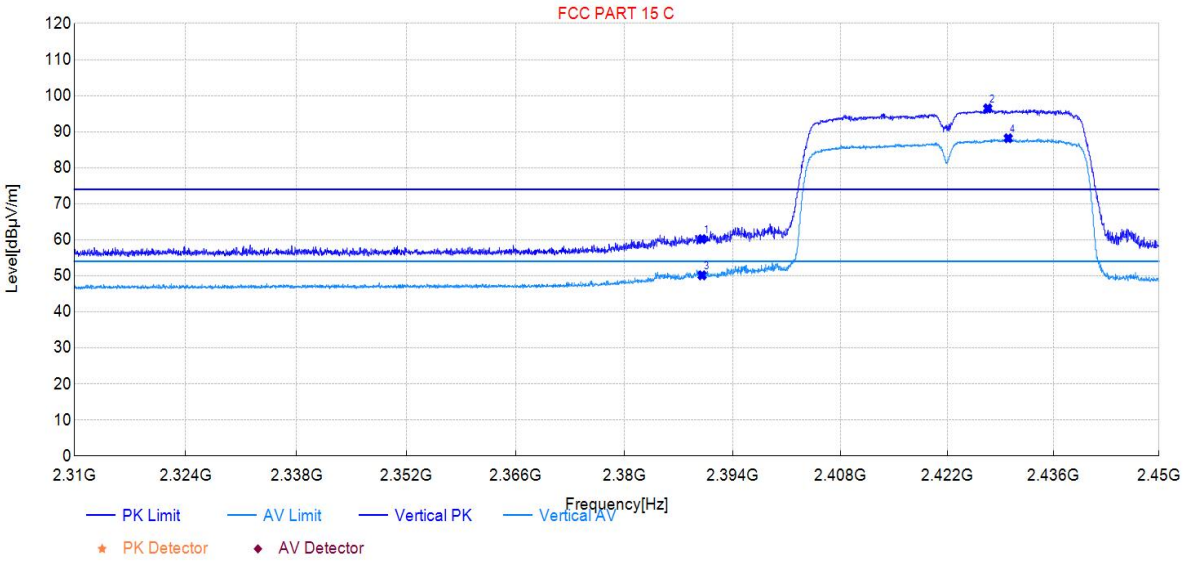
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2390.03	61.02	36.10	74.00	12.98	150	15	Peak	Horizontal
2427.42	97.49	36.22	74.00	-23.49	150	27	Peak	Horizontal
2390.03	51.09	36.10	54.00	2.91	150	297	Average	Horizontal
2428.22	89.20	36.22	54.00	-35.20	150	27	Average	Horizontal

Test Mode:	802.11n40SISO	Test Date:	2024-10-26
Test Channel:	2422	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

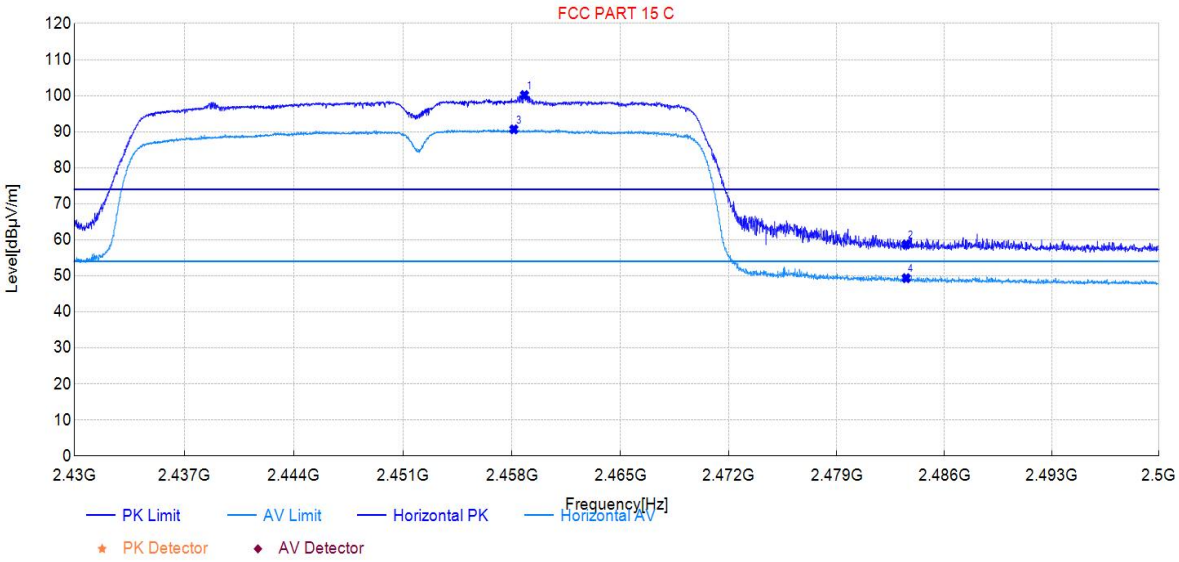
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2390.03	60.20	35.95	74.00	13.80	150	160	Peak	Vertical
2427.35	96.48	36.02	74.00	-22.48	150	160	Peak	Vertical
2390.03	50.15	35.95	54.00	3.85	150	152	Average	Vertical
2430.05	88.19	36.02	54.00	-34.19	150	160	Average	Vertical

Test Mode:	802.11n40SISO	Test Date:	2024-10-26
Test Channel:	2452	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

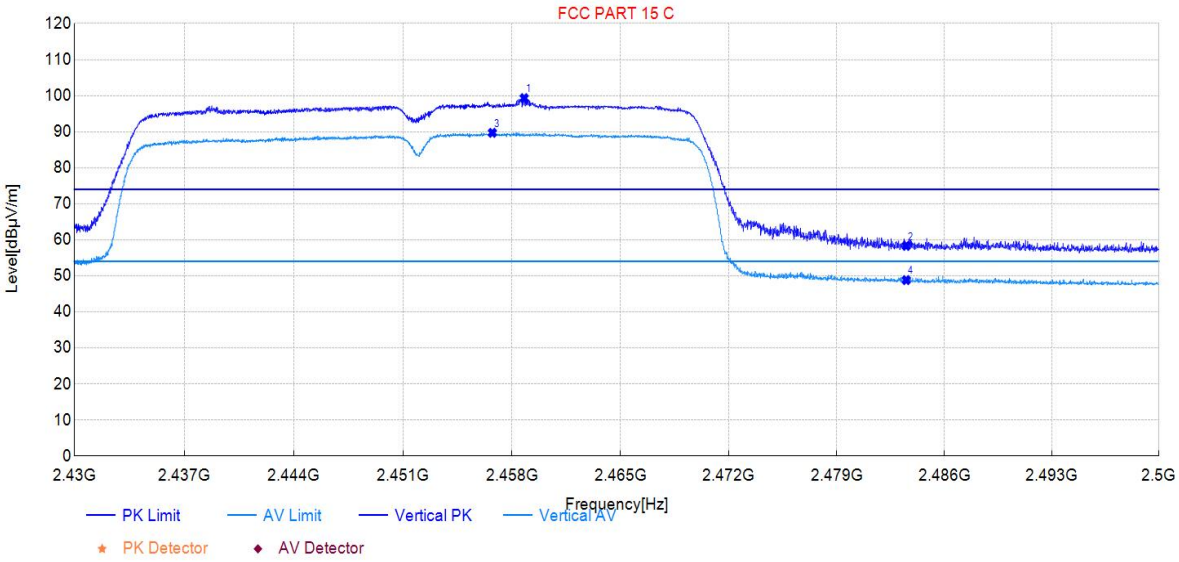
Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2458.81	100.17	36.30	74.00	-26.17	150	23	Peak	Horizontal
2483.51	58.72	36.36	74.00	15.28	150	40	Peak	Horizontal
2458.13	90.66	36.30	54.00	-36.66	150	23	Average	Horizontal
2483.51	49.36	36.36	54.00	4.64	150	27	Average	Horizontal

Test Mode:	802.11n40SISO	Test Date:	2024-10-26
Test Channel:	2452	Test Engineer:	Chuang Li
Remark:	The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.		

Test Graph



Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Polarity
2458.79	99.32	36.06	74.00	-25.32	150	156	Peak	Vertical
2483.51	58.31	36.08	74.00	15.69	150	45	Peak	Vertical
2456.75	89.69	36.06	54.00	-35.69	150	156	Average	Vertical
2483.51	48.82	36.08	54.00	5.18	150	45	Average	Vertical

7.8. AC Conducted Emissions Measurement

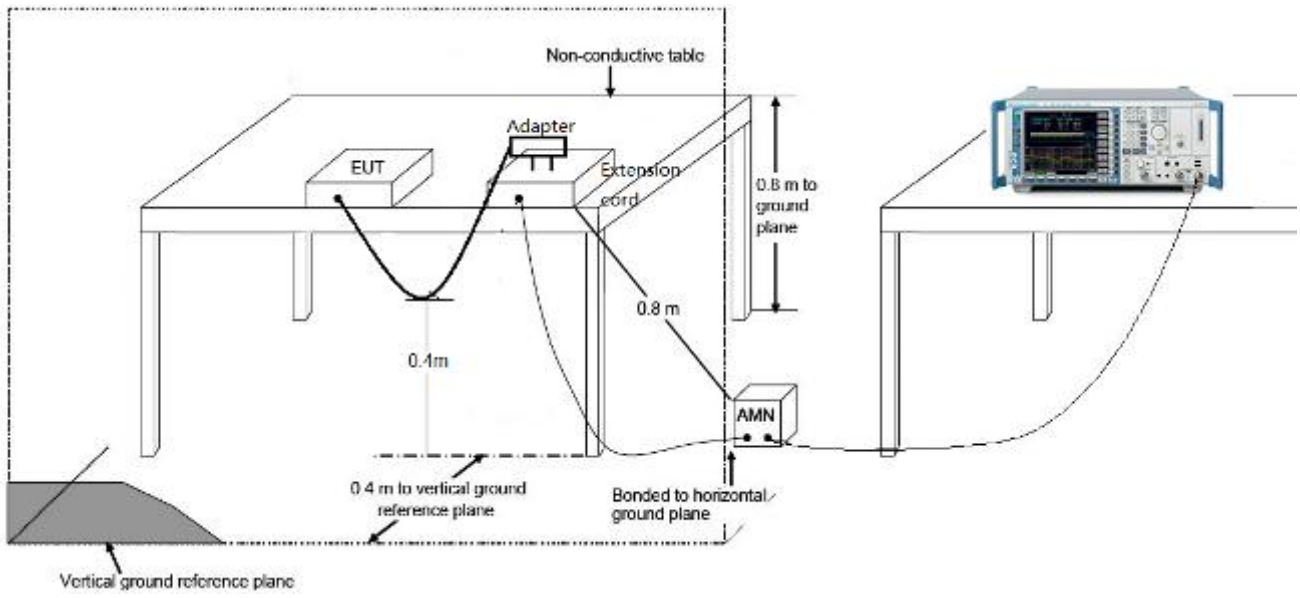
7.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 – 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Not Applicable . The device is only powered by DC 14V.

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **AI Recorder II (Model: CAM18)** is in compliance with Part 15C of the FCC Rules.

The End