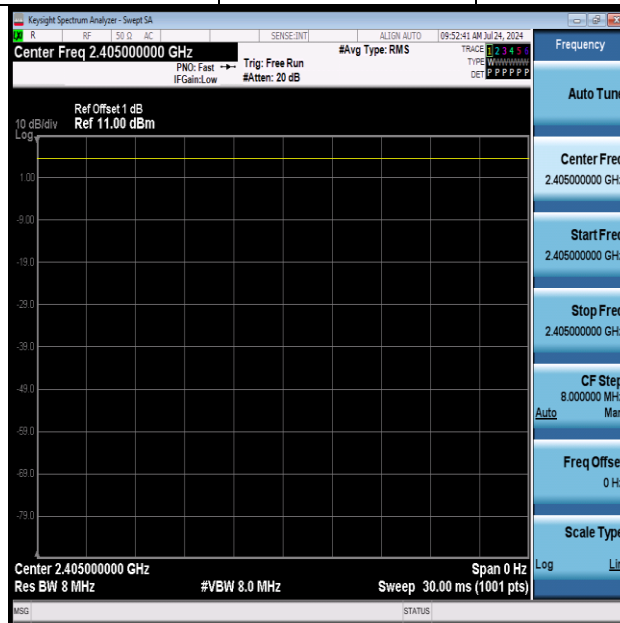
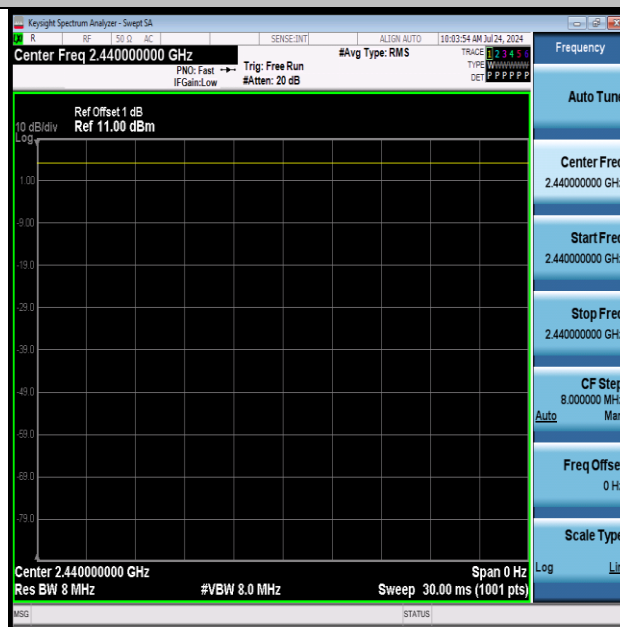


Appendix G: Duty Cycle

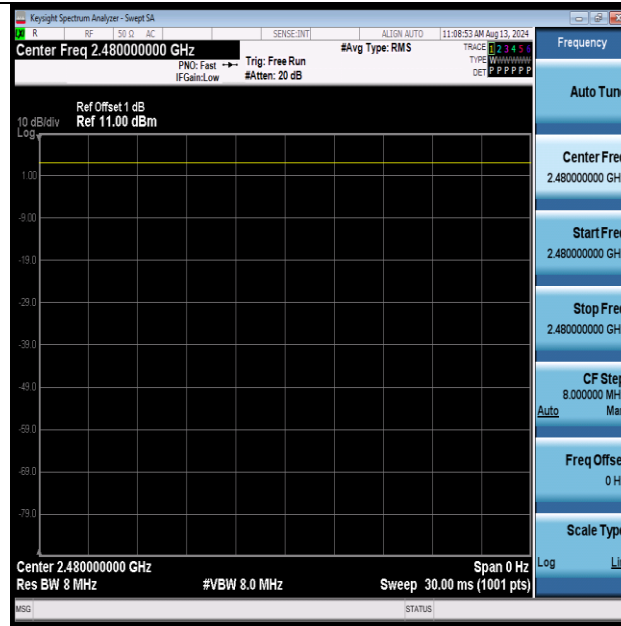
Test Mode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit
ZIGB	Ant1	2405	N/A	N/A	100	N/A
ZIGB	Ant1	2440	N/A	N/A	100	N/A
ZIGB	Ant1	2480	N/A	N/A	100	N/A



NTNV-ZIGB-Ant1-2405



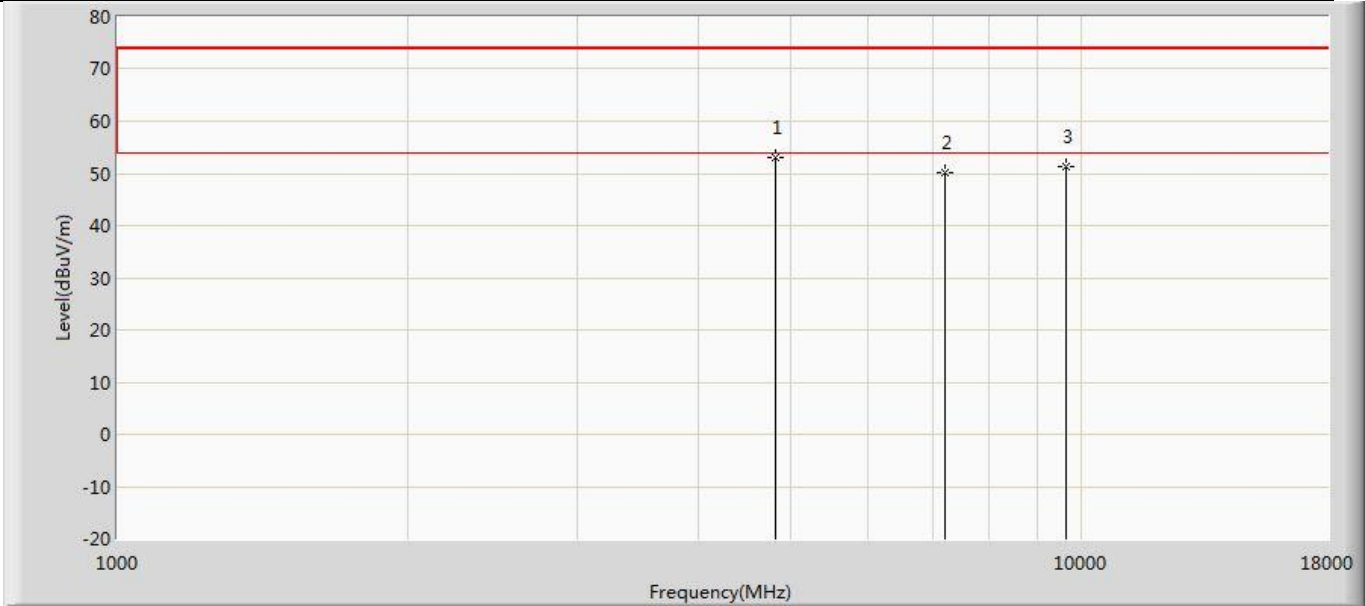
NTNV-ZIGB-Ant1-2440



NTNV-ZIGB-Ant1-2480

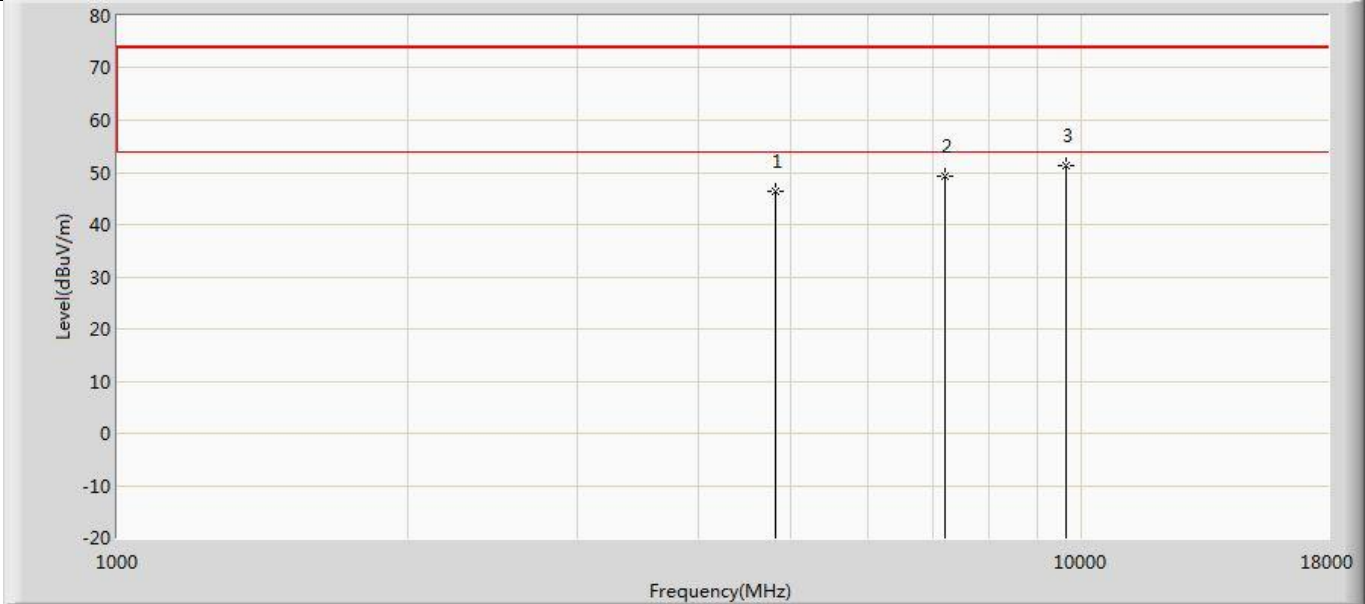
Appendix H: Emissions in Restricted Bands

Profile: 2470512R	Page No.: 7
Engineer: Yu Liu	
Site: AC5	Time: 2024/07/25 - 20:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2405MHz by Zigbee	



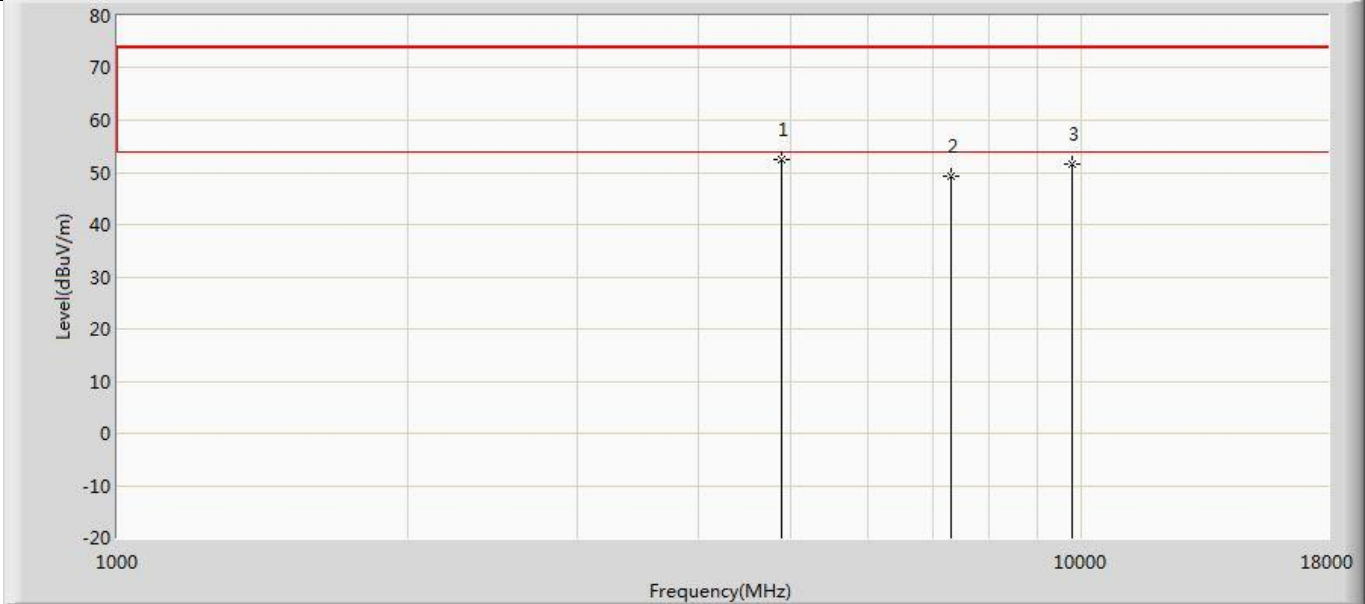
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4808.000	53.156	65.022	-20.844	74.000	-11.866	PK
2		7215.000	50.088	56.396	-23.912	74.000	-6.308	PK
3		9620.000	51.378	55.133	-22.622	74.000	-3.755	PK

Profile: 2470512R	Page No.: 8
Engineer: Yu Liu	
Site: AC5	Time: 2024/07/25 - 20:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2405MHz by Zigbee	



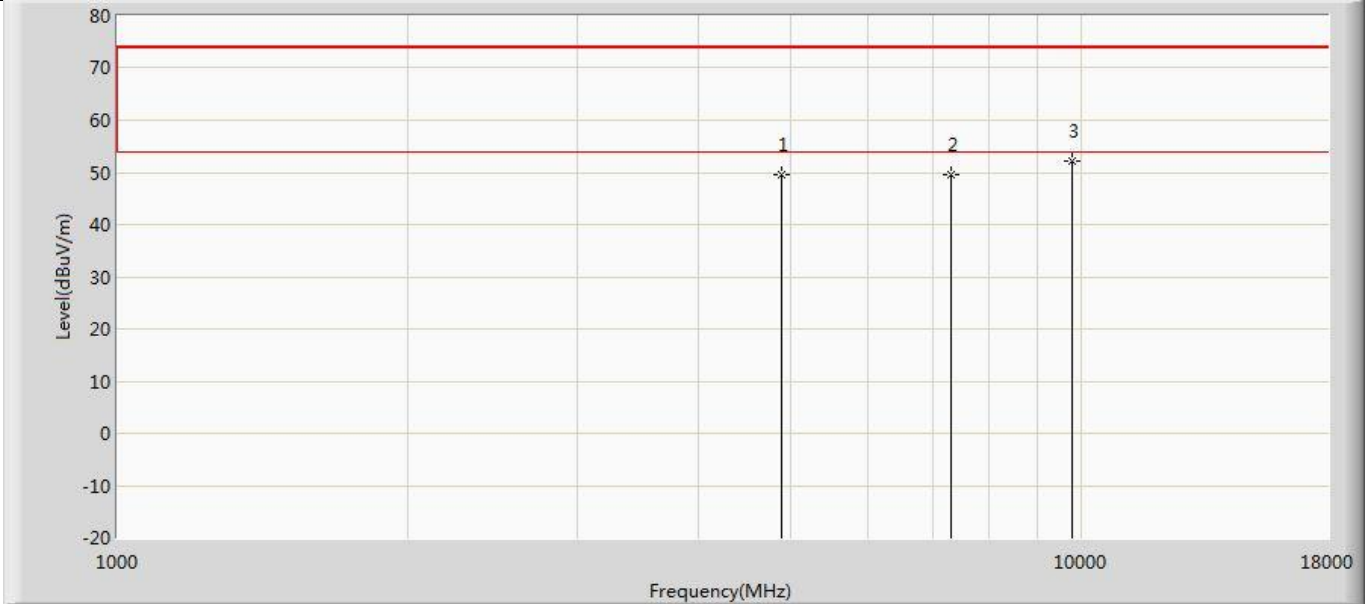
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4808.000	46.312	58.178	-27.688	74.000	-11.866	PK
2		7215.000	49.177	55.485	-24.823	74.000	-6.308	PK
3	*	9620.000	51.206	54.961	-22.794	74.000	-3.755	PK

Profile: 2470512R	Page No.: 9
Engineer: Yu Liu	
Site: AC5	Time: 2024/07/25 - 20:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2440MHz by Zigbee	



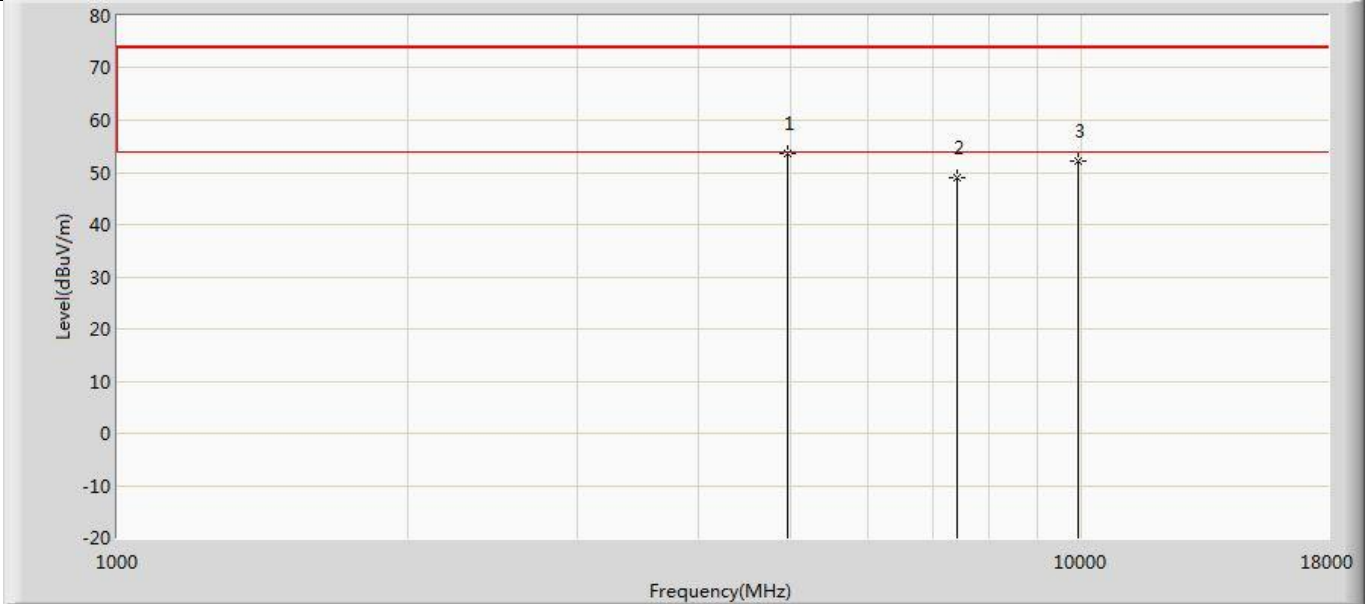
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4876.000	52.548	62.975	-21.452	74.000	-10.427	PK
2		7320.000	49.356	56.283	-24.644	74.000	-6.927	PK
3		9760.000	51.480	54.353	-22.520	74.000	-2.874	PK

Profile: 2470512R	Page No.: 10
Engineer: Yu Liu	
Site: AC5	Time: 2024/07/25 - 20:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2440MHz by Zigbee	



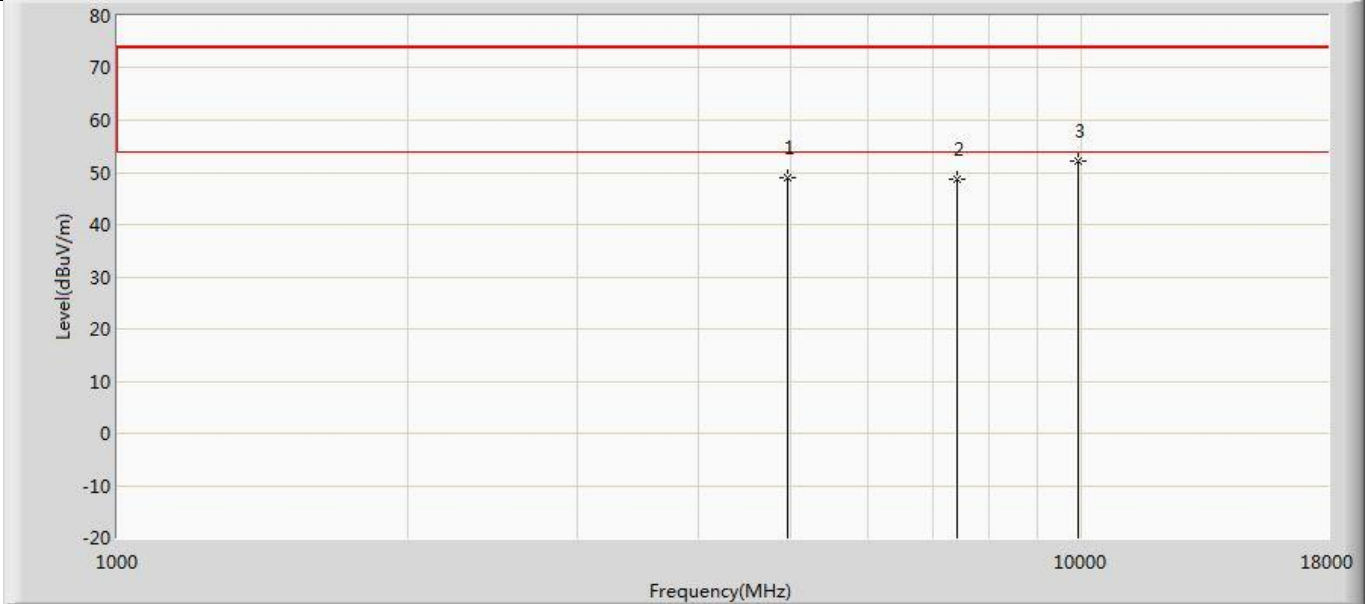
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4876.000	49.582	60.009	-24.418	74.000	-10.427	PK
2		7320.000	49.557	56.484	-24.443	74.000	-6.927	PK
3	*	9760.000	52.054	54.927	-21.946	74.000	-2.874	PK

Profile: 2470512R	Page No.: 11
Engineer: Yu Liu	
Site: AC5	Time: 2024/07/25 - 20:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2480MHz by Zigbee	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	4961.000	53.716	64.387	-20.284	74.000	-10.671	PK
2		7440.000	49.026	55.805	-24.974	74.000	-6.779	PK
3		9920.000	52.176	53.998	-21.824	74.000	-1.821	PK

Profile: 2470512R	Page No.: 12
Engineer: Yu Liu	
Site: AC5	Time: 2024/07/25 - 20:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2480MHz by Zigbee	

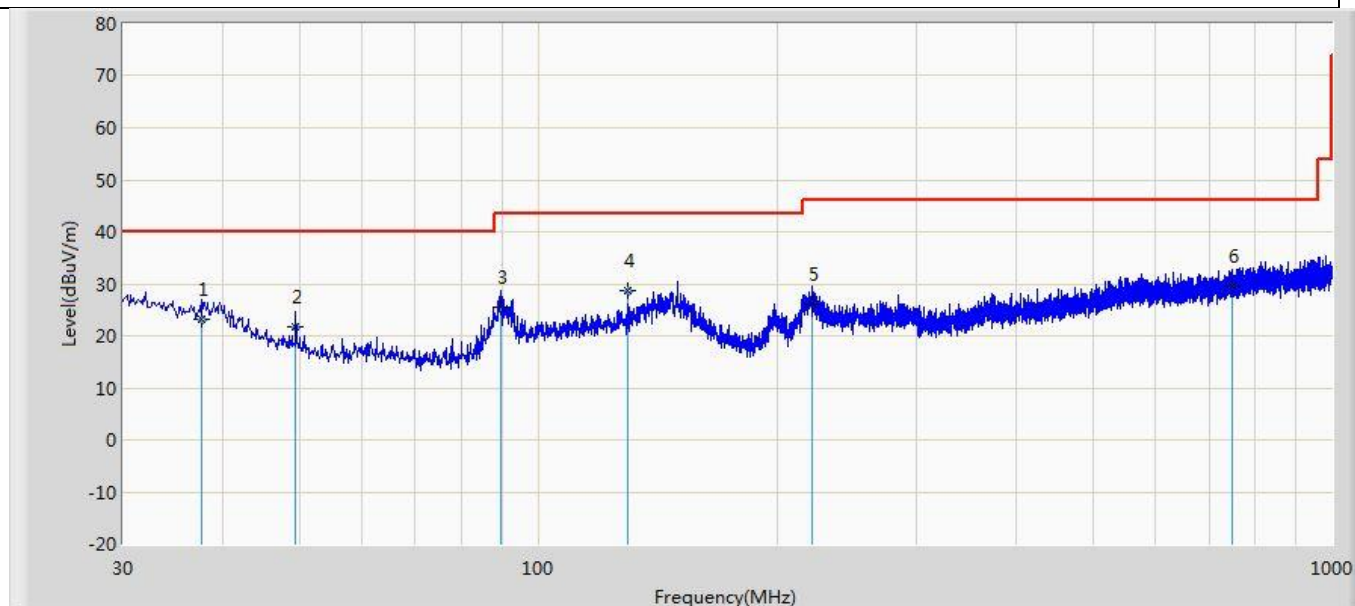


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4961.000	48.909	59.580	-25.091	74.000	-10.671	PK
2		7440.000	48.747	55.526	-25.253	74.000	-6.779	PK
3	*	9920.000	52.103	53.925	-21.897	74.000	-1.821	PK

- Note:
1. Measured Level = Reading Level + Factor.
 2. The test frequency range, 9kHz~30MHz, worst case are at least 20dB below the limits, therefore no data appear in the report.
 3. The test frequency range, 18GHz~26GHz test result on peak is lower than average limit, all is the noise base, therefore no data appear in the report.
 4. If the test result on peak is lower than average limit, then average measurement needn't be performed.

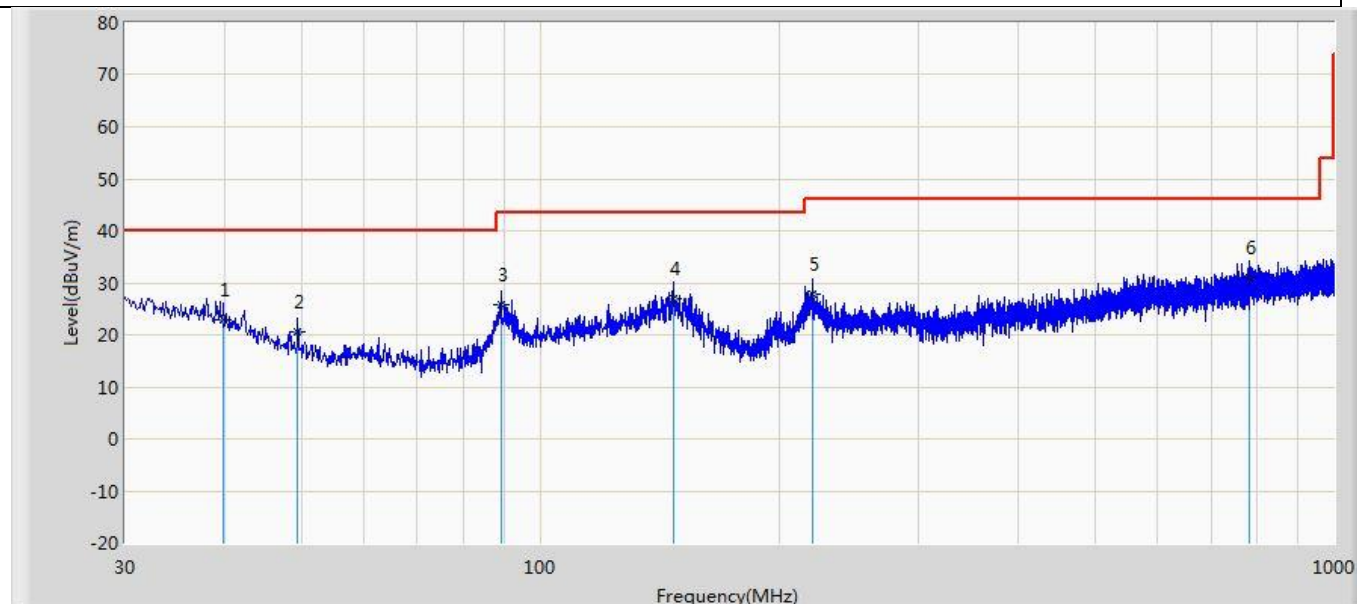
The worst case of Radiated Emission below 1GHz :

Profile: 2470512R	Page No.: 1
Engineer: Yu Liu	
Site: AC2	Time: 2024/08/11 - 20:51
Limit: FCC_Part 15.209	Margin: 0
Probe: CBL6112D_27613(30-1000MHz)	Polarity: Vertical
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2480MHz by Zigbee	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		37.639	23.106	2.234	-16.894	40.000	20.872	QP
2		49.521	21.688	6.599	-18.312	40.000	15.089	QP
3		89.897	25.411	9.546	-18.089	43.500	15.864	QP
4	*	129.916	28.694	9.664	-14.806	43.500	19.030	QP
5		221.696	26.052	9.341	-19.948	46.000	16.711	QP
6		748.285	29.550	1.115	-16.450	46.000	28.435	QP

Profile: 2470512R	Page No.: 2
Engineer: Yu Liu	
Site: AC2	Time: 2024/08/11 - 20:54
Limit: FCC_Part 15.209	Margin: 0
Probe: CBL6112D_27613(30-1000MHz)	Polarity: Horizontal
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2480MHz by Zigbee	



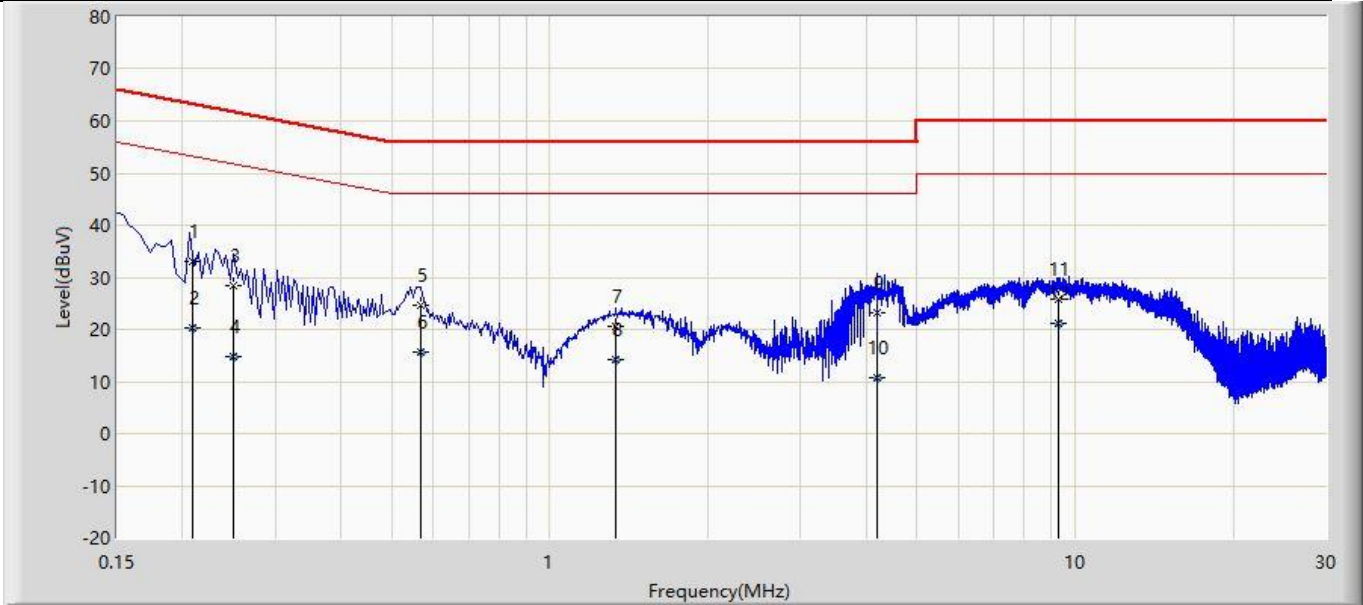
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		39.943	22.985	3.378	-17.015	40.000	19.607	QP
2		49.521	20.501	5.412	-19.499	40.000	15.089	QP
3		89.291	25.777	10.055	-17.723	43.500	15.723	QP
4		147.370	27.013	9.368	-16.487	43.500	17.645	QP
5		220.120	27.929	11.396	-18.071	46.000	16.533	QP
6	*	781.508	31.076	2.011	-14.924	46.000	29.065	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)

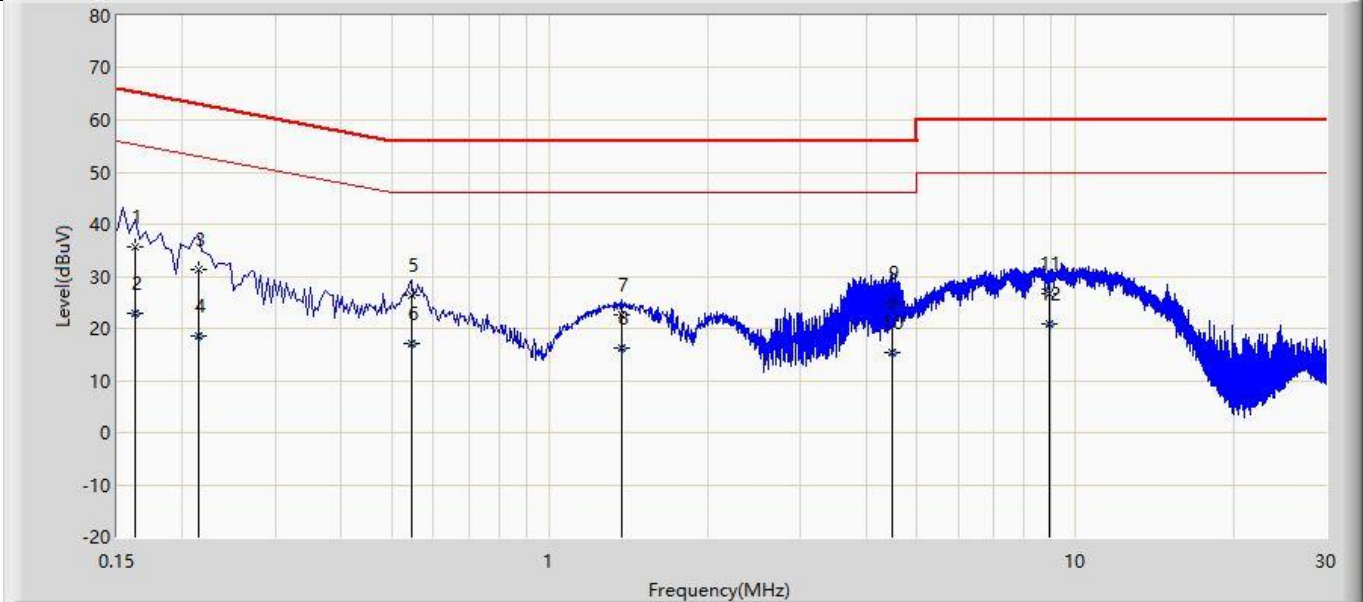
Appendix I: AC Power Line Conducted Emission

Profile: 2470512R	Page No.: 1
Engineer: Yu Liu	
Site: TR1	Time: 2024/08/11 - 20:38
Limit: Limit: FCC_Part 15.207	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Line
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2480MHz by Zigbee	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.209	33.009	23.385	-30.237	63.245	9.623	QP
2		0.209	20.198	10.575	-33.047	53.245	9.623	AV
3		0.250	28.450	18.826	-33.307	61.757	9.625	QP
4		0.250	14.790	5.165	-36.968	51.757	9.625	AV
5		0.566	24.520	14.880	-31.480	56.000	9.640	QP
6		0.566	15.783	6.143	-30.217	46.000	9.640	AV
7		1.338	20.701	11.022	-35.299	56.000	9.679	QP
8		1.338	14.250	4.572	-31.750	46.000	9.679	AV
9		4.206	23.046	13.302	-32.954	56.000	9.744	QP
10		4.206	10.754	1.010	-35.246	46.000	9.744	AV
11		9.314	25.812	15.954	-34.188	60.000	9.858	QP
12	*	9.314	21.212	11.354	-28.788	50.000	9.858	AV

Profile: 2470512R	Page No.: 2
Engineer: Yu Liu	
Site: TR1	Time: 2024/08/11 - 20:42
Limit: Limit: FCC_Part 15.207	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Neutral
EUT: LED controller	Power: 120 Vac / 60 Hz
Note: Mode 1 : Transmit at 2480MHz by Zigbee	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.162	35.608	25.977	-29.753	65.361	9.630	QP
2		0.162	22.809	13.179	-32.552	55.361	9.630	AV
3		0.214	31.263	21.630	-31.786	63.049	9.633	QP
4		0.214	18.625	8.992	-34.424	53.049	9.633	AV
5		0.546	26.378	16.729	-29.622	56.000	9.649	QP
6	*	0.546	17.032	7.384	-28.968	46.000	9.649	AV
7		1.366	22.478	12.799	-33.522	56.000	9.679	QP
8		1.366	16.134	6.455	-29.866	46.000	9.679	AV
9		4.470	24.806	15.047	-31.194	56.000	9.759	QP
10		4.470	15.336	5.577	-30.664	46.000	9.759	AV
11		8.938	26.560	16.697	-33.440	60.000	9.863	QP
12		8.938	20.847	10.984	-29.153	50.000	9.863	AV

Note:

1. " * ", means this data is the worst emission level.

2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)

The End