



RF MEASUREMENT REPORT

FCC ID: HD5-PX900A

Applicant: Honeywell International Inc
Honeywell Safety and Productivity Solutions

Product: Printer

Model No.: PX940

Brand Name: Honeywell

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

Result: Complies

Test Date: 2022-05-19 ~ 2022-06-06

Reviewed By:

Jame Yuan

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2204RSU049-U1	Rev. 01	Initial Report	2022-06-06	Valid

Note: The applicant changed Bluetooth module's antenna, detail see the form below, others are same as before. Partial items (Occupied Bandwidth & Output power & Radiated Spurious Emission & AC Conducted Emission Measurement) are evaluated.

Antenna	Type	Peak Gain
Original antenna	Chip Antenna	1.30 dBi
New antenna	Chip Antenna	3.77 dBi

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1. General Information

1.1. Applicant

Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Baires Road, Fort Mill, SC 29707 United States

1.2. Manufacturer

Honeywell International Inc
Honeywell Safety and Productivity Solutions
9680 Old Bales Road, Fort Mill, SC 29707 United States

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	Printer
Model No.	PX940
EUT Identification No.	20220424Sample#14, 20220424Sample#16
Bluetooth Specification	v4.2 single mode (only BLE)
Antenna Information	Refer to section 1.5
Working Voltage	AC 100-240V, 50-60Hz
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps
Antenna Type	Chip Antenna
Antenna Gain	3.77dBi

Note: For other features of this EUT, test report will be issued separately.

1.6. Working Frequencies

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2. Test Configuration

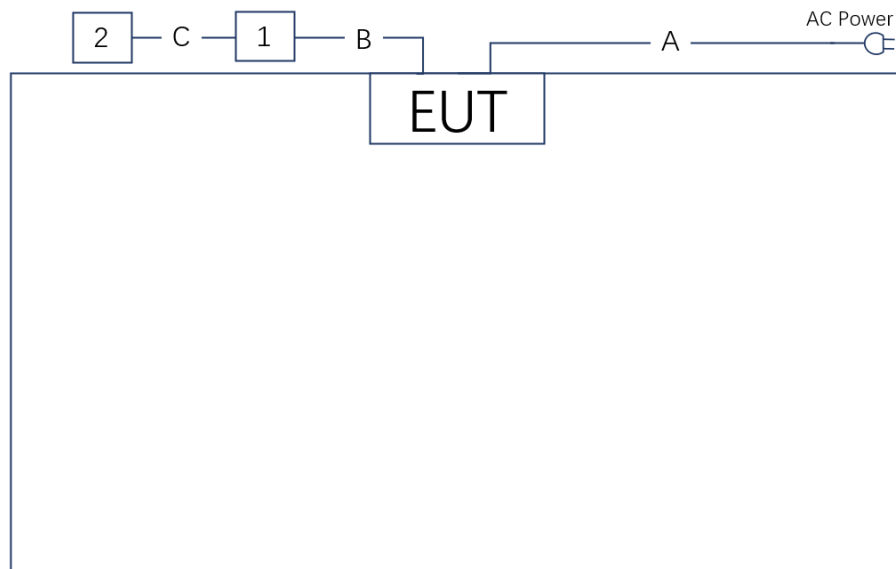
2.1. Test Mode

Mode 1: Transmit by BLE-1Mbps

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated emissions testing.

Connection Diagram - Radiated Emission testing



No.	Cable Type	Cable Spec.	Length
A	Power Cable	Non-Shielding	1.8m
B	Dupont Line	Non-Shielding	0.2m
C	USB Cable	Shielding	1.2m
No.	Product	Manufacturer	Model No.
1	Evaluation board	TEXAS INSTRUMENTS	N/A
2	Notebook	HP	HP 6XP88PC#AB2

2.3. Test Software

The test utility software used during testing was “SmartRF Studio”, and the version was 2.4.3.

2.4. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.247
- KDB 558074 D01v05r02
- ANSI C63.10-2013

2.5. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2022-10-28	WZ-AC2
Horn Antenna	ETS	3117	MRTSUE06257	1 year	2022-09-25	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2022-12-01	WZ-AC2
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2022-05-24	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2022-06-24	WZ-AC2
Thermohygrometer	Mingle	ETH529	MRTSUE06170	1 year	2022-12-01	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2022-10-21	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2022-11-12	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2023-04-21	WZ-AC2
Thermohygrometer	testo	Testo 608-H1	MRTSUE11038	1 year	2022-11-11	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE06222	1 year	2022-10-10	WZ-SR4
Shielding Room	HUAMING	WZ-SR4	MRTSUE06441	N/A	N/A	WZ-SR4
Signal Analyzer	Keysight	N9010B	MRTSUE06558	1 year	2022-06-24	WZ-SR4
USB Power Sensor	Keysight	U2021XA	MRTSUE06447	1 year	2022-06-08	WZ-SR4
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2022-06-08	WZ-SR2
V-Network	R&S	ESH3-Z6	MRTSUE06187	1 year	2023-04-06	WZ-SR2
V-Network	R&S	ESH3-Z6	MRTSUE06188	1 year	2023-04-06	WZ-SR2
Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	N/A	N/A	WZ-SR2
Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2022-06-28	WZ-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2022-11-01	WZ-SR2

Software	Version	Function
EMI V3	V 3.0.0	EMI Test Software

5. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 1.13dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2Uc(y)$): 0.28%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6dB Bandwidth	Conducted	Pass
15.247(b)(3)	Output Power		Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

Remark:

The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

6.2. 6dB Bandwidth Measurement

6.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

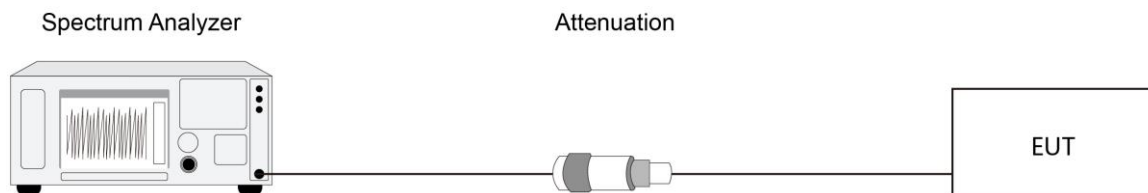
6.2.2. Test Procedure used

ANSI C63.10-2013 Section 11.8

6.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.1.

6.3. Output Power Measurement

6.3.1. Test Limit

The maximum output power shall be less 1 Watt (30dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3.2. Test Procedure

ANSI C63.10-2013 - Section 11.9.1.3

ANSI C63.10-2013 - Section 11.9.2.3.2

6.3.3. Test Setting

Method PKPM1 (Peak Power Measurement of Signals with DTS BW $\leq$ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.2.

6.4. Radiated Spurious Emission Measurement

6.4.1. Test Limit

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

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

6.4.2. Test Procedure

ANSI C63.10-2013 - Section 11.11 & 11.12

ANSI C63.10-2013 - Section 6.3 (General Requirements)

ANSI C63.10-2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10-2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10-2013 - Section 6.6 (Standard test method above 1GHz)

6.4.3. Test Setting

Table 1 - RBW as a function of frequency

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

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

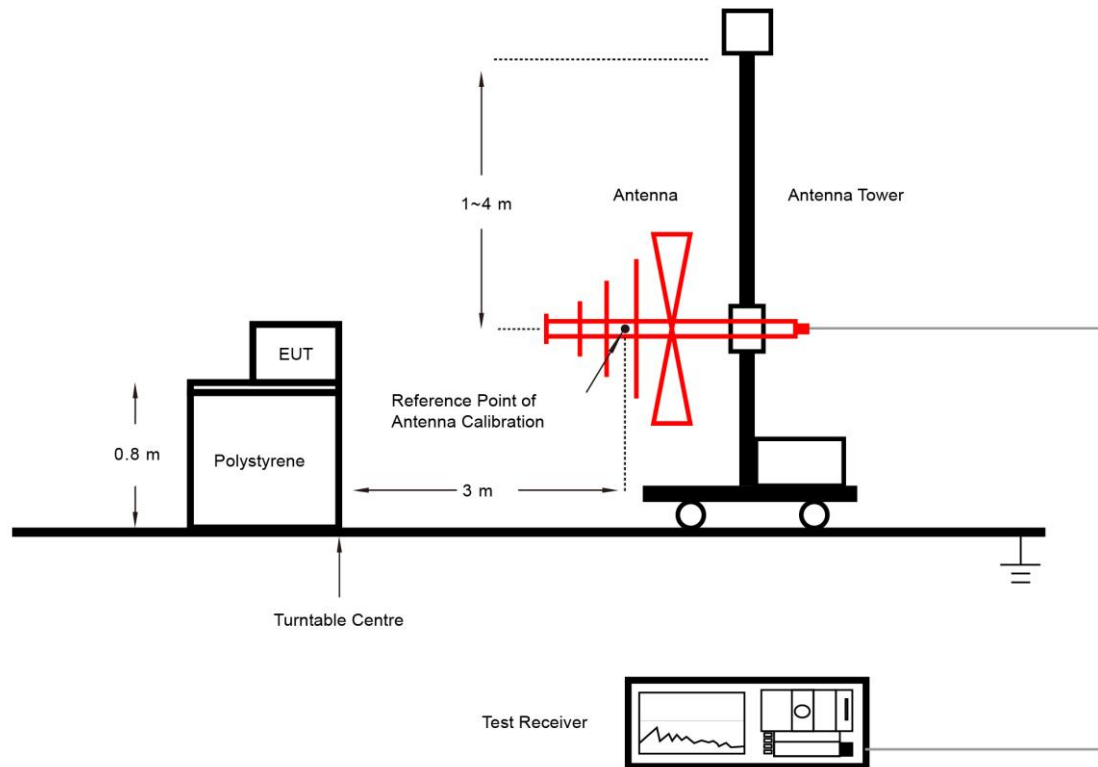
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

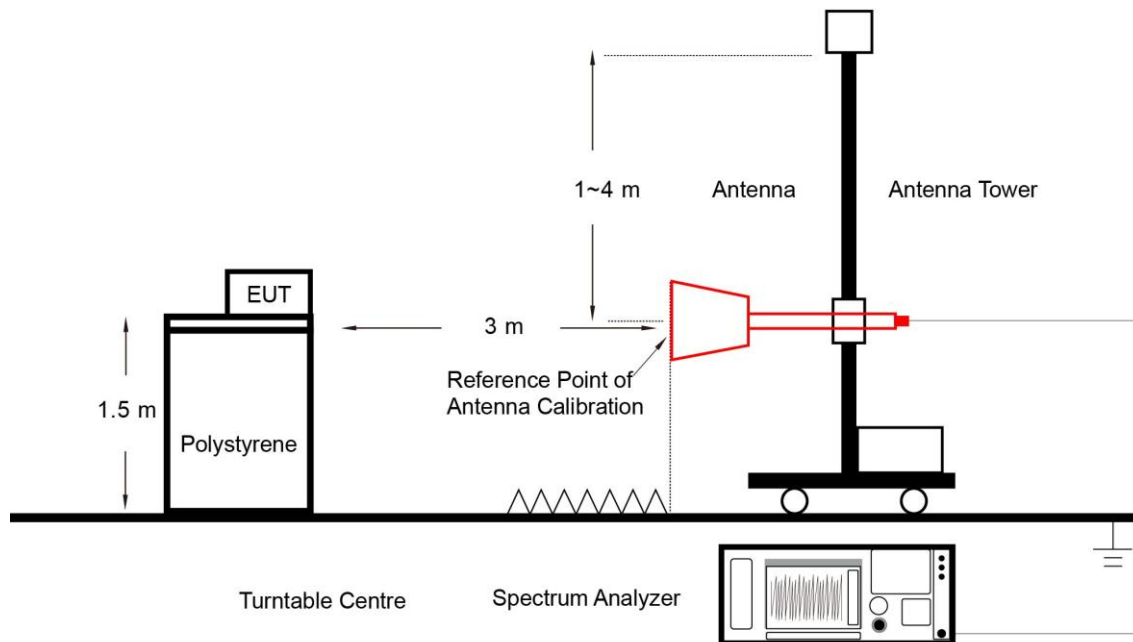
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.
If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.4.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.4.5. Test Result

Refer to Appendix A.3.

6.5. Radiated Restricted Band Edge Measurement

6.5.1. Test Limit

For 15.205 requirement:

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

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

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

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

6.5.2. Test Procedure

ANSI C63.10-2013 Section 6.3 & 6.6 & 11.13

6.5.3. Test Setting

Peak Field Strength Measurements

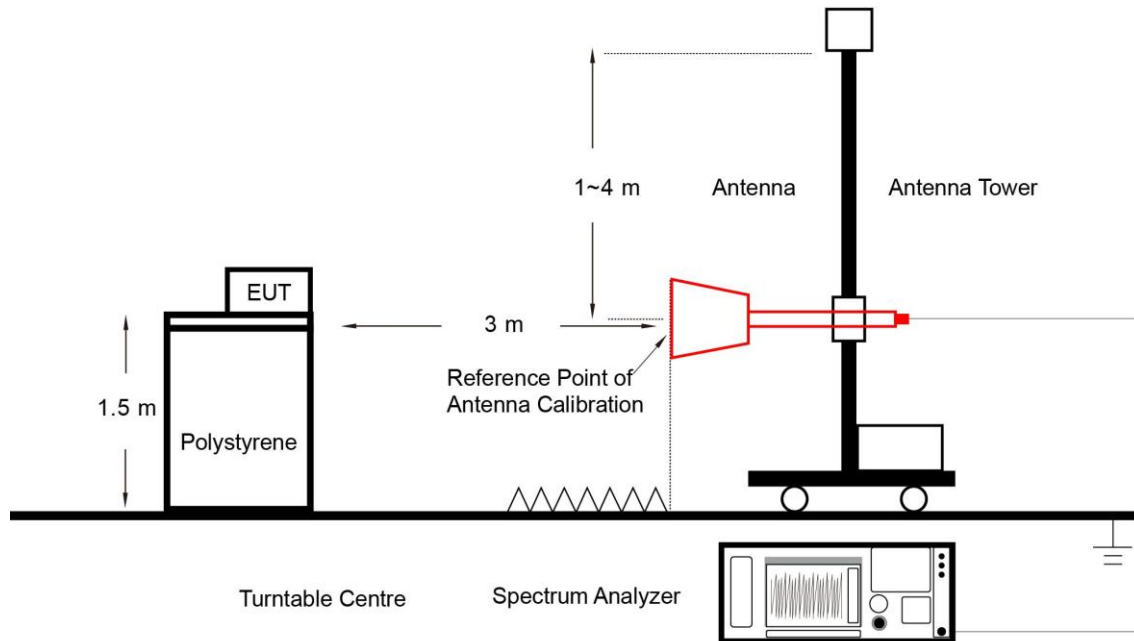
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak

6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.4.

6.6. AC Conducted Emissions Measurement

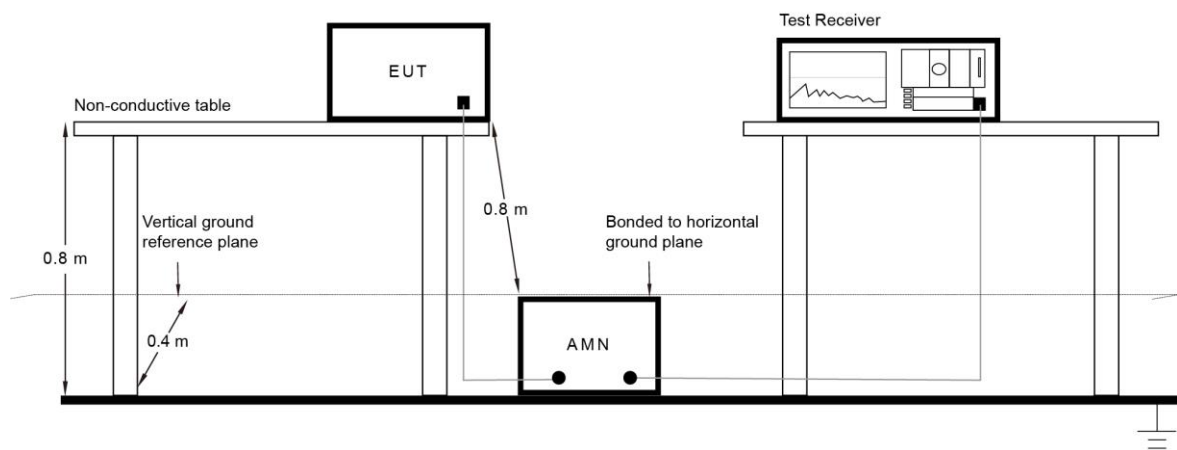
6.6.1. Test Limit

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

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

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

6.6.2. Test Setup



6.6.3. Test Result

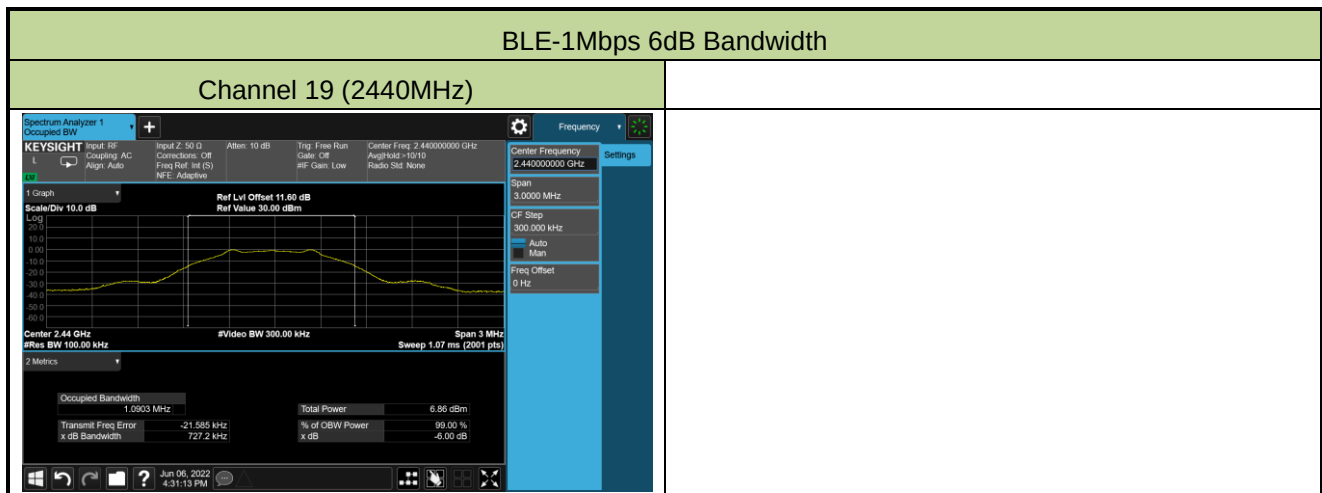
Refer to Appendix A.5.

Appendix A - Test Result

A.1 6dB Bandwidth Test Result

Test Site	WZ-SR4	Test Engineer	Liz Yuan
Test Date	2022/06/06		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
BLE	1Mbps	19	2440	0.7272	≥ 0.5



A.2 Output Power Test Result

Test Site	WZ-SR4	Test Engineer	Luis Yang
Test Date	2022/05/20		

Test Result of Peak Output Power

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	-0.26	≤ 30.00	Pass
BLE	1Mbps	19	2440	0.11	≤ 30.00	Pass
BLE	1Mbps	39	2480	-0.83	≤ 30.00	Pass

Test Result of Average Output Power (Reporting Only)

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1Mbps	00	2402	-0.38	≤ 30.00	Pass
BLE	1Mbps	19	2440	-0.11	≤ 30.00	Pass
BLE	1Mbps	39	2480	-0.97	≤ 30.00	Pass

A.3 Radiated Spurious Emission Test Result

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2022/05/19	Test Mode	BLE-1Mbps
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.		

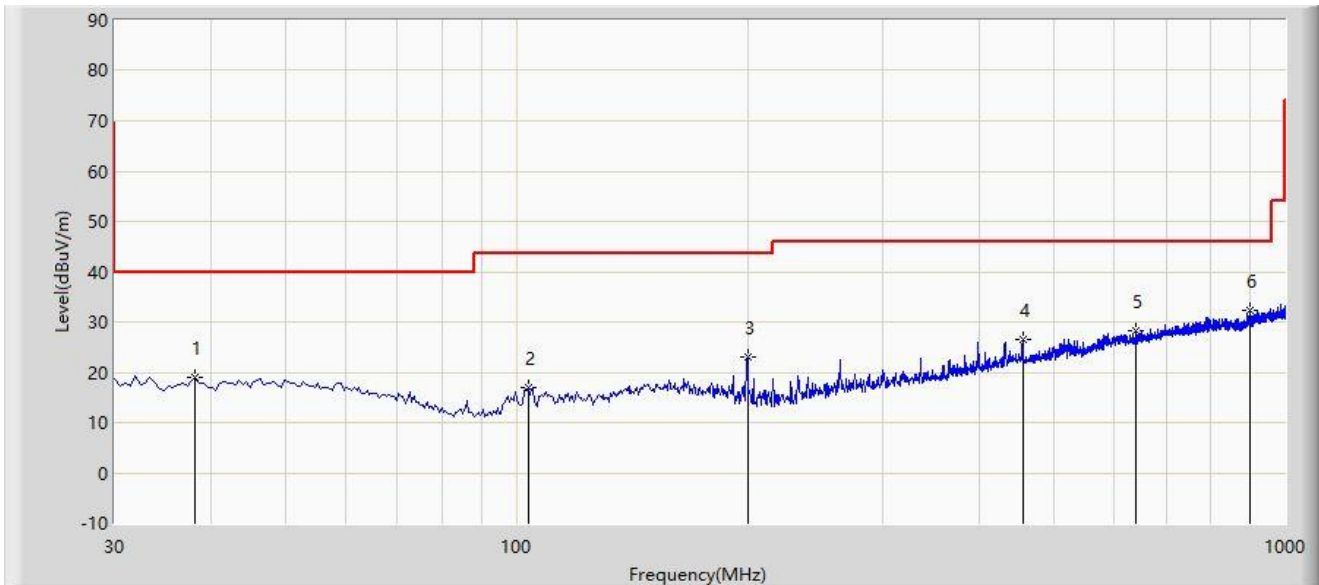
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
00	3881.5	37.4	0.1	37.5	74.0	-36.5	Peak	Horizontal
	4808.0	44.7	4.3	49.0	74.0	-25.0	Peak	Horizontal
	11387.0	32.4	17.4	49.8	74.0	-24.2	Peak	Horizontal
	4179.0	37.9	1.2	39.1	74.0	-34.9	Peak	Vertical
	4808.0	40.8	4.3	45.1	74.0	-28.9	Peak	Vertical
	11531.5	30.8	17.6	48.4	74.0	-25.6	Peak	Vertical
19	3898.5	39.0	0.0	39.0	74.0	-35.0	Peak	Horizontal
	4884.5	47.4	3.7	51.1	74.0	-22.9	Peak	Horizontal
	4884.5	43.4	3.7	47.1	54.0	-6.9	Average	Horizontal
	7324.0	39.9	11.1	51.0	74.0	-23.0	Peak	Horizontal
	3711.5	40.1	-0.4	39.7	74.0	-34.3	Peak	Vertical
	4876.0	45.0	3.7	48.7	74.0	-25.3	Peak	Vertical
	7315.5	37.8	11.1	48.9	74.0	-25.1	Peak	Vertical
39	4145.0	38.2	1.0	39.2	74.0	-34.8	Peak	Horizontal
	4961.0	47.1	3.6	50.7	74.0	-23.3	Peak	Horizontal
	7443.0	36.5	11.5	48.0	74.0	-26.0	Peak	Horizontal
	4791.0	39.8	4.5	44.3	74.0	-29.7	Peak	Vertical
	4961.0	45.1	3.6	48.7	74.0	-25.3	Peak	Vertical
	10979.0	33.4	16.6	50.0	74.0	-24.0	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-AC2	Test Date: 2022/05/21
Limit: FCC_Part15.209_RE(3m)	Engineer: Edith Yu
Probe: VULB 9168_25-2000MHz	Polarity: Horizontal
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			38.245	19.061	1.486	-20.939	40.000	17.576	PK
2			103.720	17.000	3.249	-26.500	43.500	13.751	PK
3			199.750	23.186	8.645	-20.314	43.500	14.541	PK
4			455.345	26.535	3.883	-19.465	46.000	22.651	PK
5			640.130	28.249	2.180	-17.751	46.000	26.069	PK
6		*	899.605	32.407	2.659	-13.593	46.000	29.748	PK

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

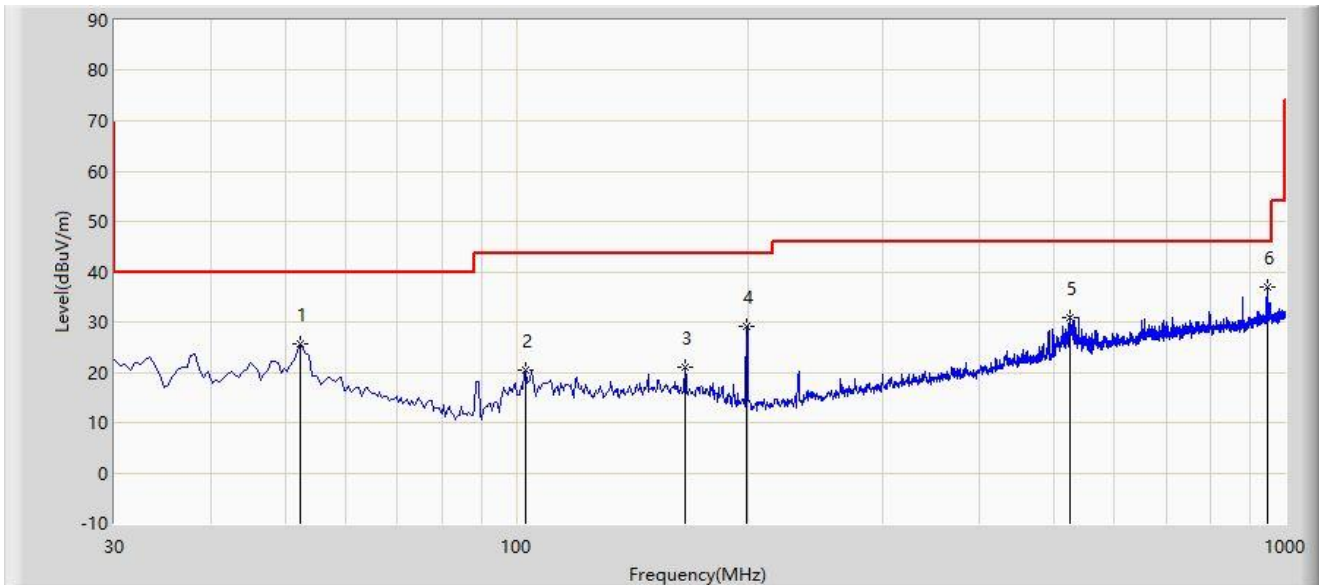
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: 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-AC2	Test Date: 2022/05/21
Limit: FCC_Part15.209_RE(3m)	Engineer: Edith Yu
Probe: VULB 9168_25-2000MHz	Polarity: Vertical
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2480MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1			52.310	25.619	7.158	-14.381	40.000	18.461	PK
2			102.750	20.506	6.897	-22.994	43.500	13.609	PK
3			165.800	21.132	3.078	-22.368	43.500	18.054	PK
4			199.265	29.090	14.533	-14.410	43.500	14.556	PK
5			524.215	30.963	7.116	-15.037	46.000	23.847	PK
6		*	947.620	36.884	6.559	-9.116	46.000	30.325	PK

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

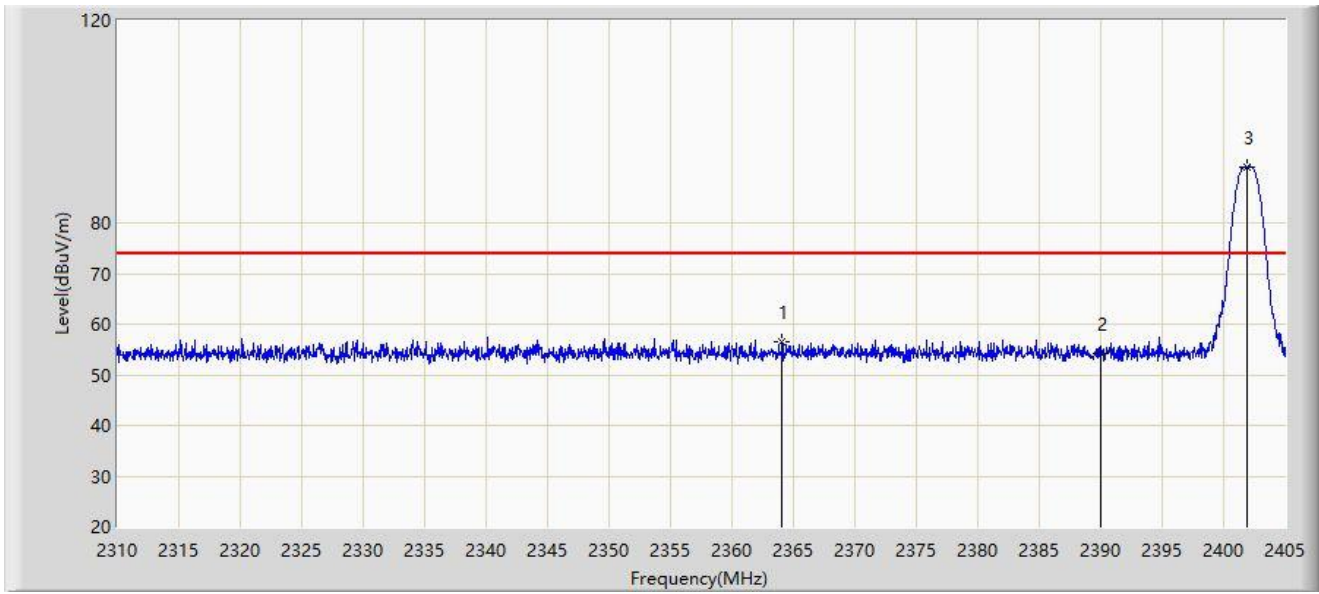
Note 2: QP measurement was not performed when peak measure level was lower than the QP limit.

Note 3: 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.4 Radiated Restricted Band Edge Test Result

Site: WZ-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2402MHz	



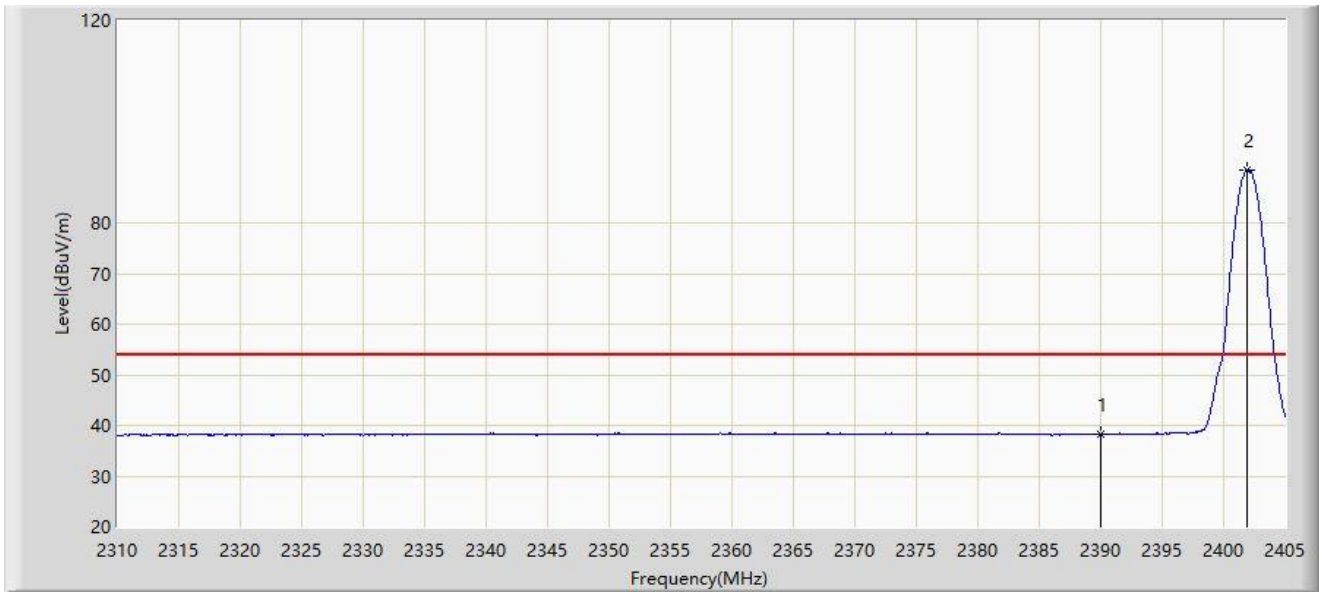
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2364.055	56.512	24.999	-17.488	74.000	31.513	PK
2		2390.000	54.290	22.857	-19.710	74.000	31.433	PK
3		2401.960	91.030	59.646	N/A	N/A	31.384	PK

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2402MHz	



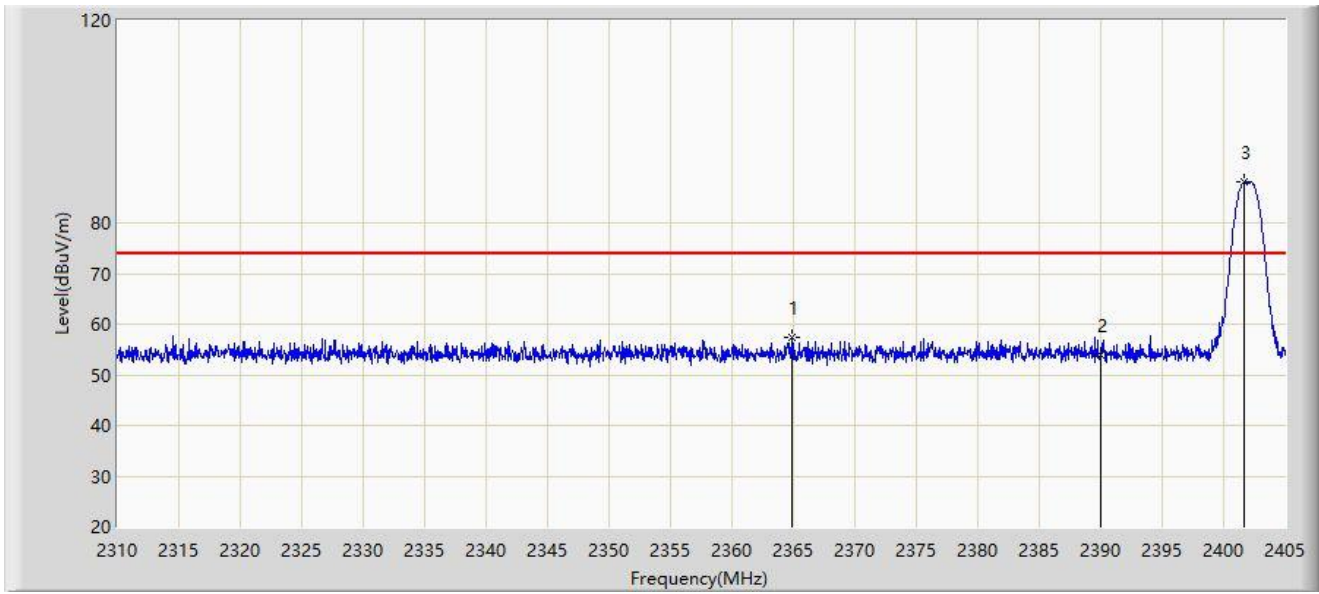
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	38.209	6.776	-15.791	54.000	31.433	AV
2		2401.865	90.441	59.057	N/A	N/A	31.384	AV

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2402MHz	



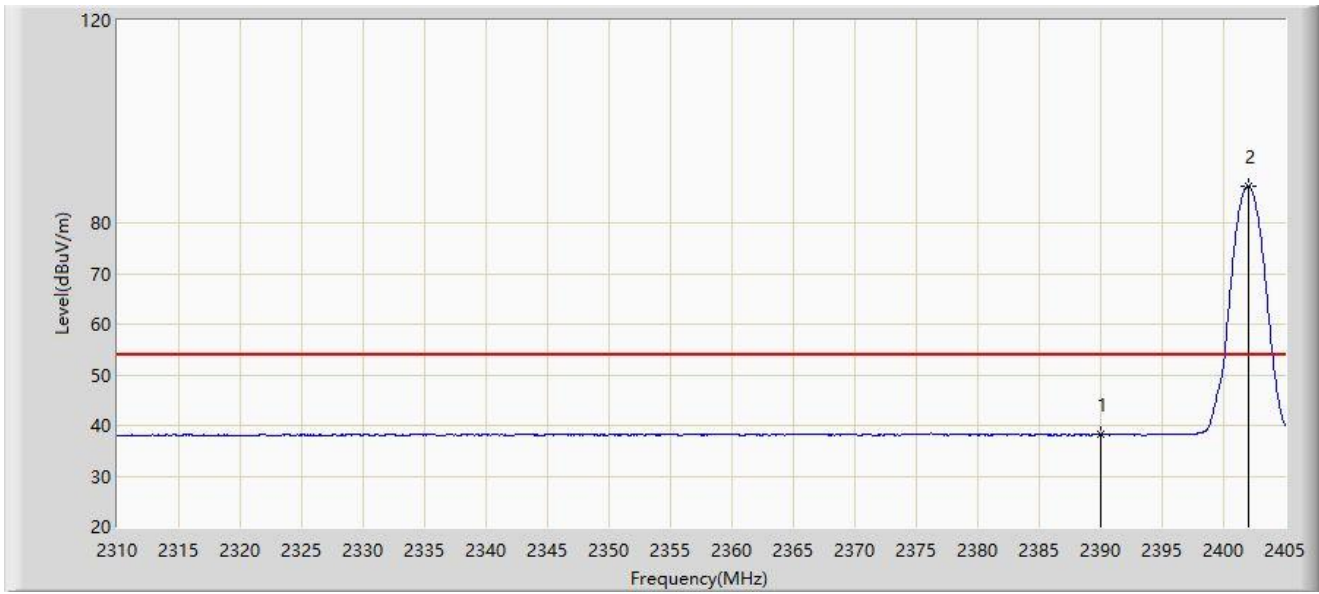
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2364.863	57.391	25.878	-16.609	74.000	31.513	PK
2		2390.000	53.965	22.532	-20.035	74.000	31.433	PK
3		2401.722	88.117	56.732	N/A	N/A	31.385	PK

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2402MHz	



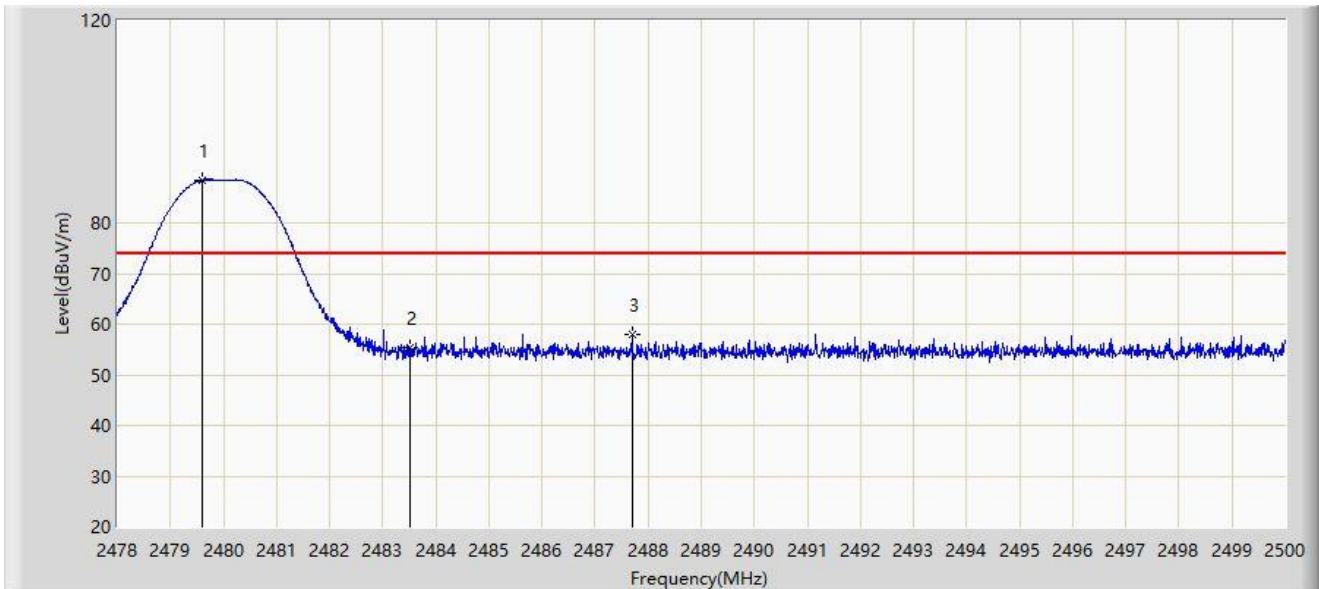
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1	*	2390.000	38.140	6.707	-15.860	54.000	31.433	AV
2		2402.008	87.281	55.897	N/A	N/A	31.384	AV

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2480MHz	



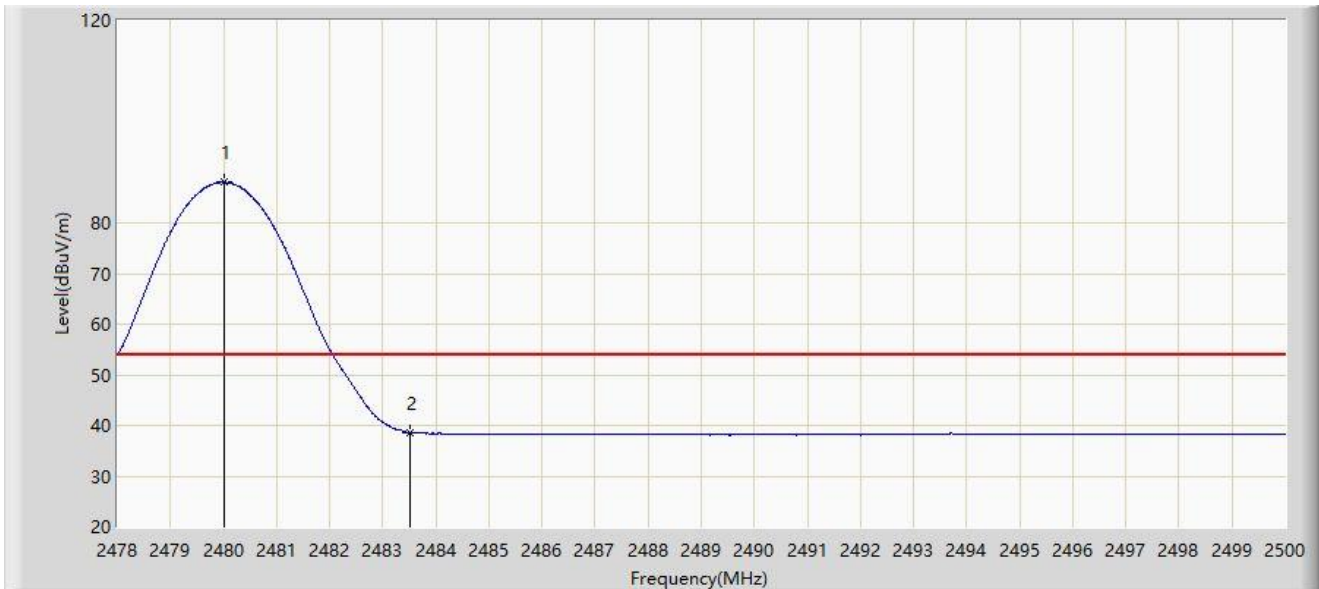
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.606	88.508	57.200	N/A	N/A	31.308	PK
2		2483.500	55.395	24.080	-18.605	74.000	31.315	PK
3	*	2487.691	58.042	26.720	-15.958	74.000	31.322	PK

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Horizontal
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2480MHz	



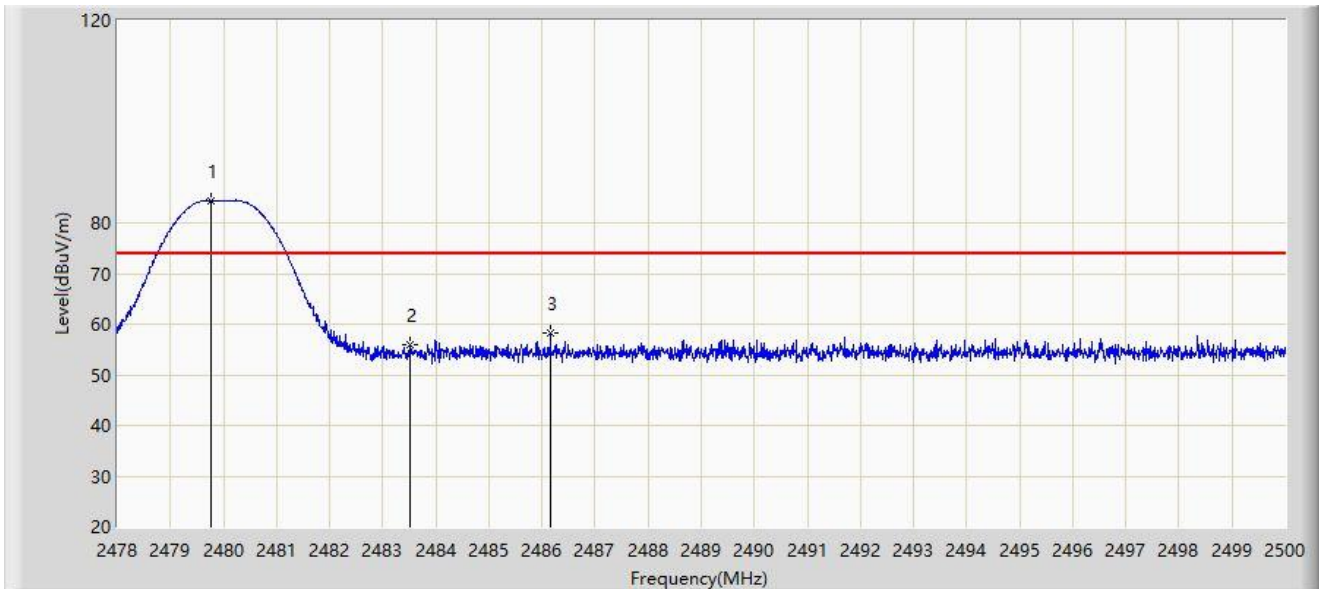
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2480.002	87.991	56.683	N/A	N/A	31.308	AV
2	*	2483.500	38.578	7.263	-15.422	54.000	31.315	AV

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2480MHz	



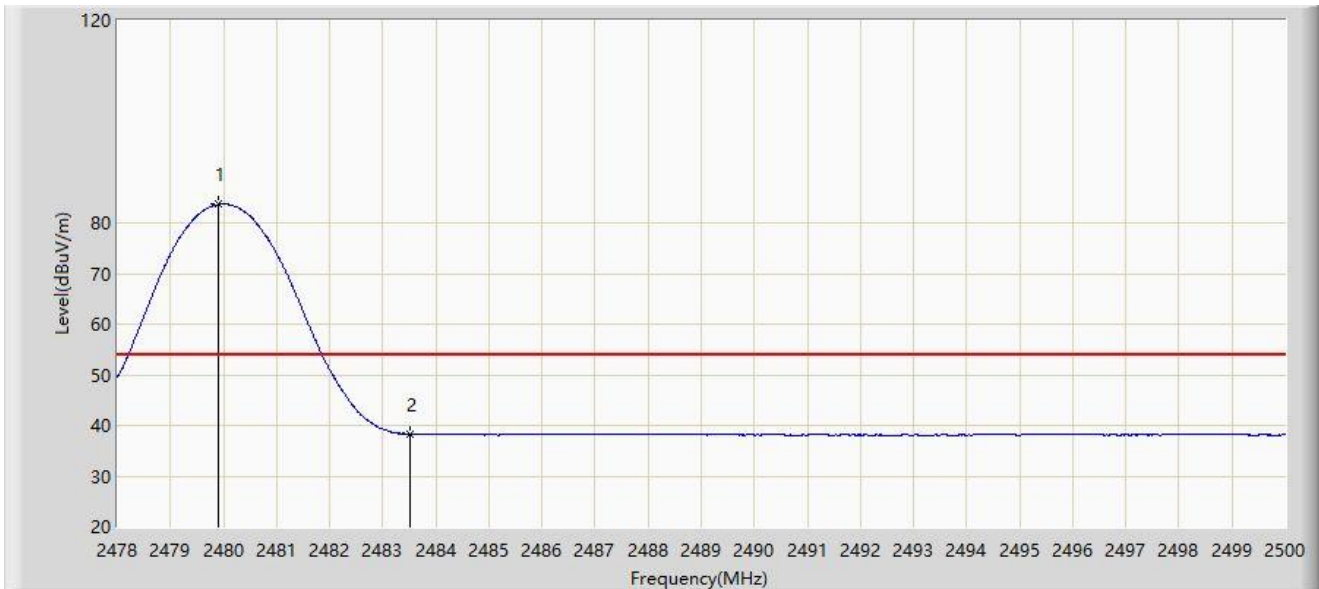
No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.771	84.470	53.162	N/A	N/A	31.308	PK
2		2483.500	55.880	24.565	-18.120	74.000	31.315	PK
3	*	2486.162	58.313	26.994	-15.687	74.000	31.319	PK

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-AC2	Test Date: 2022/05/19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bob Zhang
Probe: BBHA9120D_1457_1-18GHz	Polarity: Vertical
EUT: Printer	Power: AC 120V/60Hz
Test Mode: Transmit by BLE-1Mbps at 2480MHz	



No	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB/m)	Type
1		2479.903	83.650	52.342	N/A	N/A	31.308	AV
2	*	2483.500	38.331	7.016	-15.669	54.000	31.315	AV

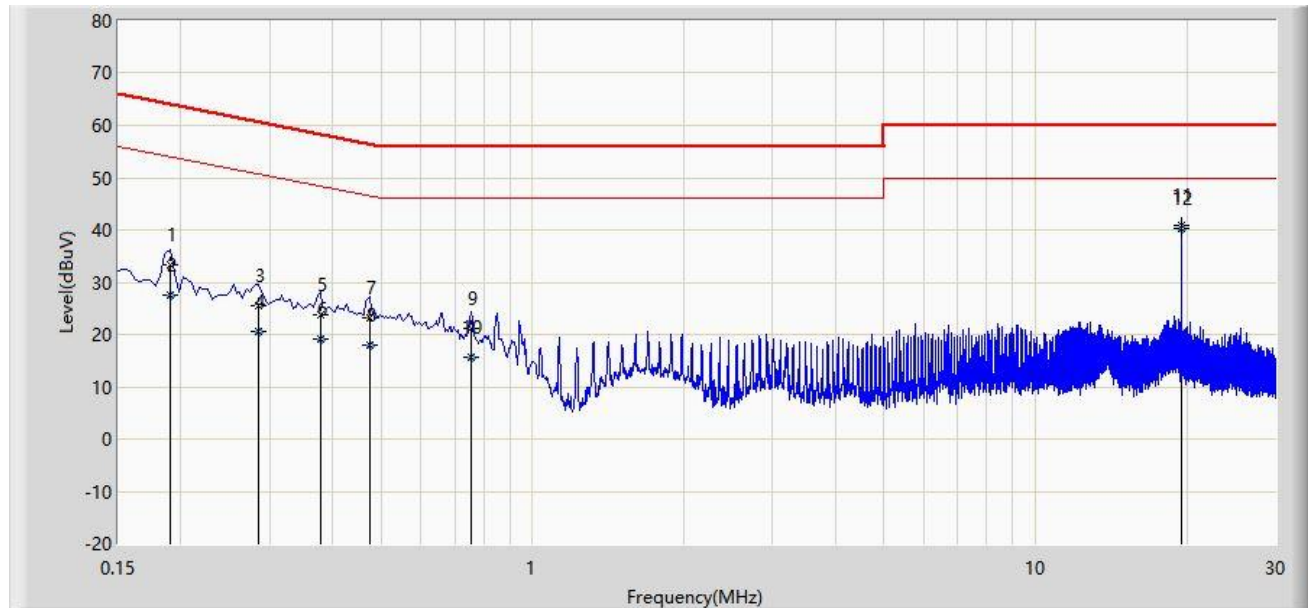
Note 1: " * ", means this data is the worst emission level.

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

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

A.5 AC Conducted Emissions Test Result

Site: WZ-SR2	Time: 2022/06/06 - 14:16
Temperature: 24.6°C	Humidity: 65.1%
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Line
EUT: Printer	Power: AC 120V/60Hz
Note: BLE Communication	



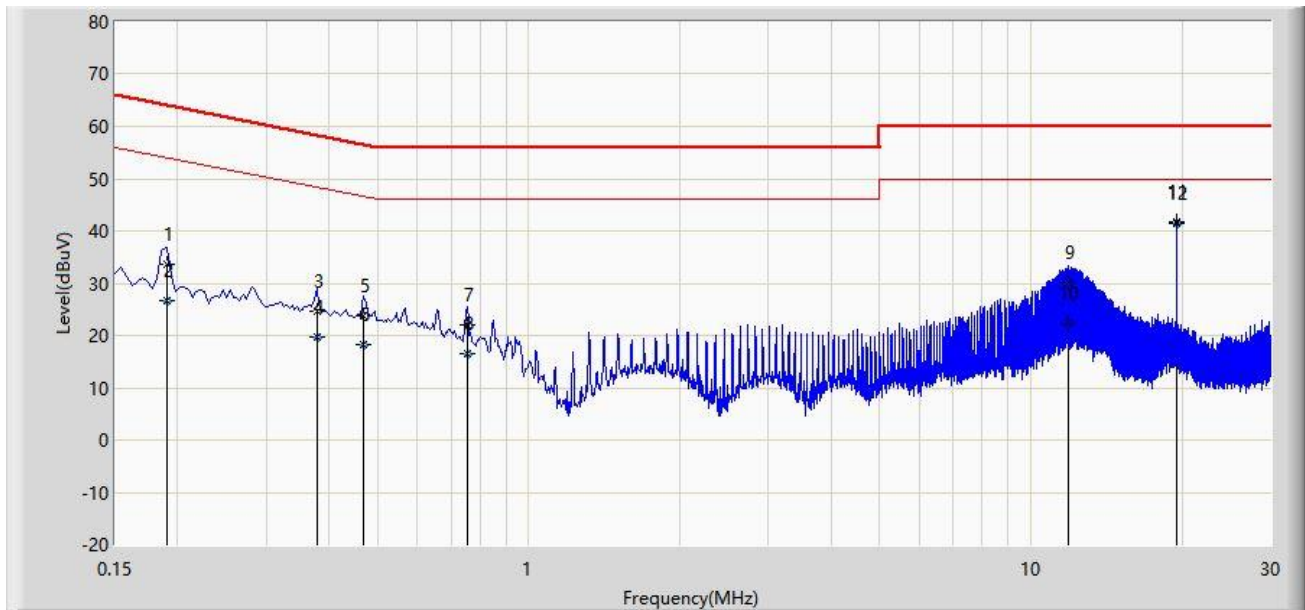
No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.190	33.368	23.326	-30.669	64.037	10.042	QP
2		0.190	27.457	17.415	-26.579	54.037	10.042	AV
3		0.286	25.489	15.426	-35.151	60.640	10.062	QP
4		0.286	20.458	10.395	-30.181	50.640	10.062	AV
5		0.378	23.820	13.733	-34.503	58.323	10.088	QP
6		0.378	19.194	9.107	-29.129	48.323	10.088	AV
7		0.474	23.049	12.936	-33.395	56.444	10.113	QP
8		0.474	18.051	7.938	-28.392	46.444	10.113	AV
9		0.754	21.102	10.925	-34.898	56.000	10.177	QP
10		0.754	15.720	5.543	-30.280	46.000	10.177	AV
11		19.502	40.755	29.581	-19.245	60.000	11.174	QP
12	*	19.502	40.382	29.208	-9.618	50.000	11.174	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	Time: 2022/06/06 - 14:26
Temperature: 24.6°C	Humidity: 65.1%
Limit: FCC_Part15.207_CE_AC Power	Engineer: Helen Han
Probe: ENV216_101683_Filter Off_C	Polarity: Neutral
EUT: Printer	Power: AC 120V/60Hz
Note: BLE Communication	



No	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1		0.190	33.655	23.316	-30.381	64.037	10.339	QP
2		0.190	26.592	16.253	-27.445	54.037	10.339	AV
3		0.378	24.544	14.184	-33.780	58.323	10.360	QP
4		0.378	19.798	9.439	-28.525	48.323	10.360	AV
5		0.470	23.730	13.356	-32.784	56.514	10.375	QP
6		0.470	18.229	7.854	-28.285	46.514	10.375	AV
7		0.754	22.165	11.738	-33.835	56.000	10.427	QP
8		0.754	16.437	6.010	-29.563	46.000	10.427	AV
9		11.870	30.206	19.076	-29.794	60.000	11.130	QP
10		11.870	22.312	11.182	-27.688	50.000	11.130	AV
11		19.502	41.724	30.396	-18.276	60.000	11.328	QP
12	*	19.502	41.425	30.097	-8.575	50.000	11.328	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 “2204RSU049-UT” file.

Appendix C - EUT Photograph

Refer to “2204RSU049-UE” file.

The End
