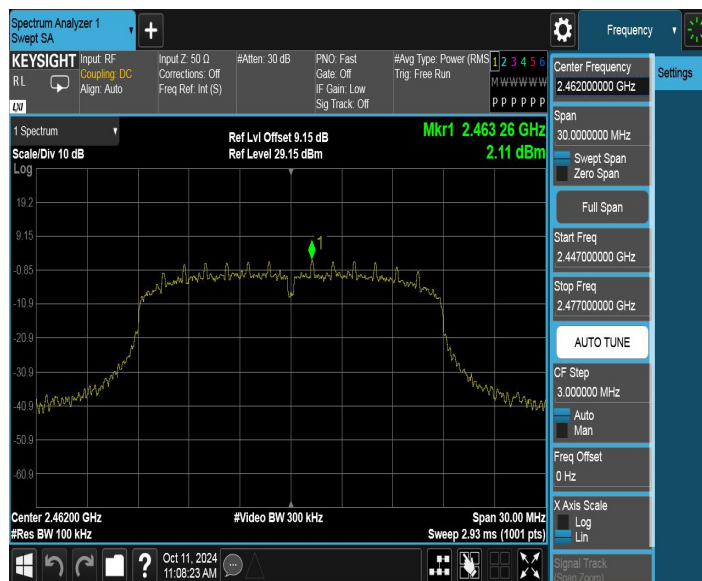
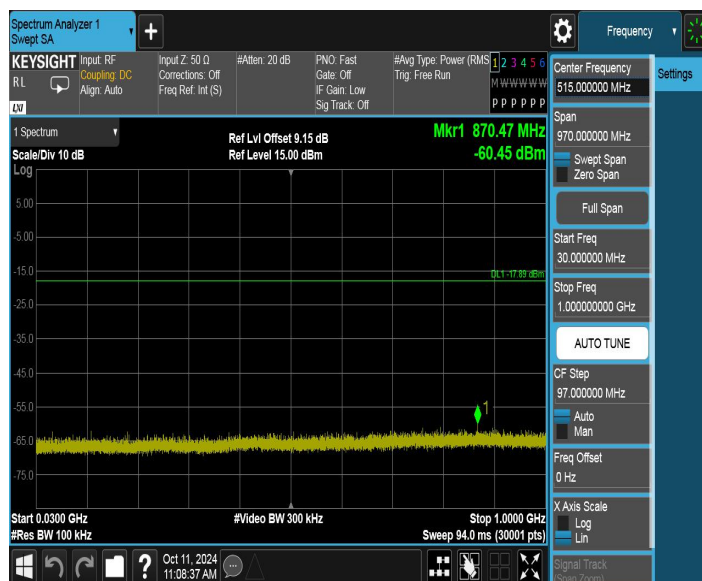




11N20SISO_Ant1_2462_30~1000



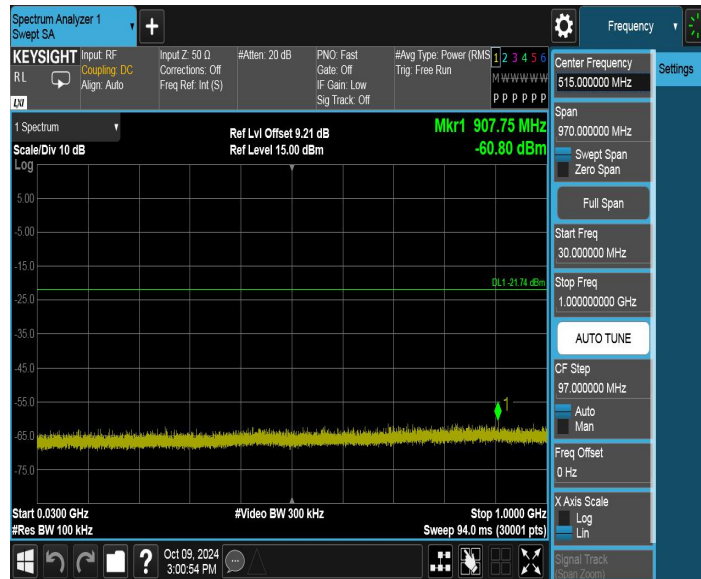
11N20SISO_Ant1_2462_1000~26500



11N40SISO_Ant1_2422_0~Reference



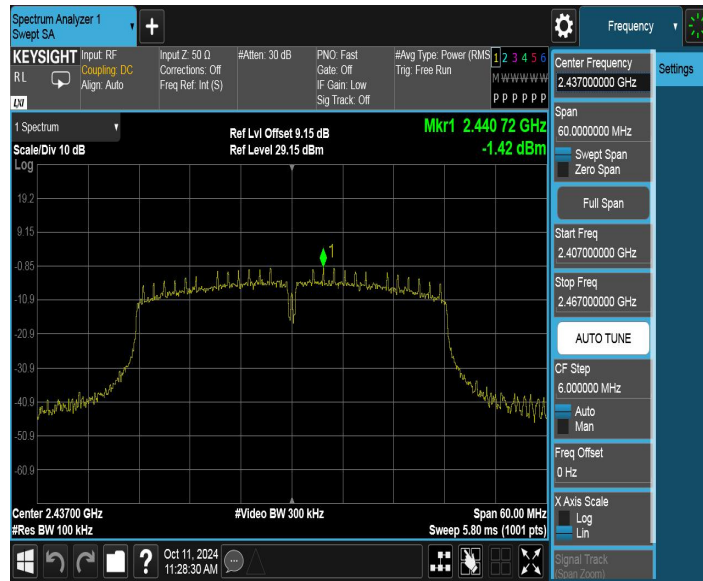
11N40SISO_Ant1_2422_30~1000



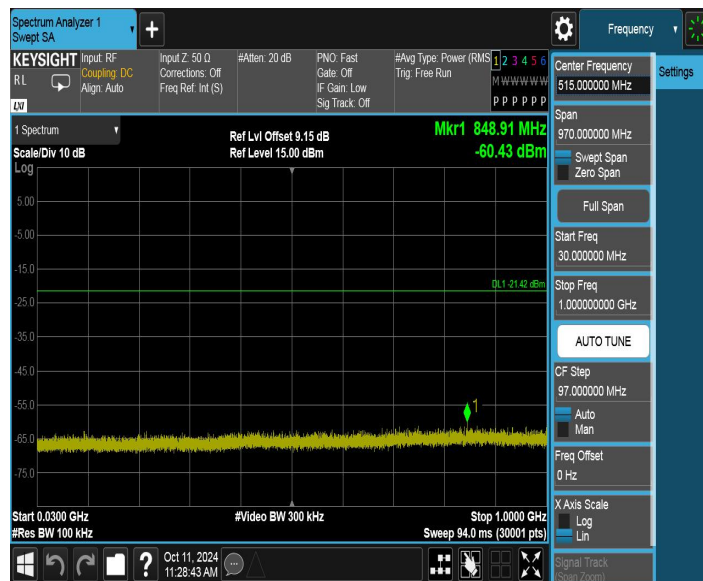
11N40SISO_Ant1_2422_1000~26500



11N40SISO_Ant1_2437_0~Reference



11N40SISO_Ant1_2437_30~1000



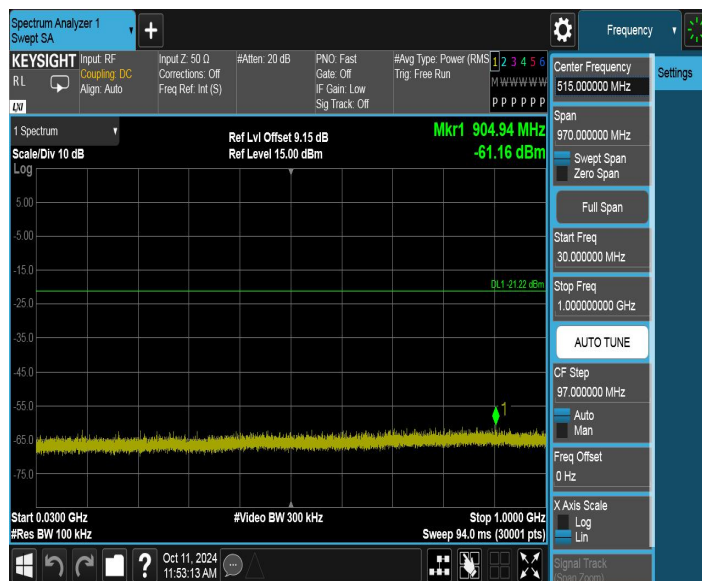
11N40SISO_Ant1_2437_1000~26500



11N40SISO_Ant1_2452_0~Reference



11N40SISO_Ant1_2452_30~1000



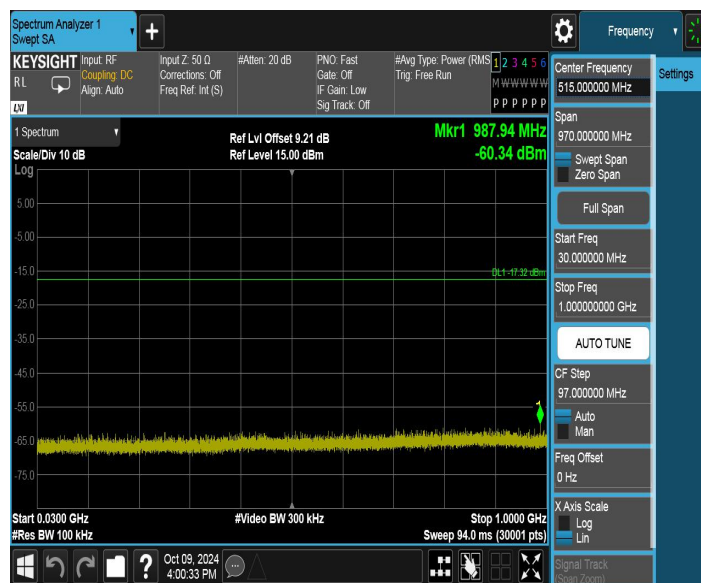
11N40SISO_Ant1_2452_1000~26500



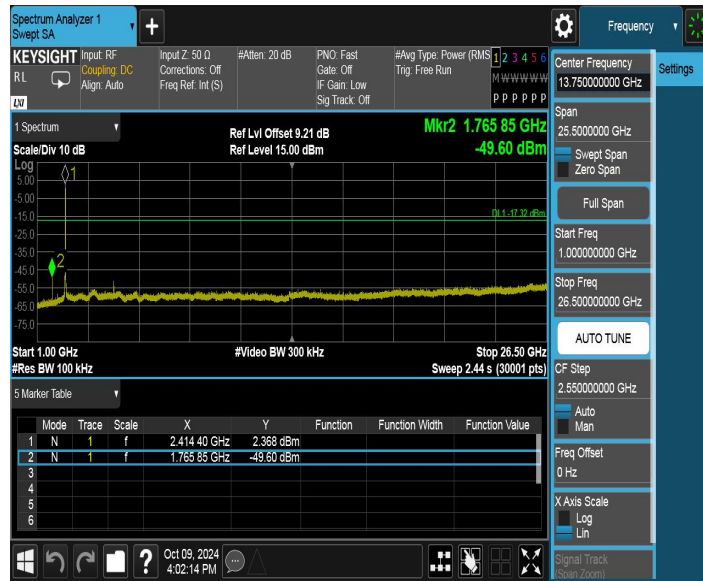
11AX20SISO_Ant1_2412_0~Reference



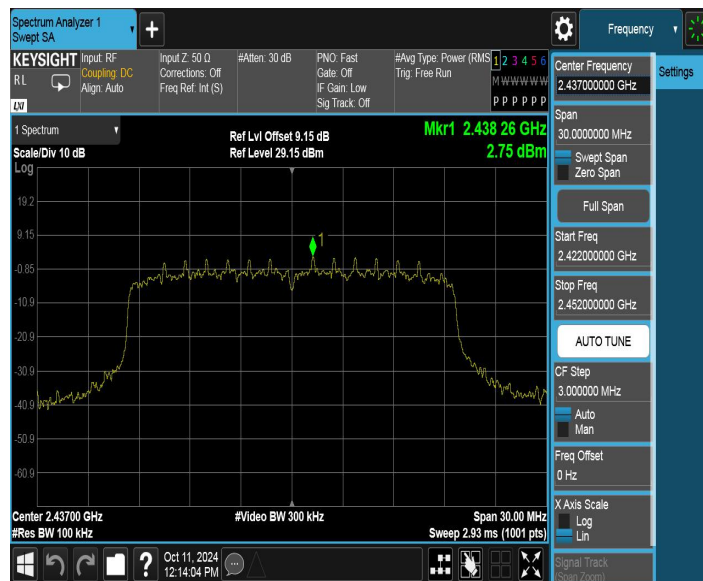
11AX20SISO_Ant1_2412_30~1000



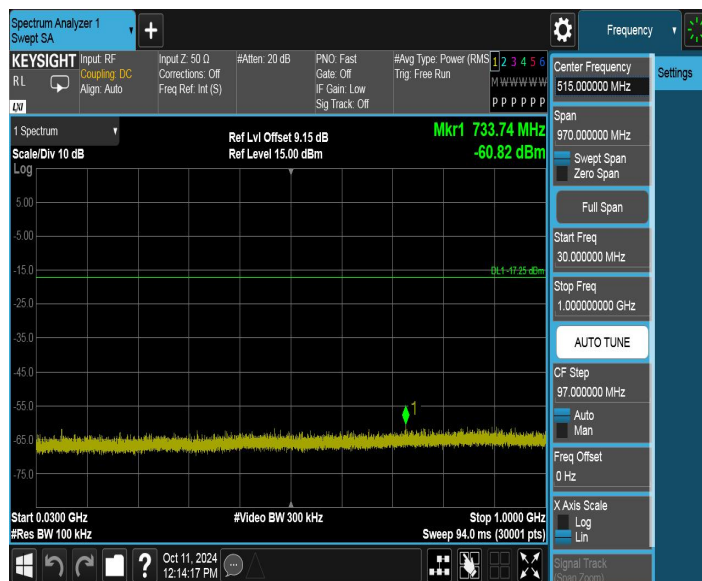
11AX20SISO_Ant1_2412_1000~26500



11AX20SISO_Ant1_2437_0~Reference



11AX20SISO_Ant1_2437_30~1000



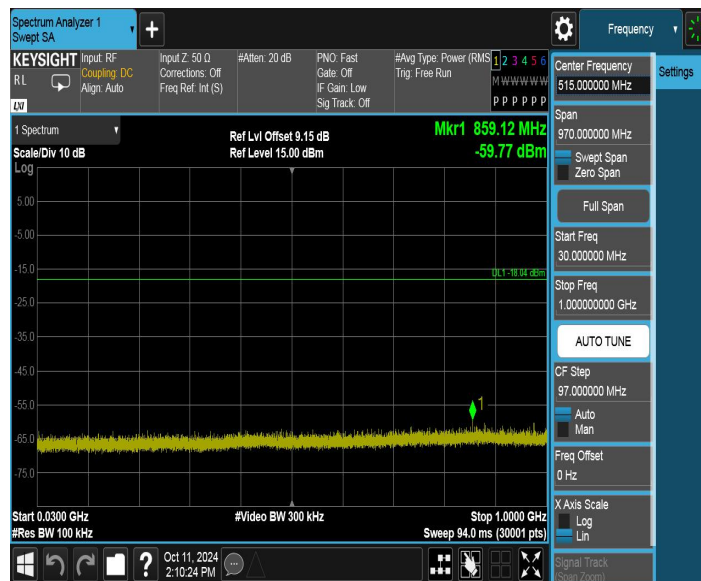
11AX20SISO_Ant1_2437_1000~26500



11AX20SISO_Ant1_2462_0~Reference



11AX20SISO_Ant1_2462_30~1000



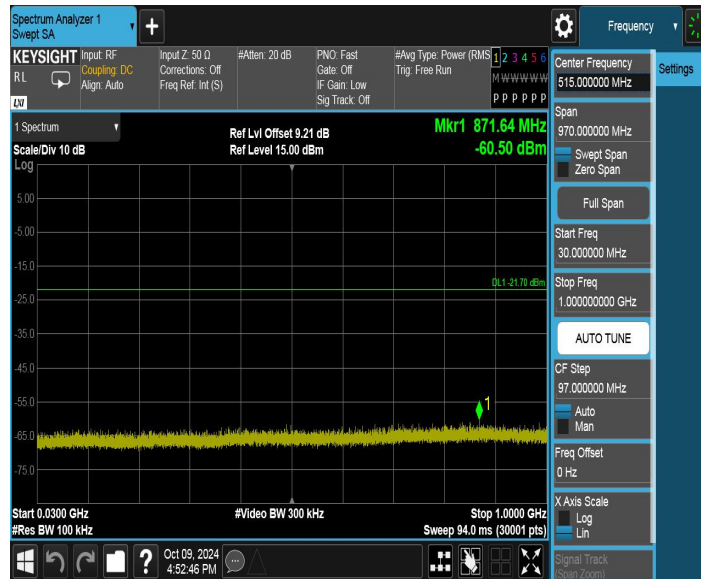
11AX20SISO_Ant1_2462_1000~26500



11AX40SISO_Ant1_2422_0~Reference



11AX40SISO_Ant1_2422_30~1000



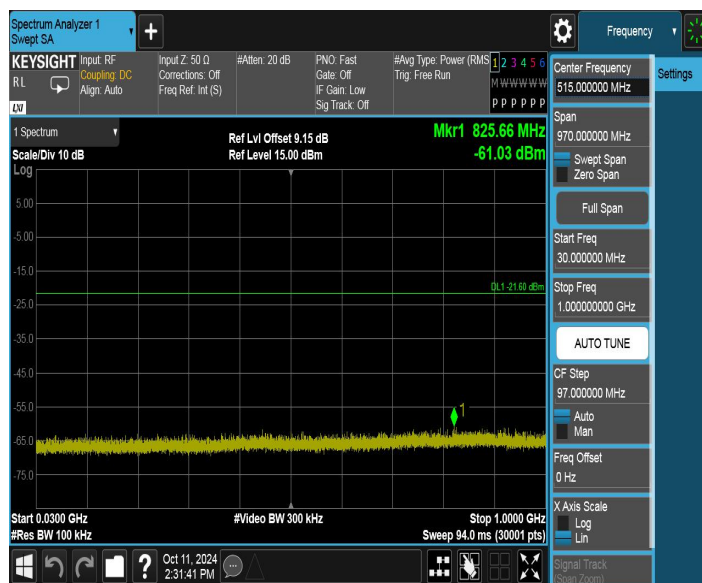
11AX40SISO_Ant1_2422_1000~26500



11AX40SISO_Ant1_2437_0~Reference



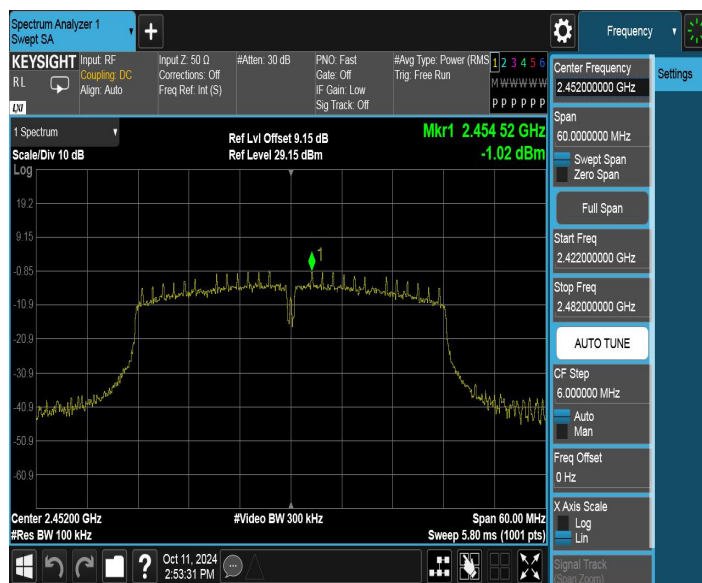
11AX40SISO_Ant1_2437_30~1000



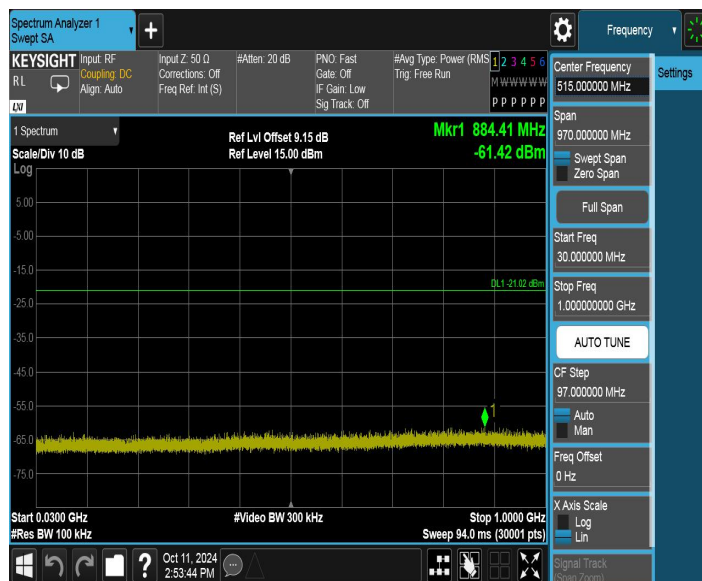
11AX40SISO_Ant1_2437_1000~26500



11AX40SISO_Ant1_2452_0~Reference



11AX40SISO_Ant1_2452_30~1000



11AX40SISO_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

- Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

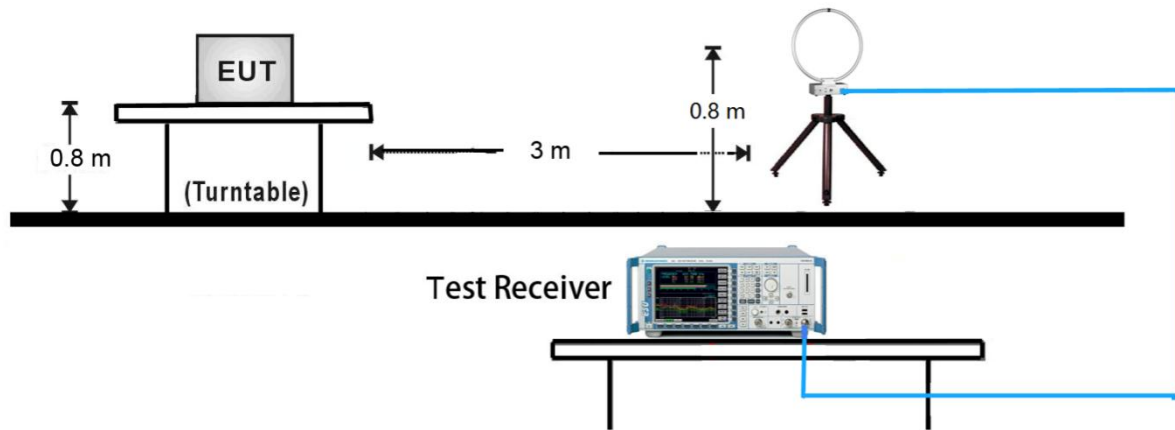
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

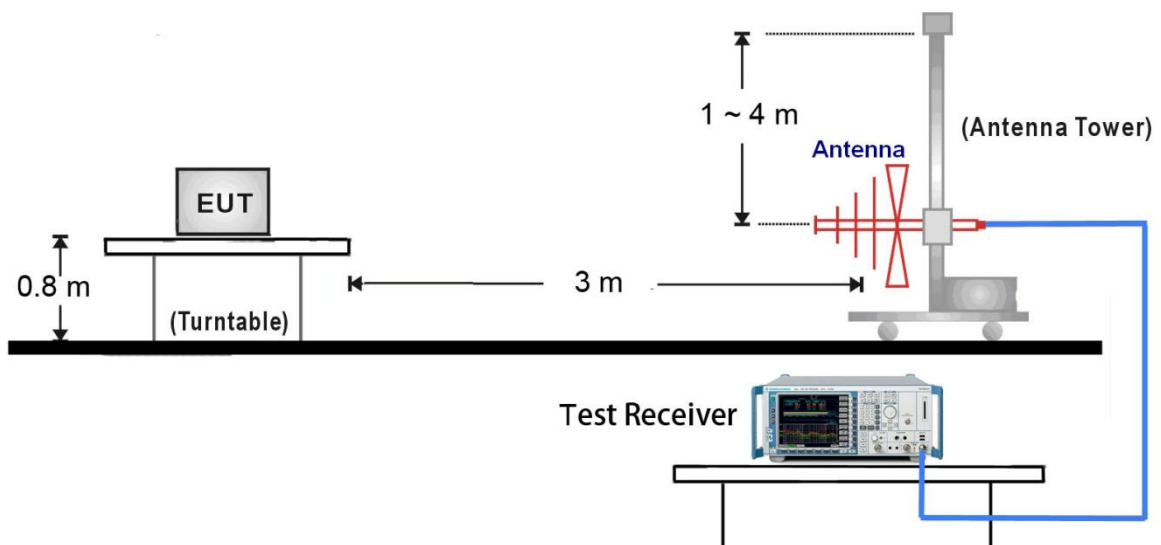
- Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- RBW = 1MHz
- VBW = 3MHz
- Detector = Power Average (RMS)
- Number of sweep point = 2001 (Number of sweep points must be $\geq 2 \times \text{span} / \text{RBW}$)
- Sweep time = auto
- Trace (RMS) averaging was performed over at least 100 traces.

7.6.4. Test Setup

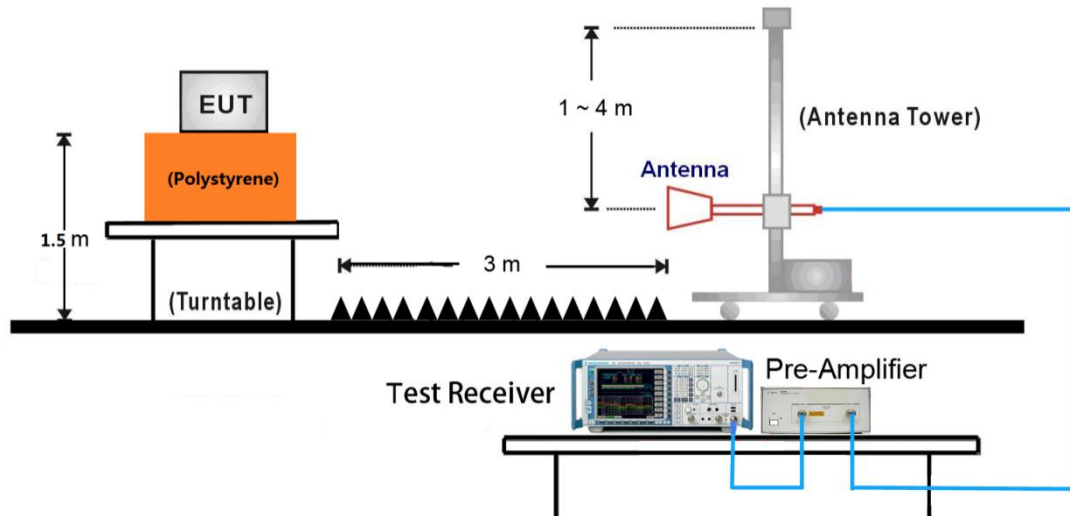
9kHz ~ 30MHz Test Setup:



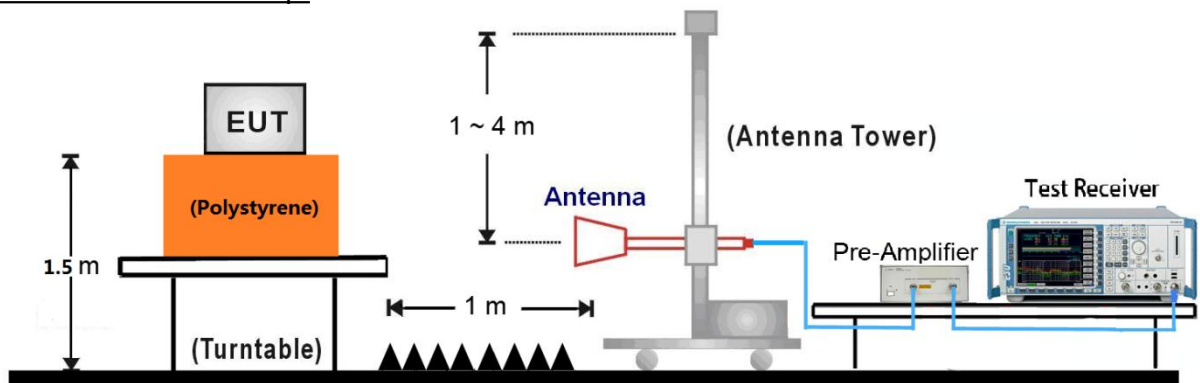
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~ 25GHz Test Setup:



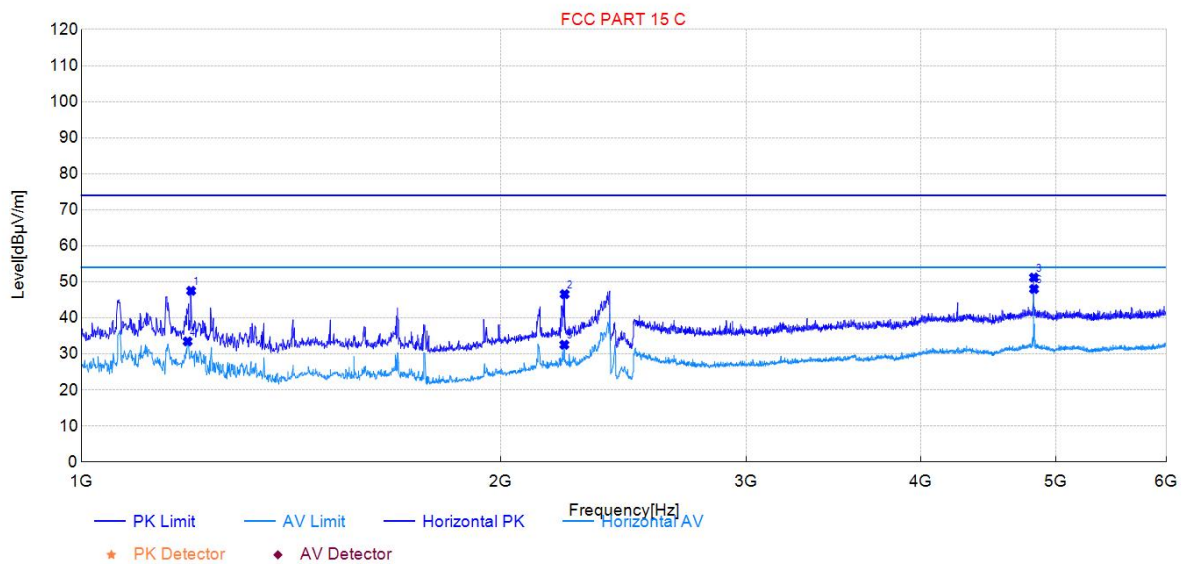
7.6.5. Test Result

The worst case of Radiated Emission above 1GHz:

1GHz – 6GHz Test Data

EUT:	2.4GHz Wi-Fi/BLE Module	Polarity:	Horizontal
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph

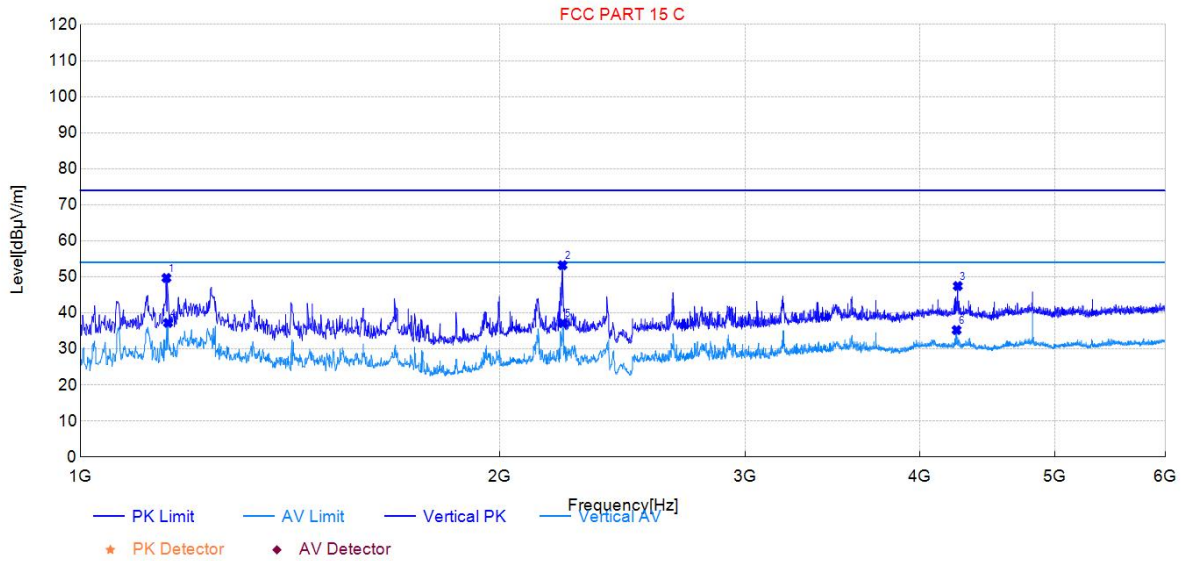


Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
1199.00	47.51	-23.45	74.00	26.49	PK	Horizontal
2222.00	46.58	-17.13	74.00	27.42	PK	Horizontal
4824.00	51.20	-6.72	74.00	22.80	PK	Horizontal
1192.00	33.47	-23.48	54.00	20.53	AV	Horizontal
2221.00	32.54	-17.13	54.00	21.46	AV	Horizontal
4825.00	48.01	-6.71	54.00	5.99	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Vertical
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph



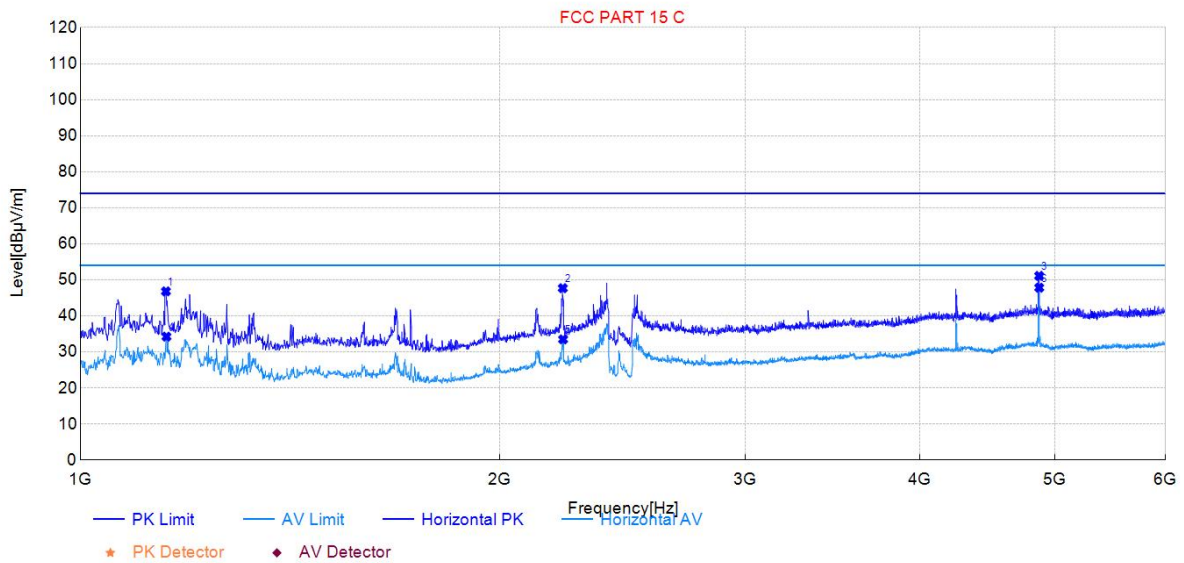
Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
1153.00	49.69	-22.63	74.00	24.31	PK	Vertical
2218.00	53.22	-17.05	74.00	20.78	PK	Vertical
4261.00	47.45	-7.77	74.00	26.55	PK	Vertical
1156.00	37.23	-22.62	54.00	16.77	AV	Vertical
2219.00	37.14	-17.05	54.00	16.86	AV	Vertical
4253.00	35.24	-7.79	54.00	18.76	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Horizontal
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph

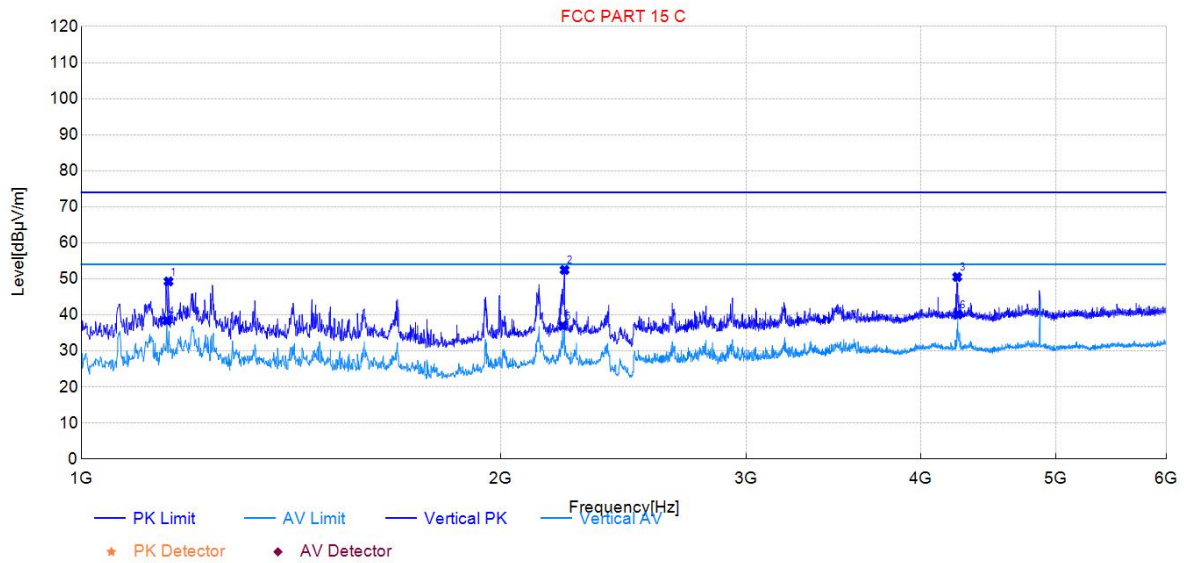


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1152.00	46.81	-23.64	74.00	27.19	PK	Horizontal
2219.00	47.69	-17.14	74.00	26.31	PK	Horizontal
4874.00	51.11	-6.58	74.00	22.89	PK	Horizontal
1153.00	34.24	-23.64	54.00	19.76	AV	Horizontal
2220.00	33.49	-17.13	54.00	20.51	AV	Horizontal
4875.00	47.83	-6.57	54.00	6.17	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Vertical
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph



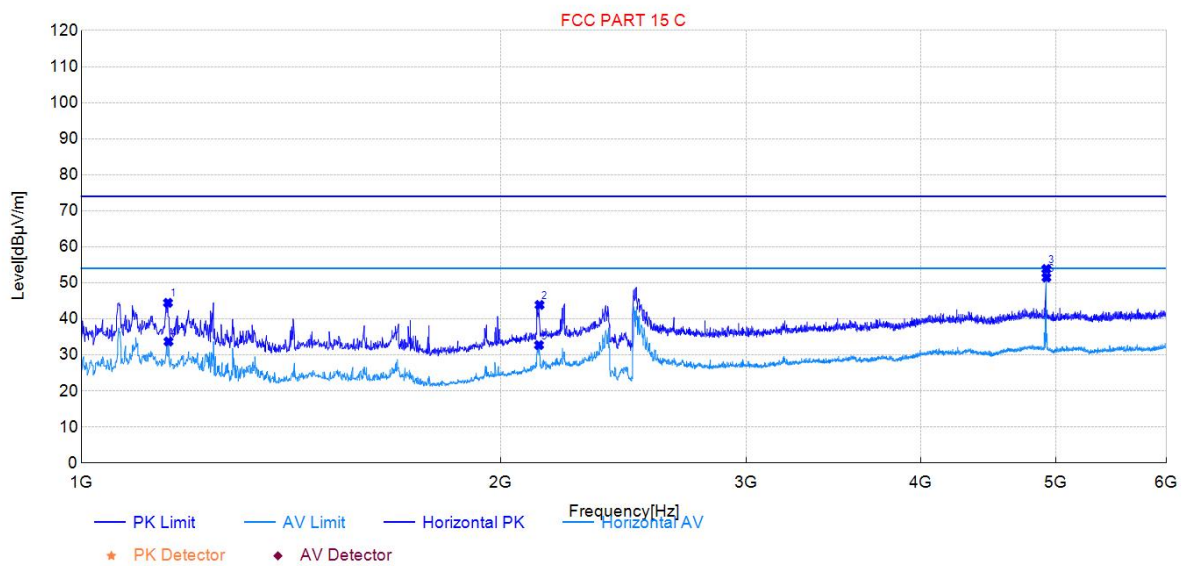
Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
1155.00	49.28	-22.62	74.00	24.72	PK	Vertical
2222.00	52.47	-17.04	74.00	21.53	PK	Vertical
4250.00	50.53	-7.80	74.00	23.47	PK	Vertical
1152.00	38.42	-22.63	54.00	15.58	AV	Vertical
2215.00	36.98	-17.05	54.00	17.02	AV	Vertical
4255.00	40.11	-7.79	54.00	13.89	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Horizontal
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph

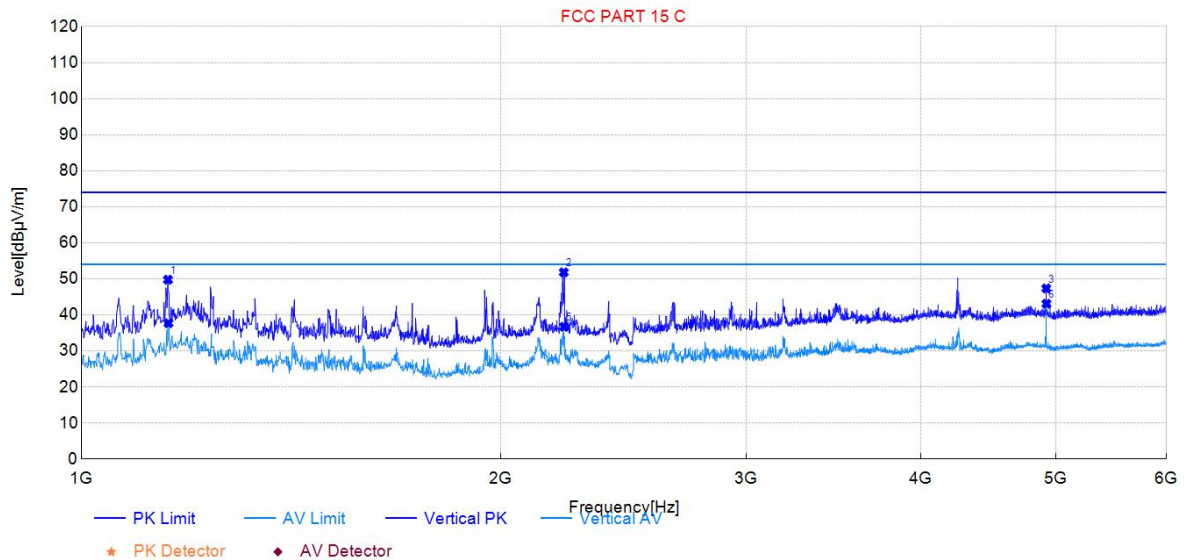


Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
1154.00	44.45	-23.63	74.00	29.55	PK	Horizontal
2132.00	43.87	-17.51	74.00	30.13	PK	Horizontal
4924.00	53.83	-6.39	74.00	20.17	PK	Horizontal
1155.00	33.71	-23.63	54.00	20.29	AV	Horizontal
2130.00	32.73	-17.52	54.00	21.27	AV	Horizontal
4925.00	51.47	-6.38	54.00	2.53	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Vertical
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph



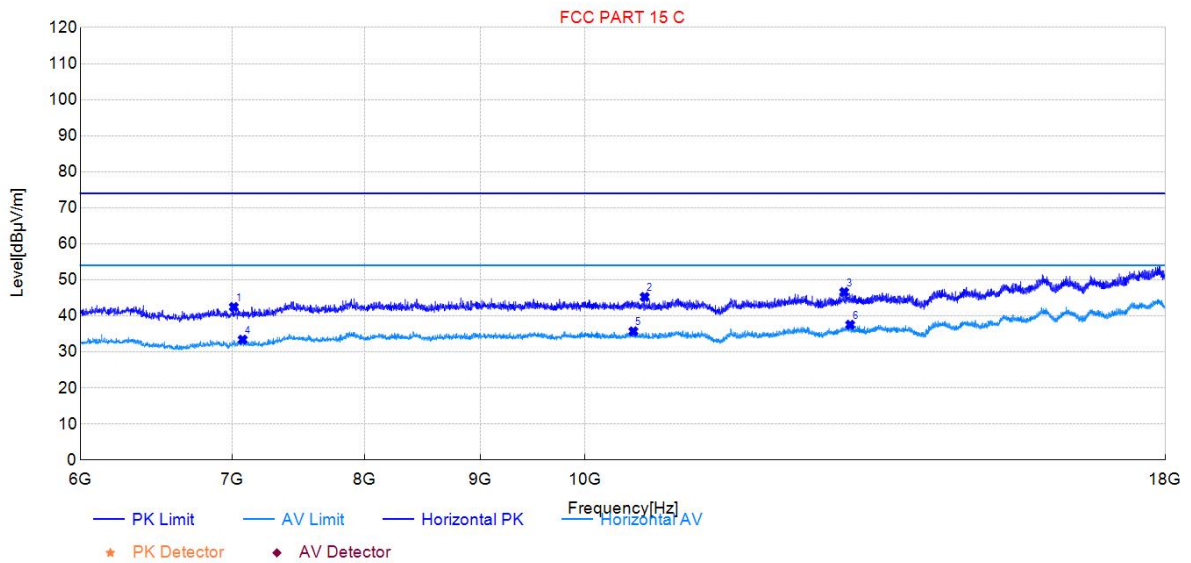
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
1154.00	49.77	-22.62	74.00	24.23	PK	Vertical
2219.00	51.81	-17.05	74.00	22.19	PK	Vertical
4924.00	47.34	-7.03	74.00	26.66	PK	Vertical
1155.00	37.69	-22.62	54.00	16.31	AV	Vertical
2220.00	36.72	-17.04	54.00	17.28	AV	Vertical
4925.00	43.09	-7.02	54.00	10.91	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Horizontal
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph

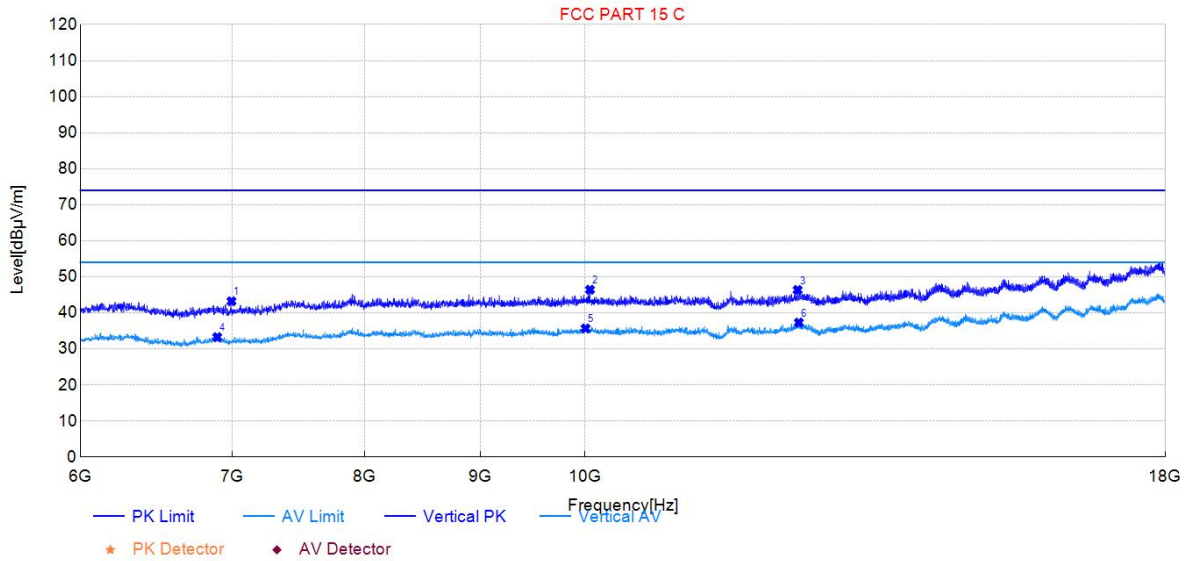


Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
7009.50	42.47	-4.80	74.00	31.53	PK	Horizontal
10627.50	45.25	0.66	74.00	28.75	PK	Horizontal
13006.50	46.62	2.75	74.00	27.38	PK	Horizontal
7072.50	33.41	-4.39	54.00	20.59	AV	Horizontal
10506.00	35.72	0.86	54.00	18.28	AV	Horizontal
13086.00	37.53	2.86	54.00	16.47	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Vertical
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2412MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph



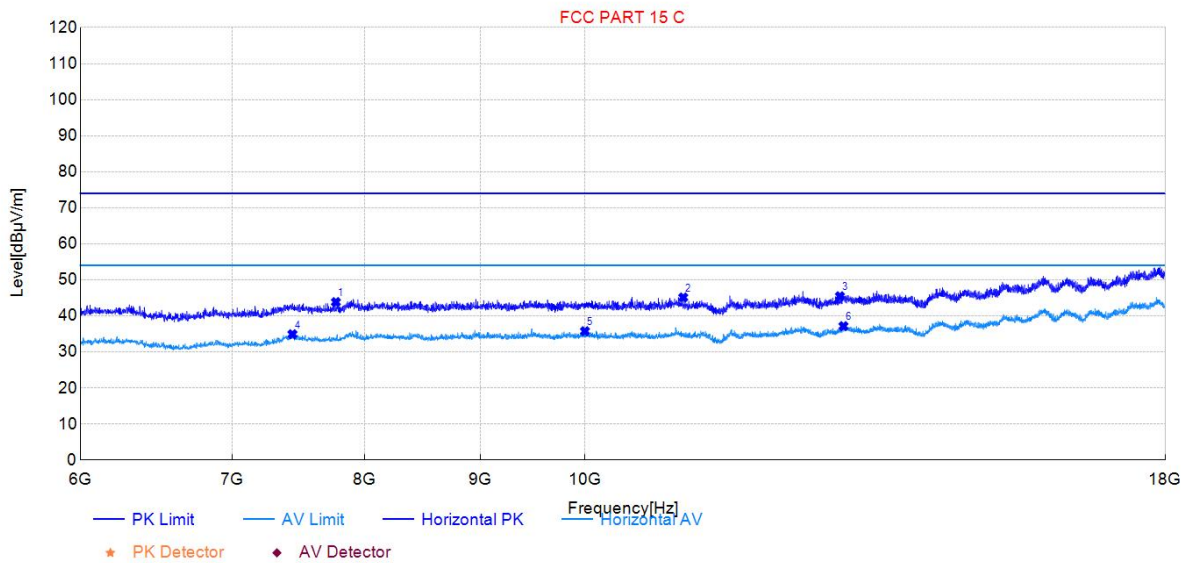
Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
6993.00	43.23	-4.83	74.00	30.77	PK	Vertical
10054.50	46.44	0.44	74.00	27.56	PK	Vertical
12408.00	46.36	2.38	74.00	27.64	PK	Vertical
6892.50	33.28	-4.37	54.00	20.72	AV	Vertical
10009.50	35.68	0.48	54.00	18.32	AV	Vertical
12423.00	37.32	2.41	54.00	16.68	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Horizontal
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph

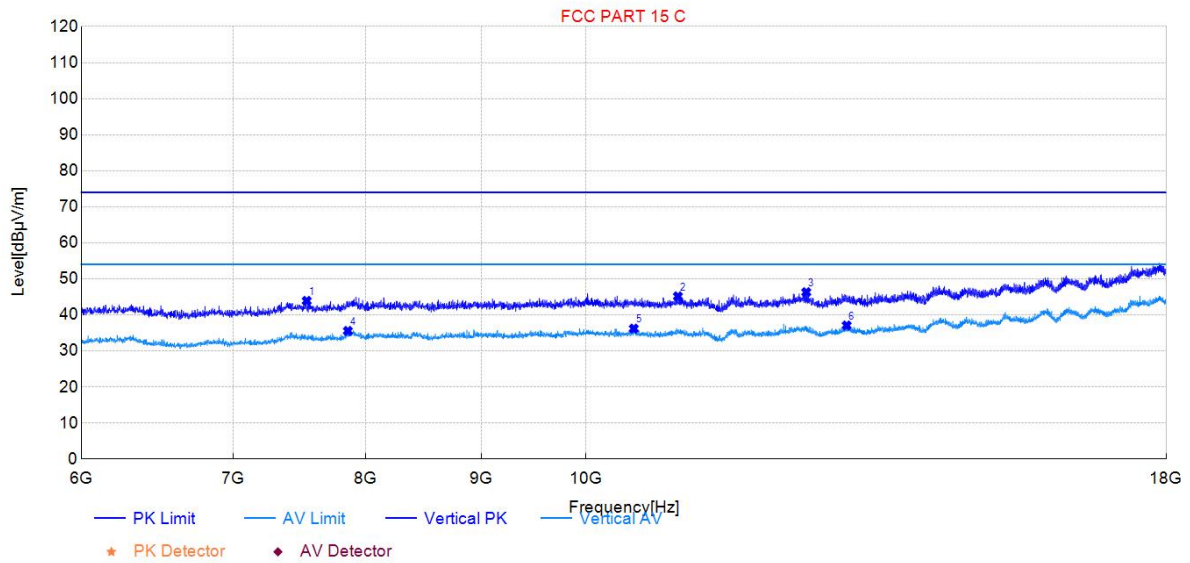


Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
7773.00	43.83	-2.97	74.00	30.17	PK	Horizontal
11050.50	45.11	0.98	74.00	28.89	PK	Horizontal
12951.00	45.45	2.22	74.00	28.55	PK	Horizontal
7438.50	34.91	-2.84	54.00	19.09	AV	Horizontal
10003.50	35.75	-0.02	54.00	18.25	AV	Horizontal
12997.50	37.15	2.72	54.00	16.85	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Vertical
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2437MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph



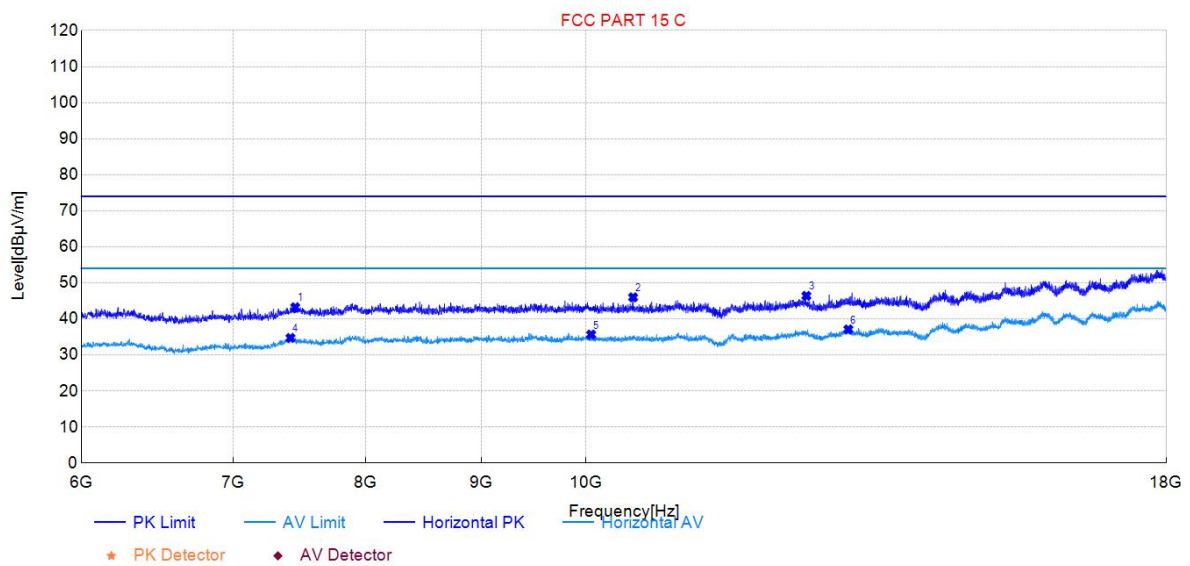
Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
7539.00	43.90	-2.89	74.00	30.10	PK	Vertical
10980.00	45.15	1.35	74.00	28.85	PK	Vertical
12504.00	46.30	2.54	74.00	27.70	PK	Vertical
7860.00	35.55	-1.81	54.00	18.45	AV	Vertical
10500.00	36.19	1.17	54.00	17.81	AV	Vertical
13026.00	37.07	2.37	54.00	16.93	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:	2.4GHz Wi-Fi/BLE Module	Polarity:	Horizontal
Model:	EMC6270-E	S/N:	/
Mode:	Transmit by 802.11b at Channel 2462MHz	Voltage:	DC3.3V
Environment:	Temp: 21°C; Humi:51%	Engineer:	Chuang Li

Test Graph



Frequency (MHz)	Level (dBμV/m)	Factor (dB)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
7452.00	43.23	-2.88	74.00	30.77	PK	Horizontal
10492.50	45.98	0.82	74.00	28.02	PK	Horizontal
12505.50	46.40	2.44	74.00	27.60	PK	Horizontal
7416.00	34.72	-2.78	54.00	19.28	AV	Horizontal
10056.00	35.66	-0.03	54.00	18.34	AV	Horizontal
13048.50	37.09	2.81	54.00	16.91	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.