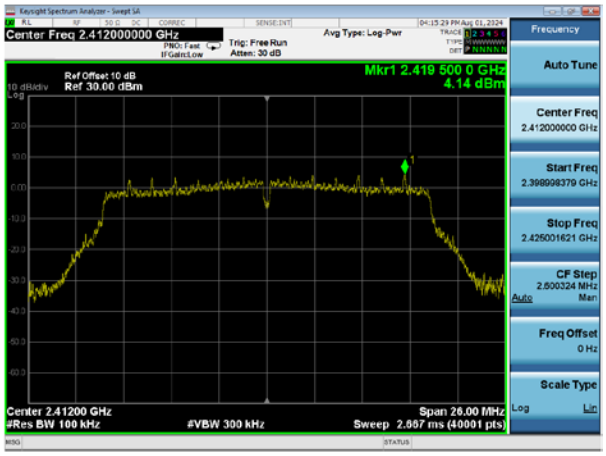
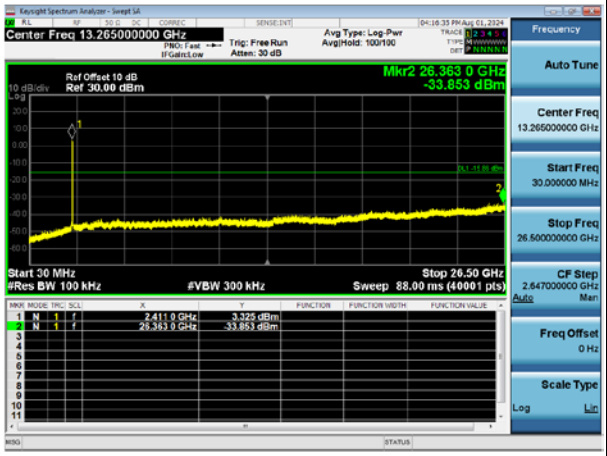
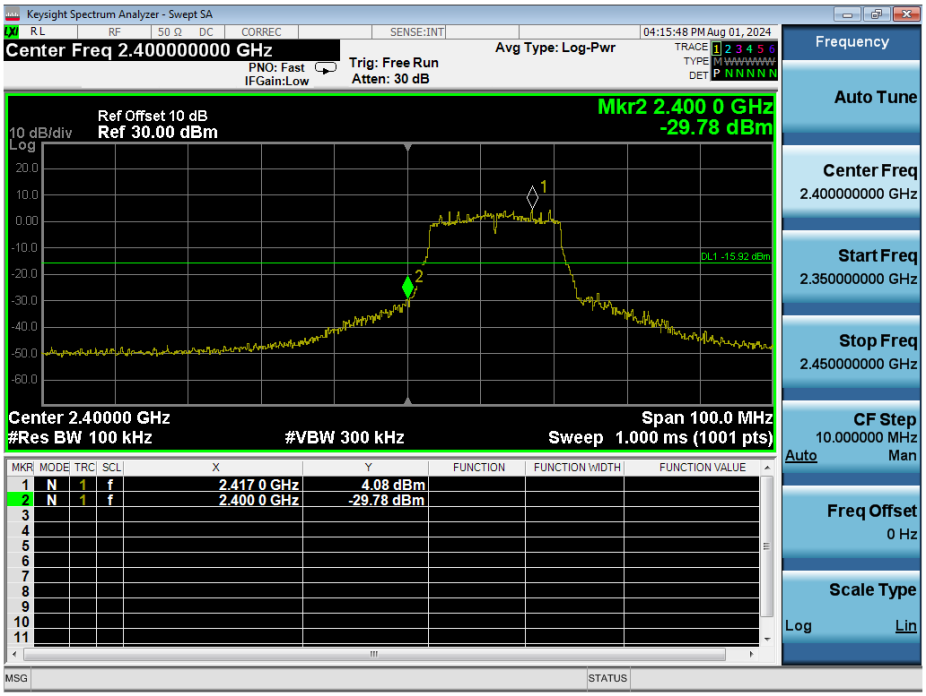
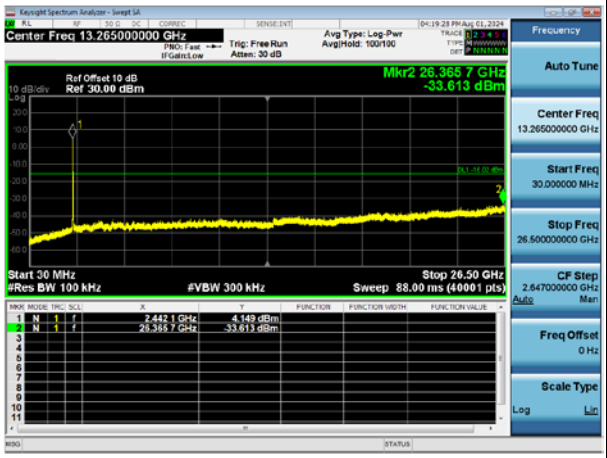
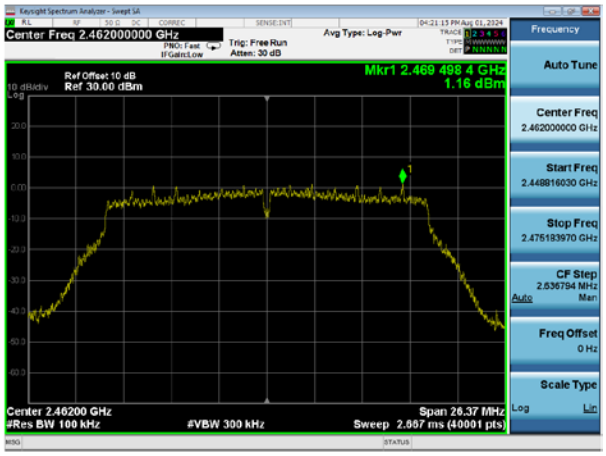
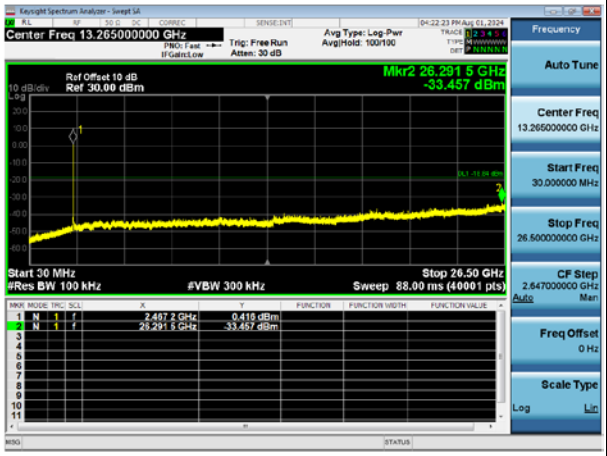
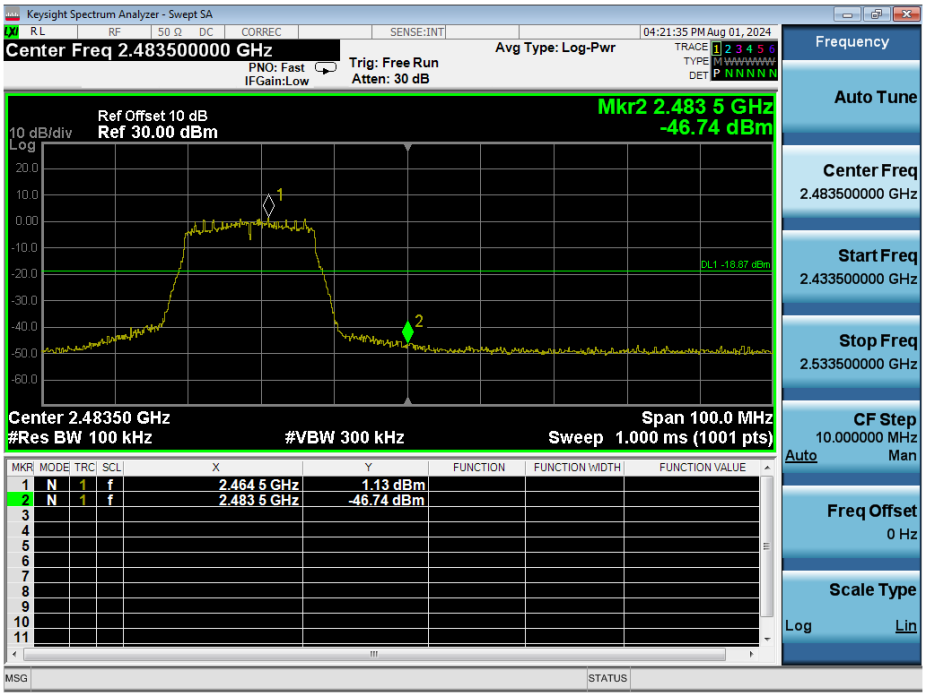
Chain B

WLAN 802.11n HT20 channel 01 (2412 MHz)	
Reference Level	**Spurious Emission**
	
Band Edge	
	

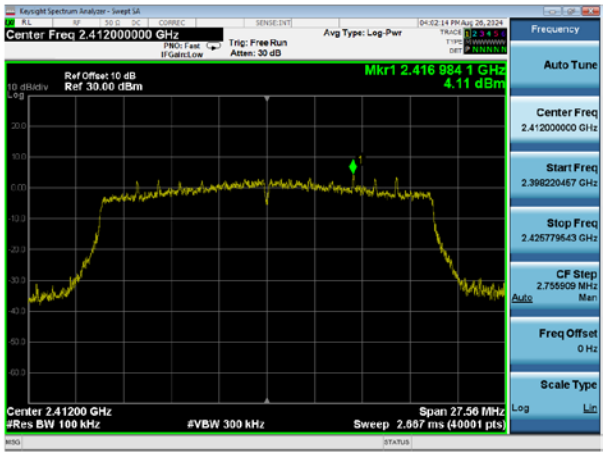
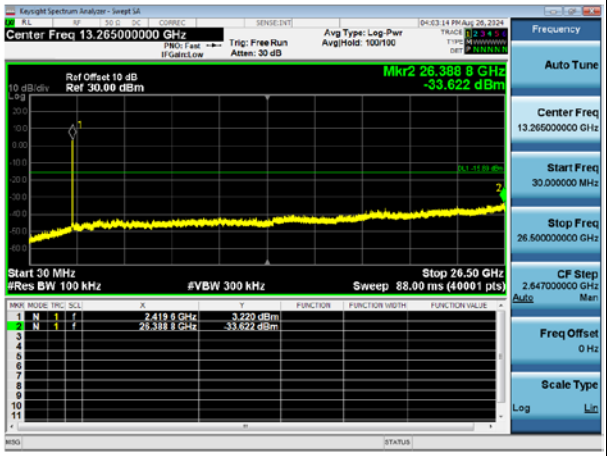
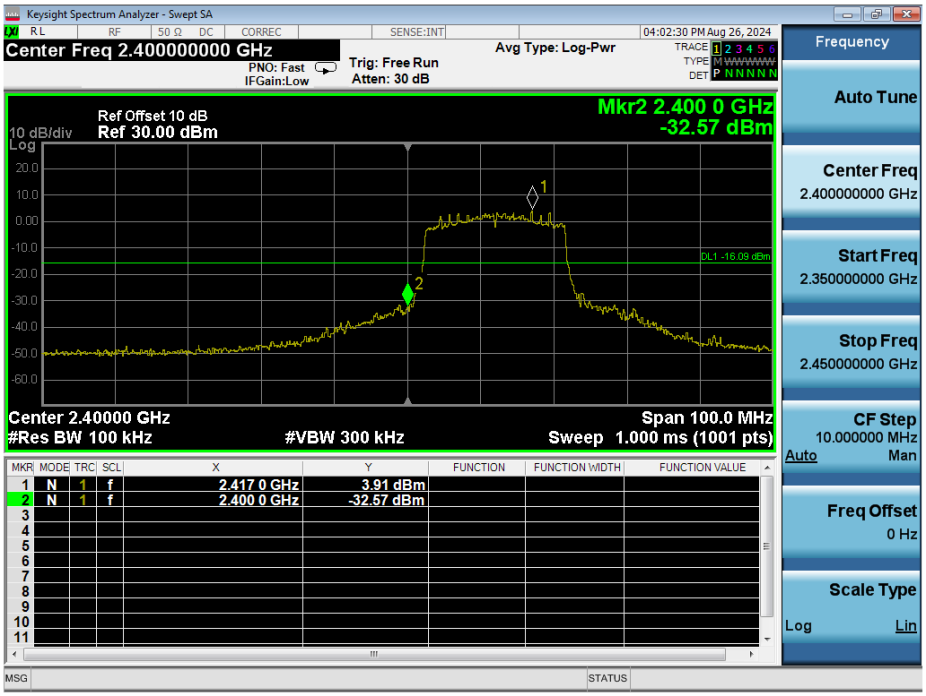
Chain B

WLAN 802.11n HT20 channel 06 (2437 MHz)	
Reference Level	**Spurious Emission**
	

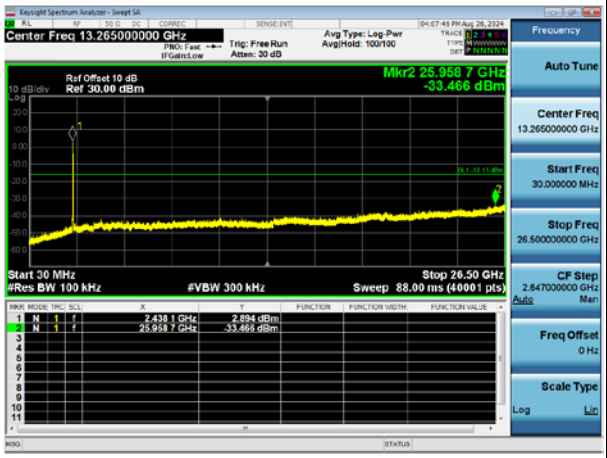
Chain B

WLAN 802.11n HT20 channel 11 (2462MHz)	
Reference Level	**Spurious Emission**
	
Band Edge	
	

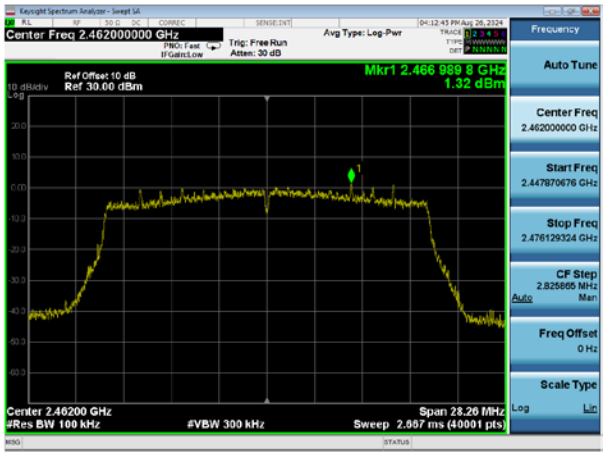
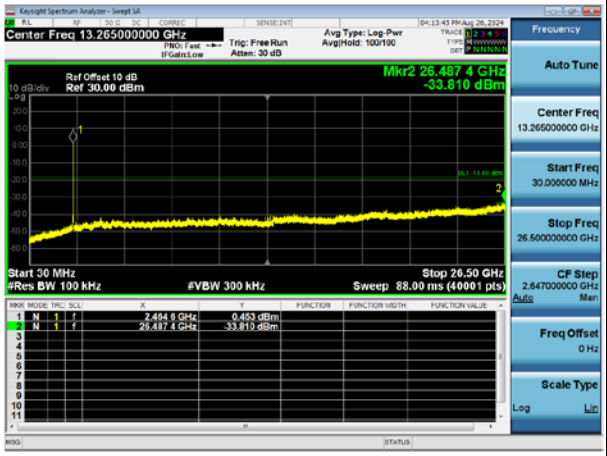
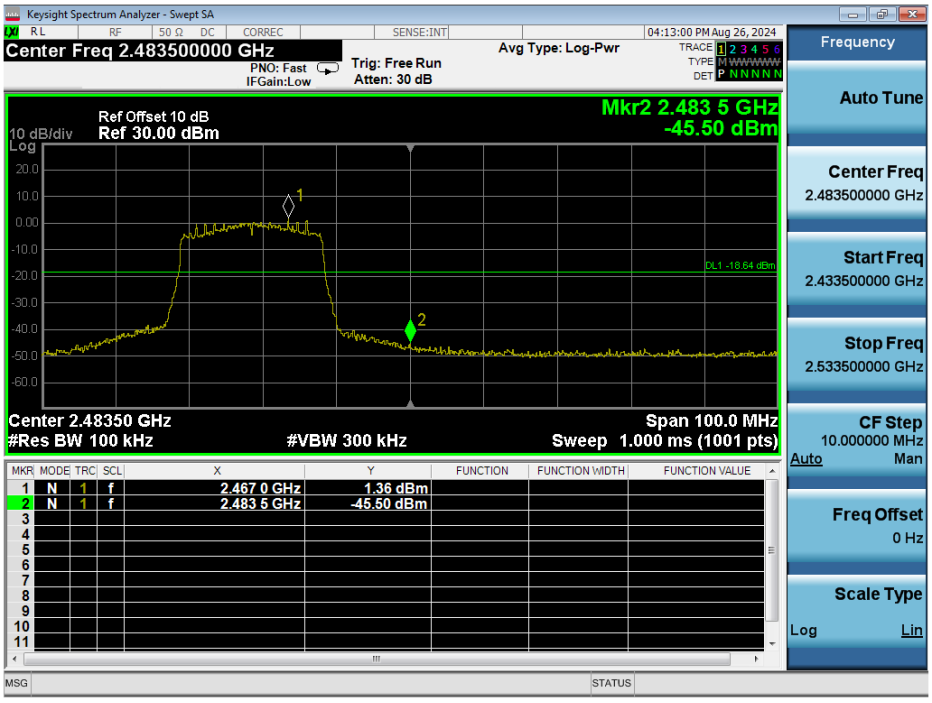
Chain B

WLAN 802.11ax HE20 channel 01 (2412 MHz)	
Reference Level	**Spurious Emission**
	
Band Edge	
	

Chain B

WLAN 802.11ax HE20 channel 06 (2437 MHz)	
Reference Level	**Spurious Emission**
	

Chain B

WLAN 802.11ax HE20 channel 11 (2462MHz)	
Reference Level	**Spurious Emission**
	
Band Edge	
	

2.6 Radiated Band Edges and Spurious Emission Measurement

2.6.1 Limit

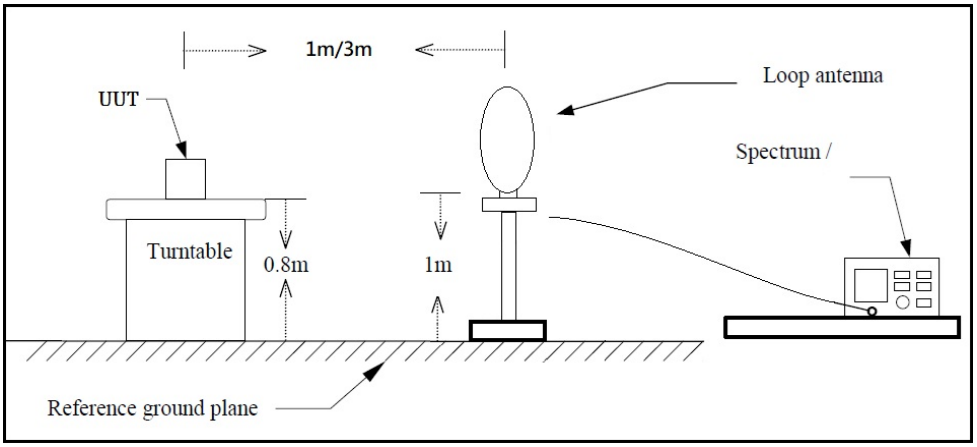
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Remarks:

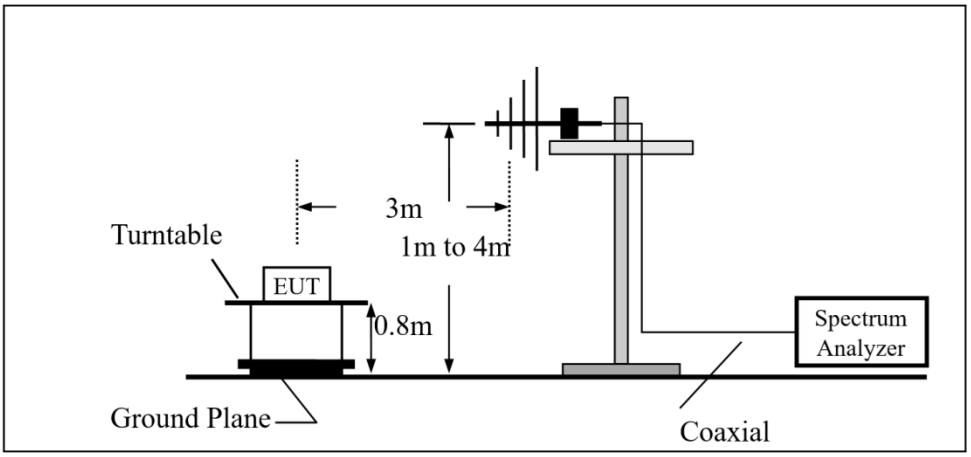
1. RF Voltage (dBuV) = 20 log RF Voltage(uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

2.6.2 Test Setup

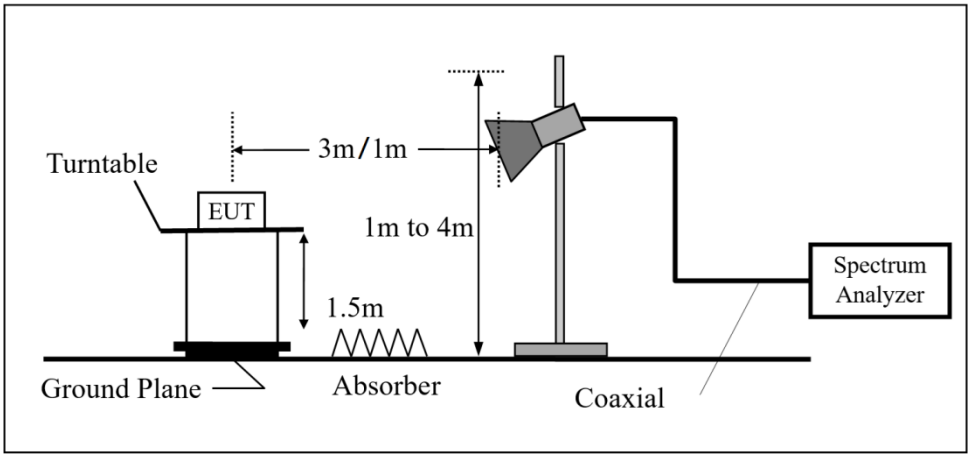
Below 30MHz



30MHz~1GHz



Above 1GHz



2.6.3 Test Procedure

The EUT was setup according to ANSI C63.10 : 2013 chapter 6.4, 6.5, 6.6 and tested according test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

(1) The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meters chamber room for the test. The table was rotated 360 degrees to determine the position of the highest radiation.

(2) The EUT was set 3 meters away from the interference-receiving antenna, the height of the antenna is varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength.

(3) Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

(4) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

(5) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

(6) The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets the average limit, measurement with the average detector is unnecessary.

Remarks:

(a) The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.

(b) The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.

(c) The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

(d) All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission below 30MHz

(1) The EUT was placed on the top of a rotating table 0.8 meters above the ground in a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

(2) The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

(3) Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

(4) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

(5) The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

For Radiated emission Above 30MHz

(7) The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for the test. The table was rotated 360 degrees to determine the position of the highest radiation.

(8) The EUT was set 3 meters away from the interference-receiving antenna, the height of the antenna is varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength.

(9) Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

(10) For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

(11) The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

(12) The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets the average limit, measurement with the average detector is unnecessary.

2.6.4 Duty Cycle

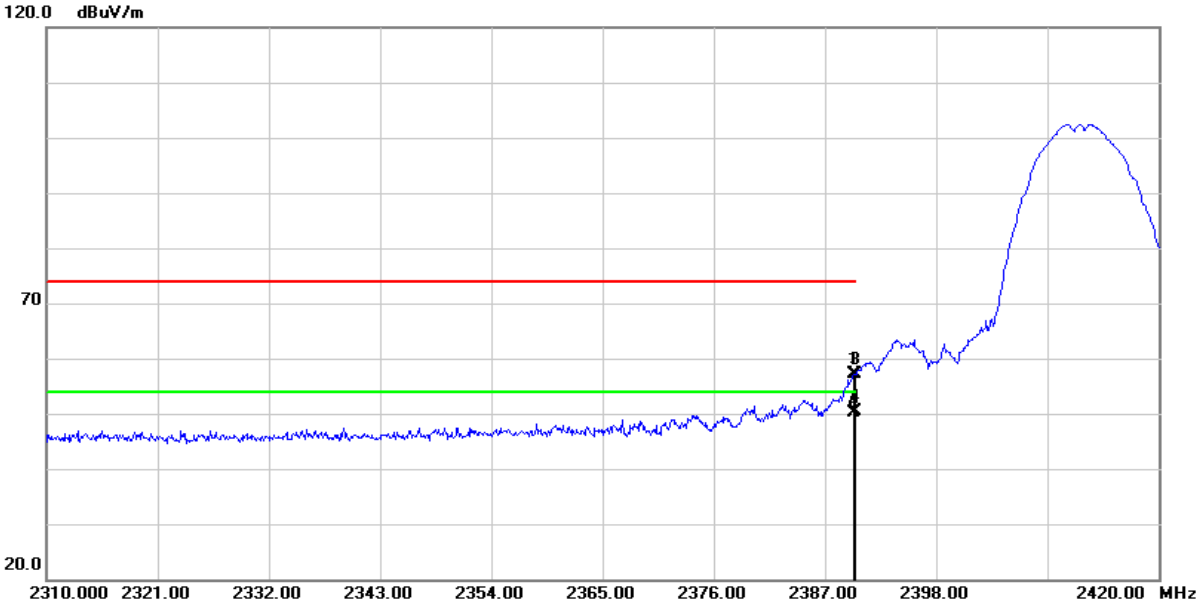
Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	2412	8.490	8.520	0.996	0.015	0.010
802.11g	2412	1.405	1.485	0.946	0.241	0.712
802.11n HT20	2412	1.320	1.405	0.940	0.271	0.758
802.11ax HE20	2412	1.042	1.122	0.929	0.321	0.960

2.6.5 Test Result of Radiated Band Edge Measurement

The following tables for radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X axis) were recorded in this report.

Test Frequency	
RF	**802.11b/g/n-HT20/ax-HE20**
Tx	CH01 (2412MHz) CH11 (2462MHz)

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

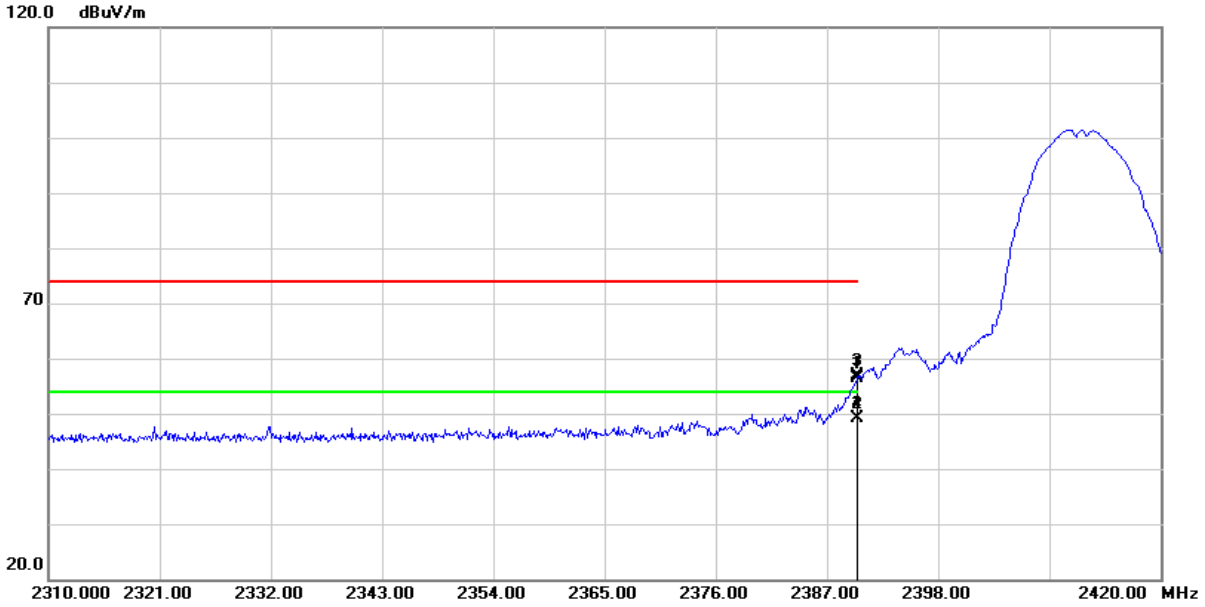


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.860	62.76	-5.69	57.07	74.00	-16.93	peak
2	2389.860	55.81	-5.69	50.12	54.00	-3.88	AVG
3	2390.000	62.85	-5.69	57.16	74.00	-16.84	peak
4	2390.000	55.97	-5.69	50.28	54.00	-3.72	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

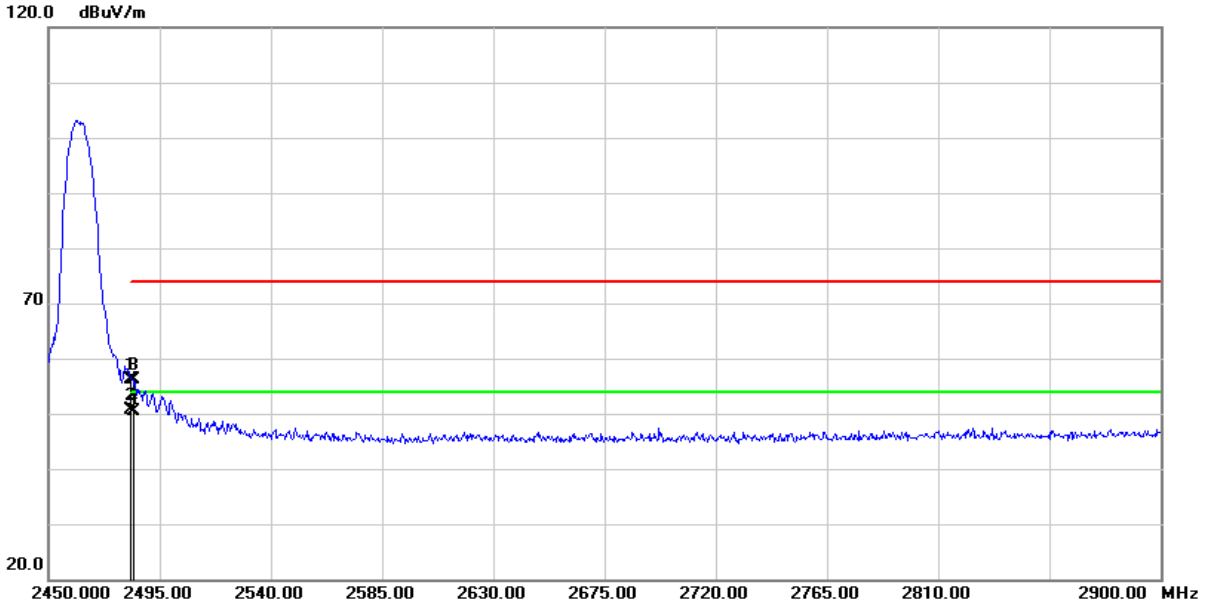


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.970	61.99	-5.69	56.30	74.00	-17.70	peak
2	2389.970	54.72	-5.69	49.03	54.00	-4.97	AVG
3	2390.000	62.46	-5.69	56.77	74.00	-17.23	peak
4	2390.000	54.91	-5.69	49.22	54.00	-4.78	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

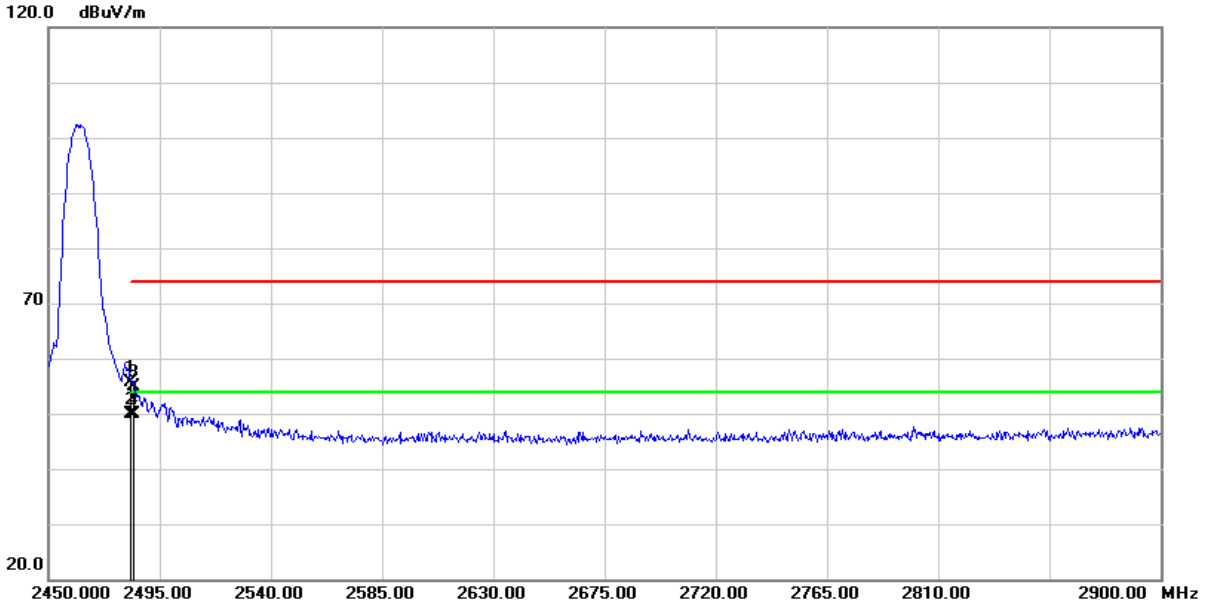


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	61.96	-5.81	56.15	74.00	-17.85	peak
2	2483.500	56.39	-5.81	50.58	54.00	-3.42	AVG
3	2484.200	61.99	-5.80	56.19	74.00	-17.81	peak
4	2484.200	56.19	-5.80	50.39	54.00	-3.61	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

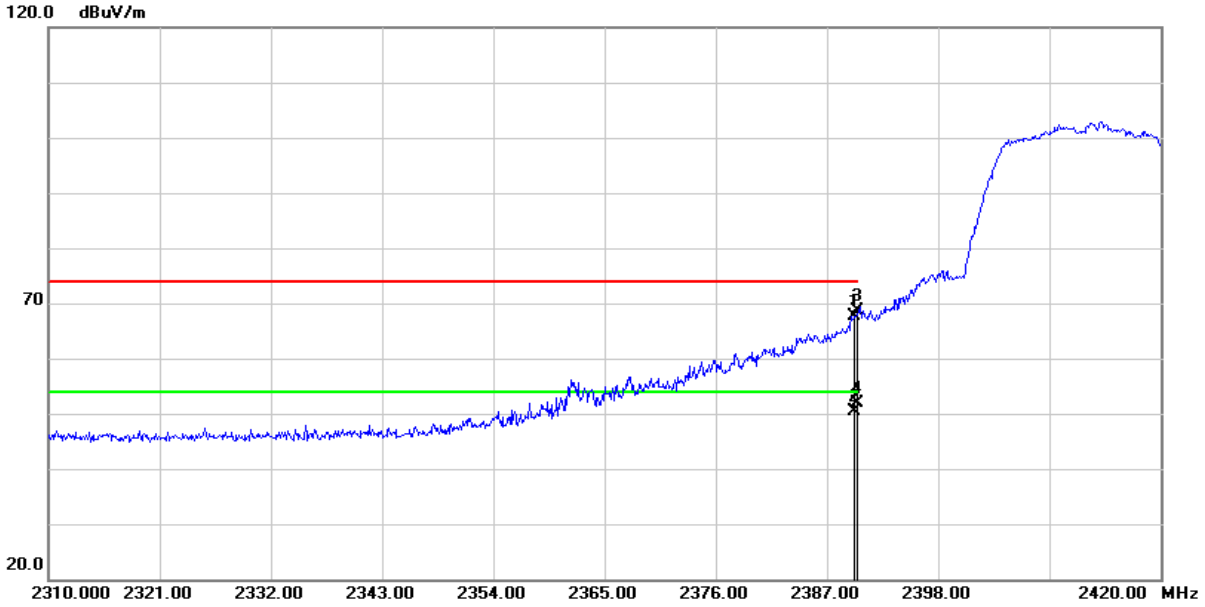


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	61.47	-5.81	55.66	74.00	-18.34	peak
2	2483.500	55.73	-5.81	49.92	54.00	-4.08	AVG
3	2484.650	60.79	-5.80	54.99	74.00	-19.01	peak
4	2484.650	55.60	-5.80	49.80	54.00	-4.20	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

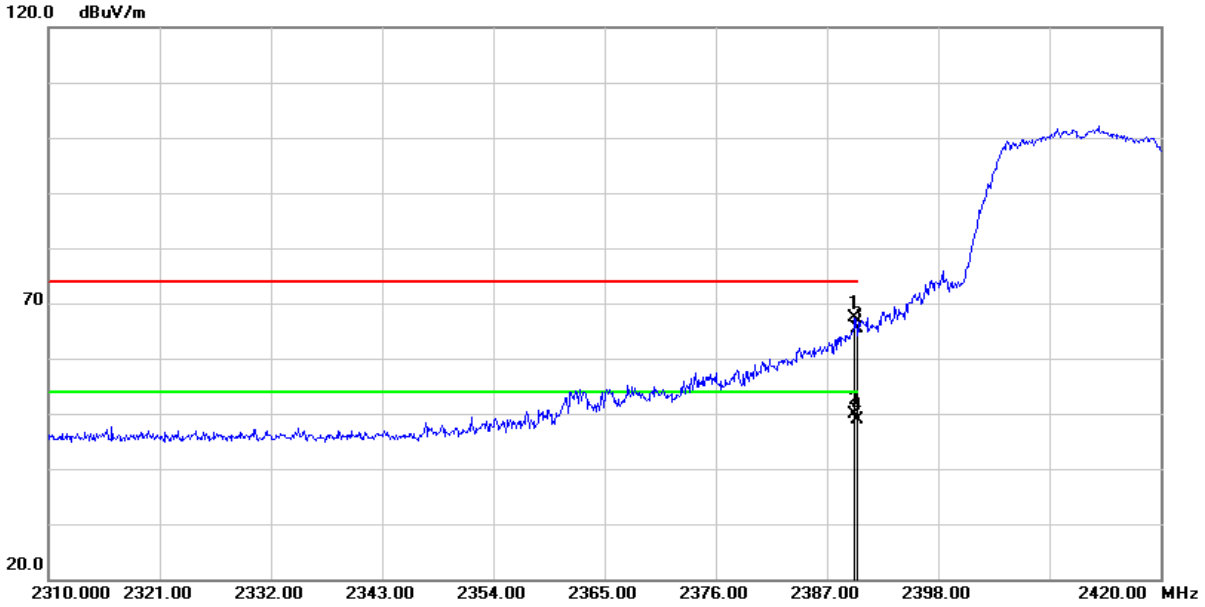


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.750	73.23	-5.69	67.54	74.00	-6.46	peak
2	2389.750	56.03	-5.69	50.34	54.00	-3.66	AVG
3	2390.000	74.21	-5.69	68.52	74.00	-5.48	peak
4	2390.000	57.52	-5.69	51.83	54.00	-2.17	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

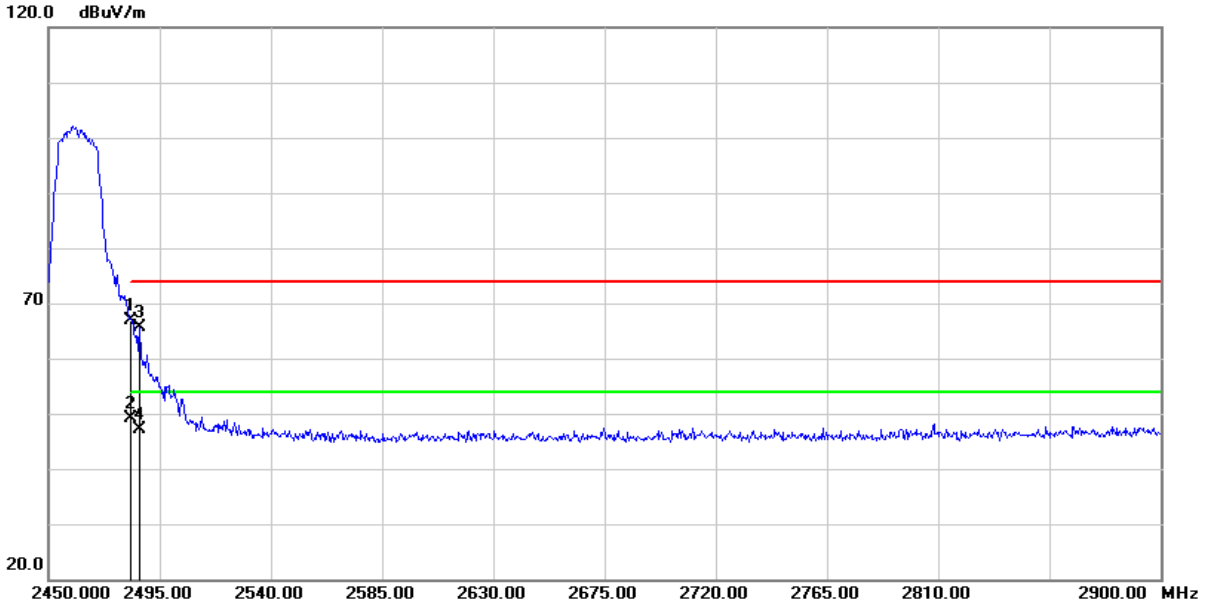


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.750	73.00	-5.69	67.31	74.00	-6.69	peak
2	2389.750	55.49	-5.69	49.80	54.00	-4.20	AVG
3	2390.000	71.09	-5.69	65.40	74.00	-8.60	peak
4	2390.000	54.66	-5.69	48.97	54.00	-5.03	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

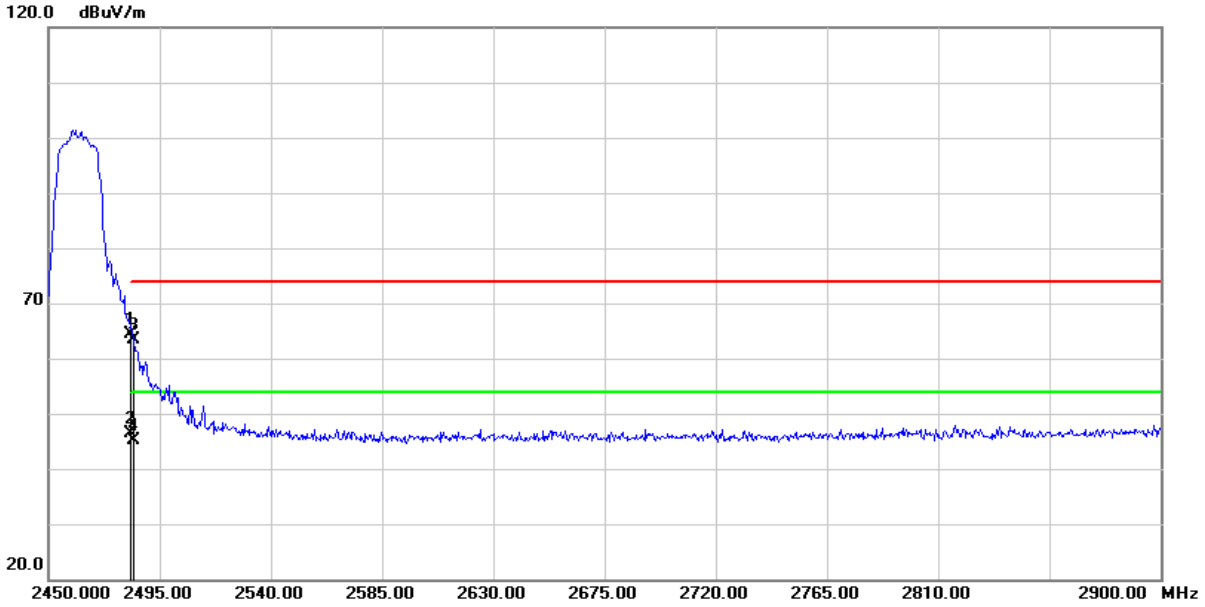


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	72.70	-5.81	66.89	74.00	-7.11	peak
2	2483.500	54.91	-5.81	49.10	54.00	-4.90	AVG
3	2486.900	71.48	-5.79	65.69	74.00	-8.31	peak
4	2486.900	52.97	-5.79	47.18	54.00	-6.82	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

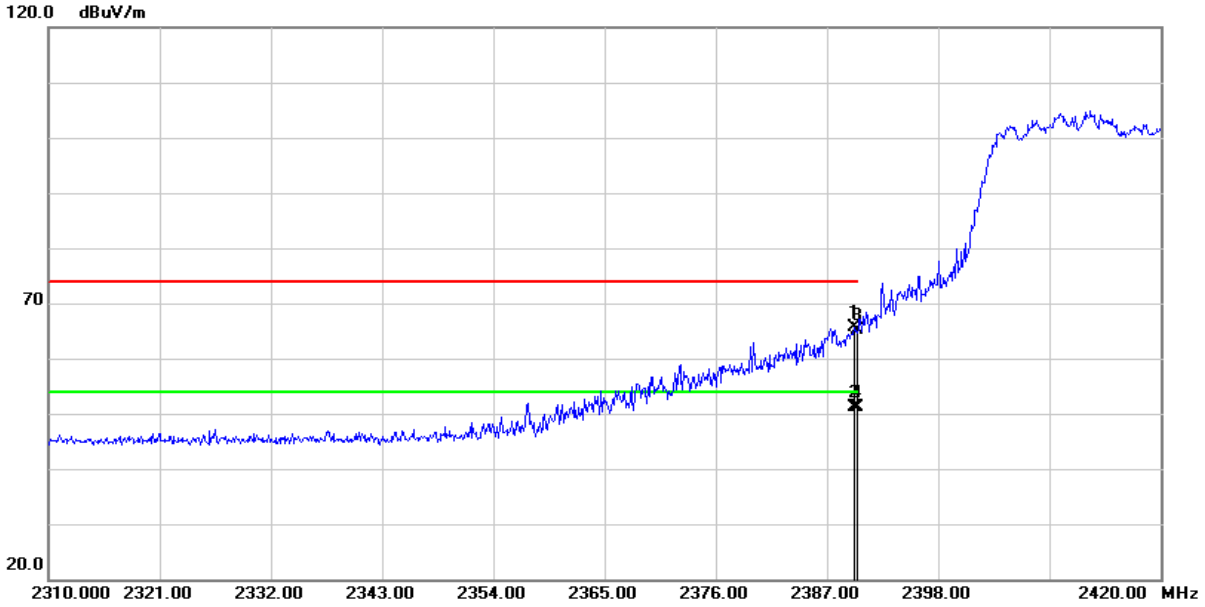


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	70.19	-5.81	64.38	74.00	-9.62	peak
2	2483.500	52.21	-5.81	46.40	54.00	-7.60	AVG
3	2484.650	69.27	-5.80	63.47	74.00	-10.53	peak
4	2484.650	51.03	-5.80	45.23	54.00	-8.77	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/30
Test Channel :	CH01 (2412MHz)	Temperature :	24.2 °C
Polarization :	Horizontal	Relative Humidity :	47 %

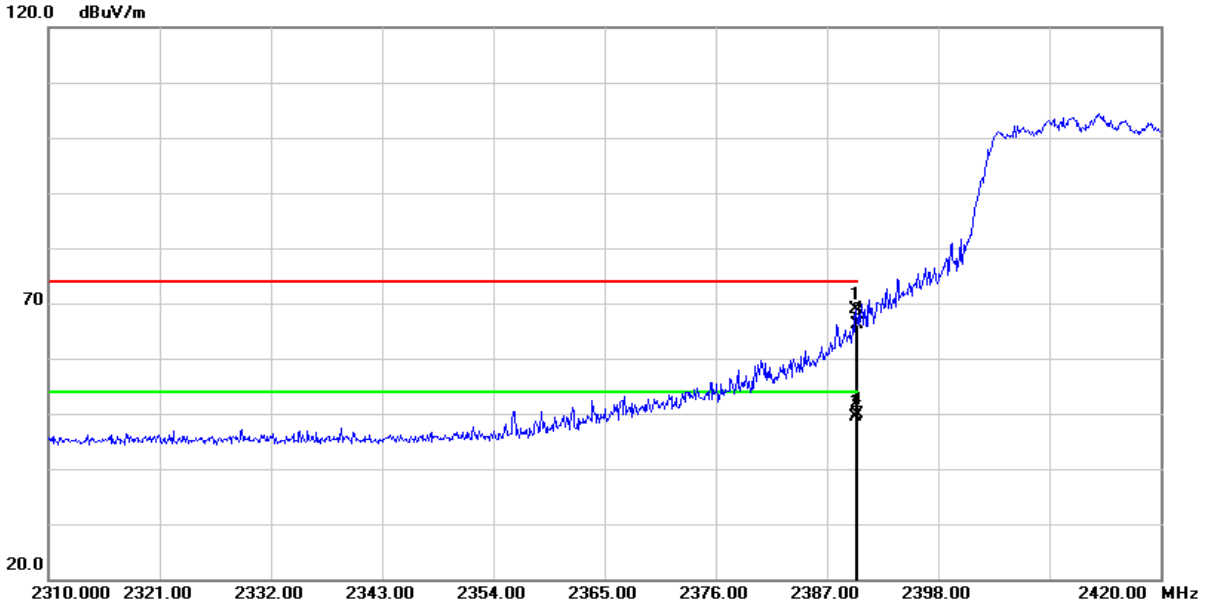


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.640	71.43	-5.69	65.74	74.00	-8.26	peak
2	2389.640	56.77	-5.69	51.08	54.00	-2.92	AVG
3	2390.000	70.77	-5.69	65.08	74.00	-8.92	peak
4	2390.000	56.92	-5.69	51.23	54.00	-2.77	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/30
Test Channel :	CH01 (2412MHz)	Temperature :	24.2 °C
Polarization :	Vertical	Relative Humidity :	47 %

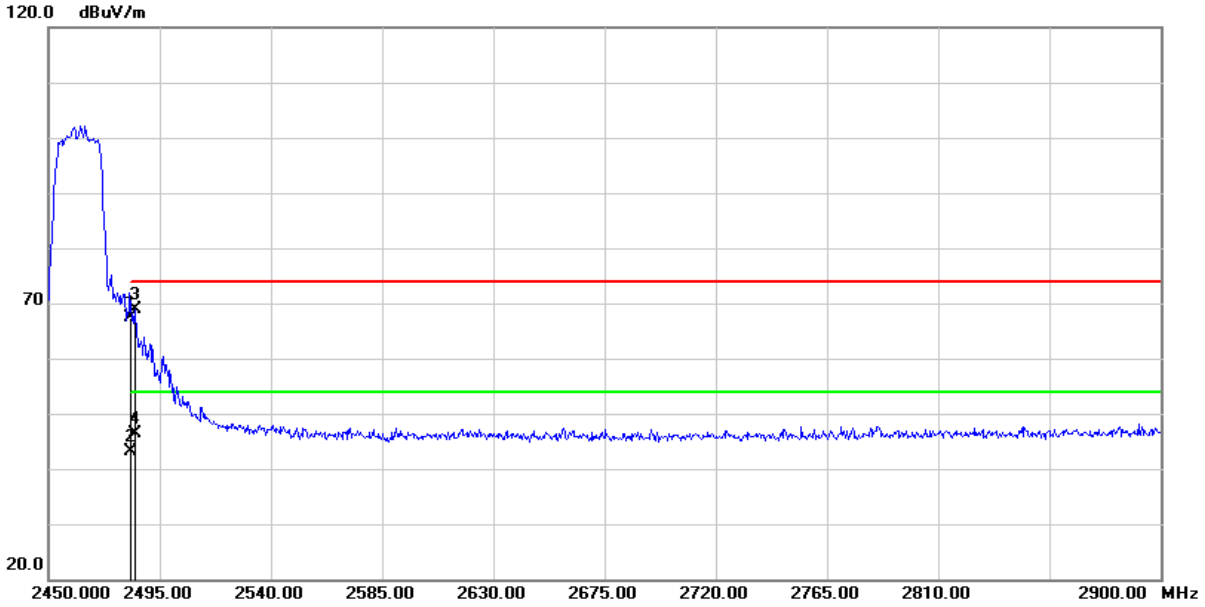


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.860	74.52	-5.69	68.83	74.00	-5.17	peak
2	2389.860	55.13	-5.69	49.44	54.00	-4.56	AVG
3	2390.000	71.81	-5.69	66.12	74.00	-7.88	peak
4	2390.000	55.56	-5.69	49.87	54.00	-4.13	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

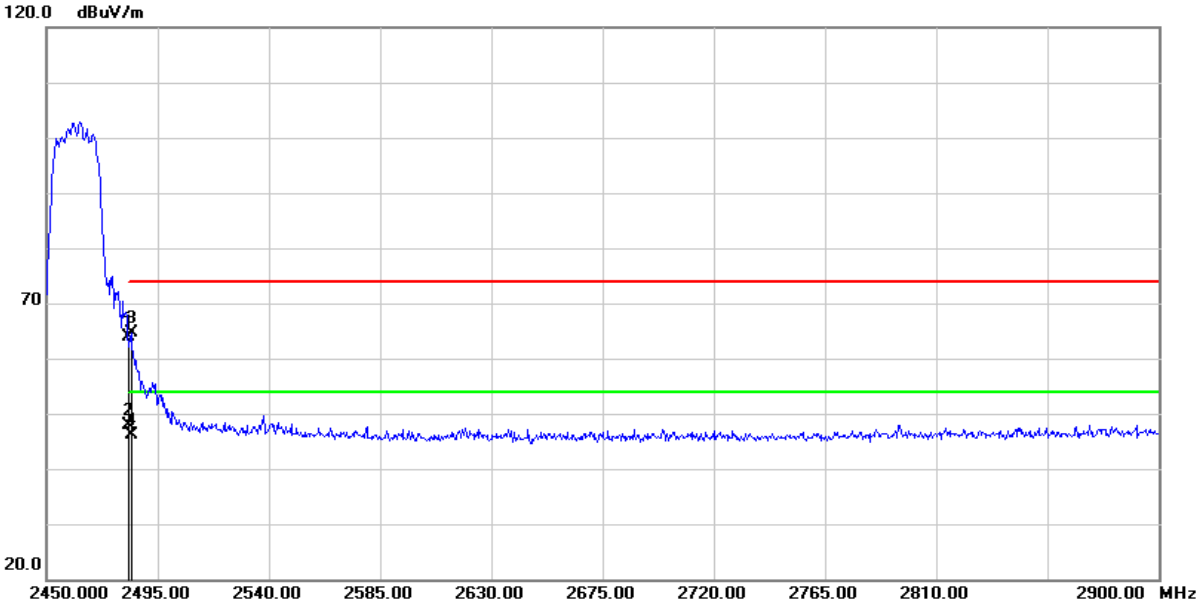


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	73.23	-5.81	67.42	74.00	-6.58	peak
2	2483.500	48.89	-5.81	43.08	54.00	-10.92	AVG
3	2485.100	74.59	-5.80	68.79	74.00	-5.21	peak
4	2485.100	52.22	-5.80	46.42	54.00	-7.58	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

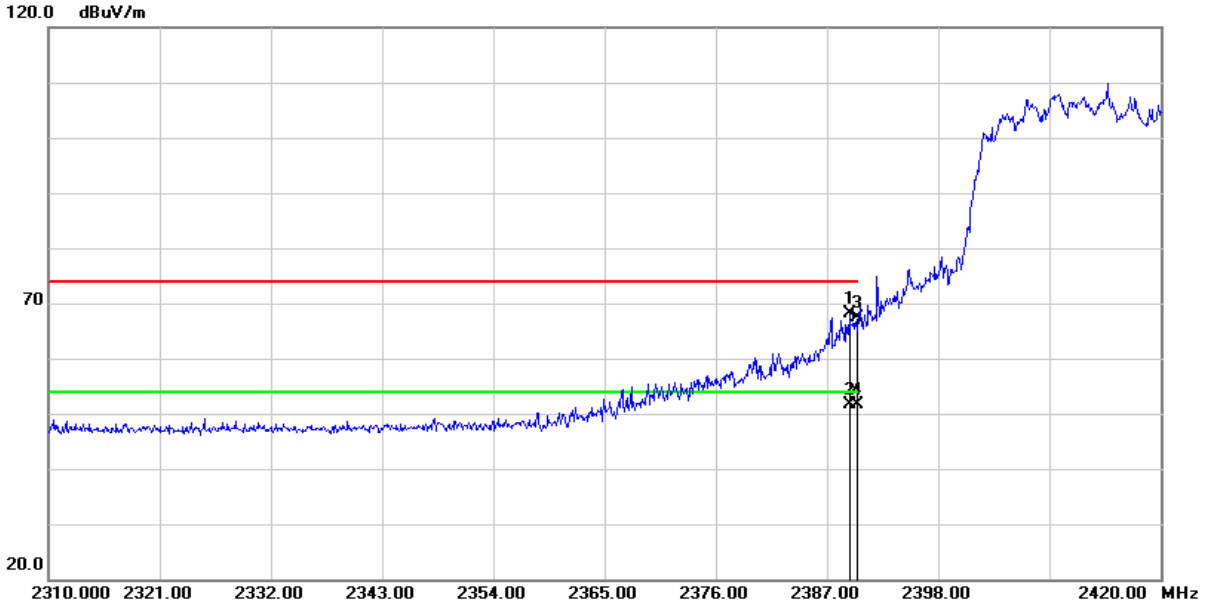


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	69.65	-5.81	63.84	74.00	-10.16	peak
2	2483.500	53.74	-5.81	47.93	54.00	-6.07	AVG
3	2484.200	70.49	-5.80	64.69	74.00	-9.31	peak
4	2484.200	51.83	-5.80	46.03	54.00	-7.97	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH01 (2412MHz)	Temperature :	25.1 °C
Polarization :	Horizontal	Relative Humidity :	51 %

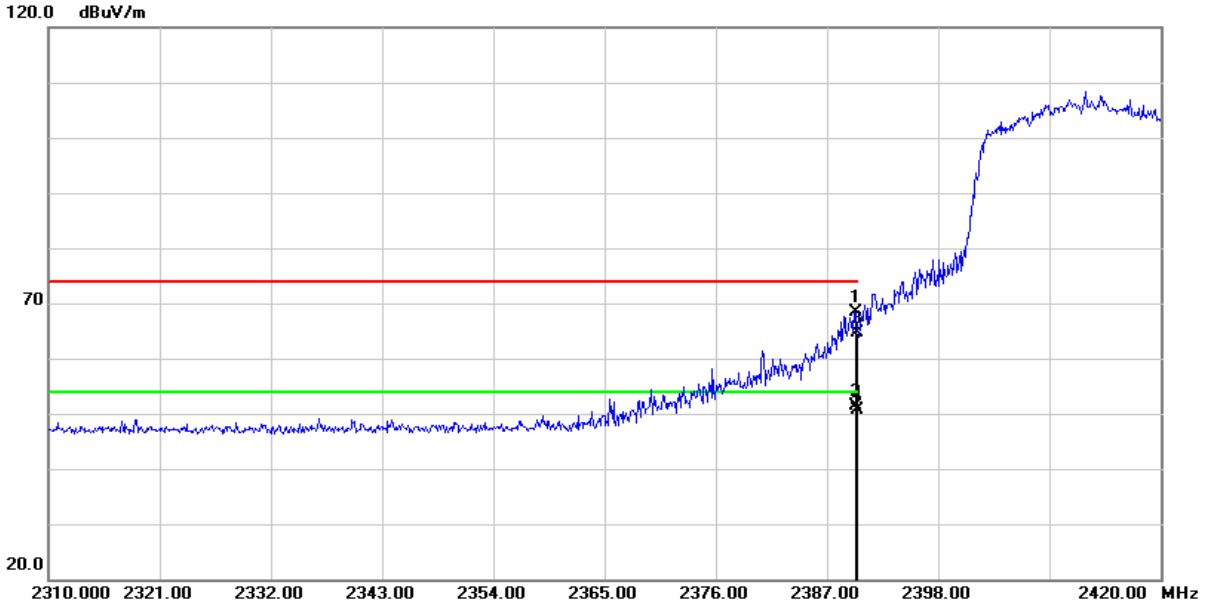


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.200	74.28	-6.14	68.14	74.00	-5.86	peak
2	2389.200	57.65	-6.14	51.51	54.00	-2.49	AVG
3	2390.000	73.62	-6.14	67.48	74.00	-6.52	peak
4	2390.000	57.73	-6.14	51.59	54.00	-2.41	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH01 (2412MHz)	Temperature :	25.1 °C
Polarization :	Vertical	Relative Humidity :	51 %

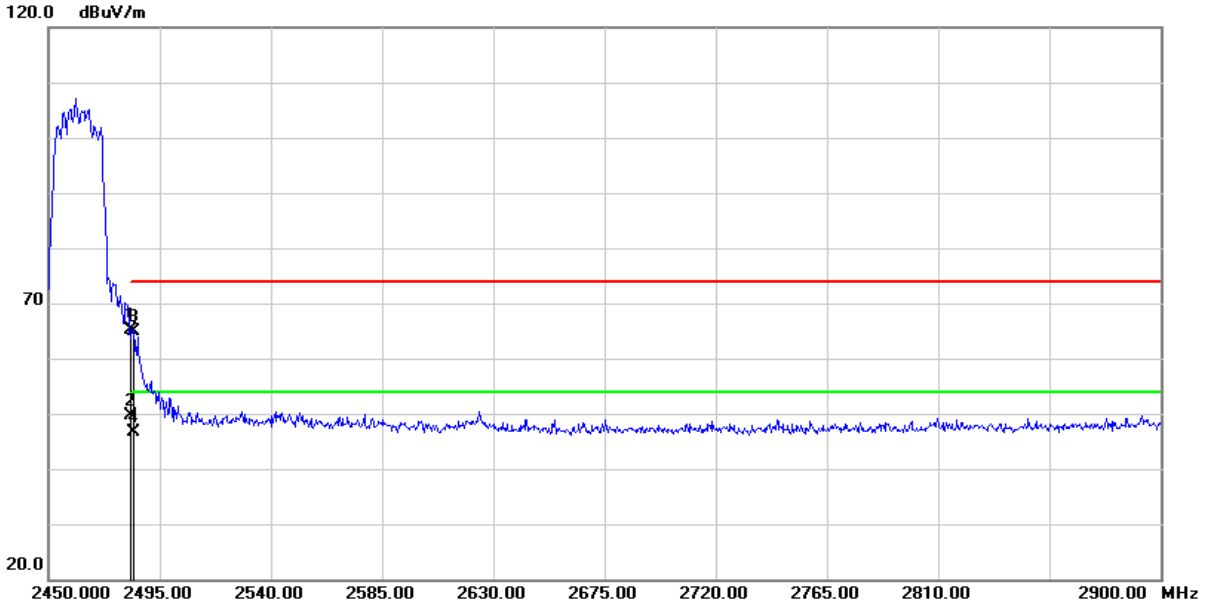


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.860	74.59	-6.14	68.45	74.00	-5.55	peak
2	2389.860	57.41	-6.14	51.27	54.00	-2.73	AVG
3	2390.000	70.86	-6.14	64.72	74.00	-9.28	peak
4	2390.000	56.82	-6.14	50.68	54.00	-3.32	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH11 (2462MHz)	Temperature :	25.1 °C
Polarization :	Horizontal	Relative Humidity :	51 %

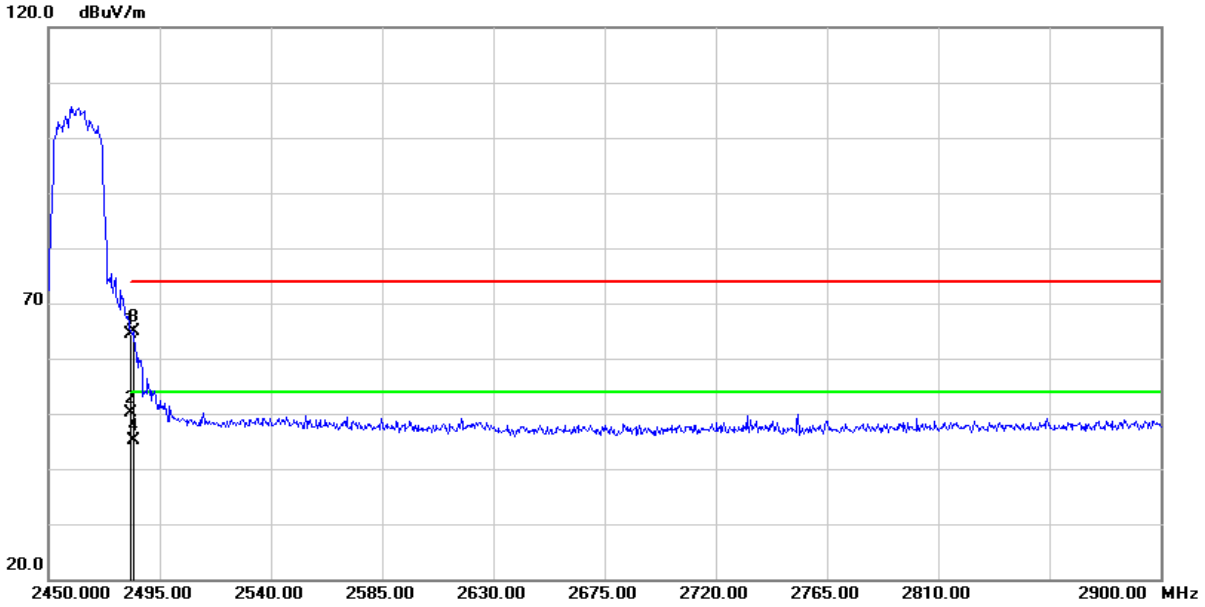


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	71.31	-6.27	65.04	74.00	-8.96	peak
2	2483.500	56.02	-6.27	49.75	54.00	-4.25	AVG
3	2484.650	71.03	-6.25	64.78	74.00	-9.22	peak
4	2484.650	52.90	-6.25	46.65	54.00	-7.35	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH11 (2462MHz)	Temperature :	25.1 °C
Polarization :	Vertical	Relative Humidity :	51 %



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	70.69	-6.27	64.42	74.00	-9.58	peak
2	2483.500	56.32	-6.27	50.05	54.00	-3.95	AVG
3	2484.200	71.13	-6.25	64.88	74.00	-9.12	peak
4	2484.200	51.50	-6.25	45.25	54.00	-8.75	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

2.6.6 Test Result of Radiated Spurious Emission Measurement

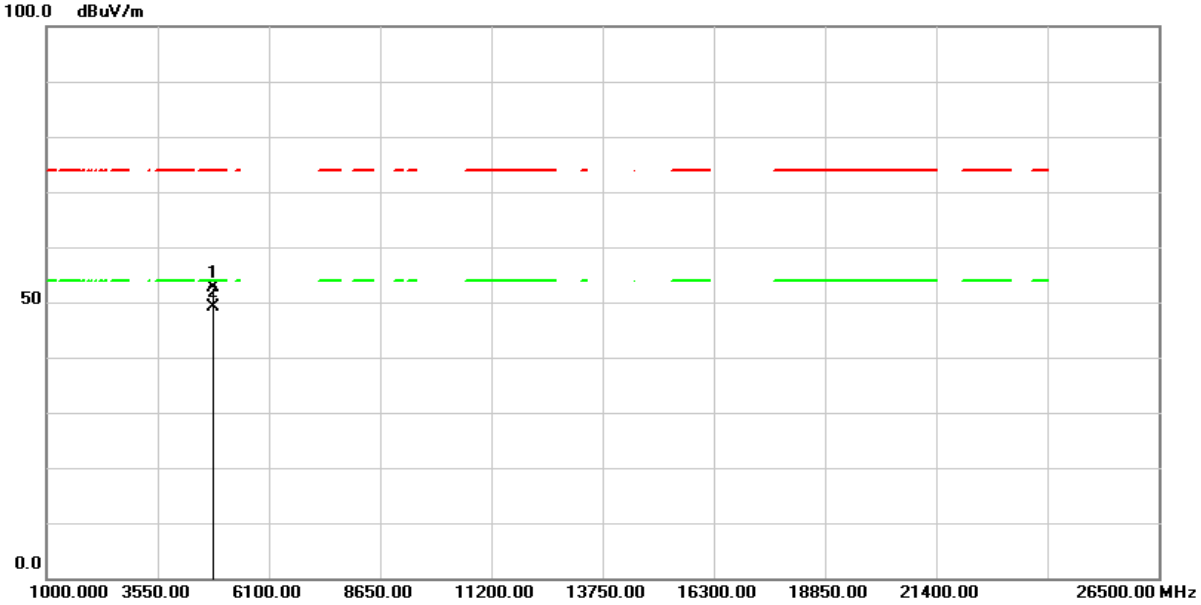
(1) The radiation measurement frequency is 9kHz ~ 30MHz. The interference value of this frequency range is less than the limit value of 20 dB. It is considered that the background noise value is not recorded.

(2) The following table shows the radiation measurement frequency from 30MHz to 26.5GHz, pre-scanning in the X, Y and Z axes. The worst case (X-axis) is documented in this report.

Test Frequency	
RF	**802.11b/g/n-HT20/ax-HE20**
Tx	CH01 (2412MHz) CH06 (2437MHz) CH11 (2462MHz)

Above 1GHz Data

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

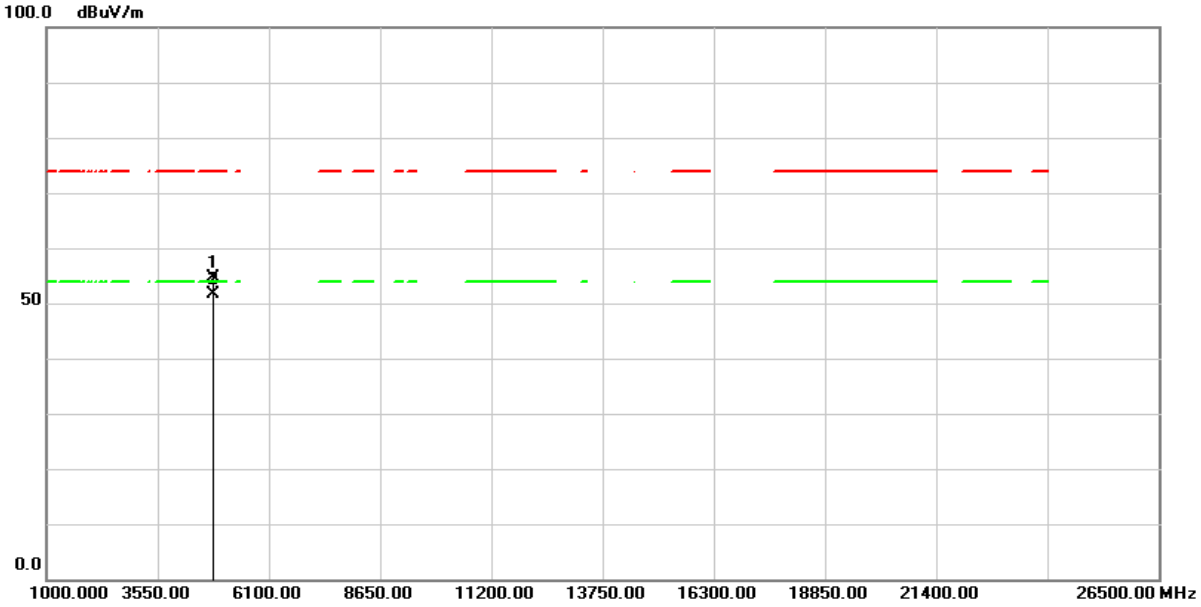


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	71.60	-18.98	52.62	74.00	-21.38	peak
2	4824.000	68.01	-18.98	49.03	54.00	-4.97	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

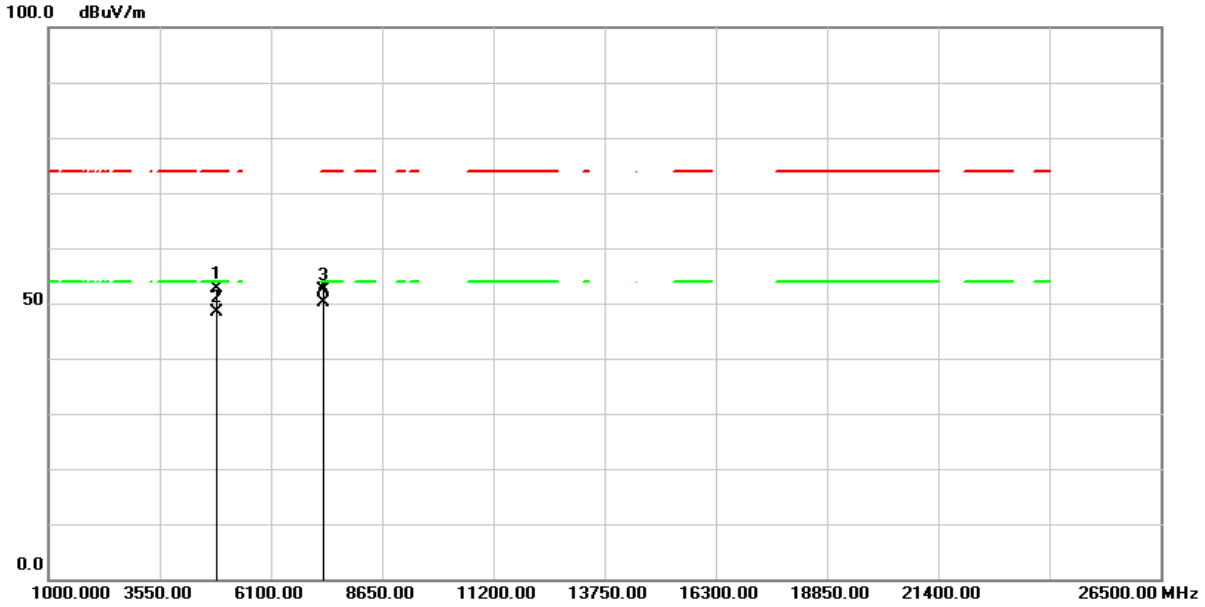


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	73.54	-18.98	54.56	74.00	-19.44	peak
2	4824.000	70.55	-18.98	51.57	54.00	-2.43	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/08/01
Test Channel :	CH06 (2437MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

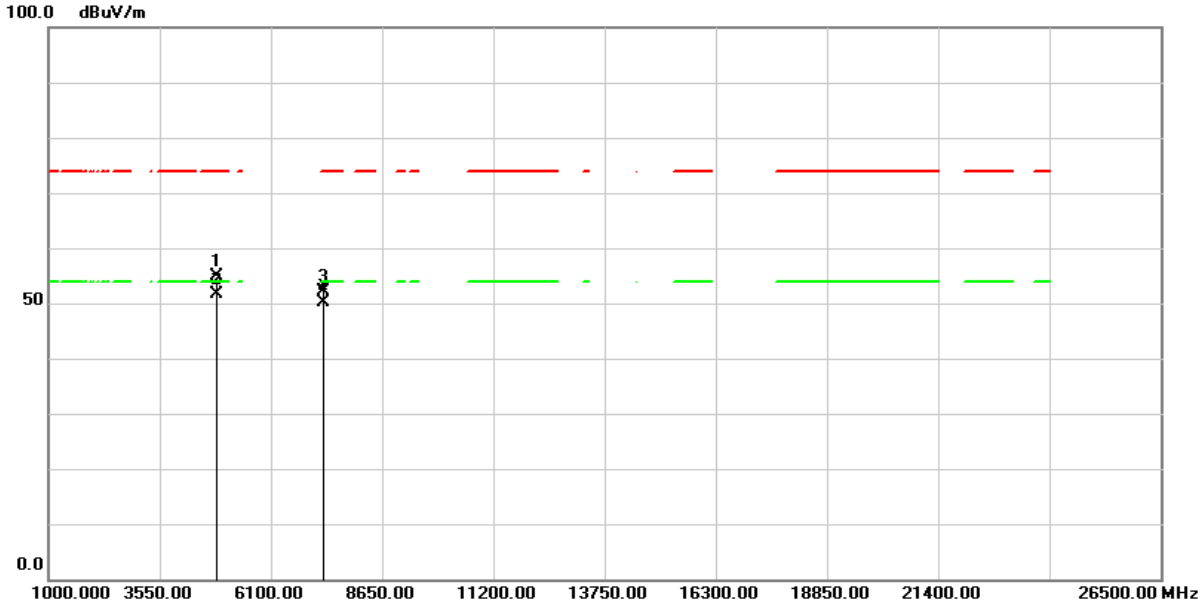


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	71.61	-19.00	52.61	74.00	-21.39	peak
2	4874.000	67.34	-19.00	48.34	54.00	-5.66	AVG
3	7311.000	64.88	-12.53	52.35	74.00	-21.65	peak
4	7311.000	62.66	-12.53	50.13	54.00	-3.87	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/08/01
Test Channel :	CH06 (2437MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

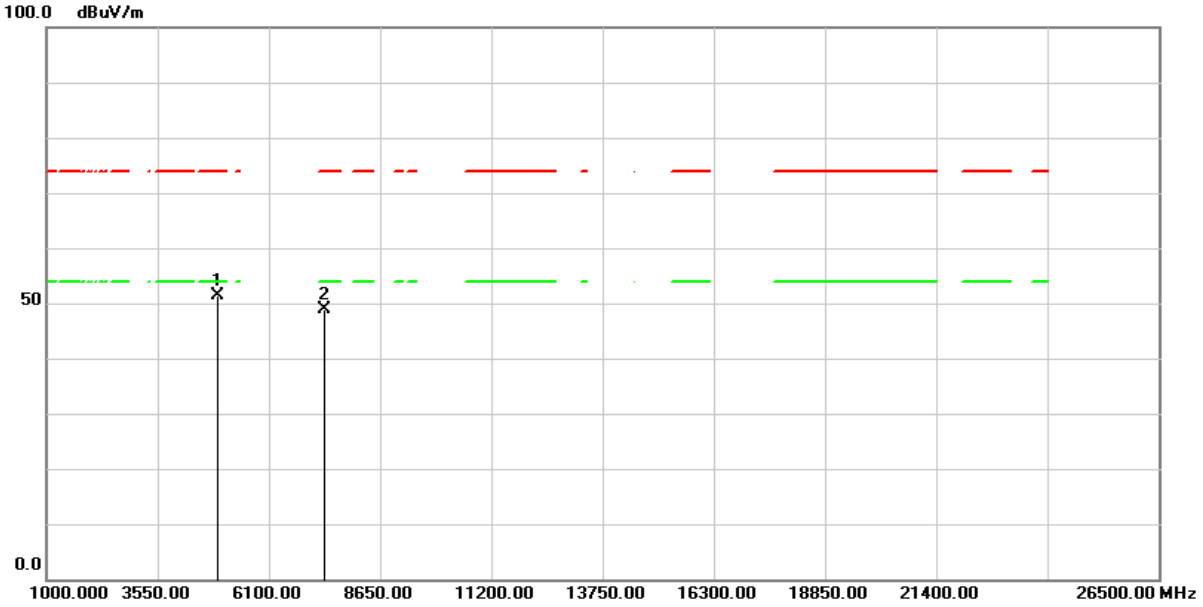


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	73.98	-19.00	54.98	74.00	-19.02	peak
2	4874.000	70.75	-19.00	51.75	54.00	-2.25	AVG
3	7311.000	64.55	-12.53	52.02	74.00	-21.98	peak
4	7311.000	62.69	-12.53	50.16	54.00	-3.84	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/08/01
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

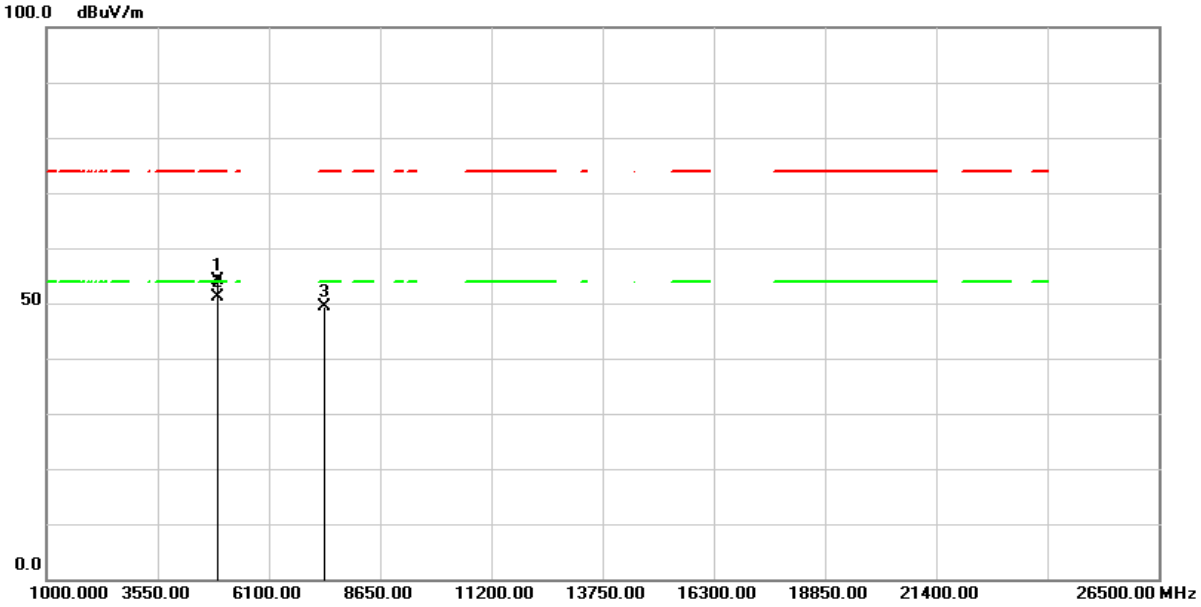


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	70.49	-19.01	51.48	74.00	-22.52	peak
2	7386.000	61.34	-12.39	48.95	74.00	-25.05	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 1：Transmit (802.11b 1Mbps)	Test Date :	2024/08/01
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

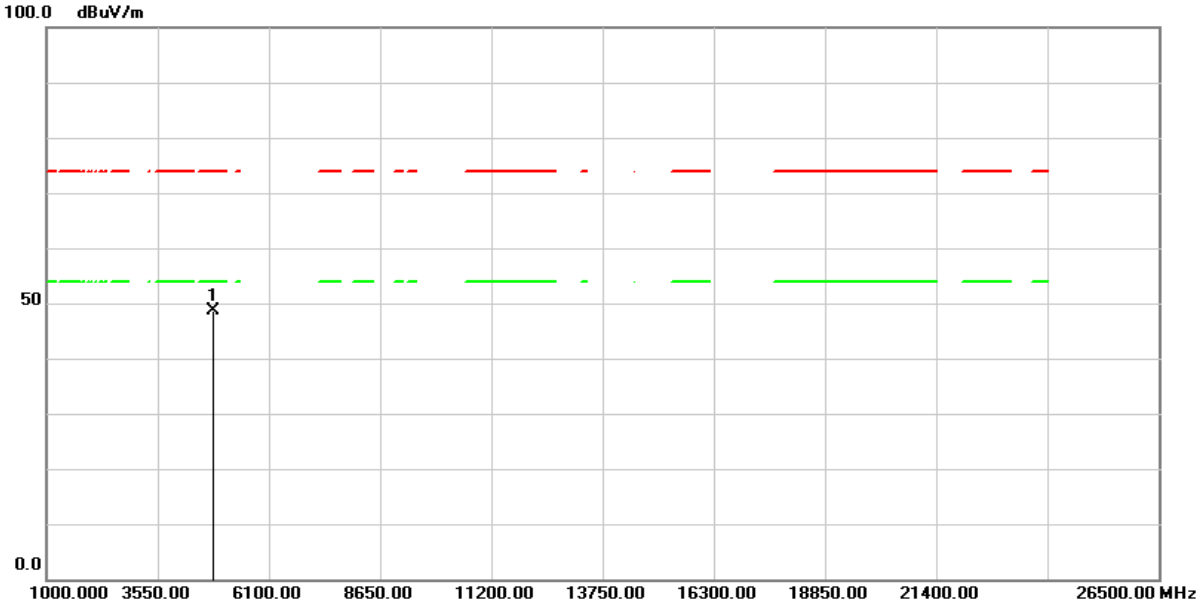


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	73.24	-19.01	54.23	74.00	-19.77	peak
2	4924.000	70.19	-19.01	51.18	54.00	-2.82	AVG
3	7386.000	61.66	-12.39	49.27	74.00	-24.73	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

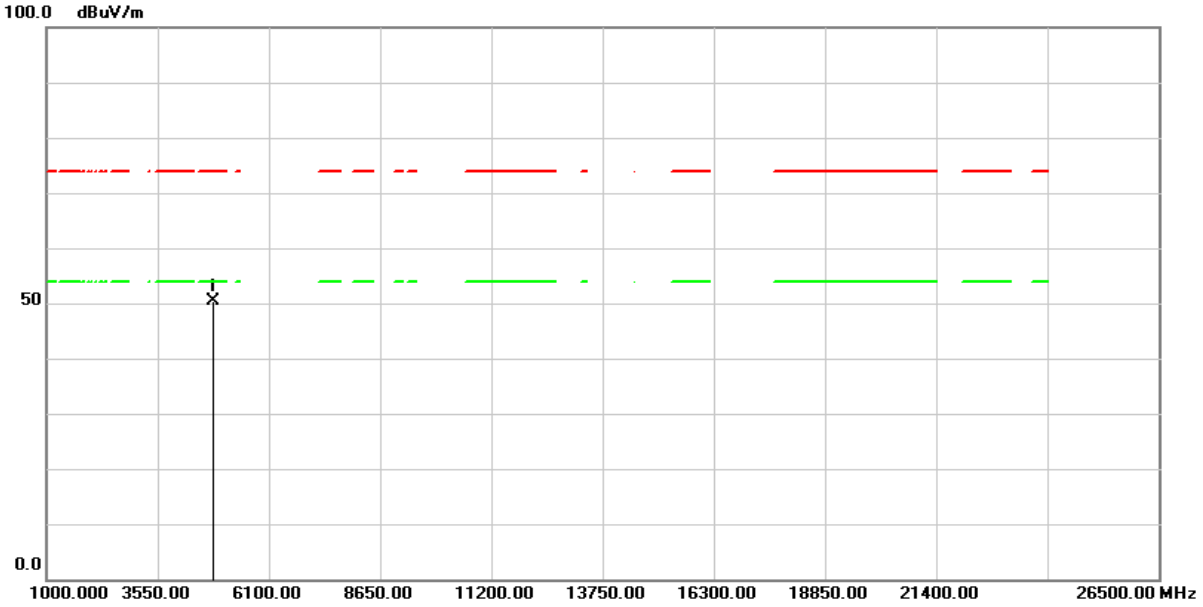


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	67.55	-18.98	48.57	74.00	-25.43	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

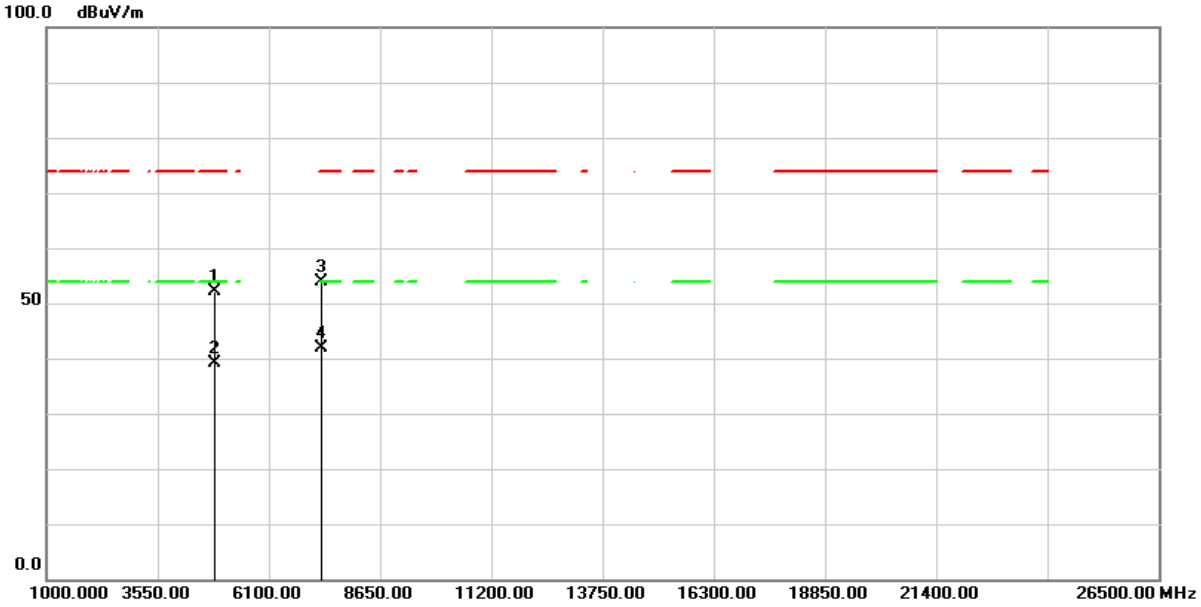


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	69.27	-18.98	50.29	74.00	-23.71	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH06 (2437MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

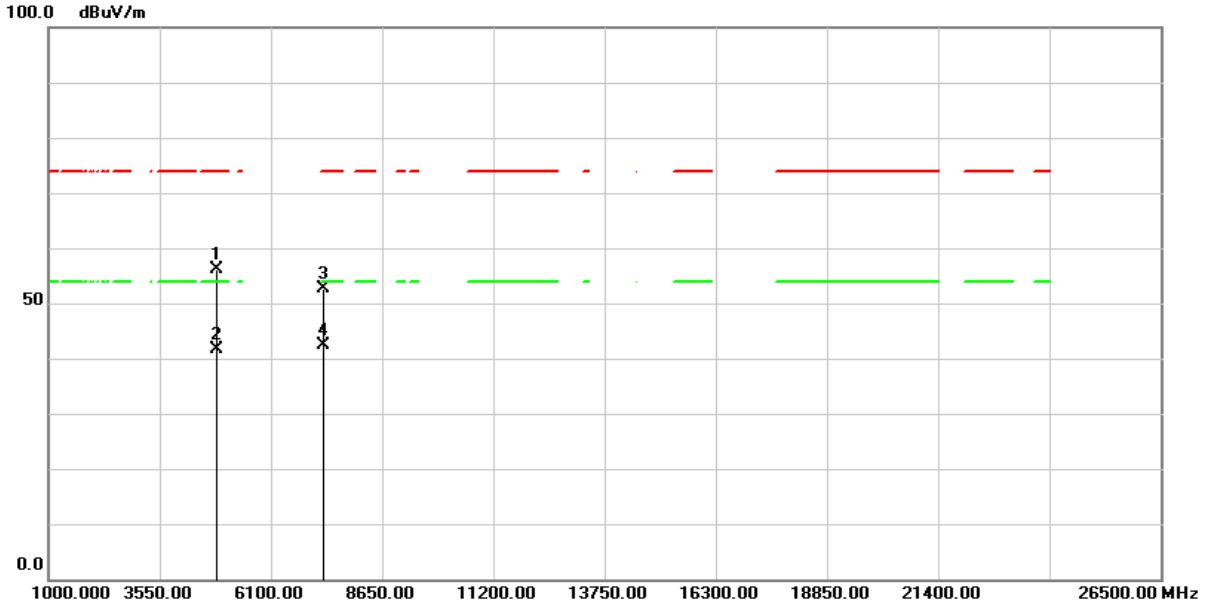


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	71.05	-19.00	52.05	74.00	-21.95	peak
2	4874.000	58.13	-19.00	39.13	54.00	-14.87	AVG
3	7311.000	66.30	-12.53	53.77	74.00	-20.23	peak
4	7311.000	54.41	-12.53	41.88	54.00	-12.12	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH06 (2437MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

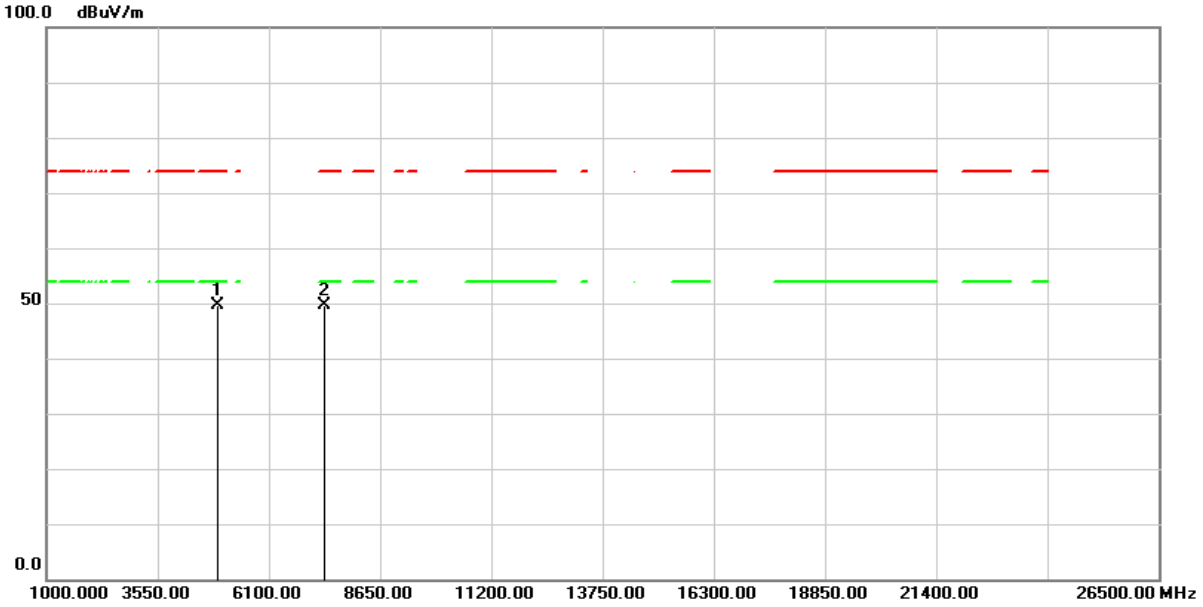


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	75.04	-19.00	56.04	74.00	-17.96	peak
2	4874.000	60.73	-19.00	41.73	54.00	-12.27	AVG
3	7311.000	65.07	-12.53	52.54	74.00	-21.46	peak
4	7311.000	54.86	-12.53	42.33	54.00	-11.67	AVG

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

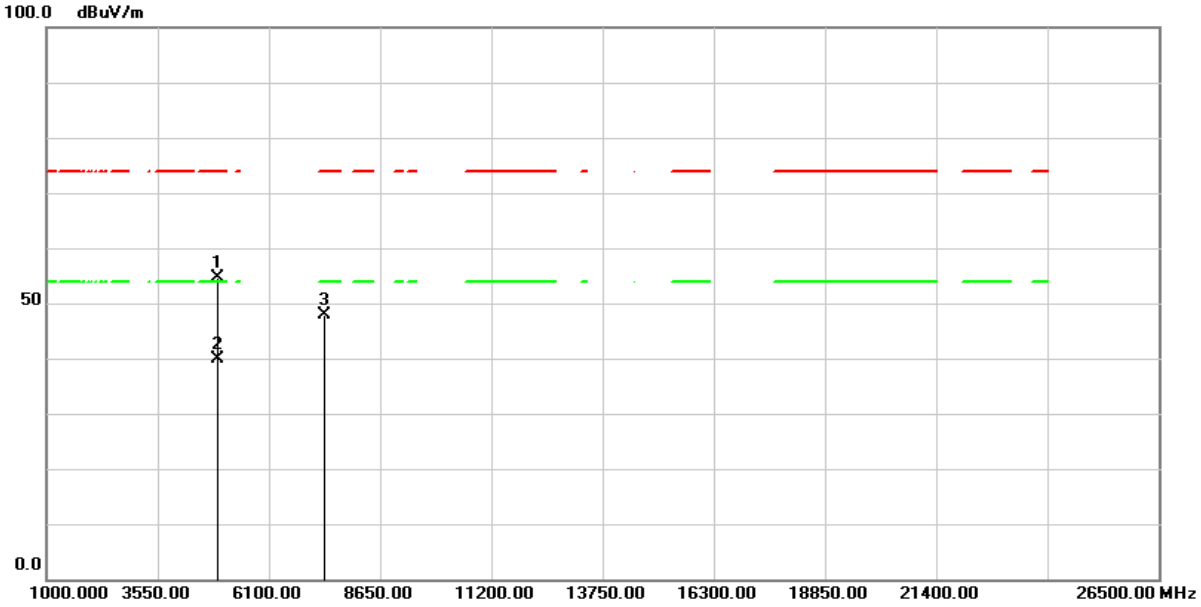


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	68.59	-19.01	49.58	74.00	-24.42	peak
2	7386.000	62.00	-12.39	49.61	74.00	-24.39	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 2：Transmit (802.11g 6Mbps)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

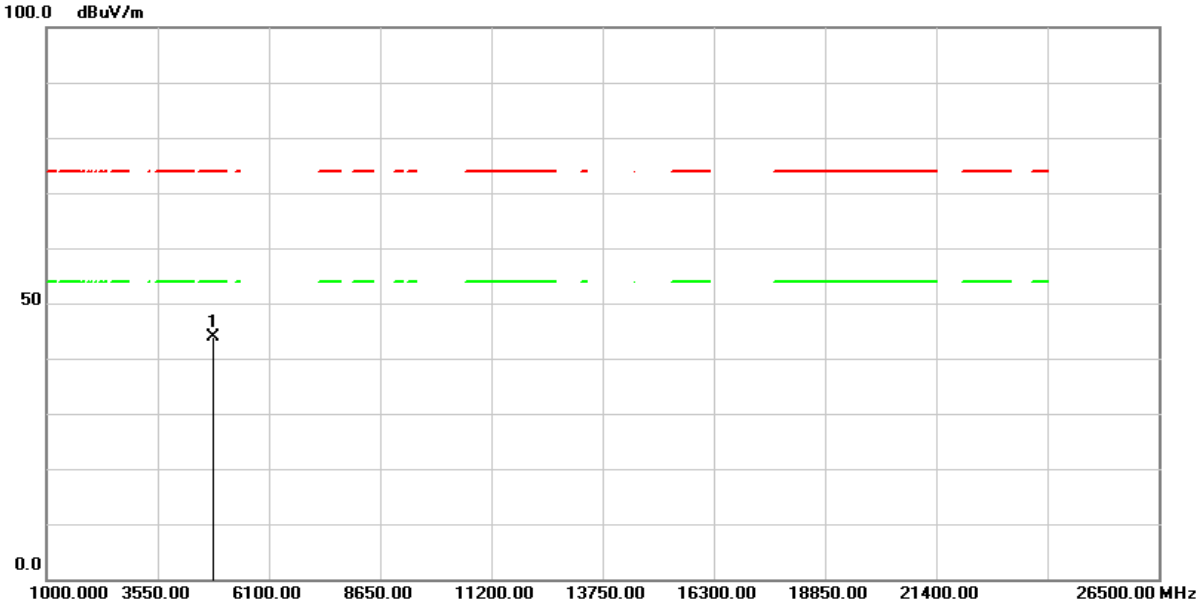


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	73.72	-19.01	54.71	74.00	-19.29	peak
2	4924.000	58.95	-19.01	39.94	54.00	-14.06	AVG
3	7386.000	60.15	-12.39	47.76	74.00	-26.24	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

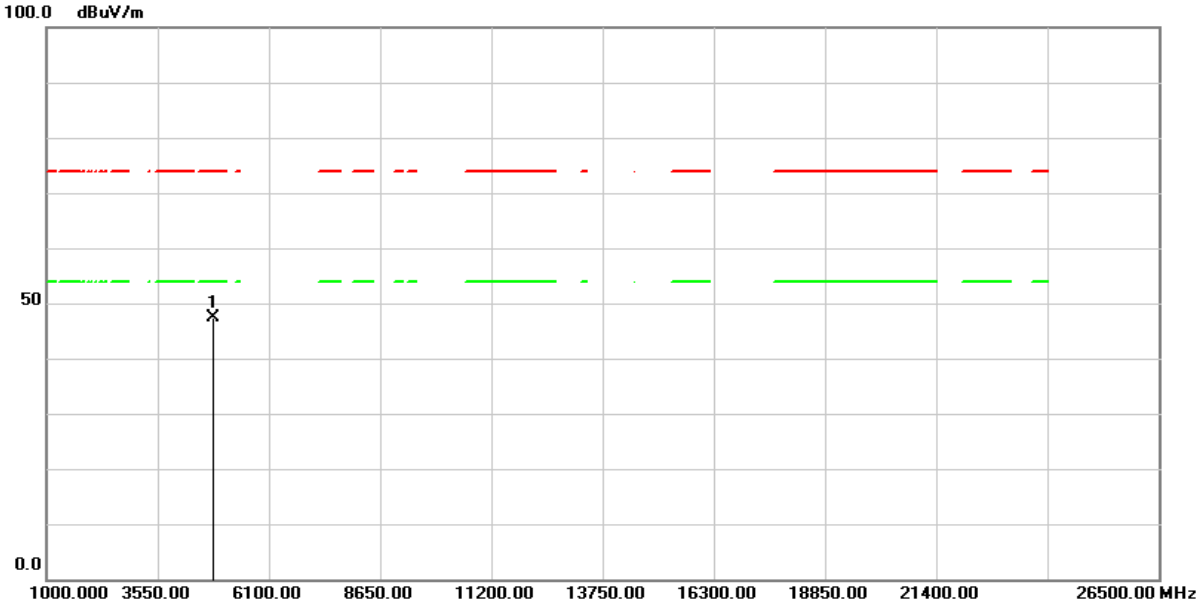


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	62.74	-18.98	43.76	74.00	-30.24	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH01 (2412MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

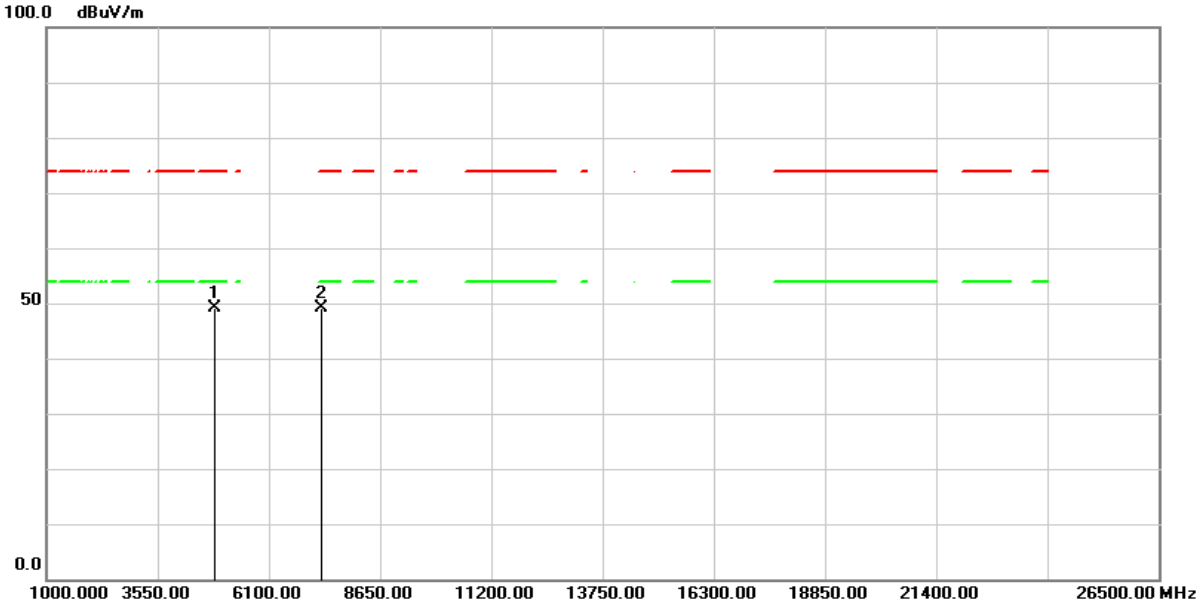


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	66.33	-18.98	47.35	74.00	-26.65	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH06 (2437MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

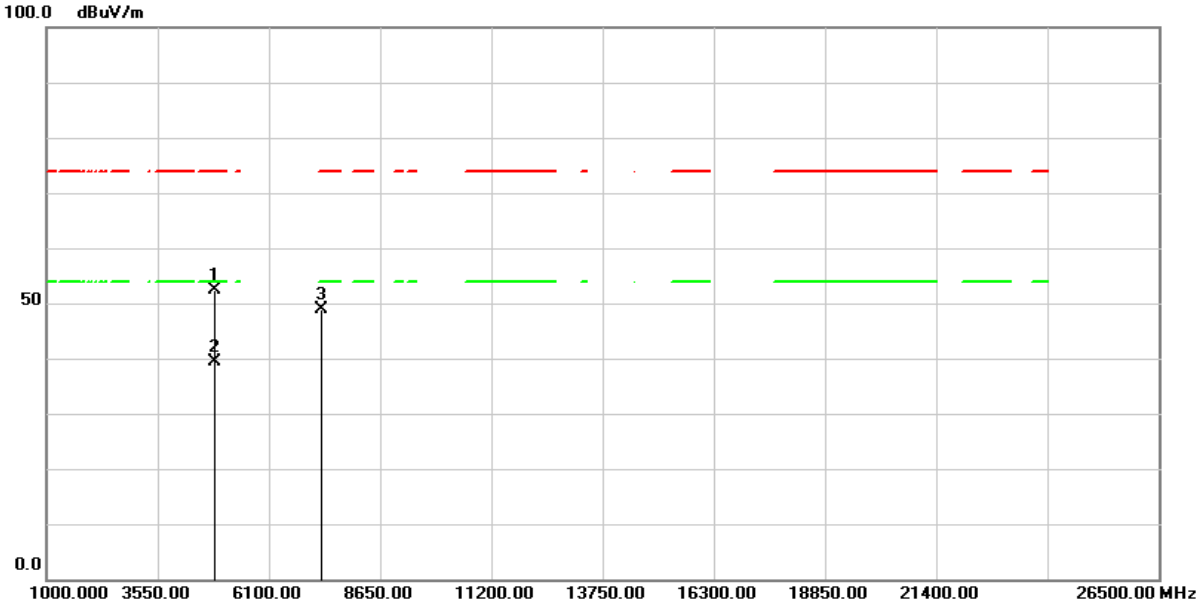


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	68.03	-19.00	49.03	74.00	-24.97	peak
2	7311.000	61.68	-12.53	49.15	74.00	-24.85	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH06 (2437MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

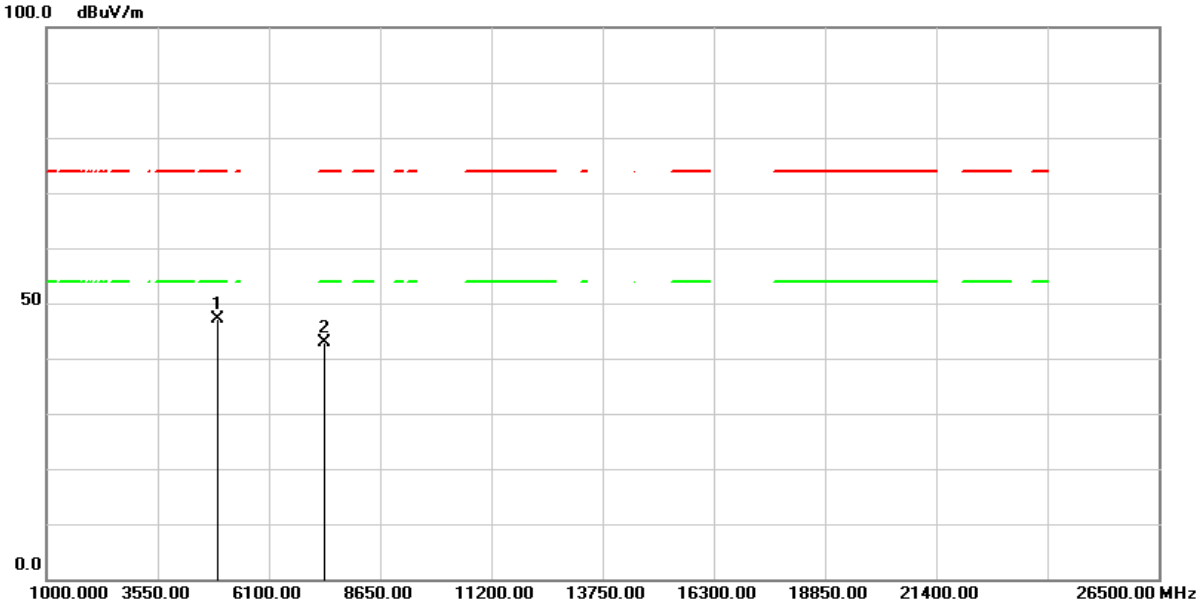


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	71.30	-19.00	52.30	74.00	-21.70	peak
2	4874.000	58.48	-19.00	39.48	54.00	-14.52	AVG
3	7311.000	61.53	-12.53	49.00	74.00	-25.00	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Horizontal	Relative Humidity :	51 %

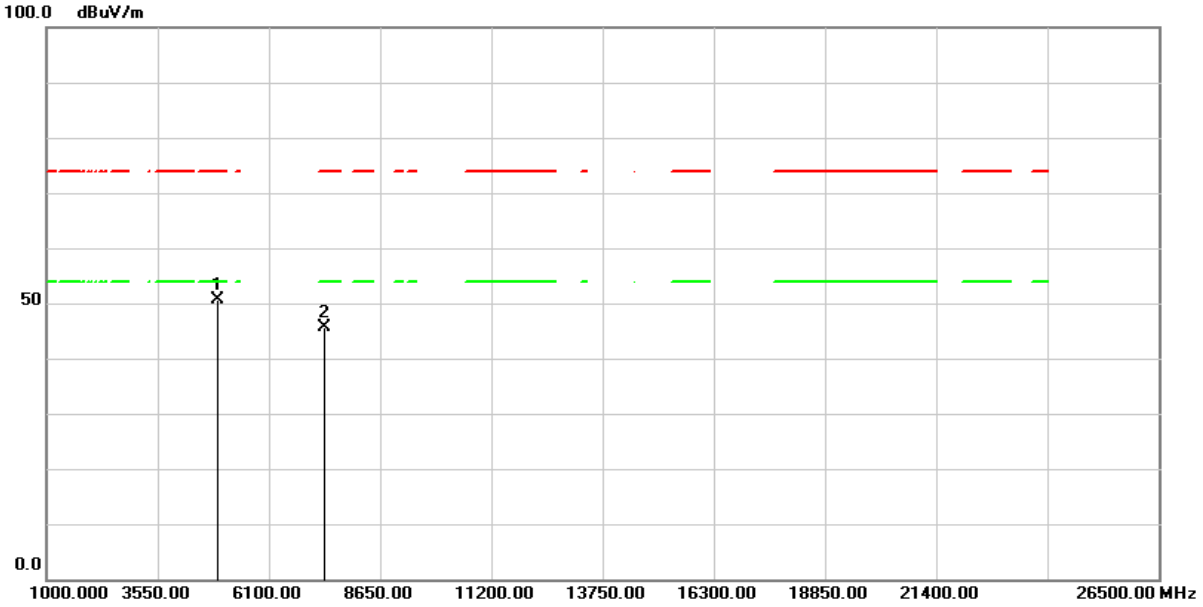


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	66.15	-19.01	47.14	74.00	-26.86	peak
2	7386.000	55.38	-12.39	42.99	74.00	-31.01	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/31
Test Channel :	CH11 (2462MHz)	Temperature :	25.2 °C
Polarization :	Vertical	Relative Humidity :	51 %

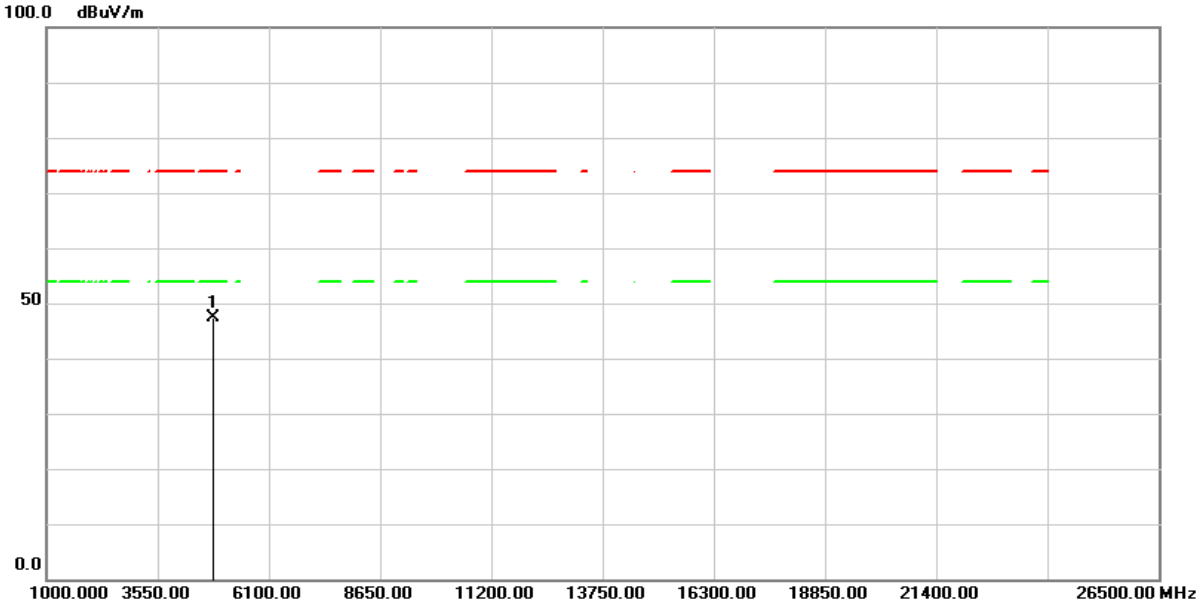


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	69.52	-19.01	50.51	74.00	-23.49	peak
2	7386.000	57.92	-12.39	45.53	74.00	-28.47	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH01 (2412MHz)	Temperature :	25.1 °C
Polarization :	Horizontal	Relative Humidity :	51 %

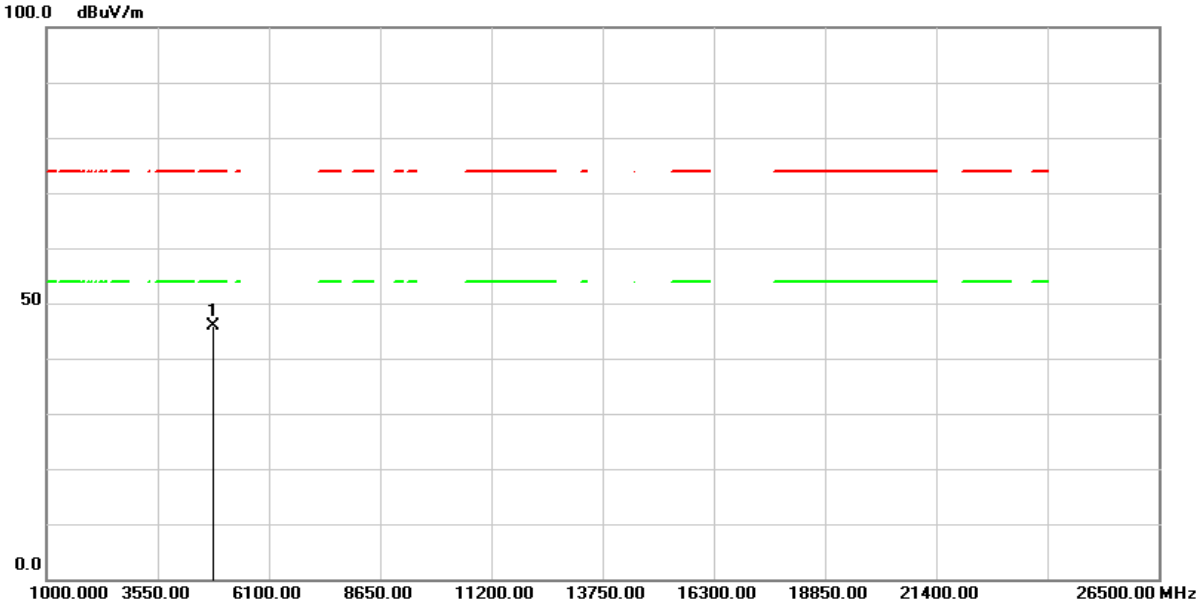


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	66.98	-19.61	47.37	74.00	-26.63	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH01 (2412MHz)	Temperature :	25.1 °C
Polarization :	Vertical	Relative Humidity :	51 %

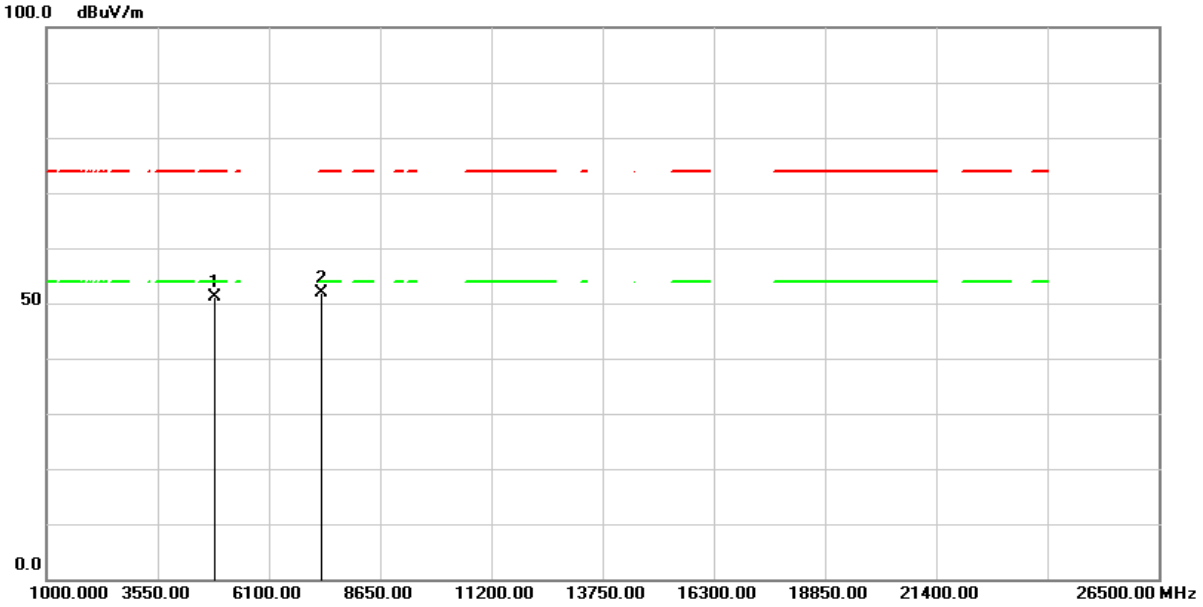


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.000	65.39	-19.61	45.78	74.00	-28.22	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH06 (2437MHz)	Temperature :	25.1 °C
Polarization :	Horizontal	Relative Humidity :	51 %

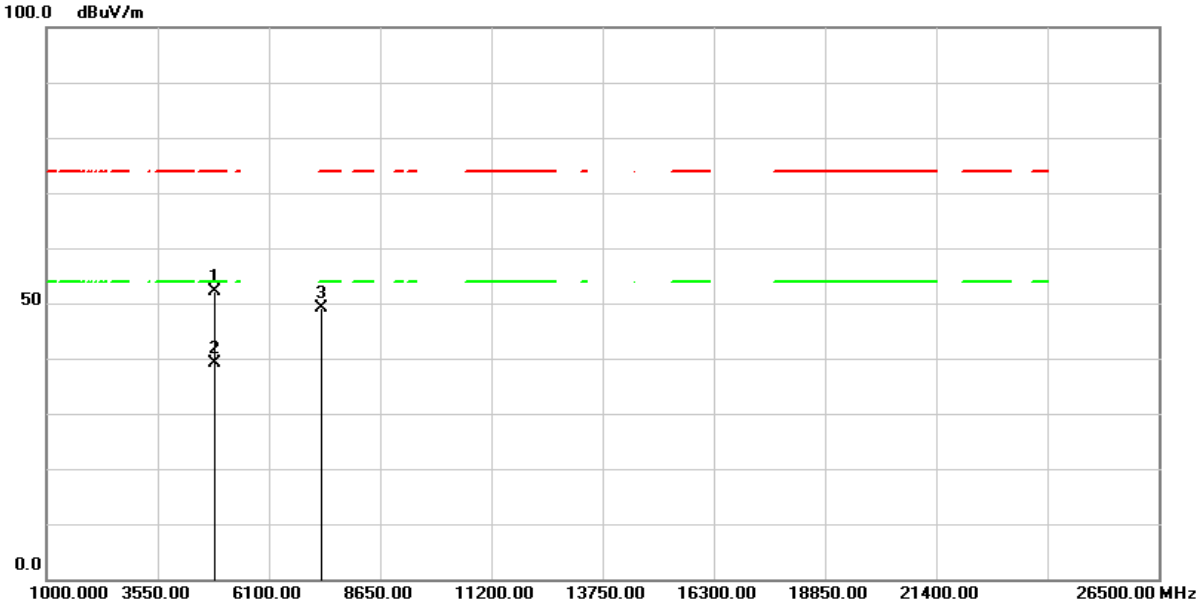


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	70.65	-19.63	51.02	74.00	-22.98	peak
2	7311.000	65.18	-13.37	51.81	74.00	-22.19	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH06 (2437MHz)	Temperature :	25.1 °C
Polarization :	Vertical	Relative Humidity :	51 %

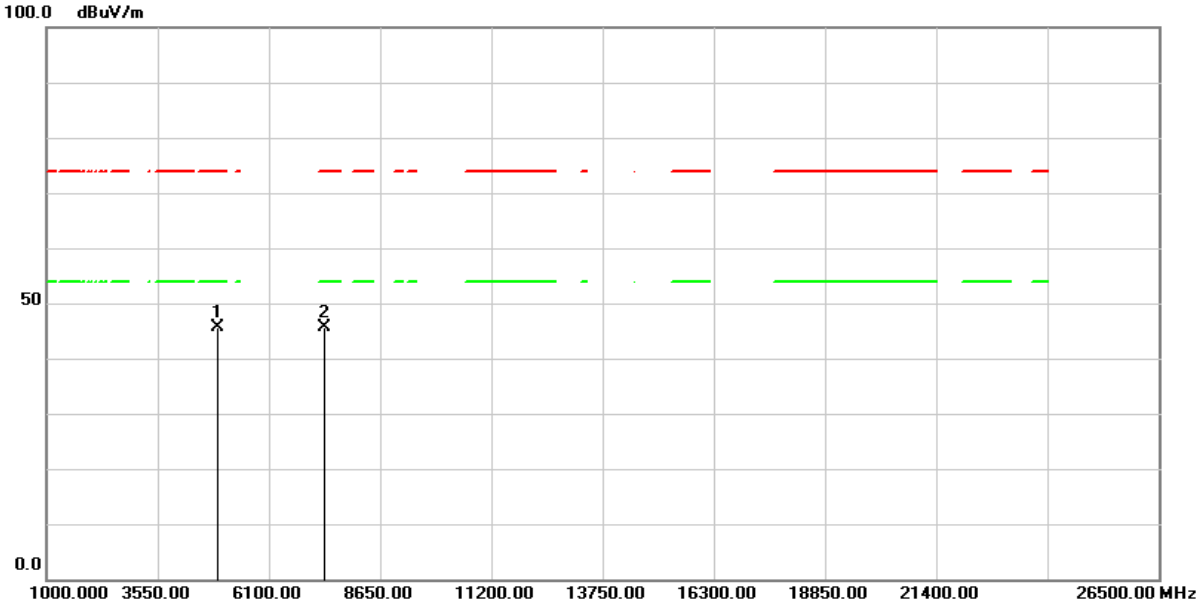


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4874.000	71.68	-19.63	52.05	74.00	-21.95	peak
2	4874.000	58.78	-19.63	39.15	54.00	-14.85	AVG
3	7311.000	62.53	-13.37	49.16	74.00	-24.84	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH11 (2462MHz)	Temperature :	25.1 °C
Polarization :	Horizontal	Relative Humidity :	51 %

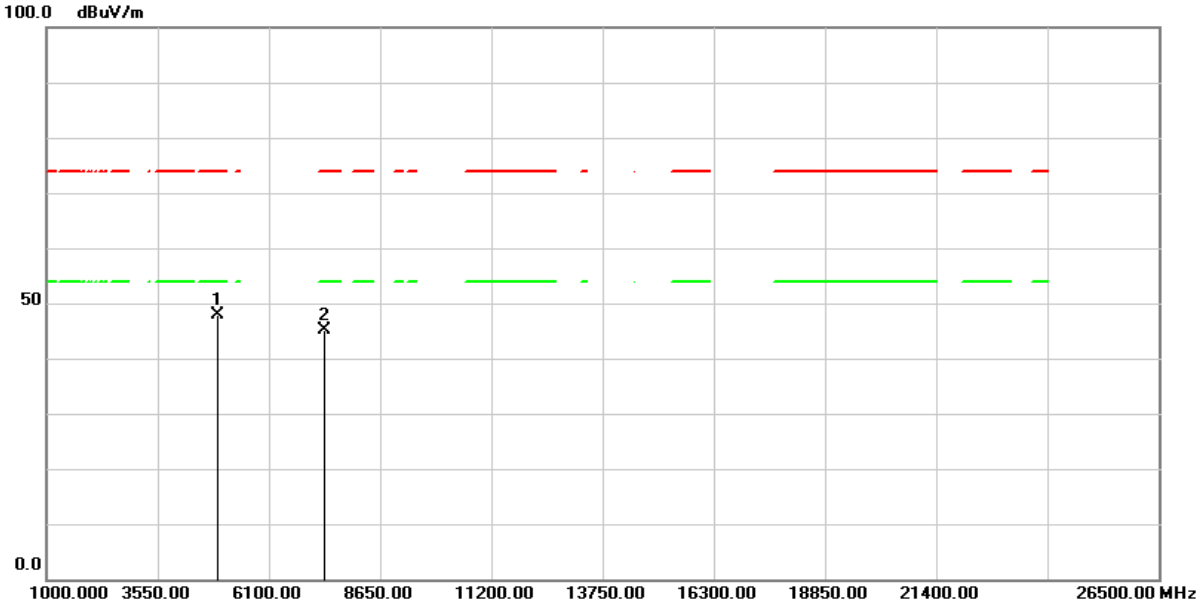


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	65.39	-19.64	45.75	74.00	-28.25	peak
2	7386.000	58.95	-13.24	45.71	74.00	-28.29	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 4：Transmit (802.11ax HE20 MCS0)	Test Date :	2024/08/24
Test Channel :	CH11 (2462MHz)	Temperature :	25.1 °C
Polarization :	Vertical	Relative Humidity :	51 %



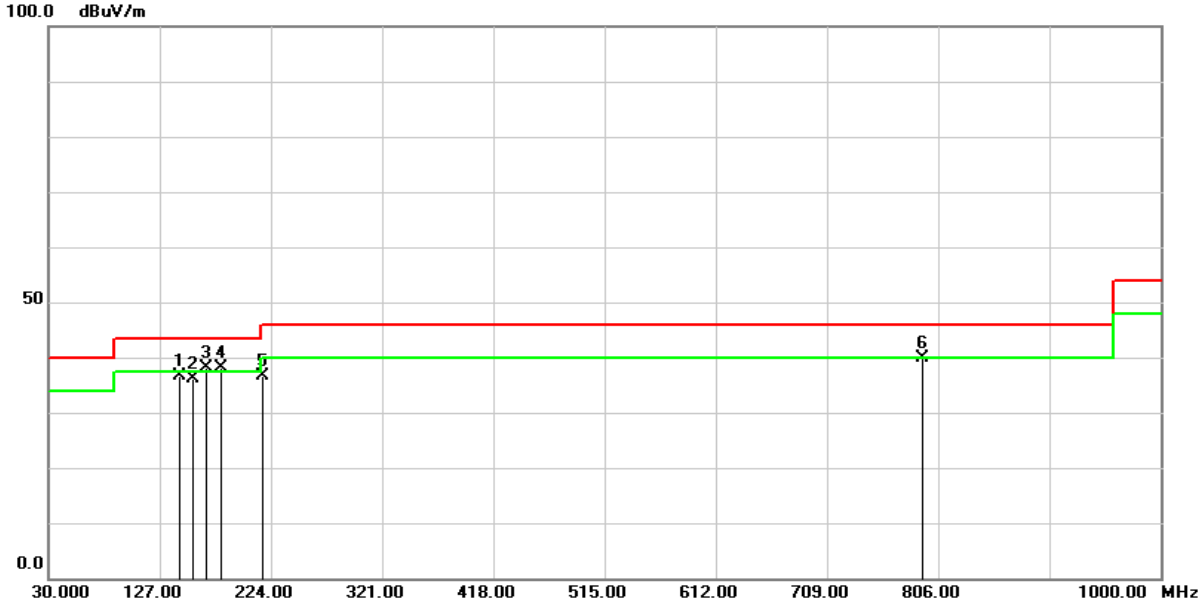
No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.000	67.53	-19.64	47.89	74.00	-26.11	peak
2	7386.000	58.43	-13.24	45.19	74.00	-28.81	peak

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Below 1GHz Data

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/29
Test Channel :	CH01 (2412MHz)	Temperature :	24.2 °C
Polarization :	Horizontal	Relative Humidity :	47 %

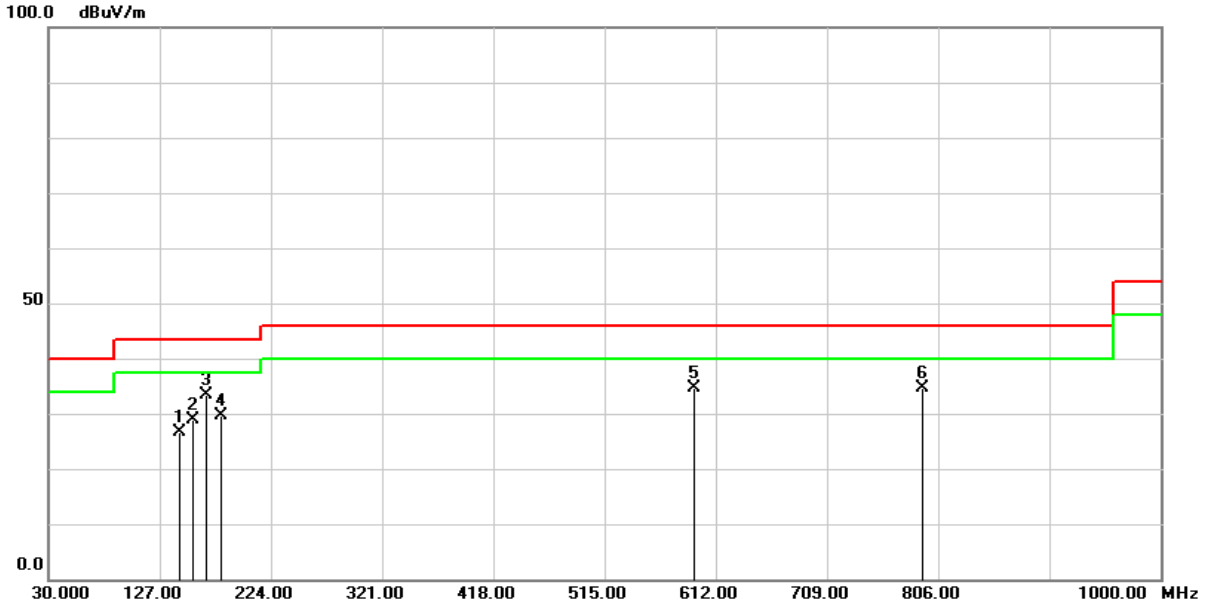


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	144.4600	48.16	-11.46	36.70	43.50	-6.80	QP
2	156.1000	47.16	-10.95	36.21	43.50	-7.29	QP
3	167.9870	49.37	-11.28	38.09	43.50	-5.41	QP
4	180.3500	50.51	-12.49	38.02	43.50	-5.48	QP
5	216.2400	51.01	-14.49	36.52	46.00	-9.48	QP
6	792.4200	38.13	1.64	39.77	46.00	-6.23	QP

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	Test Date :	2024/07/29
Test Channel :	CH01 (2412MHz)	Temperature :	24.2 °C
Polarization :	Vertical	Relative Humidity :	47 %



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	144.4600	38.16	-11.46	26.70	43.50	-16.80	QP
2	156.1000	39.81	-10.95	28.86	43.50	-14.64	QP
3	167.7400	44.72	-11.28	33.44	43.50	-10.06	QP
4	180.3500	42.10	-12.49	29.61	43.50	-13.89	QP
5	593.5700	37.02	-2.30	34.72	46.00	-11.28	QP
6	792.4200	33.05	1.64	34.69	46.00	-11.31	QP

Remark：

1. Correction Factor = Antenna factor + Cable loss – Amplifier gain
2. Result Value = Reading Level + Correct Factor
3. Margin Level = Result Value – Limit Value
4. The other emission levels were very low against the limit, they do not need to be reported.

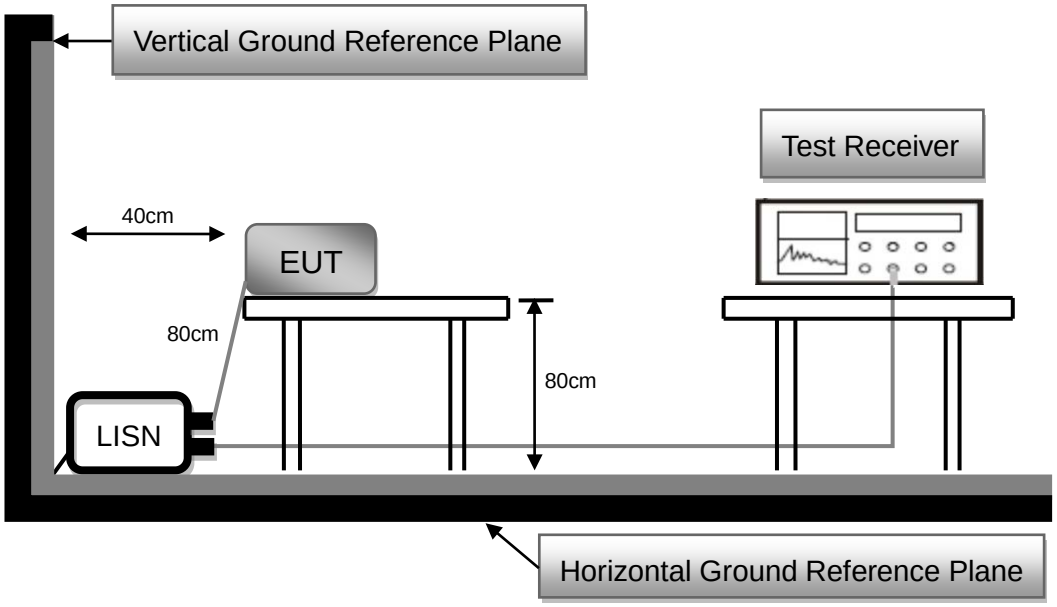
2.7 AC Conducted Emissions Measurement

2.7.1 Limit

Frequency (MHz)	FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit	
	Quasi-peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.50 to 5.0	56	46
5.0 to 30.0	60	50

*Decreases with the logarithm of the frequency

2.7.2 Test Setup

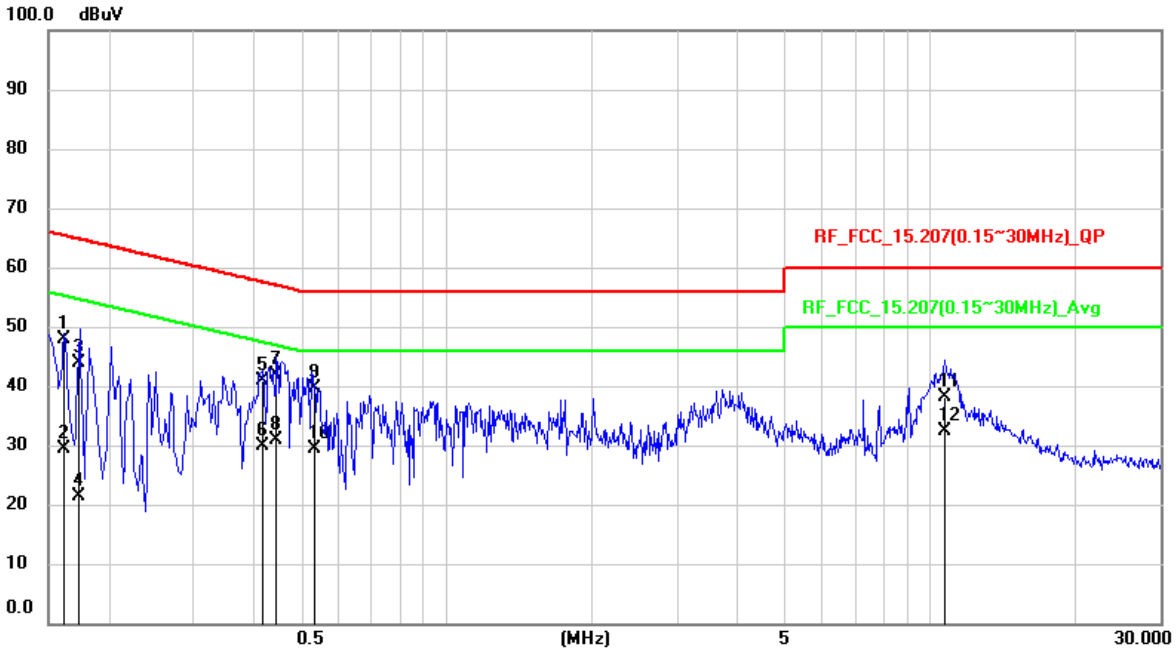


2.7.3 Test Procedure

1. Reference ANSI C63.10 : 2013 chapter 6.2
2. The EUT was placed 0.8 meter height wooden table from the horizontal ground plane with EUT being connected to power source through a line impedance stabilization network (LISN). The LISN at least be 80 cm from nearest chassis of EUT.
3. The line impedance stabilization network (LISN) provides 50 ohm/50uH of coupling impedance for the measuring instrument. All other support equipments powered from additional LISN(s).
4. Interrelating cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle. All I/O cables were positioned to simulate typical usage.
5. All I/O cables that are not connected to a peripheral shall be bundle in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
6. The EMI test receiver connected to LISN powering the EUT. The actual test configuration, please refer to EUT test photos.
7. The receiver scanned from 150kHz to 30MHz for emissions in each of test modes. Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz. A scan was taken on both power lines, Line and Neutral, recording at least six highest emissions.
8. The EUT and cable configuration of the above highest emission levels were recorded. The Test Data of the worst case was recorded.

2.7.4 Test Result

Test Voltage :	120Vac, 60Hz	**Frequency Range:**	0.15-30 MHz
Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	**6dB Bandwidth :**	9 kHz
Test Date :	2024/07/29	**Phase :**	L
Temperature :	27.2℃	**Humidity :**	51 %

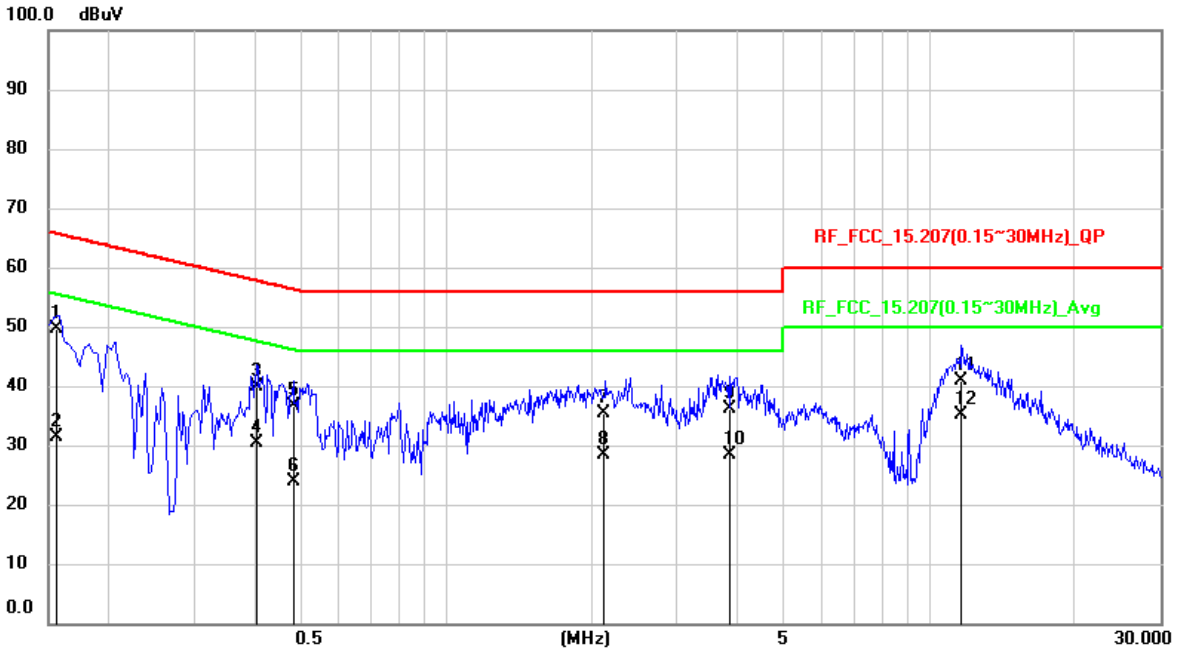


No.	Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1613	38.13	9.83	47.96	65.4	-17.44	QP
2	0.1613	19.49	9.83	29.32	55.4	-26.08	AVG
3	0.1731	33.95	9.83	43.78	64.81	-21.03	QP
4	0.1731	11.66	9.83	21.49	54.81	-33.32	AVG
5	0.4192	30.97	9.83	40.8	57.46	-16.66	QP
6	0.4192	19.94	9.83	29.77	47.46	-17.69	AVG
7	0.4456	32.17	9.83	42	56.96	-14.96	QP
8	0.4456	20.99	9.83	30.82	46.96	-16.14	AVG
9	0.5344	29.7	9.83	39.53	56	-16.47	QP
10	0.5344	19.53	9.83	29.36	46	-16.64	AVG
11	10.72	28	10.14	38.14	60	-21.86	QP
12	10.72	22.25	10.14	32.39	50	-17.61	AVG

Remark:

1. QP = Quasi Peak, AVG = Average
2. Correction Factor = Insertion loss of LISN + Cable loss
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value –Limit Value

Test Voltage :	120Vac, 60Hz	Frequency Range:	0.15-30 MHz
Test Mode :	Mode 3：Transmit (802.11n HT20 MCS0)	6dB Bandwidth :	9 kHz
Test Date :	2024/07/29	Phase :	N
Temperature :	27.2℃	Humidity :	51 %



No.	Frequency (MHz)	Reading Level (dBuV)	Correct Factor (dB)	Measurement (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1549	39.92	9.82	49.74	65.73	-15.99	QP
2	0.1549	21.58	9.82	31.4	55.73	-24.33	AVG
3	0.4043	29.99	9.82	39.81	57.76	-17.95	QP
4	0.4043	20.66	9.82	30.48	47.76	-17.28	AVG
5	0.4828	26.69	9.82	36.51	56.29	-19.78	QP
6	0.4828	14.07	9.82	23.89	46.29	-22.4	AVG
7	2.1105	25.4	9.88	35.28	56	-20.72	QP
8	2.1105	18.59	9.88	28.47	46	-17.53	AVG
9	3.8447	26.29	9.96	36.25	56	-19.75	QP
10	3.8447	18.4	9.96	28.36	46	-17.64	AVG
11	11.6978	30.67	10.14	40.81	60	-19.19	QP
12	11.6978	25.08	10.14	35.22	50	-14.78	AVG

Remark:

1. QP = Quasi Peak, AVG = Average
2. Correction Factor = Insertion loss of LISN + Cable loss
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value –Limit Value

--- END ---