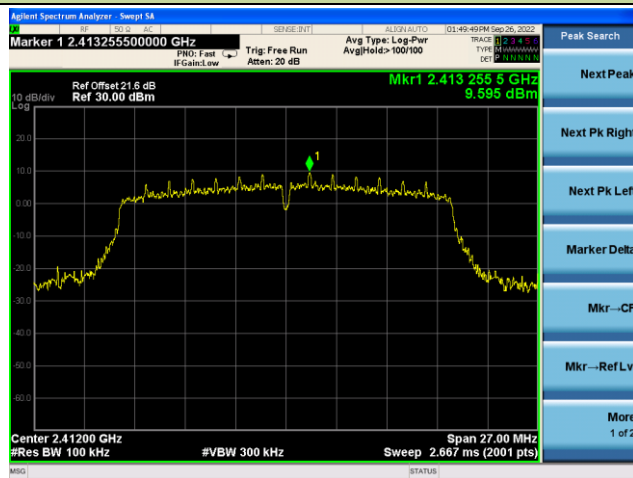


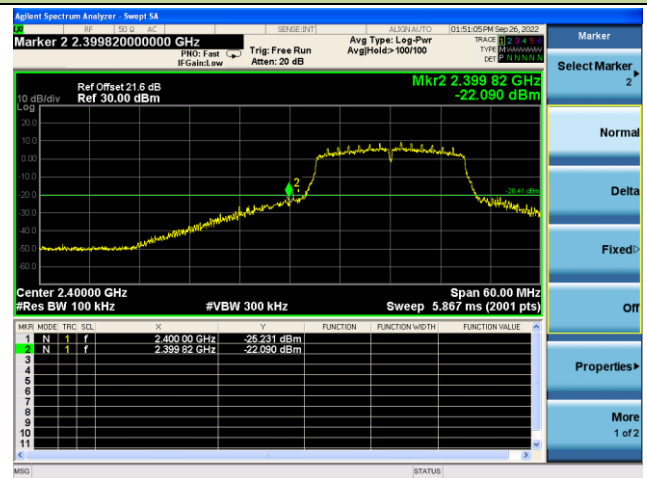
### 802.11n-HT20 Out-of-Band Emissions

#### Channel 01 (2412MHz)

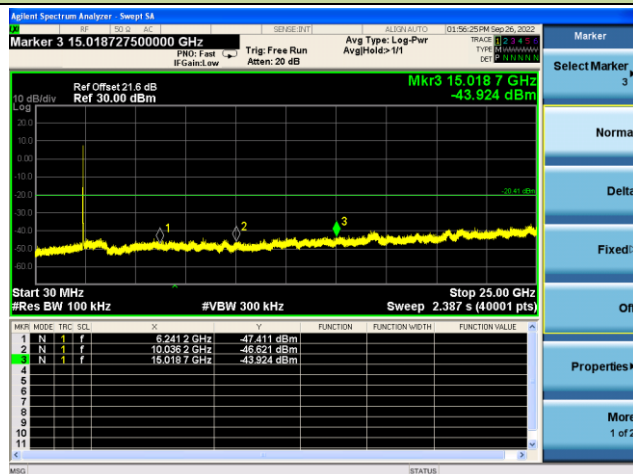
##### 100kHz PSD Reference Level



##### Low Band Edge

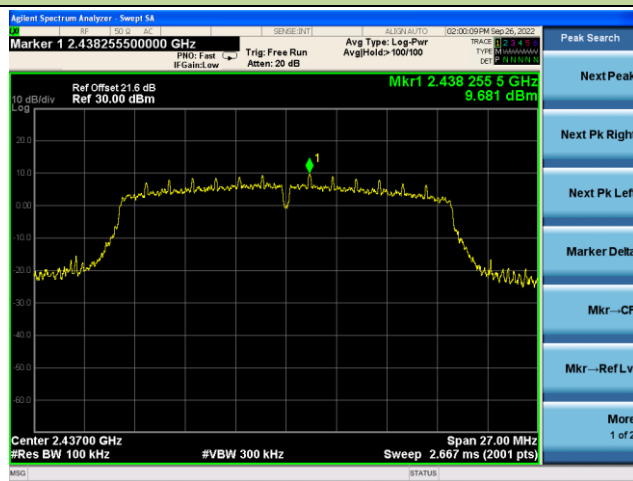


##### Spurious Emission

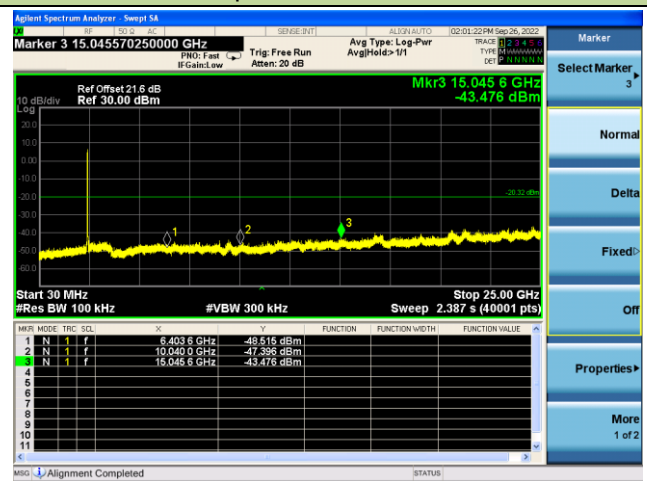


#### Channel 06 (2437MHz)

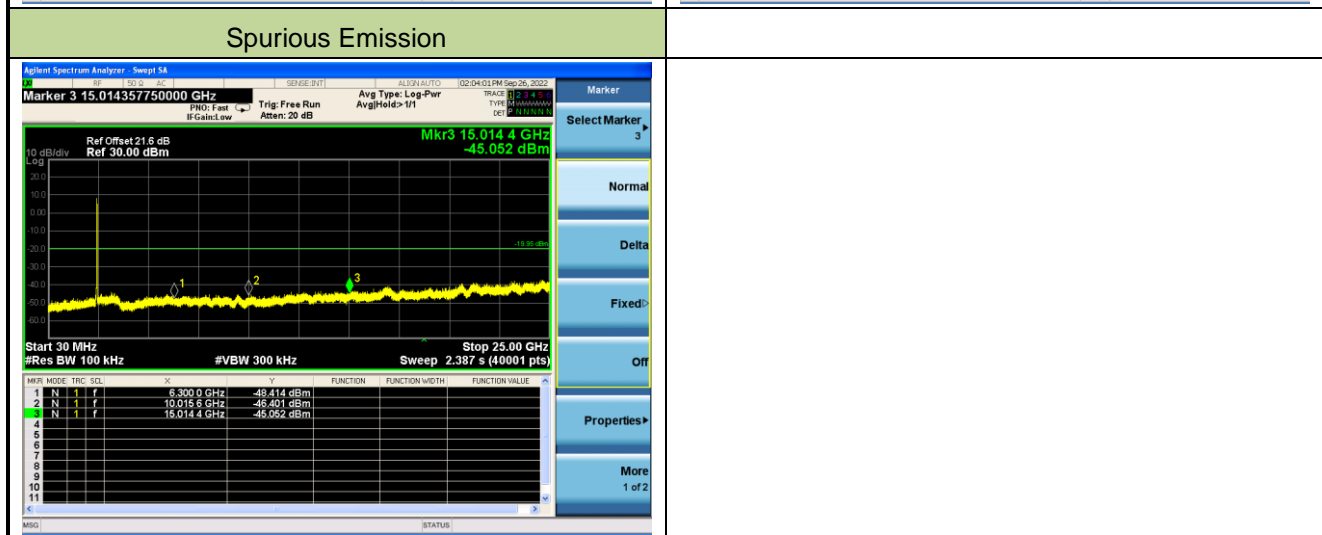
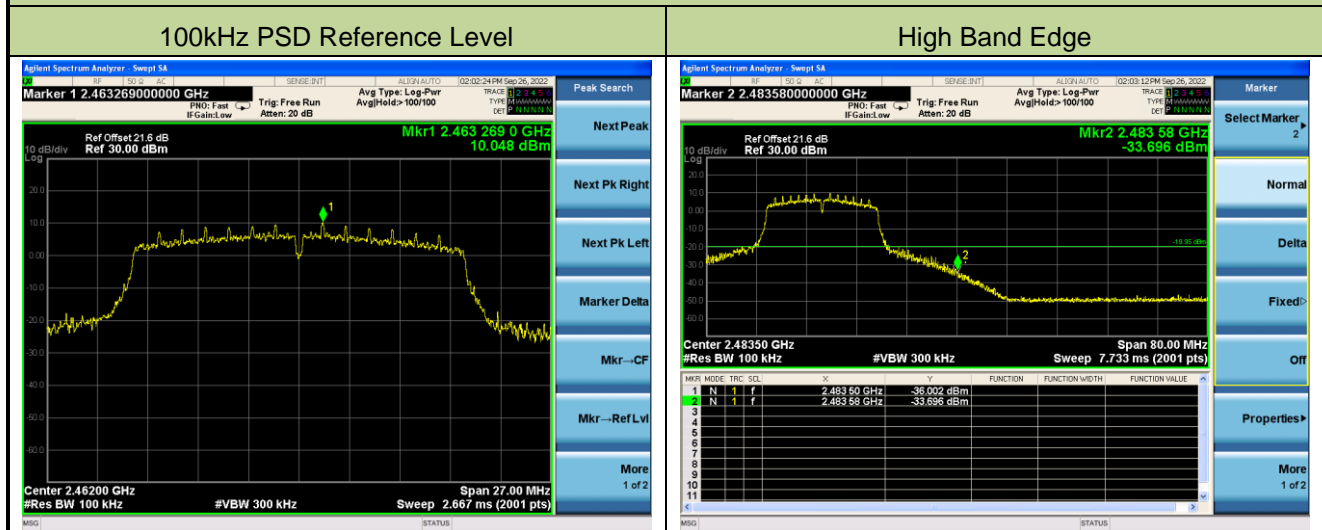
##### 100kHz PSD Reference Level



##### Spurious Emission



**802.11n-HT20 Out-of-Band Emissions**  
**Channel 11 (2462MHz)**



### A.6 Radiated Spurious Emission Test Result

#### Spot Check Test Data

Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2023-02-28	Test Mode:	802.11b
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dB $\mu$ V)	Factor (dB/m)	Measure Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Polarization
11	9126.0	35.4	11.2	46.6	74.0	-27.4	Peak	Horizontal
	10792.0	34.9	13.6	48.5	74.0	-25.5	Peak	Horizontal
	12364.5	34.8	12.0	46.8	74.0	-27.2	Peak	Horizontal
	9151.5	34.7	11.1	45.8	74.0	-28.2	Peak	Vertical
	11480.5	34.3	13.0	47.4	74.0	-26.6	Peak	Vertical
	12407.0	34.5	11.9	46.4	74.0	-27.6	Peak	Vertical

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2022-09-22	Test Mode:	802.11b
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	9066.5	36.9	10.7	47.6	74.0	-26.4	Peak	Horizontal
	10877.0	35.4	13.4	48.8	74.0	-25.2	Peak	Horizontal
	12118.0	35.4	12.2	47.6	74.0	-26.4	Peak	Horizontal
	9389.5	34.2	12.0	46.2	74.0	-27.8	Peak	Vertical
	10885.5	34.8	13.4	48.2	74.0	-25.8	Peak	Vertical
	12203.0	36.1	12.1	48.2	74.0	-25.8	Peak	Vertical
06	9134.5	36.2	11.1	47.3	74.0	-26.7	Peak	Horizontal
	10868.5	35.3	13.3	48.6	74.0	-25.4	Peak	Horizontal
	12143.5	35.9	12.1	48.0	74.0	-26.0	Peak	Horizontal
	9168.5	35.3	11.2	46.5	74.0	-27.5	Peak	Vertical
	10987.5	35.3	13.6	48.9	74.0	-25.1	Peak	Vertical
	12390.0	36.3	11.7	48.0	74.0	-26.0	Peak	Vertical
11	9126.0	34.7	11.2	45.9	74.0	-28.1	Peak	Horizontal
	10792.0	35.4	13.6	49.0	74.0	-25.0	Peak	Horizontal
	12364.5	35.7	12.0	47.7	74.0	-26.3	Peak	Horizontal
	9151.5	35.3	11.1	46.4	74.0	-27.6	Peak	Vertical
	11480.5	36.5	13.0	49.5	74.0	-24.5	Peak	Vertical
	12407.0	35.8	11.9	47.7	74.0	-26.3	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2022-09-22	Test Mode:	802.11g
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	9058.0	37.0	10.5	47.5	74.0	-26.5	Peak	Horizontal
	11089.5	35.9	13.3	49.2	74.0	-24.8	Peak	Horizontal
	12407.0	35.7	11.9	47.6	74.0	-26.4	Peak	Horizontal
	9134.5	34.5	11.1	45.6	74.0	-28.4	Peak	Vertical
	10894.0	35.3	13.4	48.7	74.0	-25.3	Peak	Vertical
	12050.0	35.0	12.4	47.4	74.0	-26.6	Peak	Vertical
06	9126.0	36.5	11.2	47.7	74.0	-26.3	Peak	Horizontal
	10928.0	34.8	13.5	48.3	74.0	-25.7	Peak	Horizontal
	12594.0	35.9	11.8	47.7	74.0	-26.3	Peak	Horizontal
	9058.0	35.0	10.5	45.5	74.0	-28.5	Peak	Vertical
	10928.0	35.6	13.5	49.1	74.0	-24.9	Peak	Vertical
	12534.5	35.7	11.8	47.5	74.0	-26.5	Peak	Vertical
11	8437.5	36.7	8.6	45.3	74.0	-28.7	Peak	Horizontal
	10877.0	34.5	13.4	47.9	74.0	-26.1	Peak	Horizontal
	11497.5	35.5	13.3	48.8	74.0	-25.2	Peak	Horizontal
	9126.0	35.7	11.2	46.9	74.0	-27.1	Peak	Vertical
	11574.0	36.7	12.7	49.4	74.0	-24.6	Peak	Vertical
	12007.5	34.9	12.3	47.2	74.0	-26.8	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Site	WZ-AC1	Test Engineer	Carl Jiang
Test Date	2022-09-22	Test Mode:	802.11n-HT20
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

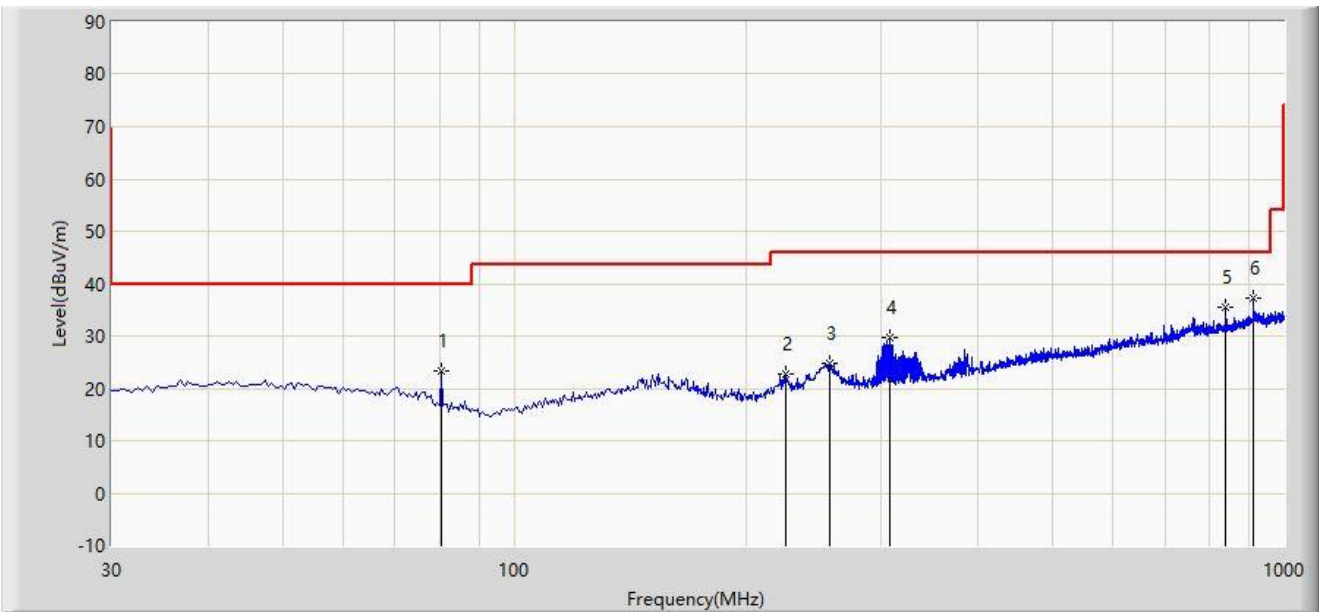
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	9491.5	36.0	11.8	47.8	74.0	-26.2	Peak	Horizontal
	10885.5	34.9	13.4	48.3	74.0	-25.7	Peak	Horizontal
	12177.5	35.5	12.1	47.6	74.0	-26.4	Peak	Horizontal
	8225.0	36.1	8.5	44.6	74.0	-29.4	Peak	Vertical
	10996.0	35.4	13.6	49.0	74.0	-25.0	Peak	Vertical
	12058.5	37.2	12.3	49.5	74.0	-24.5	Peak	Vertical
06	9117.5	35.6	11.0	46.6	74.0	-27.4	Peak	Horizontal
	10953.5	35.6	13.5	49.1	74.0	-24.9	Peak	Horizontal
	11608.0	36.5	12.7	49.2	74.0	-24.8	Peak	Horizontal
	9151.5	34.0	11.1	45.1	74.0	-28.9	Peak	Vertical
	11412.5	35.6	12.9	48.5	74.0	-25.5	Peak	Vertical
	12560.0	35.5	11.8	47.3	74.0	-26.7	Peak	Vertical
11	9134.5	35.9	11.1	47.0	74.0	-27.0	Peak	Horizontal
	10996.0	35.5	13.6	49.1	74.0	-24.9	Peak	Horizontal
	12330.5	36.1	12.0	48.1	74.0	-25.9	Peak	Horizontal
	9134.5	35.5	11.1	46.6	74.0	-27.4	Peak	Vertical
	11115.0	35.7	12.8	48.5	74.0	-25.5	Peak	Vertical
	12109.5	35.5	12.1	47.6	74.0	-26.4	Peak	Vertical

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

**The Result of Radiated Emission below 1GHz:**

Site: WZ-AC1	Test Date: 2022-10-08
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		80.440	23.286	9.398	-16.714	40.000	13.888	PK
2		225.455	22.784	8.168	-23.216	46.000	14.616	PK
3		257.465	24.724	7.903	-21.276	46.000	16.821	PK
4		307.420	29.834	11.215	-16.166	46.000	18.619	PK
5		840.920	35.423	6.749	-10.577	46.000	28.674	PK
6	*	912.215	37.144	7.457	-8.856	46.000	29.686	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

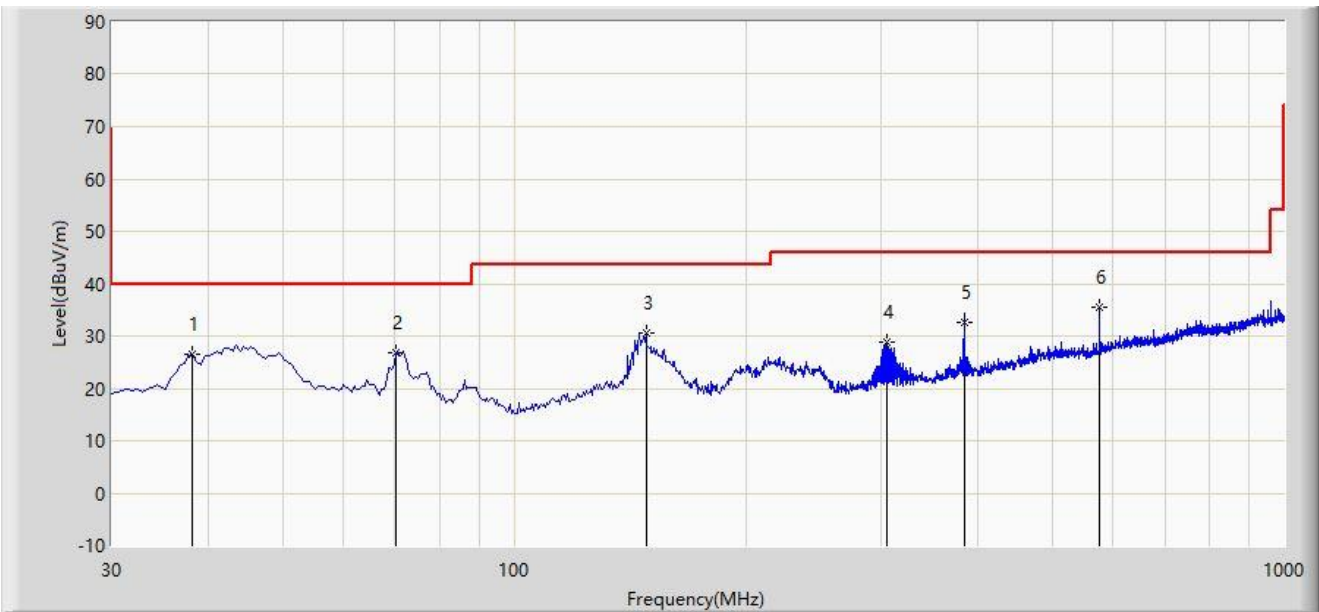
Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: WZ-AC1	Test Date: 2022-10-08
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		38.245	26.624	8.548	-13.376	40.000	18.076	PK
2		70.255	26.947	10.818	-13.053	40.000	16.129	PK
3		148.340	30.447	12.517	-13.053	43.500	17.930	PK
4		305.480	28.757	10.213	-17.243	46.000	18.544	PK
5		384.050	32.594	12.141	-13.406	46.000	20.453	PK
6	*	576.110	35.498	10.647	-10.502	46.000	24.851	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Note 4: Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Note 5: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

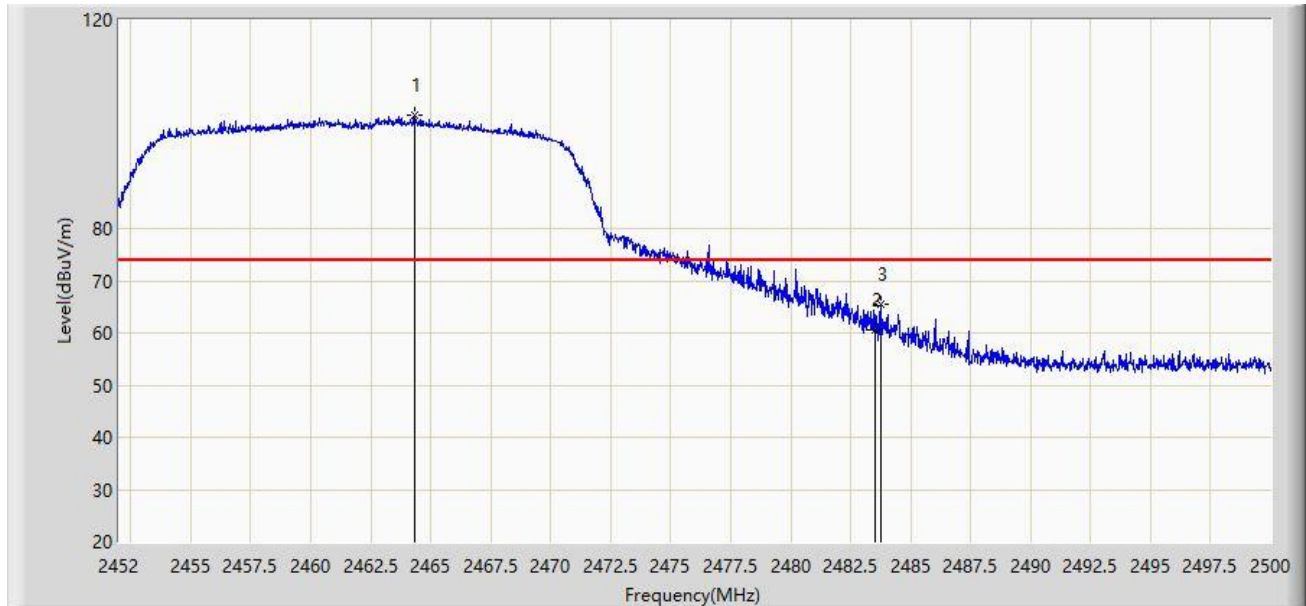
Therefore, the data is not presented in the report.



### A.7 Radiated Restricted Band Edge Test Result

#### Spot Check Test Data

Site: WZ-AC1	Time: 2023/02/28 - 17:27
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



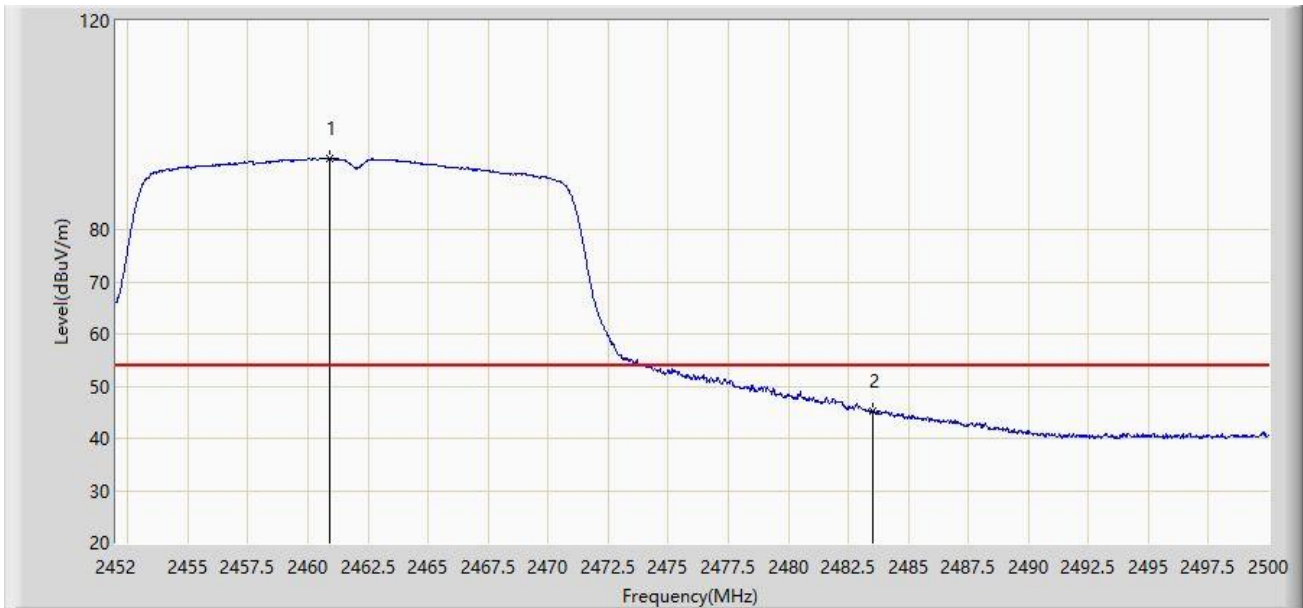
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2464.312	101.874	70.987	N/A	N/A	30.887	PK
2		2483.500	60.711	29.820	-13.289	74.000	30.892	PK
3	*	2483.776	65.563	34.672	-8.437	74.000	30.891	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Time: 2023/02/28 - 17:24
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



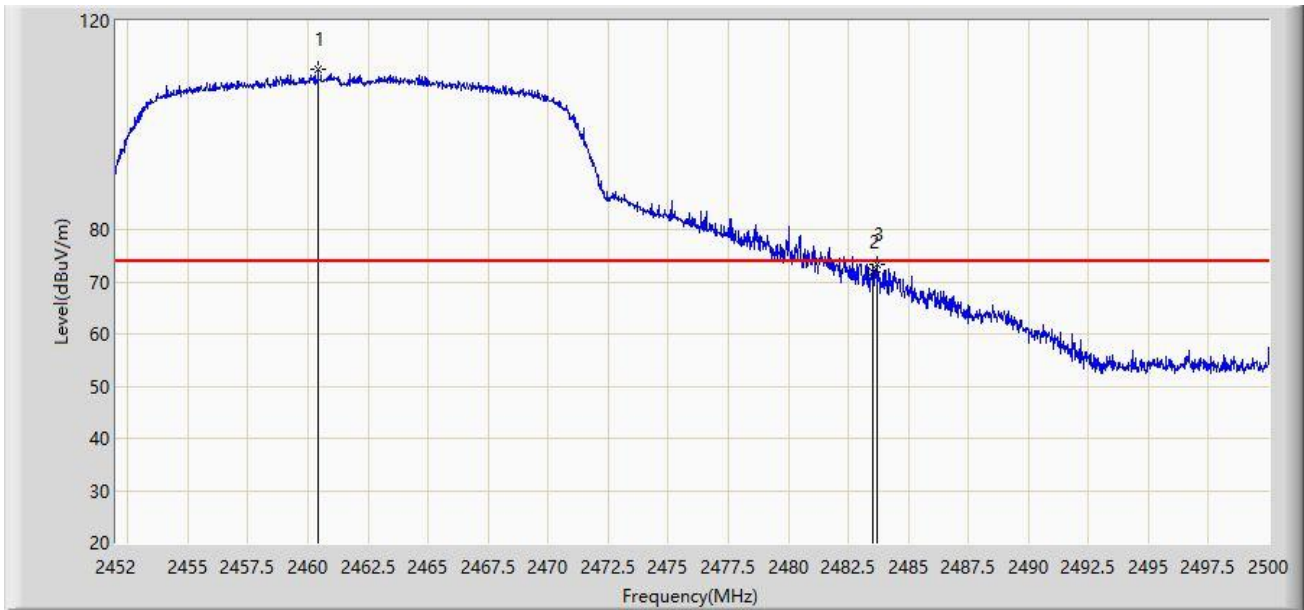
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2460.928	93.758	62.878	N/A	N/A	30.880	AV
2	*	2483.500	45.162	14.271	-8.838	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Time: 2023/02/28 - 17:26
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



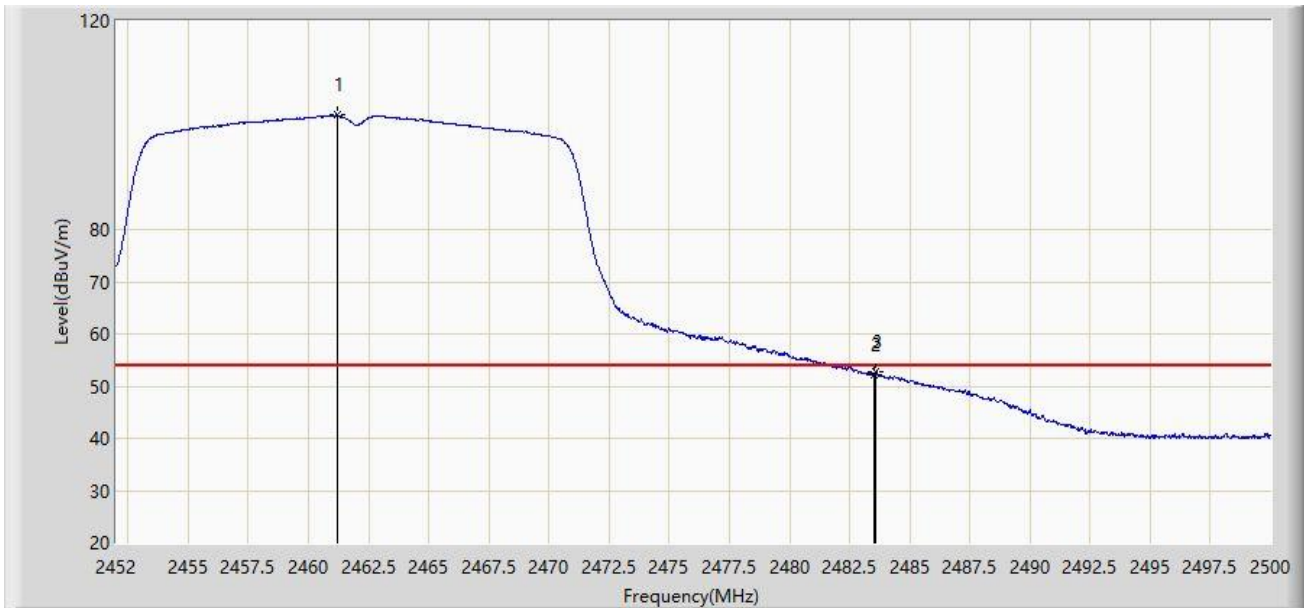
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2460.424	110.620	79.741	N/A	N/A	30.879	PK
2		2483.500	71.764	40.873	-2.236	74.000	30.892	PK
3	*	2483.680	73.435	42.544	-0.565	74.000	30.892	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Time: 2023/02/28 - 17:23
Limit: FCC_2.4G_RE(3m)	Engineer: Charles Zhang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



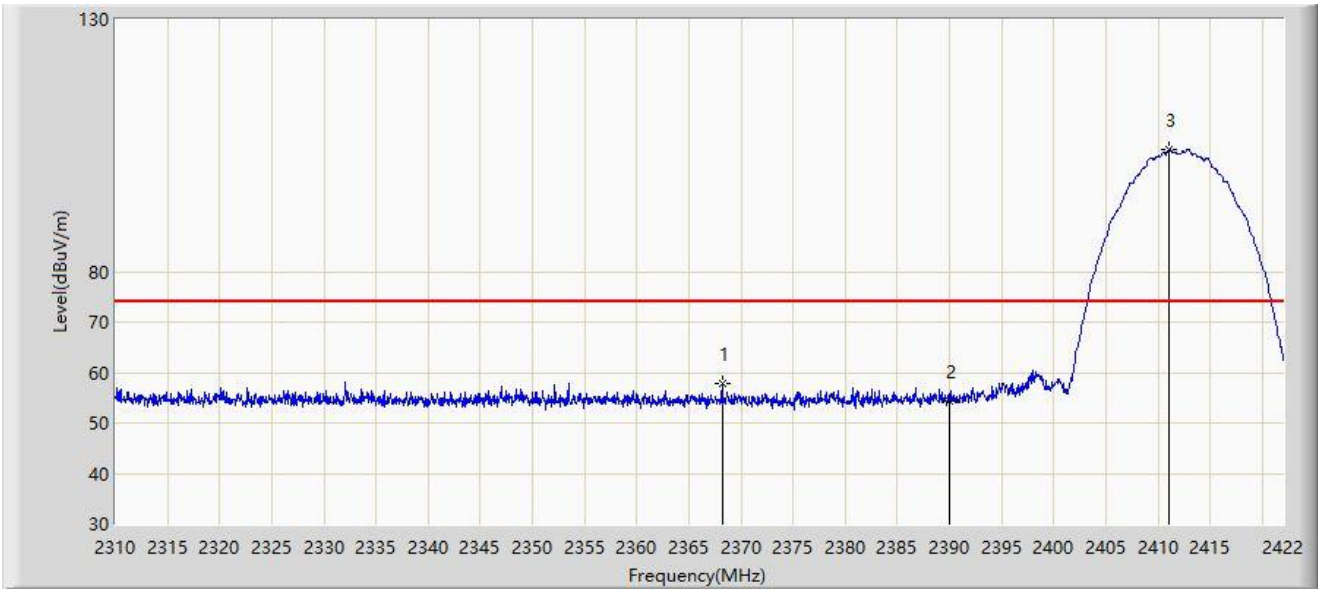
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.192	101.996	71.116	N/A	N/A	30.881	AV
2		2483.500	52.135	21.244	-1.865	54.000	30.892	AV
3	*	2483.608	52.754	21.863	-1.246	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



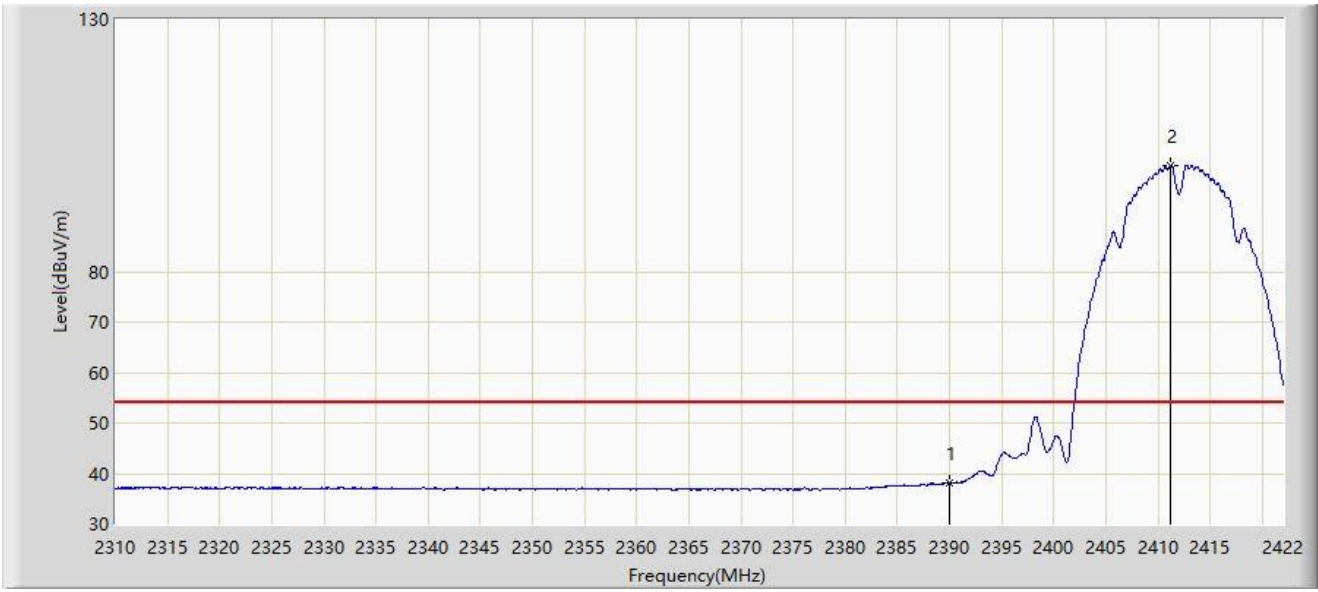
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2368.184	57.700	26.631	-16.300	74.000	31.069	PK
2		2390.000	54.474	23.482	-19.526	74.000	30.992	PK
3		2411.024	104.162	73.205	N/A	N/A	30.957	PK

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

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



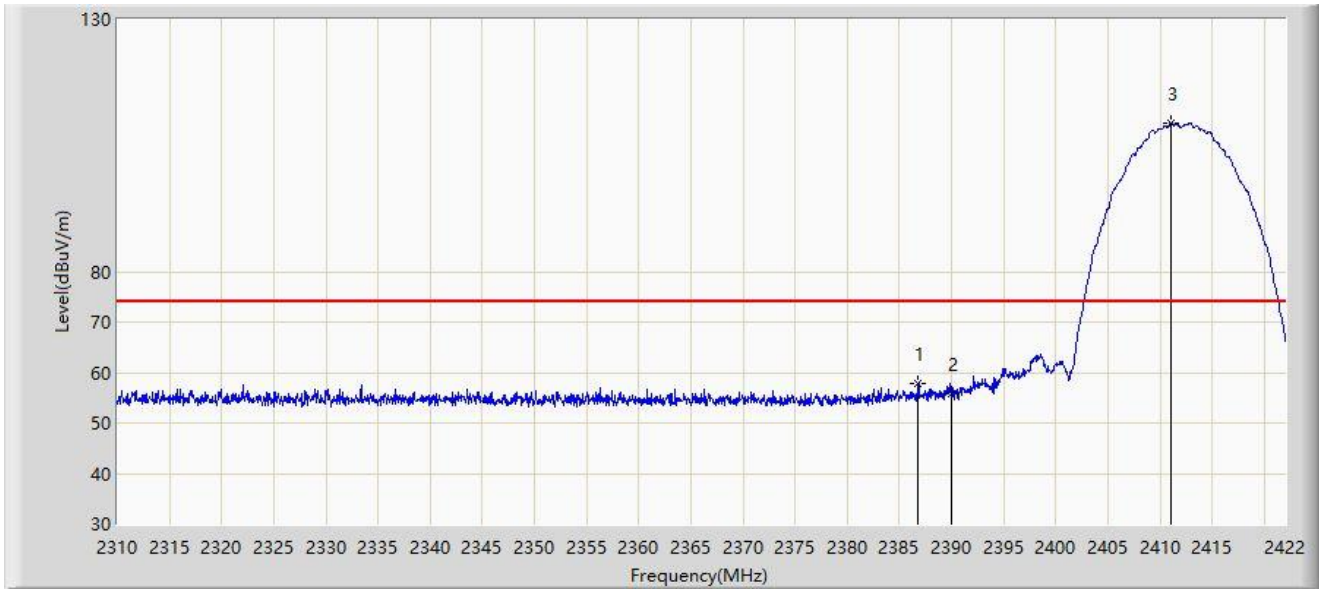
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	38.213	7.221	-15.787	54.000	30.992	AV
2		2411.192	101.085	70.129	N/A	N/A	30.957	AV

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

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



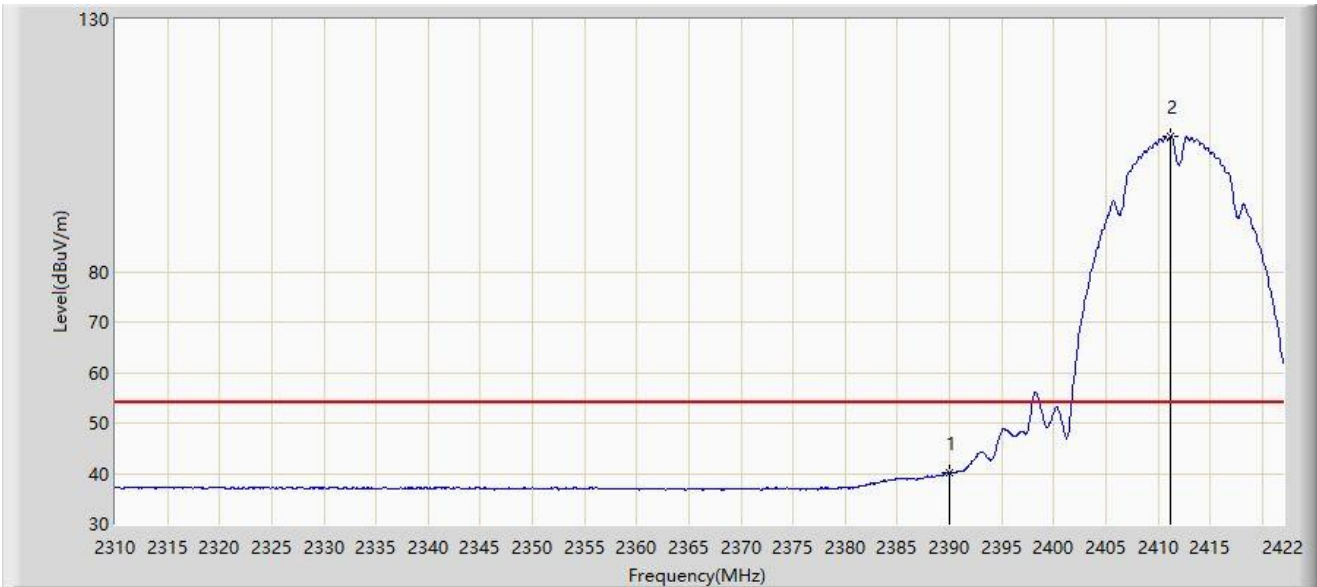
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2386.776	57.934	26.940	-16.066	74.000	30.994	PK
2		2390.000	55.682	24.690	-18.318	74.000	30.992	PK
3		2411.024	109.500	78.543	N/A	N/A	30.957	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2390.000	40.189	9.197	-13.811	54.000	30.992	AV
2		2411.192	106.917	75.961	N/A	N/A	30.957	AV

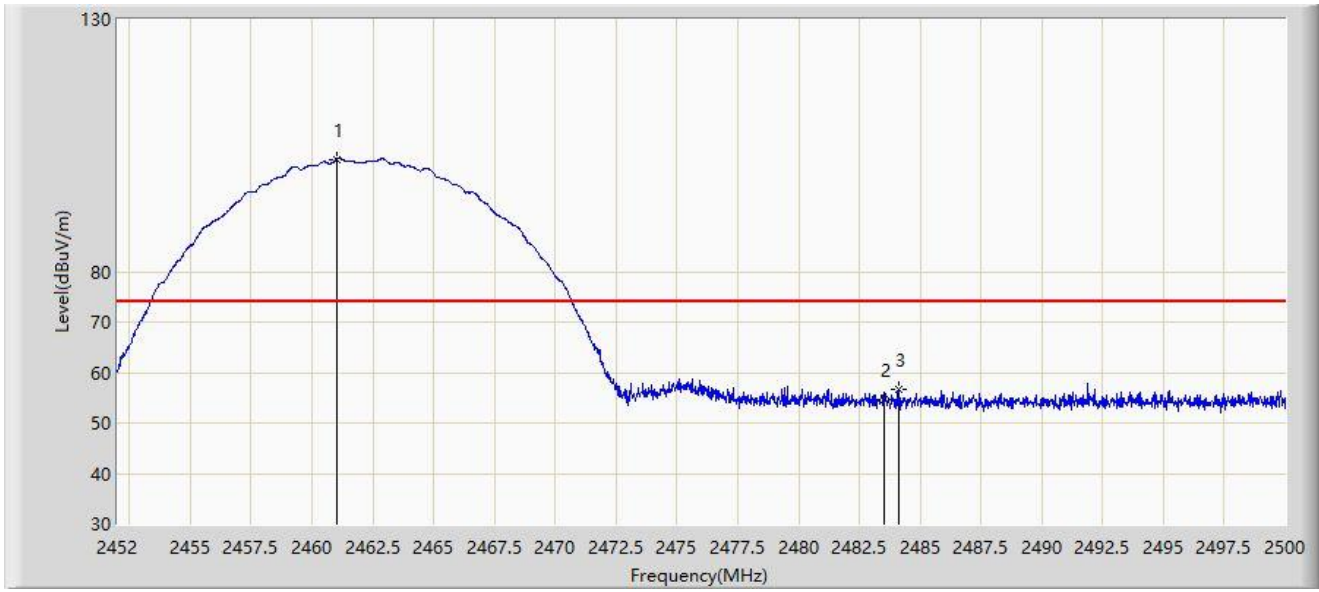
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).



Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



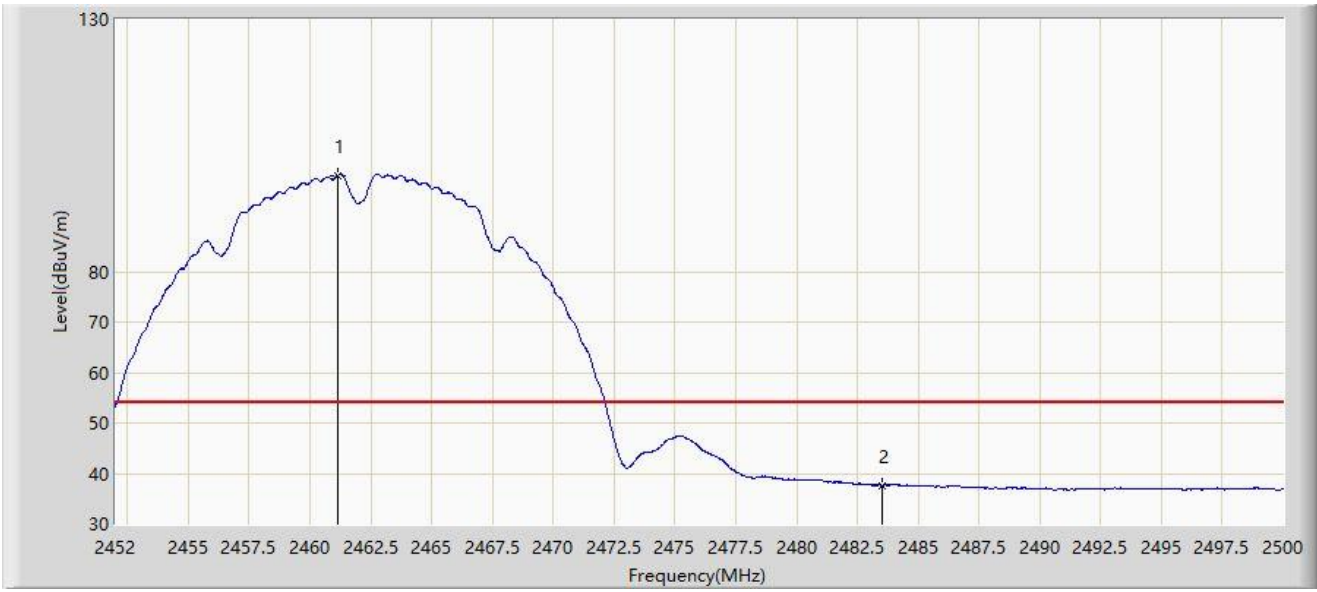
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.000	102.256	71.376	N/A	N/A	30.880	PK
2		2483.500	54.539	23.648	-19.461	74.000	30.892	PK
3	*	2484.112	56.640	25.750	-17.360	74.000	30.891	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



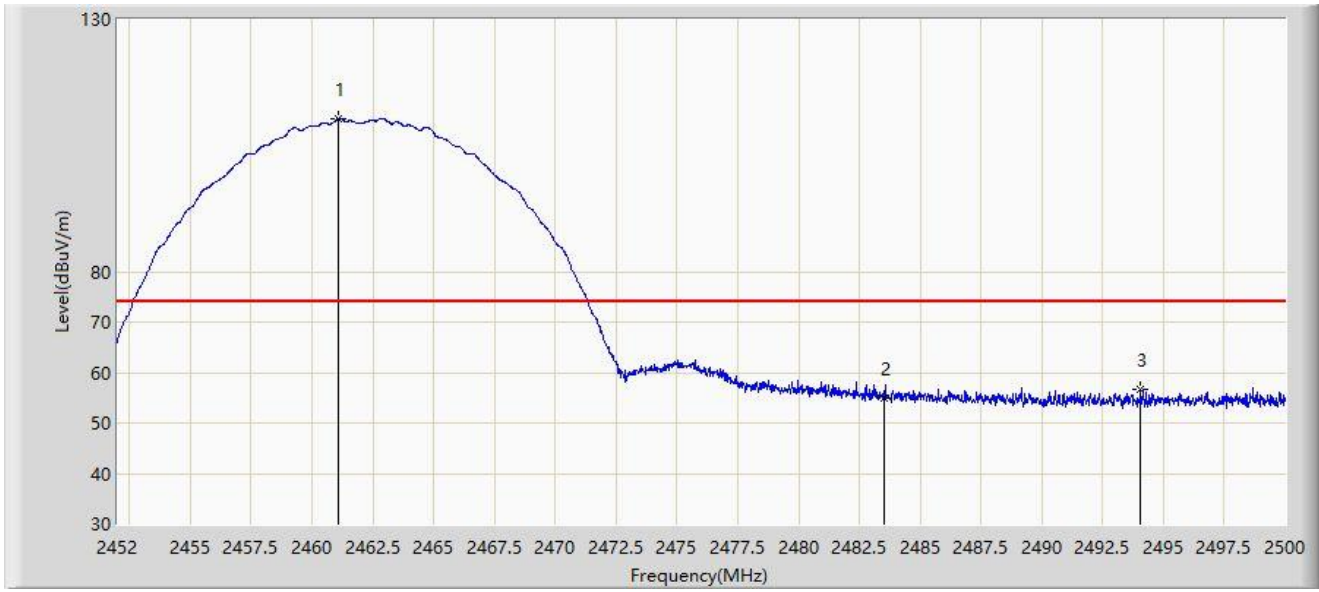
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.168	99.115	68.235	N/A	N/A	30.881	AV
2	*	2483.500	37.643	6.752	-16.357	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



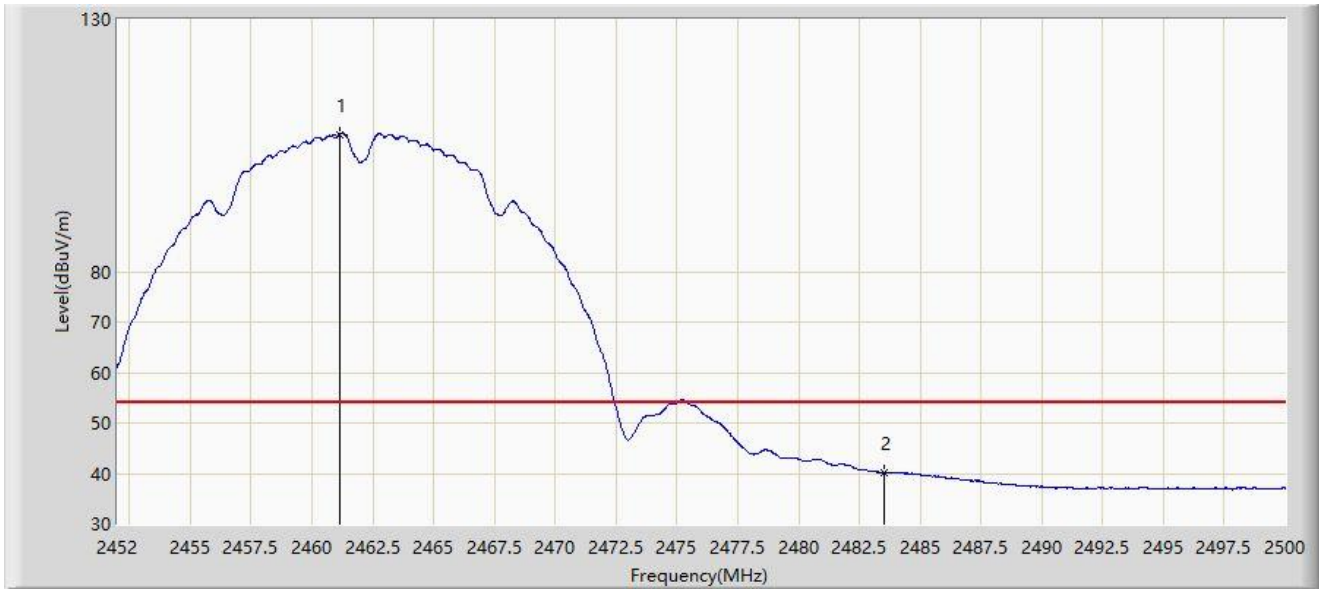
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.096	110.289	79.409	N/A	N/A	30.880	PK
2		2483.500	54.976	24.085	-19.024	74.000	30.892	PK
3	*	2494.072	56.793	25.910	-17.207	74.000	30.883	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



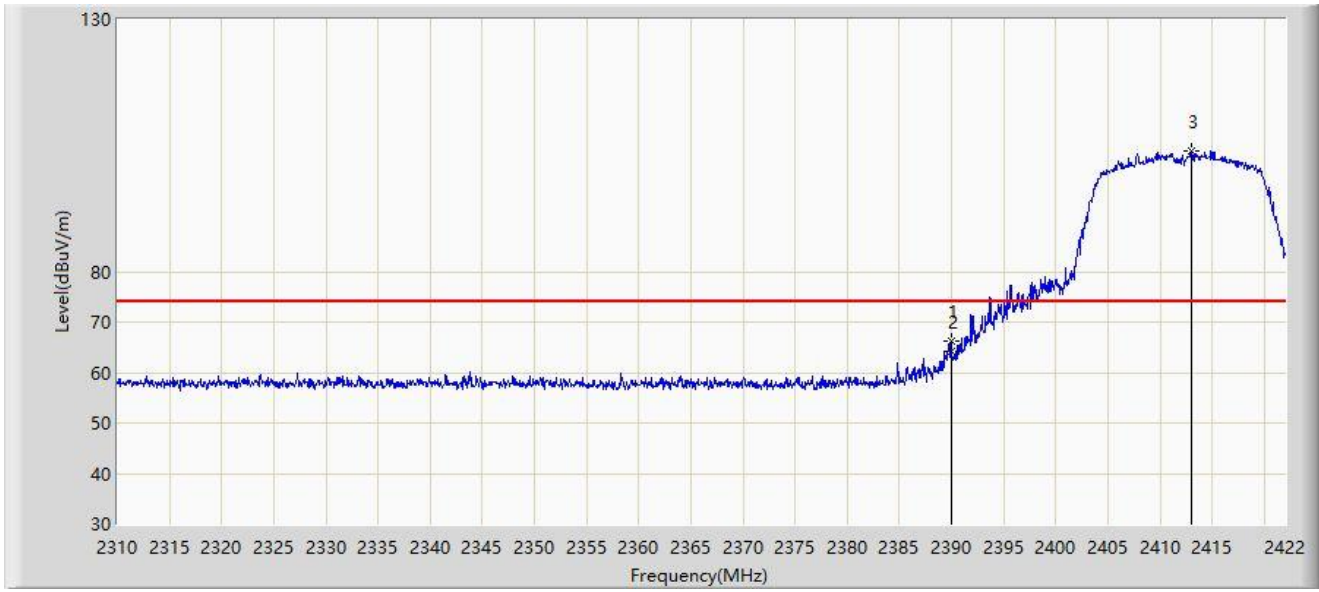
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.120	107.202	76.322	N/A	N/A	30.880	AV
2	*	2483.500	40.130	9.239	-13.870	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



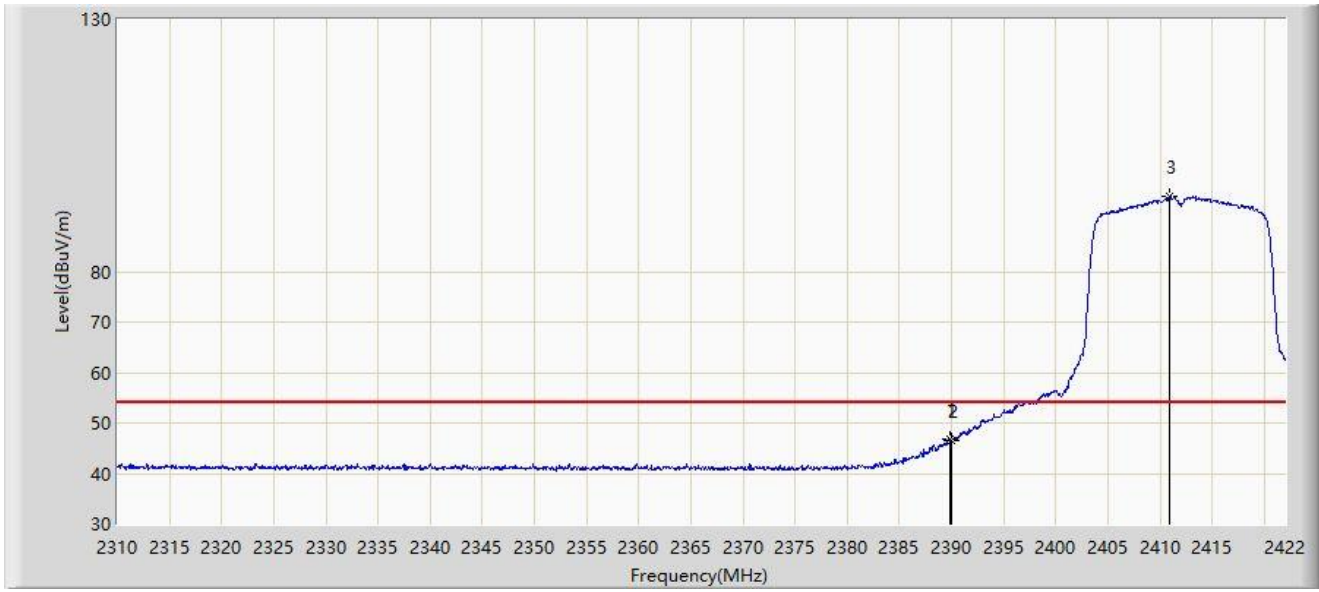
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2389.968	66.175	35.183	-7.825	74.000	30.992	PK
2		2390.000	64.094	33.102	-9.906	74.000	30.992	PK
3		2413.040	104.050	73.098	N/A	N/A	30.951	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



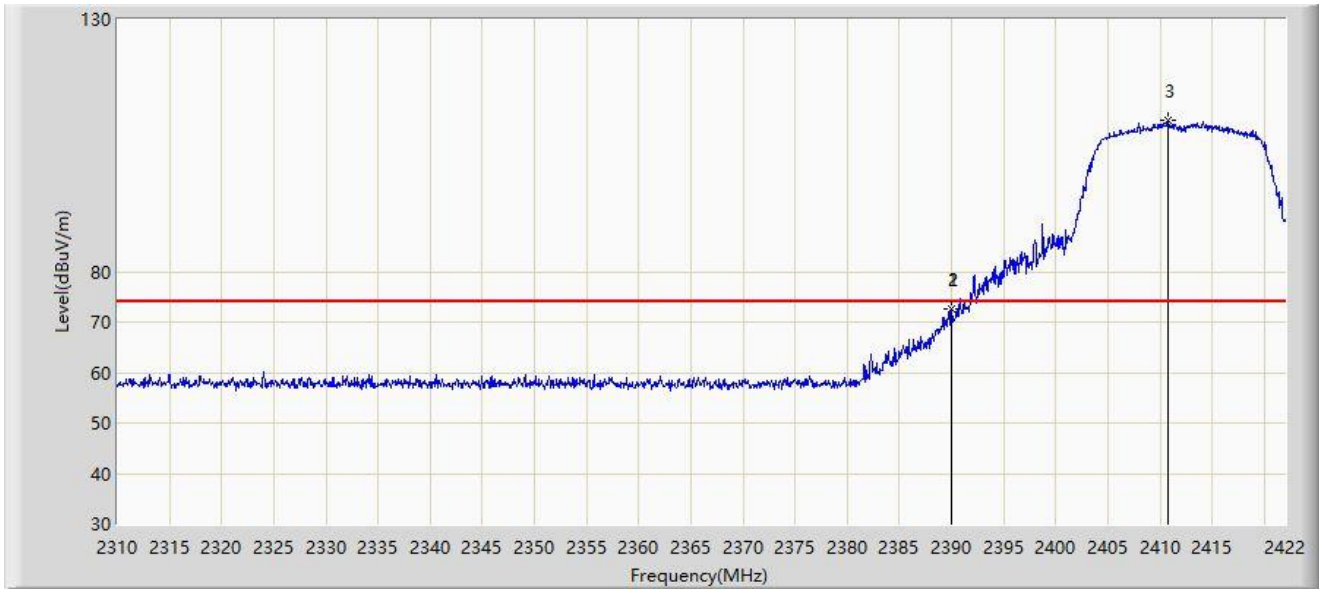
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2389.800	46.931	15.939	-7.069	54.000	30.993	AV
2		2390.000	46.575	15.583	-7.425	54.000	30.992	AV
3		2410.912	94.911	63.954	N/A	N/A	30.957	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



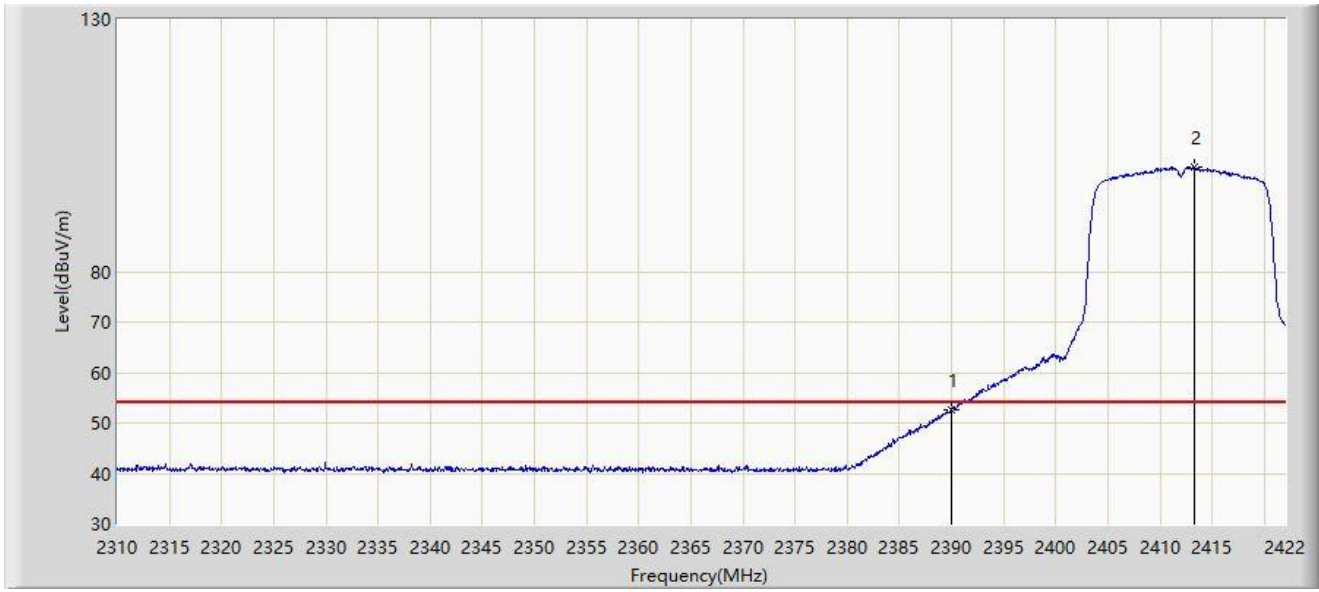
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2389.968	72.584	41.592	-1.416	74.000	30.992	PK
2		2390.000	72.510	41.518	-1.490	74.000	30.992	PK
3		2410.800	109.863	78.905	N/A	N/A	30.958	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2390.000	52.741	21.749	-1.259	54.000	30.992	AV
2		2413.264	100.771	69.820	N/A	N/A	30.951	AV

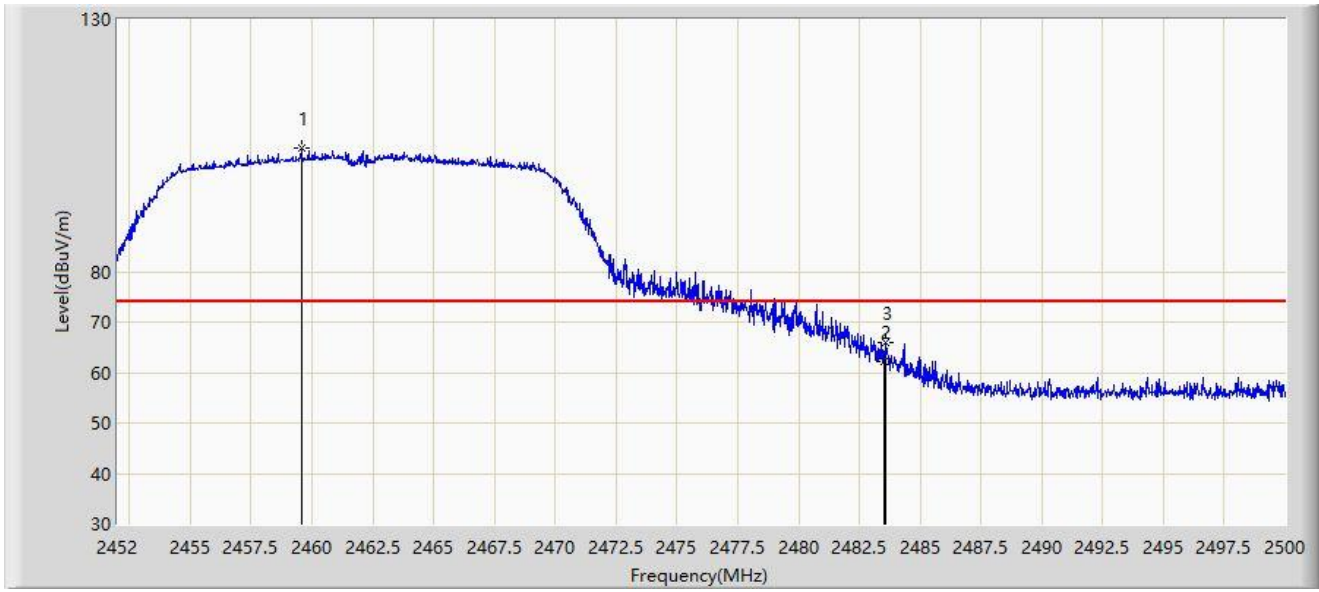
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).



Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



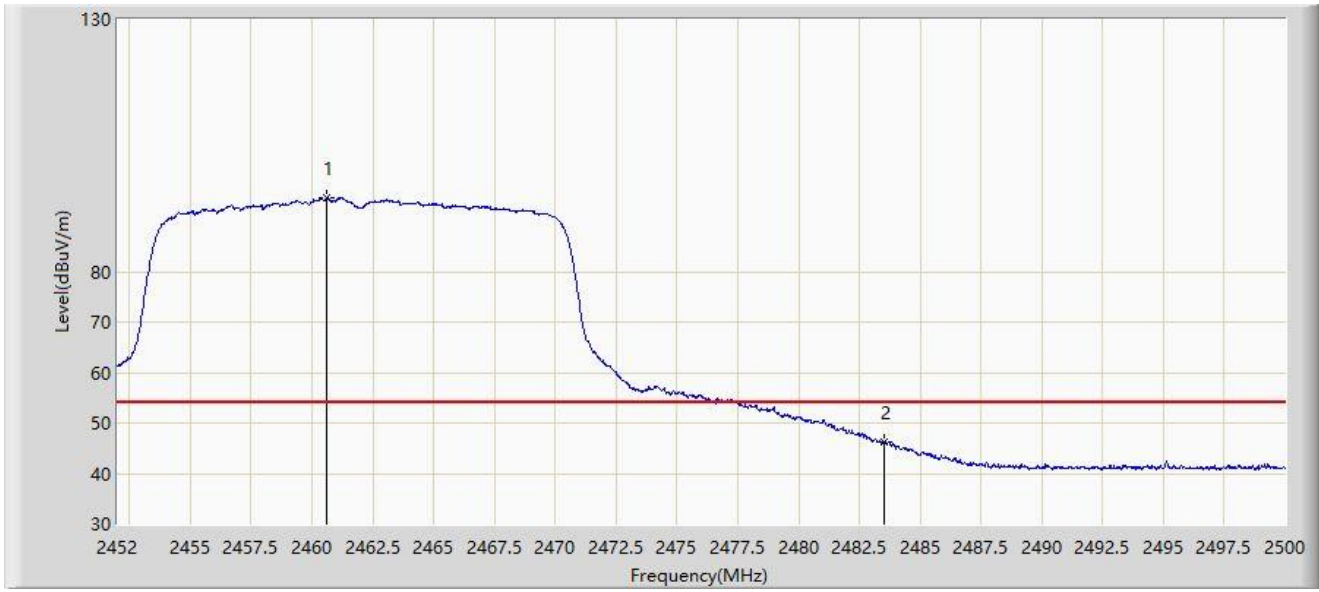
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2459.560	104.379	73.501	N/A	N/A	30.877	PK
2		2483.500	62.309	31.418	-11.691	74.000	30.892	PK
3	*	2483.584	65.844	34.953	-8.156	74.000	30.892	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



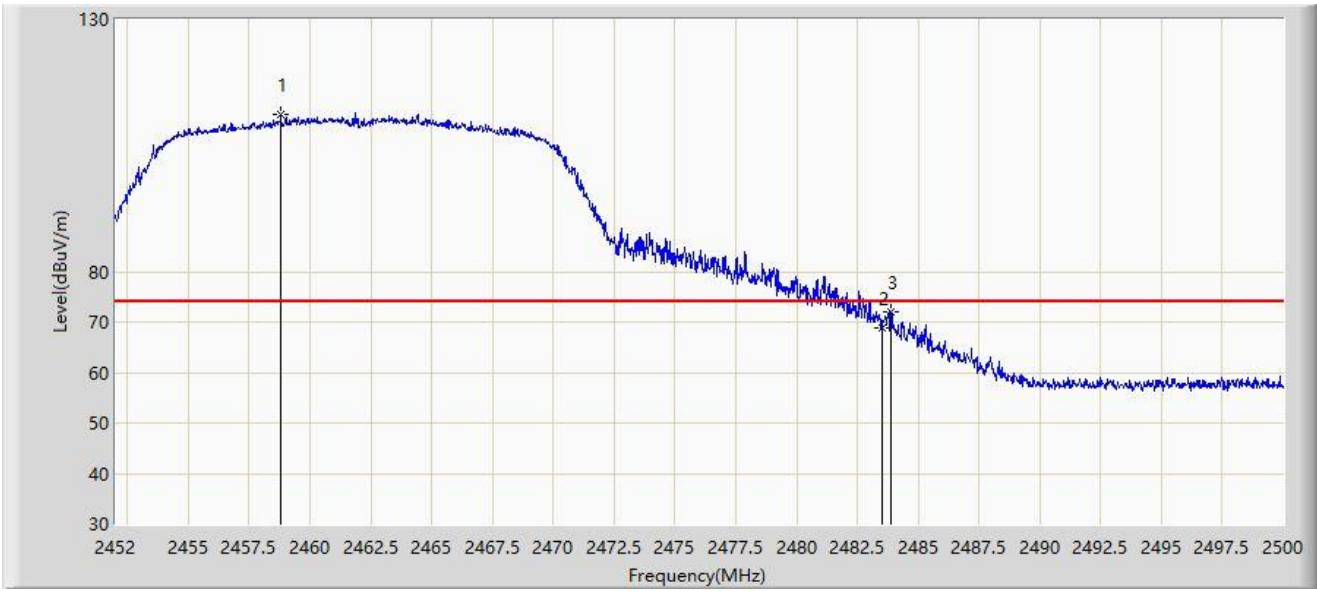
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2460.616	94.521	63.642	N/A	N/A	30.879	AV
2	*	2483.500	46.199	15.308	-7.801	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



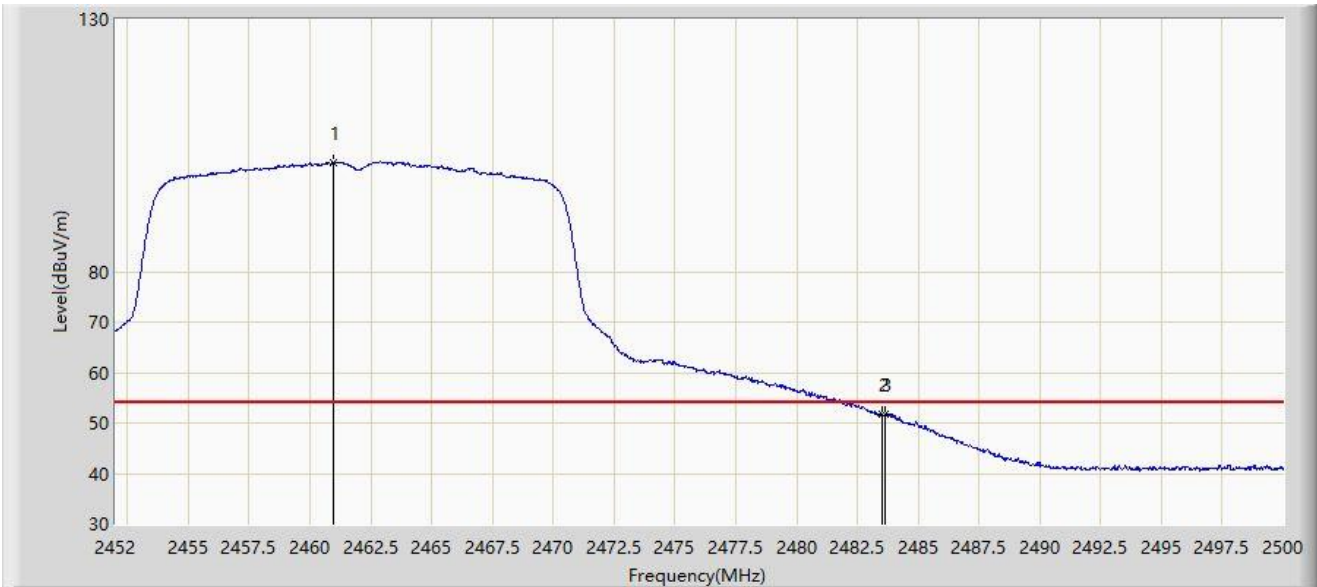
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2458.792	111.298	80.422	N/A	N/A	30.876	PK
2		2483.500	68.761	37.870	-5.239	74.000	30.892	PK
3	*	2483.896	72.154	41.263	-1.846	74.000	30.891	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at 2462MHz	



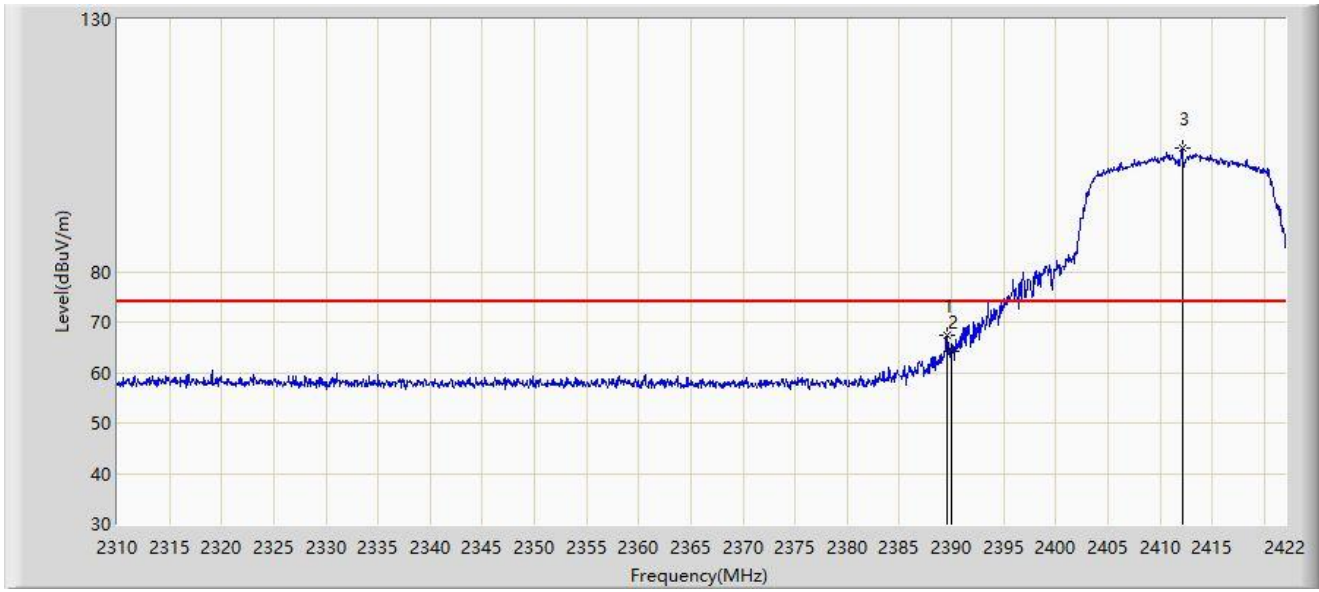
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2460.976	101.626	70.746	N/A	N/A	30.880	AV
2		2483.500	51.662	20.771	-2.338	54.000	30.892	AV
3	*	2483.656	51.802	20.911	-2.198	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



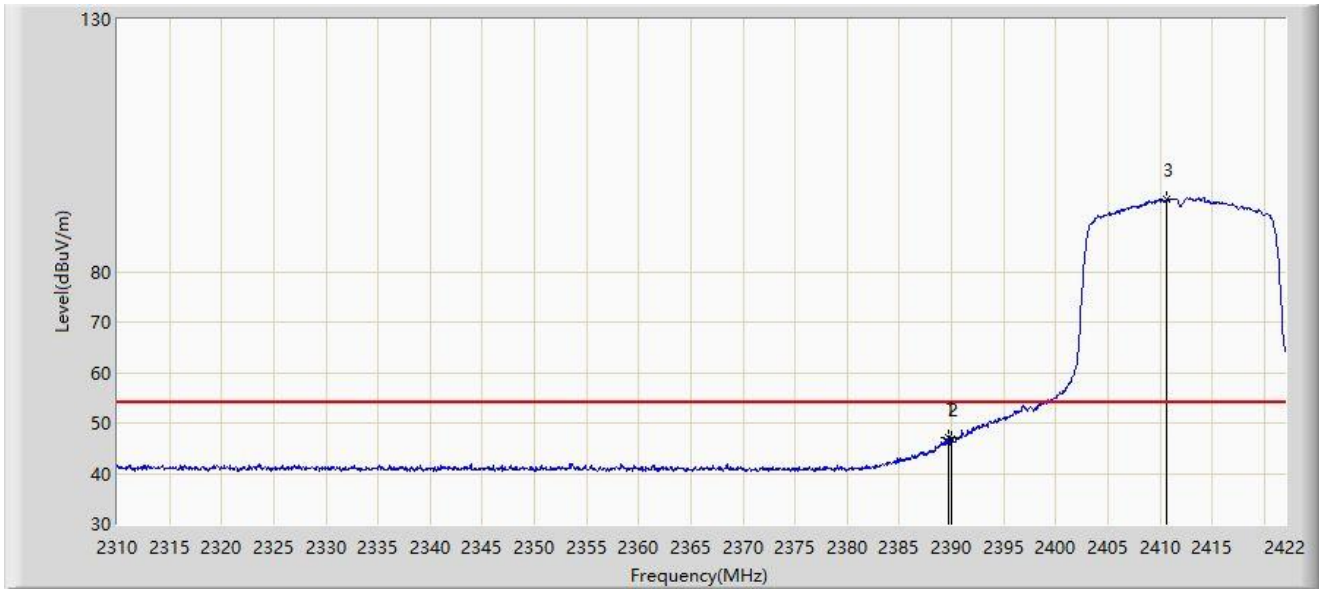
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2389.520	67.449	36.457	-6.551	74.000	30.992	PK
2		2390.000	64.318	33.326	-9.682	74.000	30.992	PK
3		2412.144	104.568	73.614	N/A	N/A	30.954	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



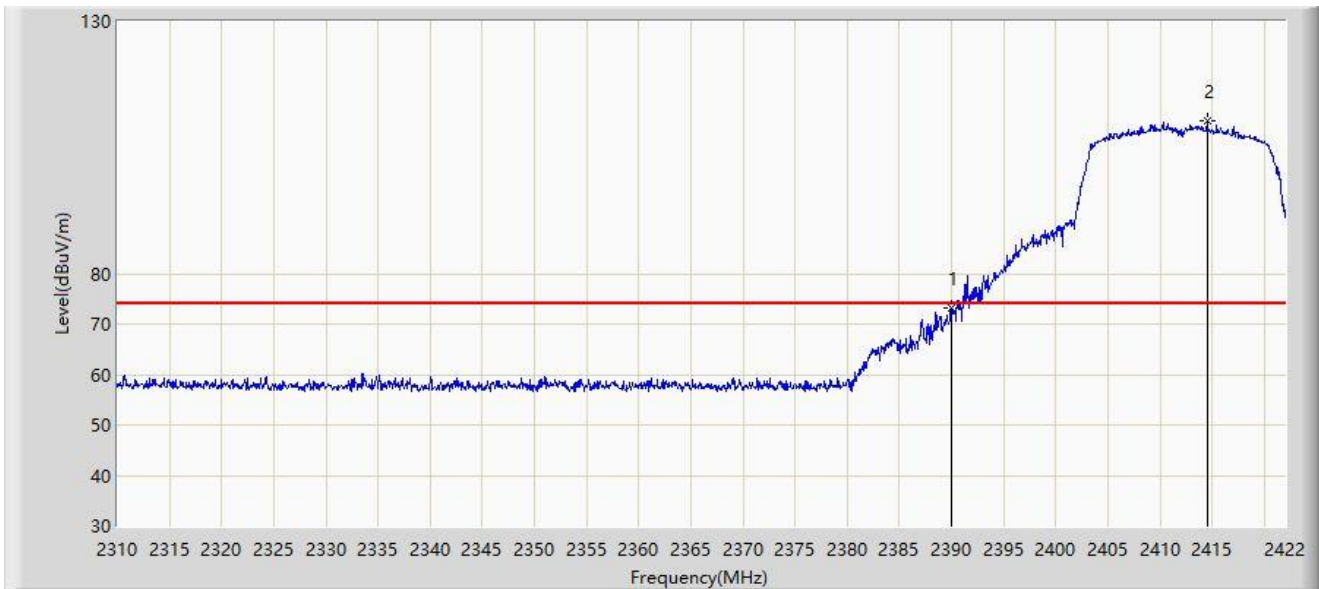
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2389.688	47.122	16.130	-6.878	54.000	30.992	AV
2		2390.000	46.889	15.897	-7.111	54.000	30.992	AV
3		2410.688	94.444	63.486	N/A	N/A	30.958	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



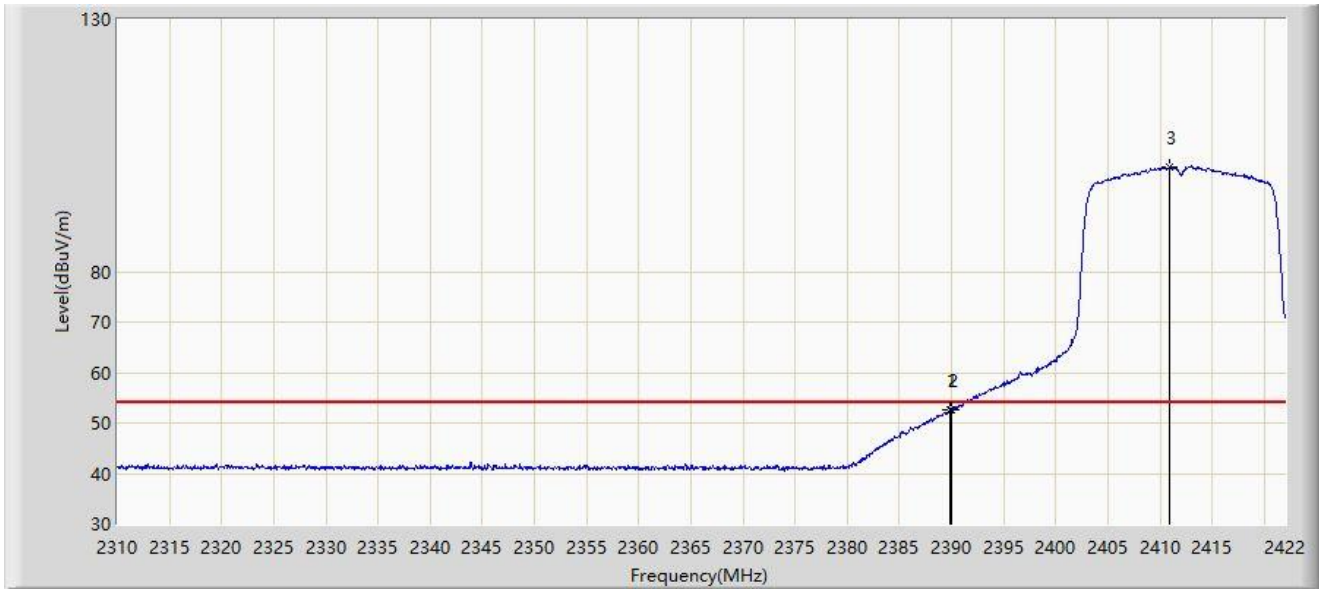
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2390.000	73.088	42.096	-0.912	74.000	30.992	PK
2		2414.496	110.388	79.440	N/A	N/A	30.947	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1	*	2389.912	52.629	21.637	-1.371	54.000	30.992	AV
2		2390.000	52.497	21.505	-1.503	54.000	30.992	AV
3		2410.912	100.729	69.772	N/A	N/A	30.957	AV

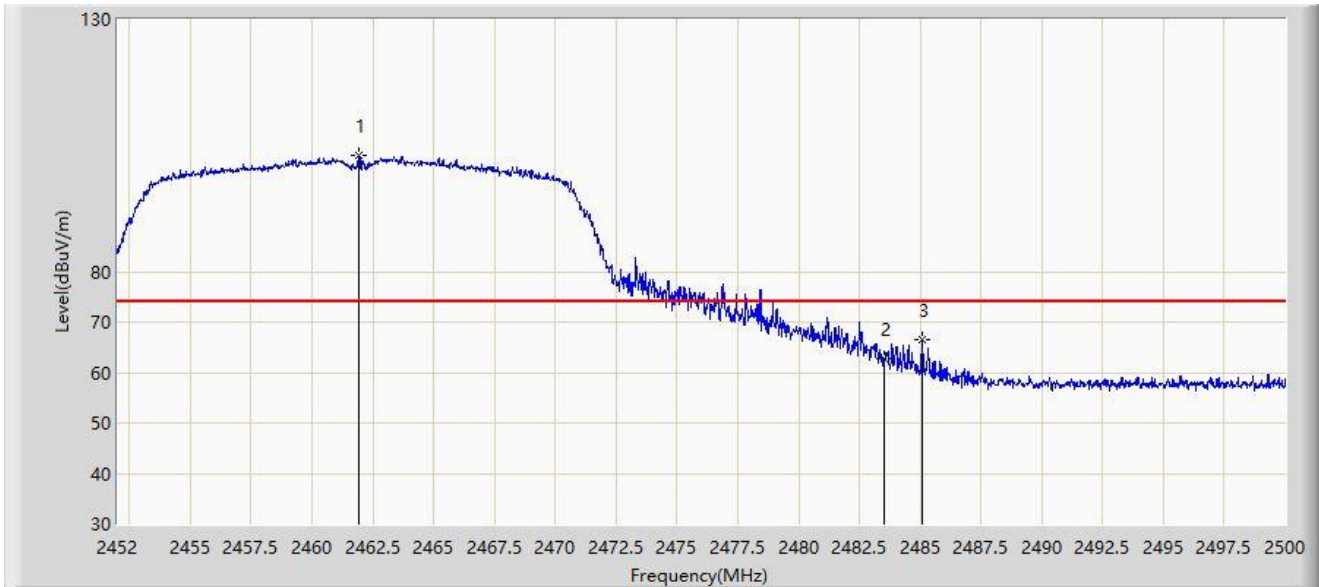
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).



Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



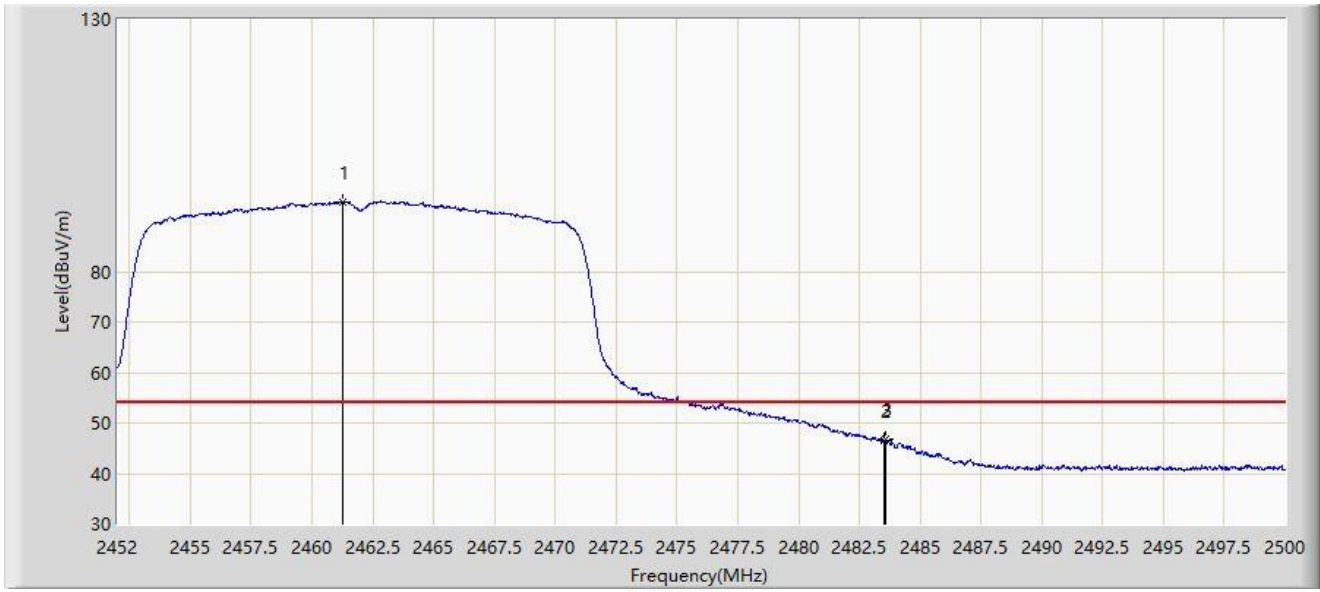
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.936	103.115	72.233	N/A	N/A	30.882	PK
2		2483.500	62.624	31.733	-11.376	74.000	30.892	PK
3	*	2485.096	66.633	35.744	-7.367	74.000	30.889	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Horizontal
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



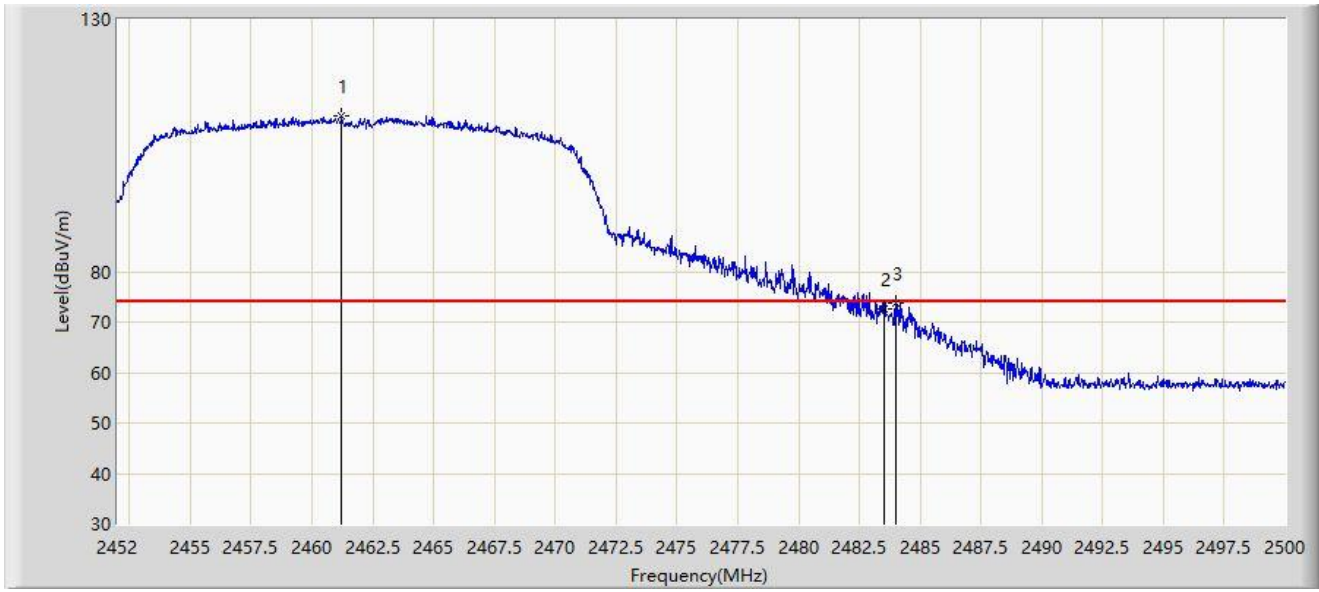
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.288	93.831	62.950	N/A	N/A	30.881	AV
2		2483.500	46.485	15.594	-7.515	54.000	30.892	AV
3	*	2483.560	46.719	15.828	-7.281	54.000	30.892	AV

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



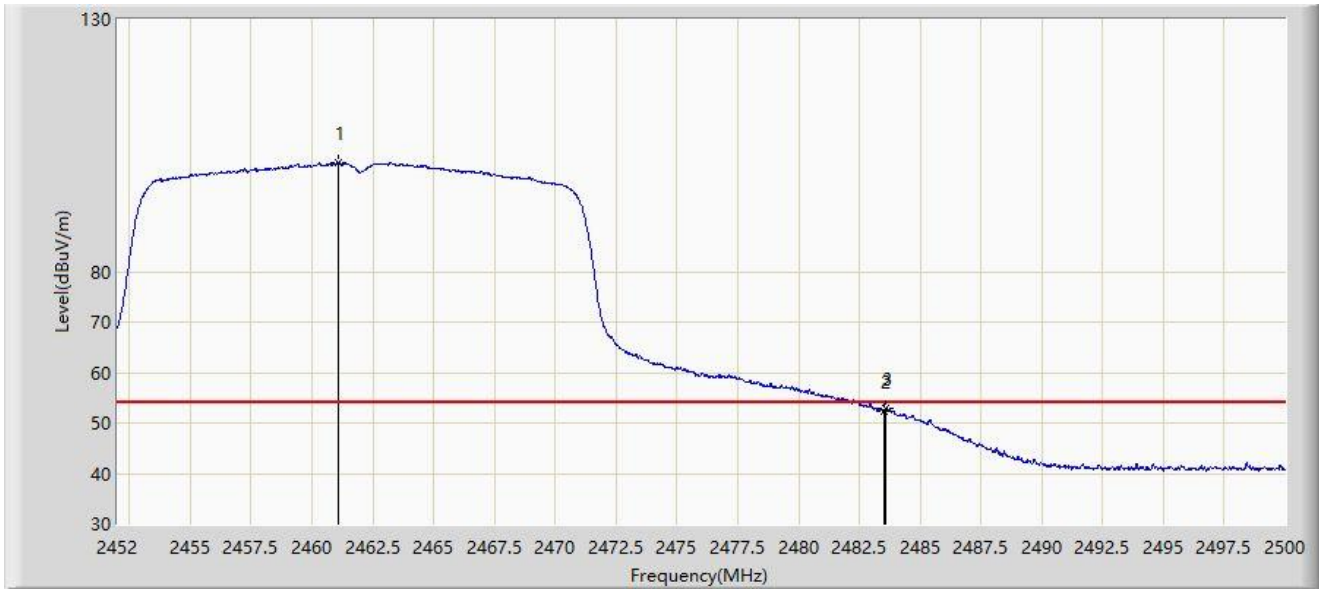
No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.216	110.888	80.008	N/A	N/A	30.881	PK
2		2483.500	72.492	41.601	-1.508	74.000	30.892	PK
3	*	2483.992	73.878	42.987	-0.122	74.000	30.891	PK

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

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

Site: WZ-AC1	Test Date: 2022-09-20
Limit: FCC_Part 15_15.209 RE(3m)	Engineer: Carl Jiang
Probe: BBHA9120D_1167_1-18GHz	Polarity: Vertical
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dB $\mu$ V/m)	Reading Level (dB $\mu$ V)	Margin (dB)	Limit (dB $\mu$ V/m)	Factor (dB/m)	Type
1		2461.096	101.605	70.725	N/A	N/A	30.880	AV
2		2483.500	52.445	21.554	-1.555	54.000	30.892	AV
3	*	2483.584	52.794	21.903	-1.206	54.000	30.892	AV

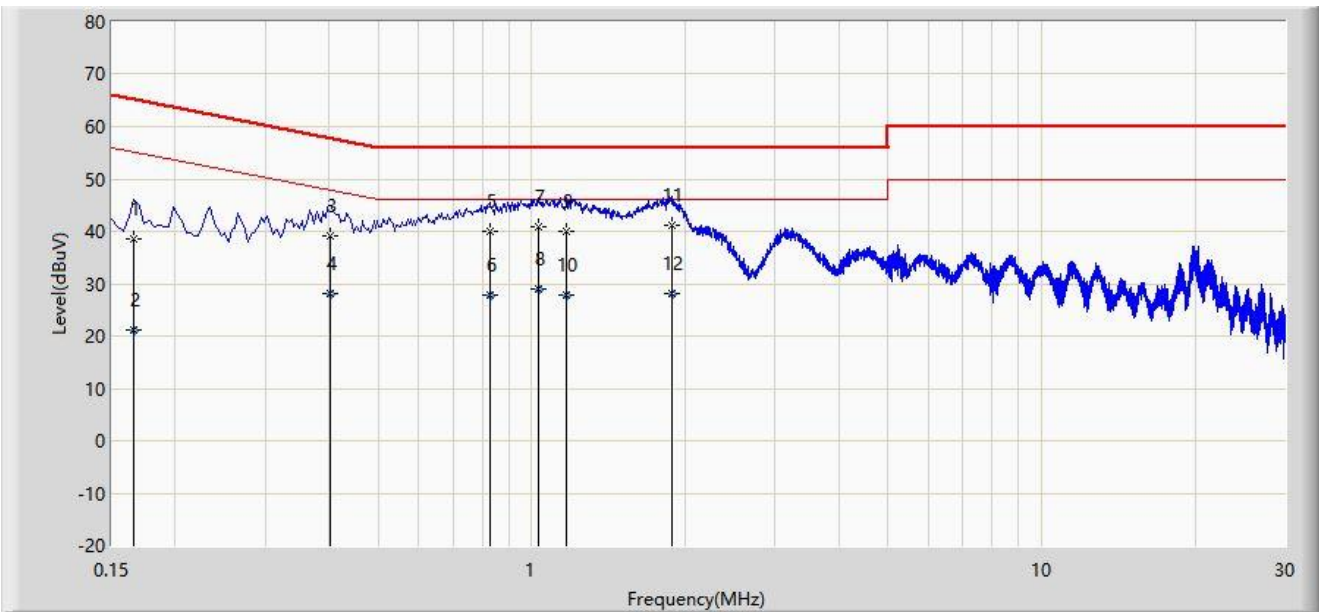
Note 1: " \* ", means this data is the worst emission level.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB/m).

Note 3: Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m).

### A.8 AC Conducted Emissions Test Result

Site: WZ-SR2	Test Date: 2022-10-09
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_E	Polarity: Line
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



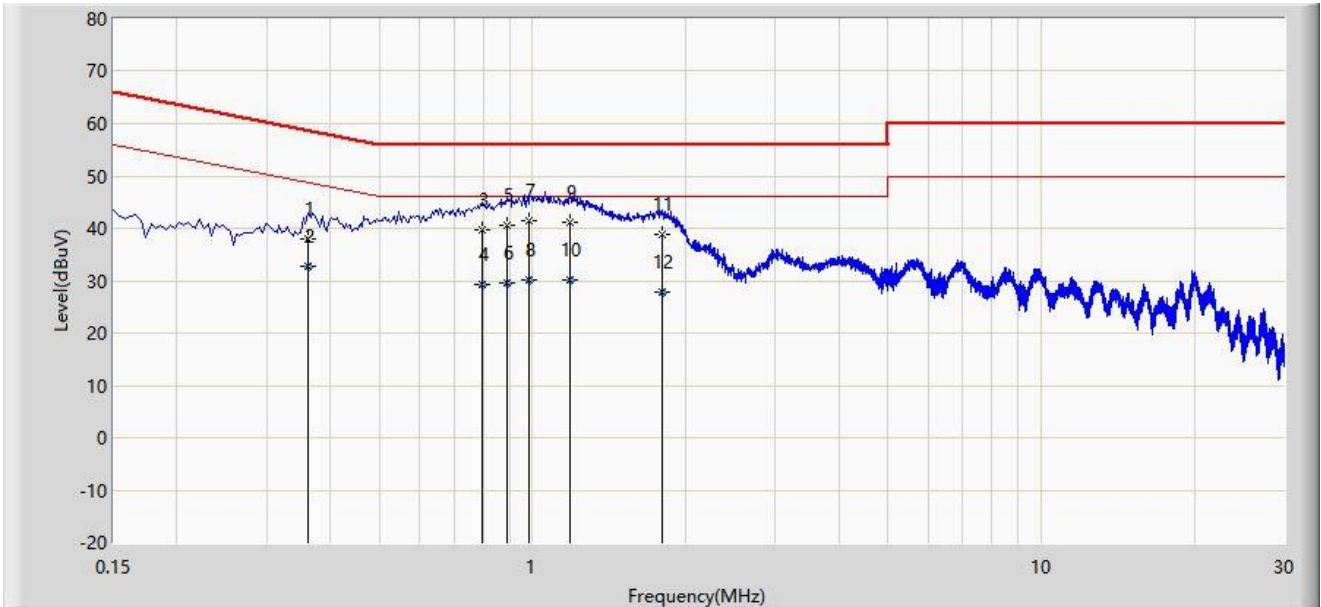
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.166	38.616	28.736	-26.542	65.158	9.880	QP
2		0.166	21.039	11.159	-34.119	55.158	9.880	AV
3		0.402	39.198	29.271	-18.614	57.812	9.927	QP
4		0.402	28.032	18.106	-19.780	47.812	9.927	AV
5		0.830	40.078	30.115	-15.922	56.000	9.962	QP
6		0.830	27.885	17.923	-18.115	46.000	9.962	AV
7		1.034	40.818	30.837	-15.182	56.000	9.981	QP
8		1.034	29.028	19.047	-16.972	46.000	9.981	AV
9		1.170	39.950	29.966	-16.050	56.000	9.984	QP
10		1.170	27.755	17.771	-18.245	46.000	9.984	AV
11	*	1.878	41.027	31.030	-14.973	56.000	9.997	QP
12		1.878	28.107	18.109	-17.893	46.000	9.997	AV

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

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: WZ-SR2	Test Date: 2022-10-09
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_E	Polarity: Neutral
EUT: Barcode Reader	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.362	38.039	28.102	-20.643	58.682	9.937	QP
2		0.362	32.713	22.776	-15.969	48.682	9.937	AV
3		0.794	39.825	29.840	-16.175	56.000	9.985	QP
4		0.794	29.135	19.150	-16.865	46.000	9.985	AV
5		0.890	40.694	30.703	-15.306	56.000	9.991	QP
6		0.890	29.491	19.500	-16.509	46.000	9.991	AV
7	*	0.986	41.526	31.527	-14.474	56.000	10.000	QP
8		0.986	30.287	20.287	-15.713	46.000	10.000	AV
9		1.182	41.150	31.146	-14.850	56.000	10.004	QP
10		1.182	30.123	20.119	-15.877	46.000	10.004	AV
11		1.794	38.749	28.733	-17.251	56.000	10.016	QP
12		1.794	27.812	17.796	-18.188	46.000	10.016	AV

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

Note 2: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB).

Note 3: Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

## **Appendix B – Test Setup Photograph**

Refer to “2209RSU001-UT” file.

## Appendix C – EUT Photograph

Refer to “2209RSU001-UE” file.

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