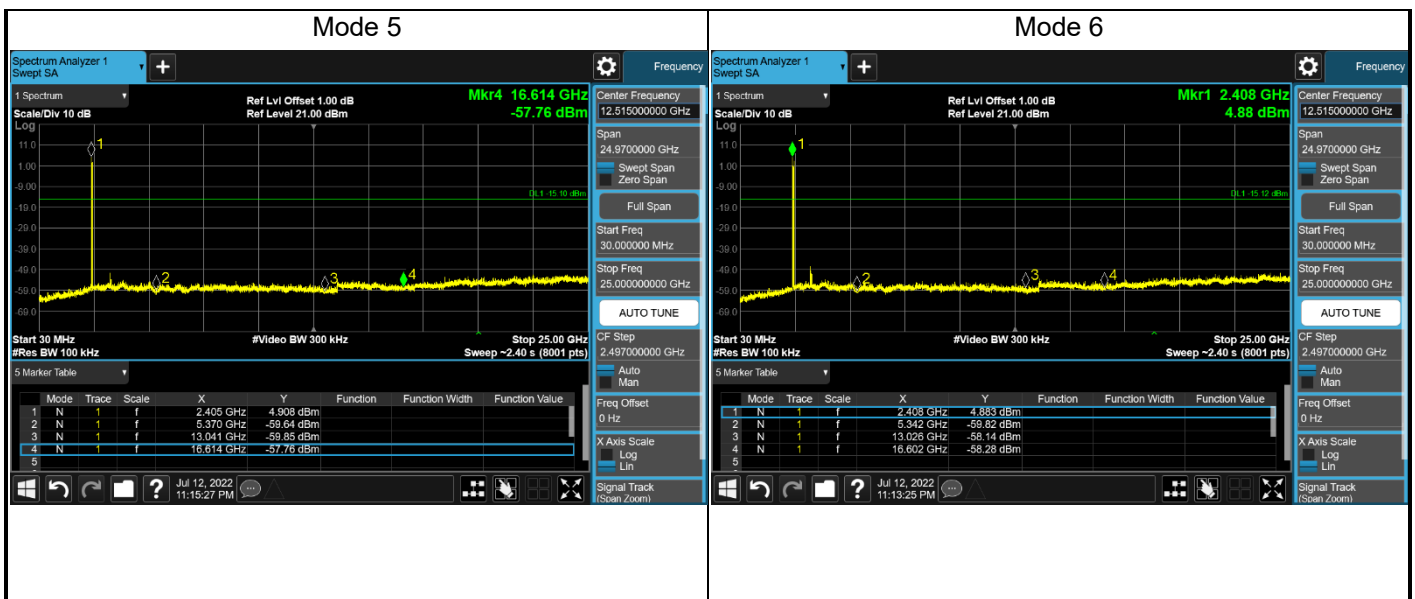
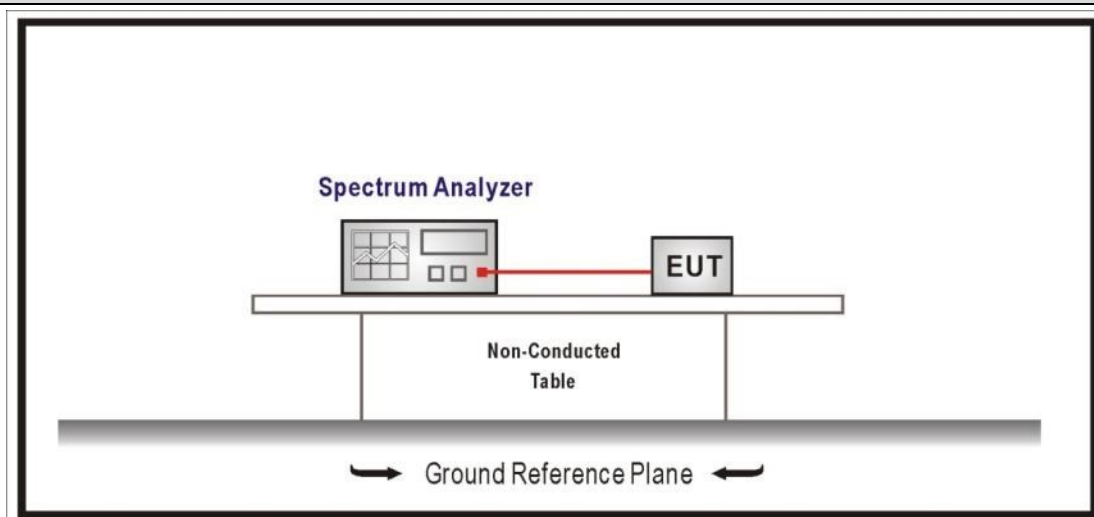




4.9 Duty cycle**VERDICT: PASS****4.9.1 Limit**

N/A

4.9.2 Test Setup**4.9.3 Test Procedure**

References Rule		Chapter	Description
☒	ANSI C63.10	11.6	Duty cycle (D), transmission duration (T), and maximum power control level

4.9.4 Test Data

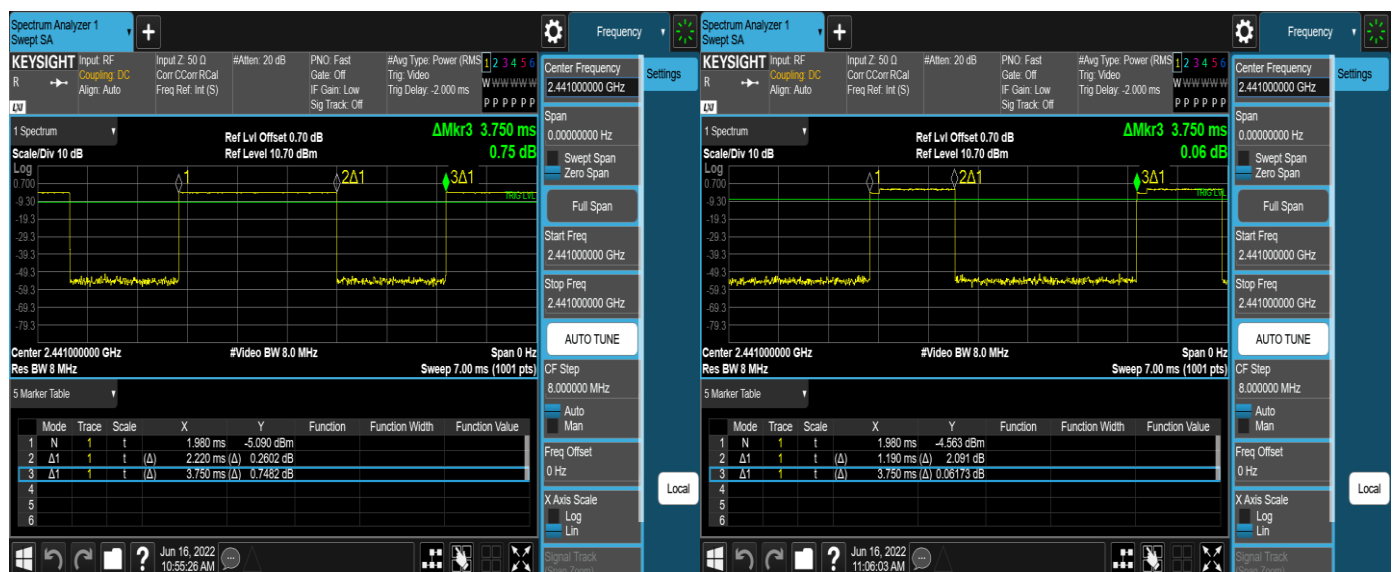
Test Mode	Tx On (ms)	Tx Off (ms)	VBW (kHz)	Tx On + Tx Off (ms)	Duty Cycle (%)
Mode 1	2.22	1.53	0.47	3.75	59.20
Mode 2	1.19	2.56	0.91	3.75	31.73
Mode 3	0.85	2.90	1.2	3.75	22.67

Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

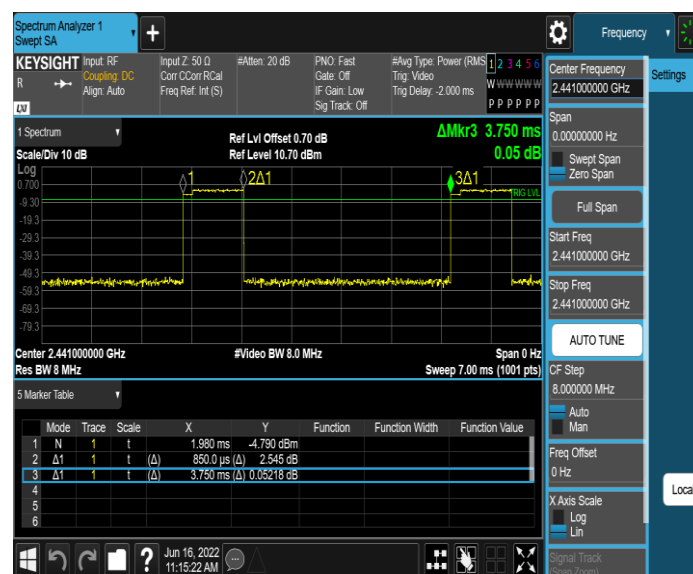
Note 2: According to KDB 558074, when test for Radiated Emission Band Edge and Radiated Emission, for average detector set: $VBW \geq 1/T$ will be used.

Mode 1 CH39 2441MHz

Mode 2 CH39 2441MHz



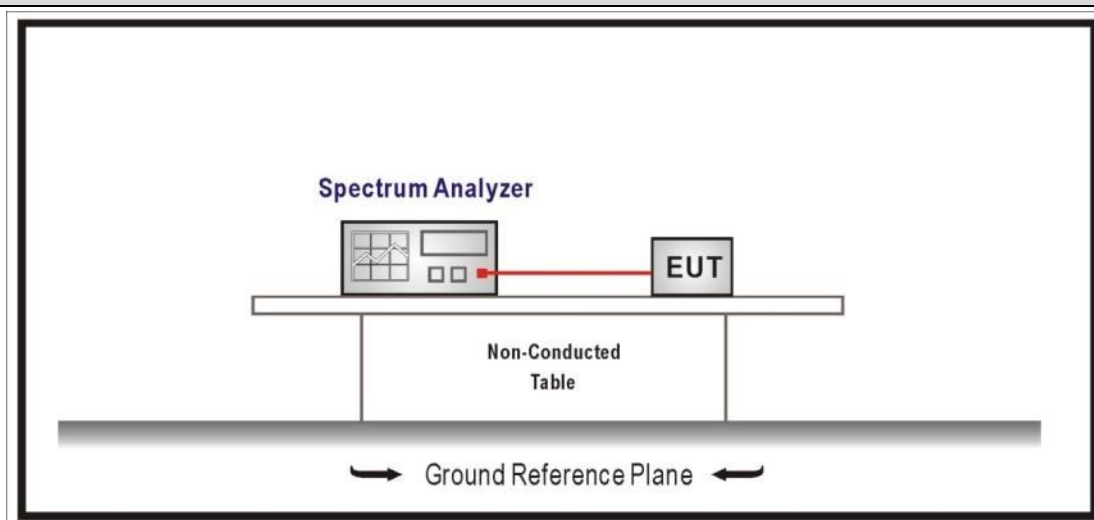
Mode 3 CH39 2441MHz



4.10 Band Edge**VERDICT: PASS****4.10.1 Limit**

Standard		FCC Part 15 Subpart C Paragraph 15.247(d) , 15.209		
Frequency bands (MHz)	Detector	Limit (dB μ V/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

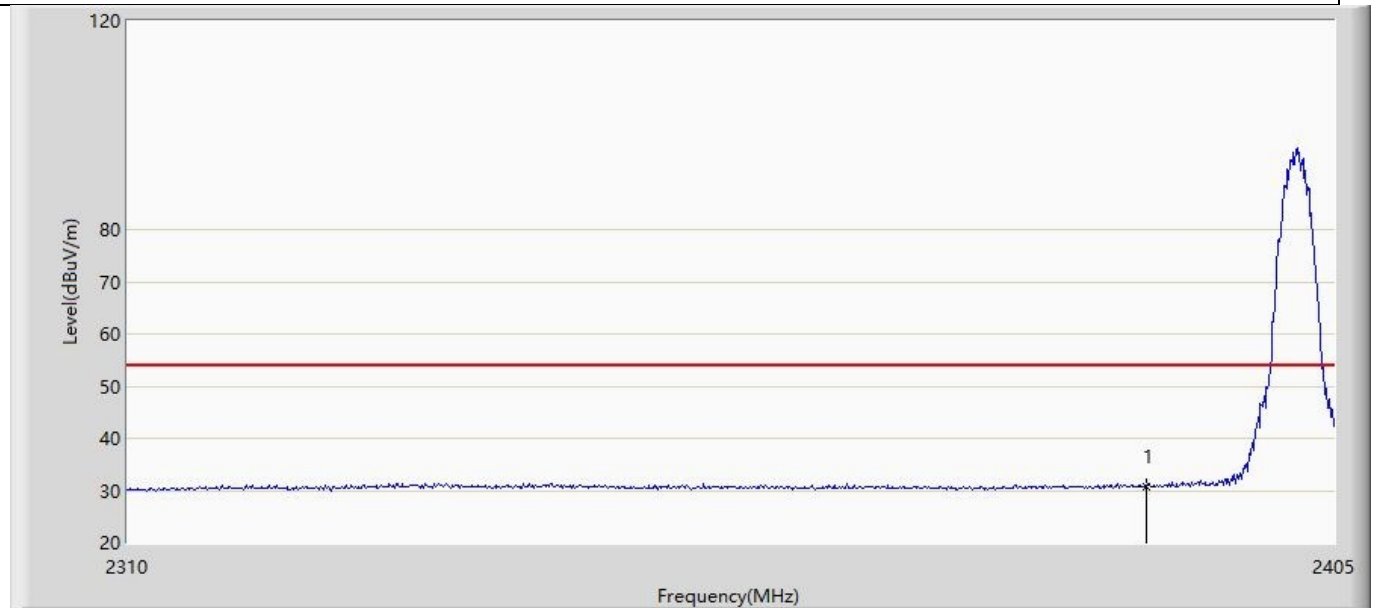
4.10.2 Test Setup**4.10.3 Test Procedure**

Test Method

	References Rule	Chapter	Description
☐	DA 00-705	N/A	duty cycle correction factor
☒	ANSI C63.10	6.10	Band-edge testing
☒	ANSI C63.10	6.10.5	Restricted-band band-edge measurements
☐	ANSI C63.10	6.10.6	Marker-delta method
☐	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
☐	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
☐	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

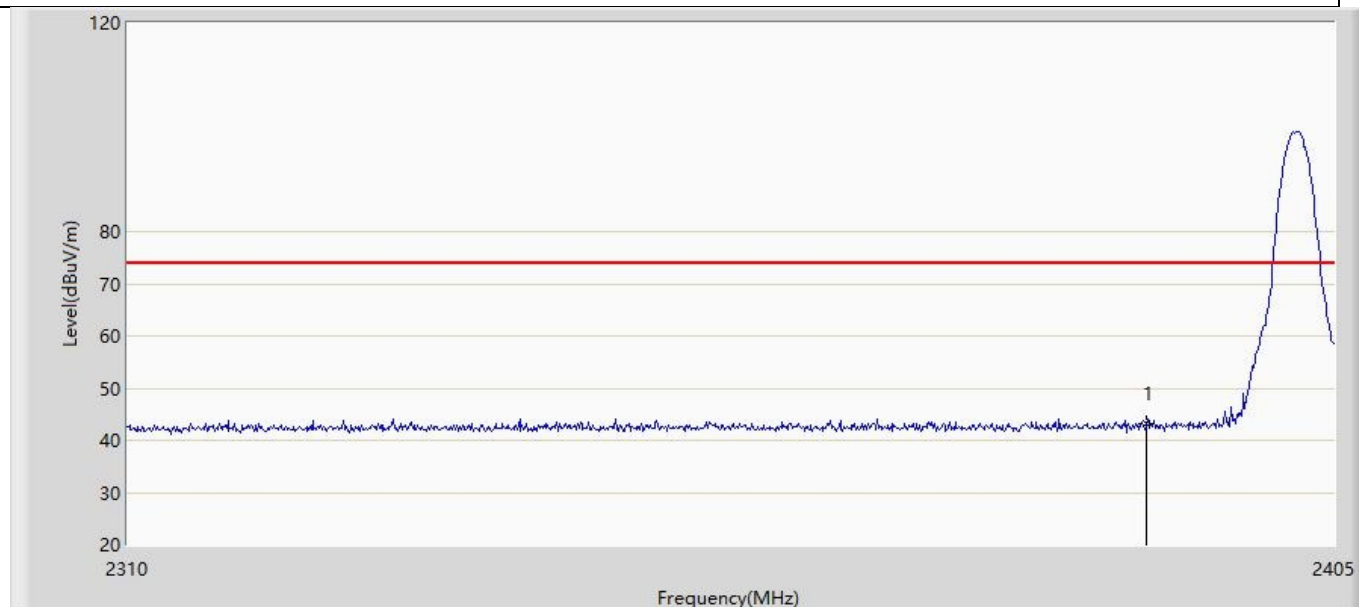
4.10.4 Test Data

Profile: 2250810R	Page No.: 1
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 00:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by DH5	



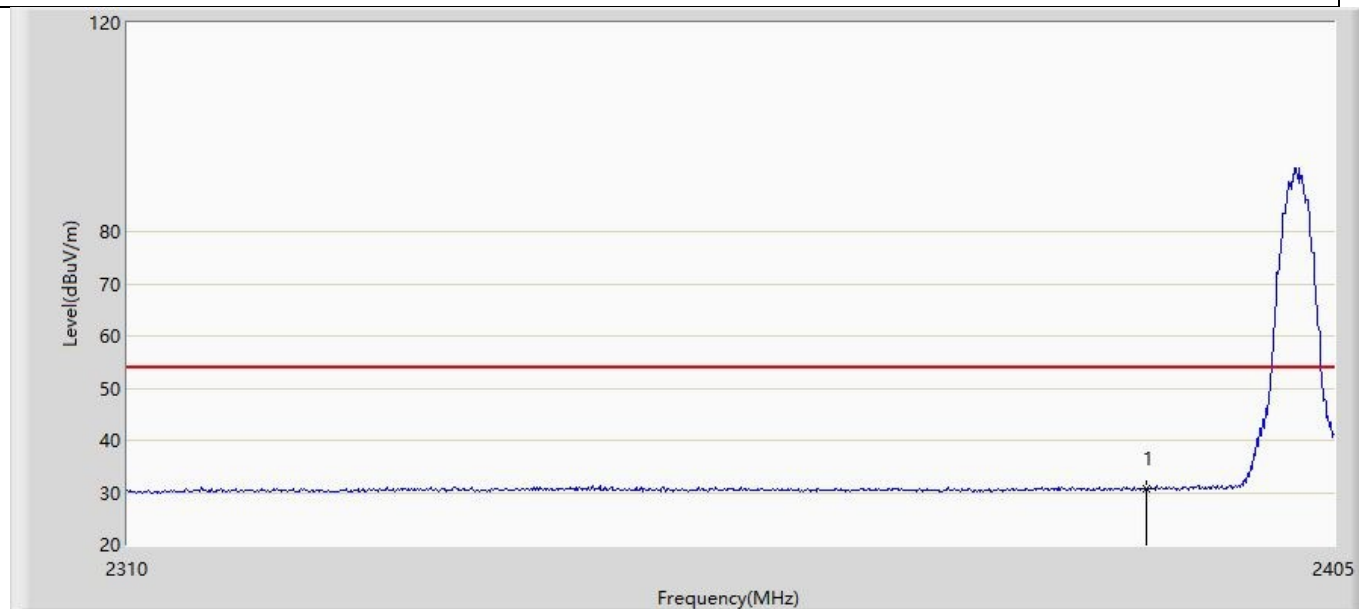
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	30.816	-0.326	-23.184	54.000	31.141	AV

Profile: 2250810R	Page No.: 2
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by DH5	



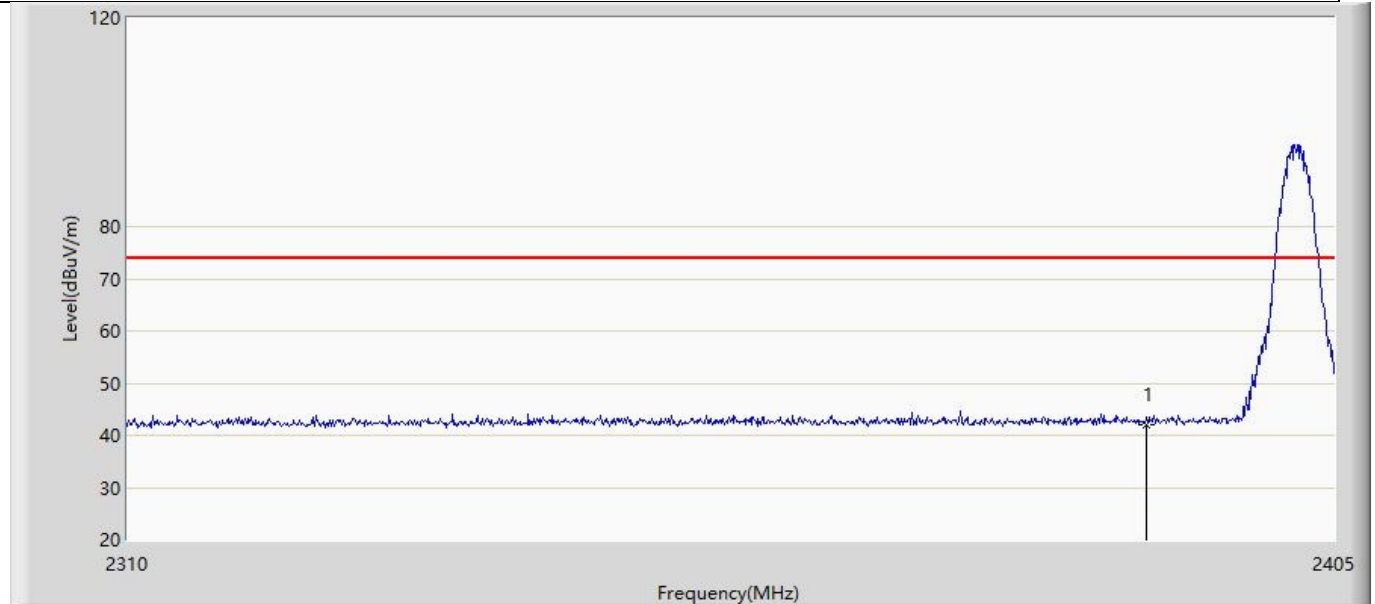
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	43.131	11.989	-30.869	74.000	31.141	PK

Profile: 2250810R	Page No.: 3
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by DH5	



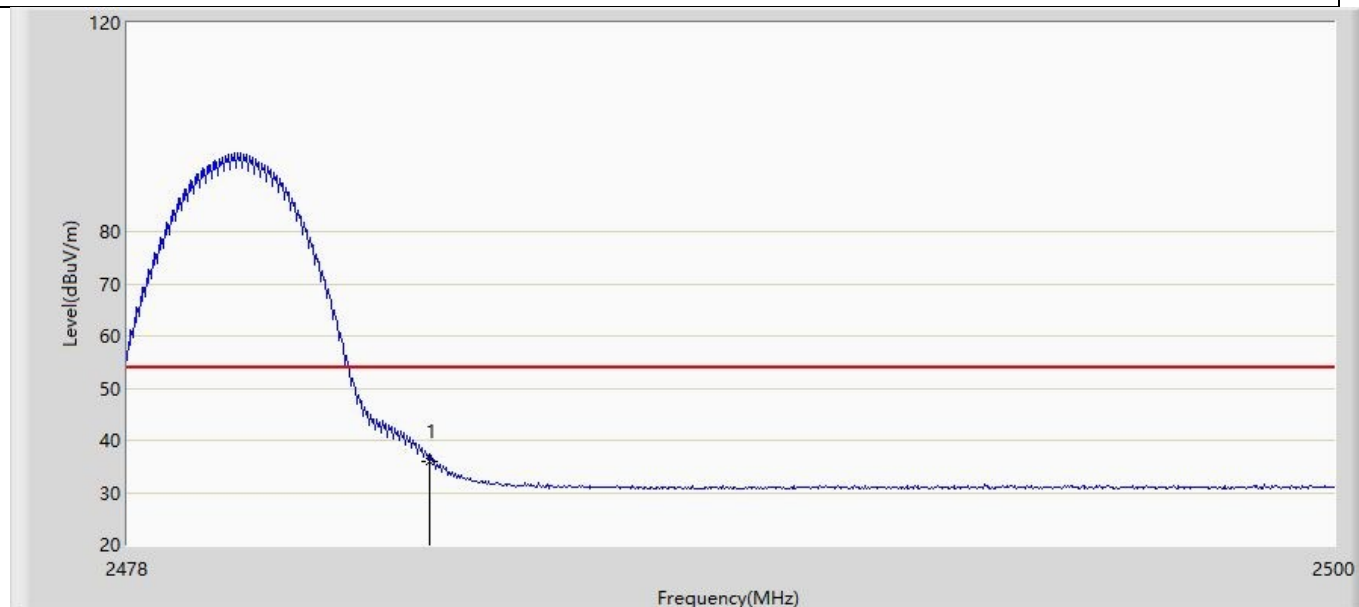
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	30.792	-0.350	-23.208	54.000	31.141	AV

Profile: 2250810R	Page No.: 4
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by DH5	



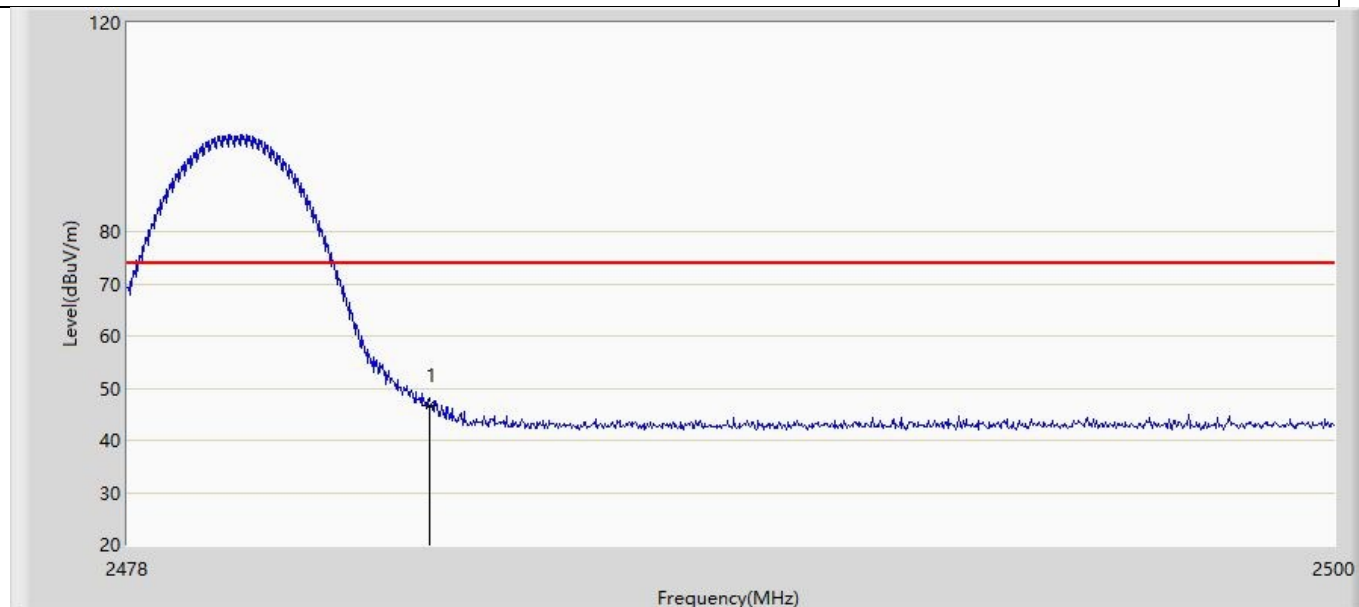
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	41.930	10.788	-32.070	74.000	31.141	PK

Profile: 2250810R	Page No.: 5
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by DH5	



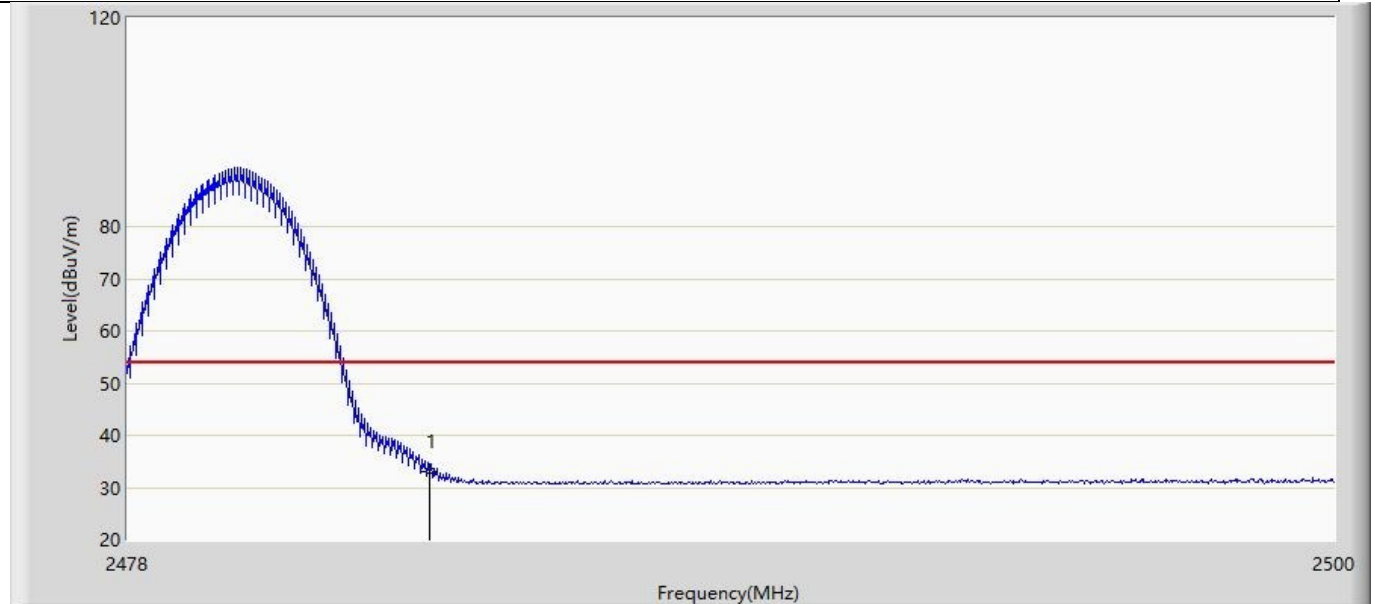
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	35.901	4.475	-18.099	54.000	31.426	AV

Profile: 2250810R	Page No.: 6
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by DH5	



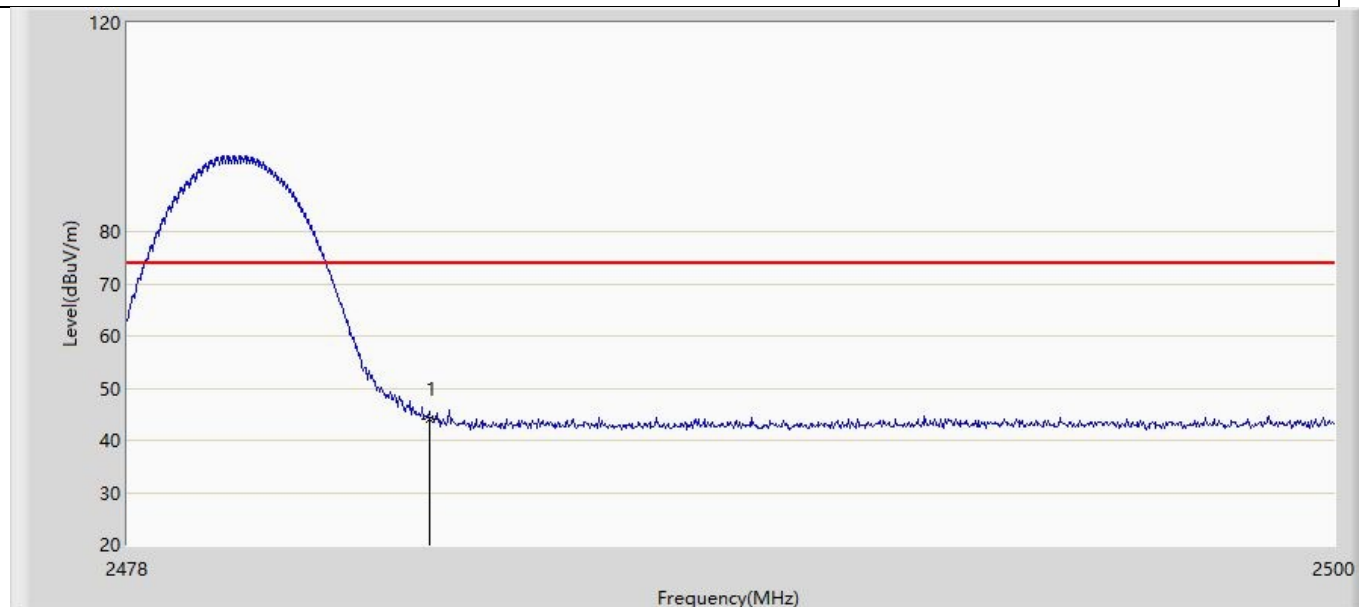
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	46.678	15.252	-27.322	74.000	31.426	PK

Profile: 2250810R	Page No.: 7
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by DH5	



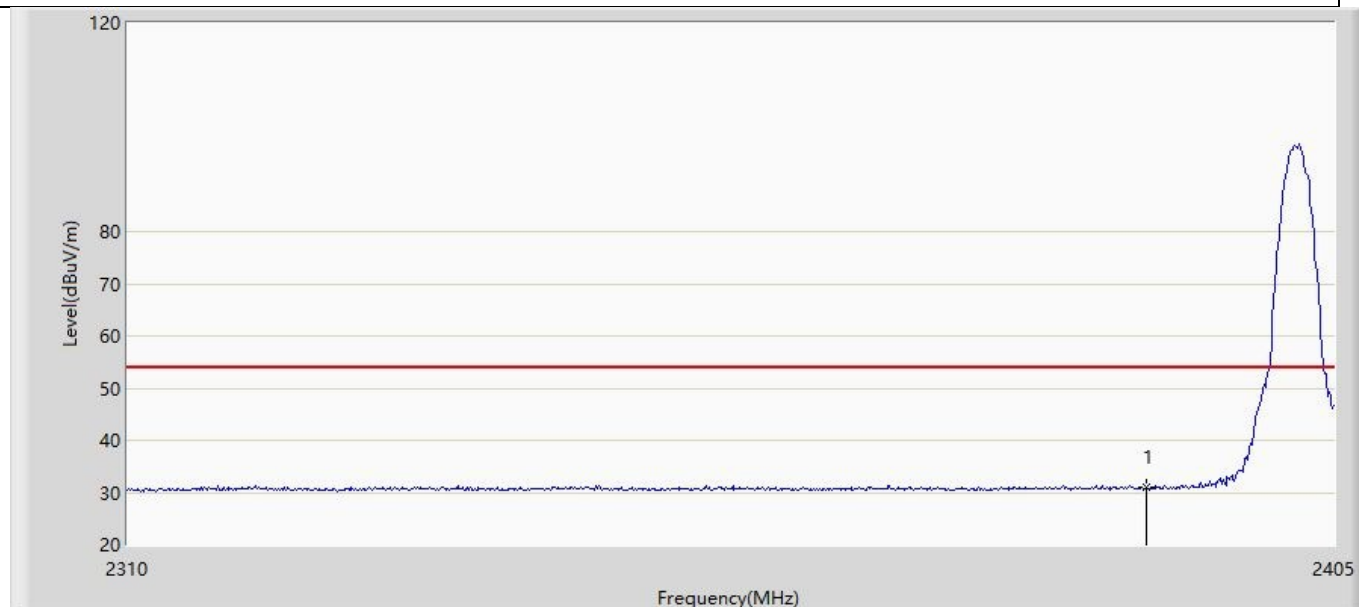
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	33.033	1.607	-20.967	54.000	31.426	AV

Profile: 2250810R	Page No.: 8
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by DH5	



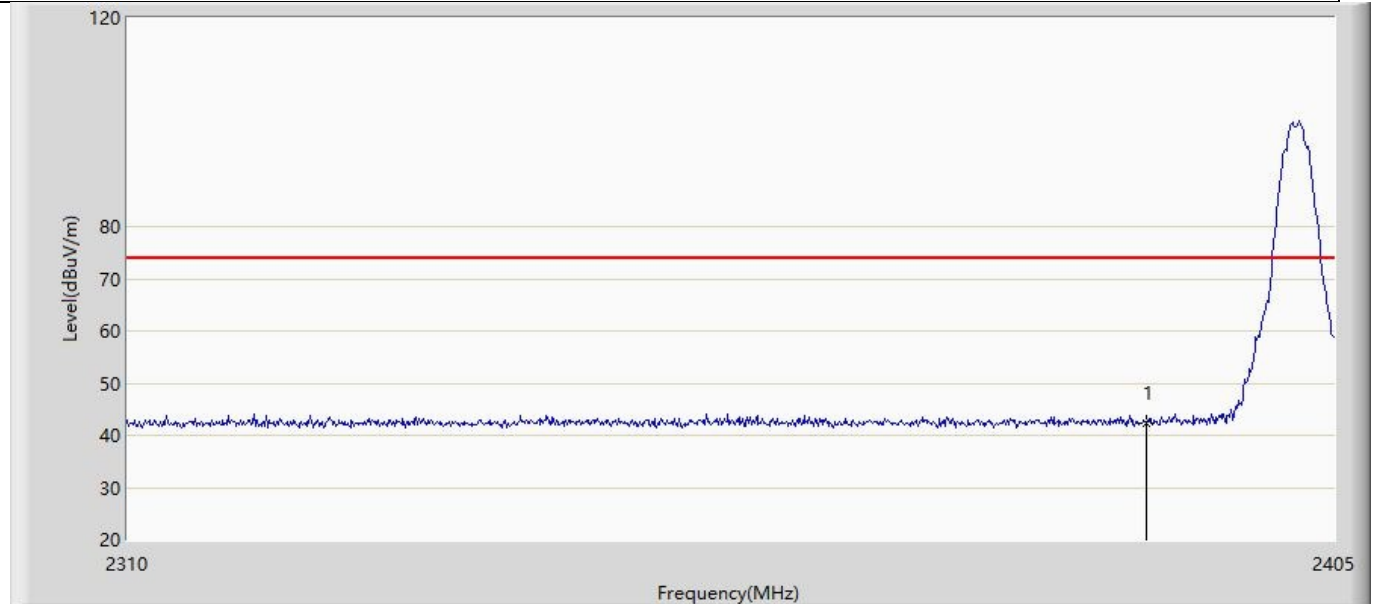
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	43.914	12.488	-30.086	74.000	31.426	PK

Profile: 2250810R	Page No.: 9
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by 2DH5	



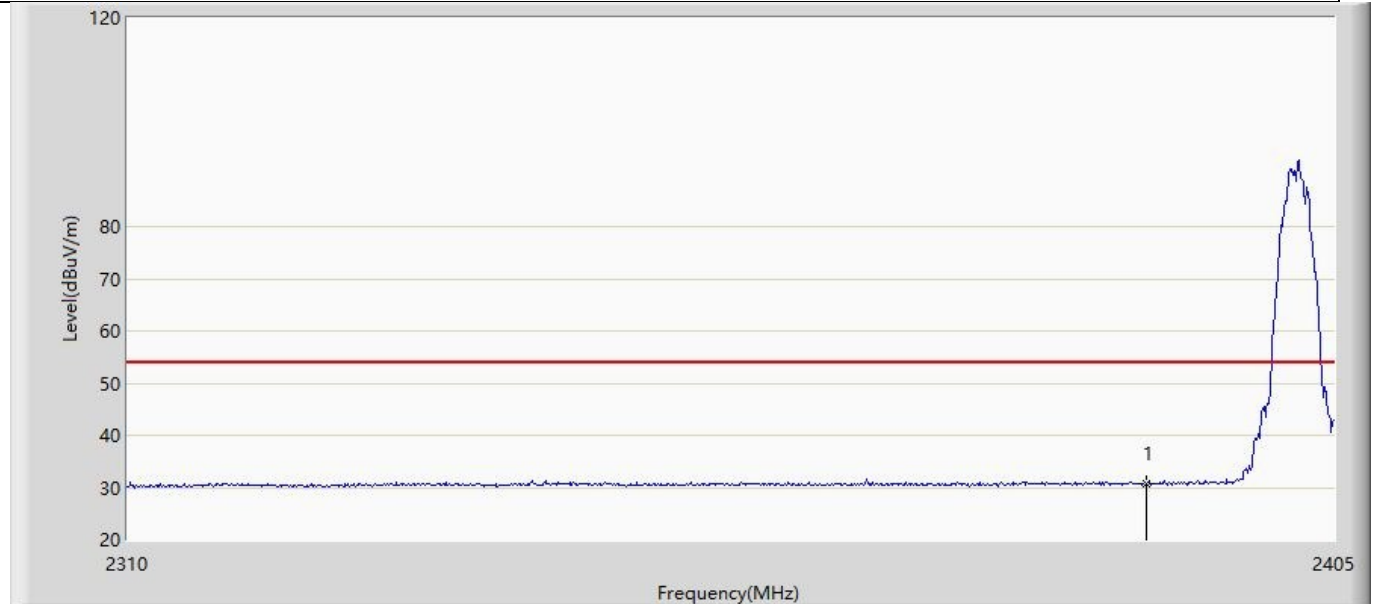
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	30.893	-0.249	-23.107	54.000	31.141	AV

Profile: 2250810R	Page No.: 10
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 19:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by 2DH5	



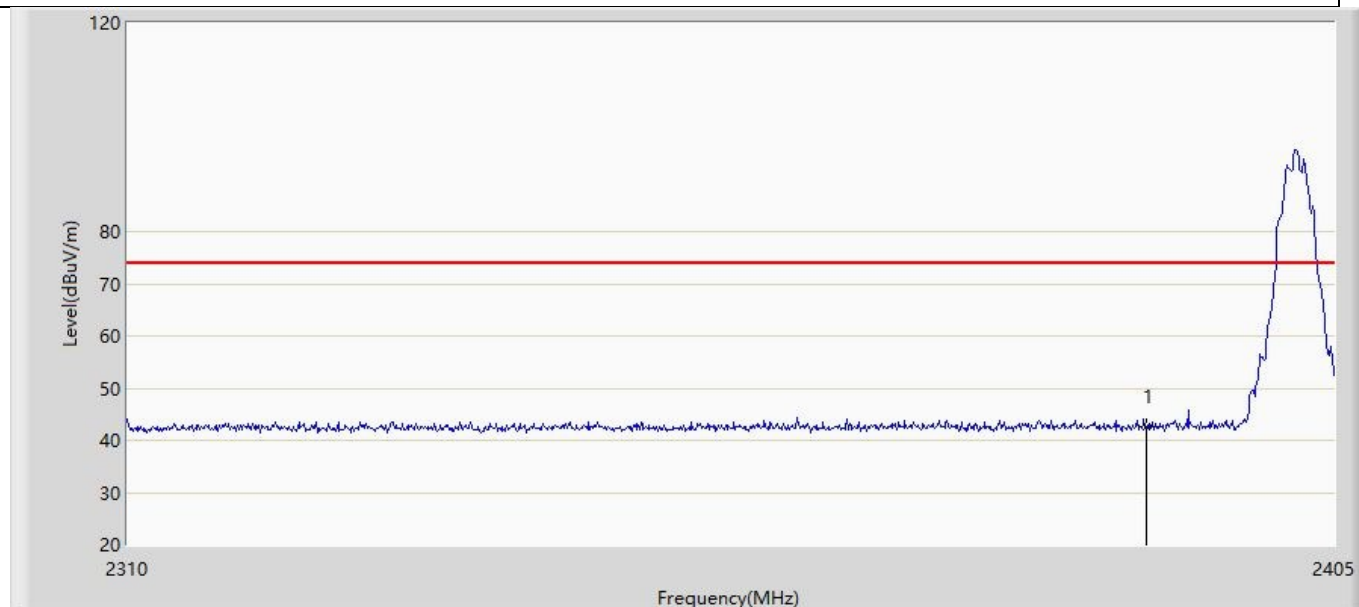
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.260	11.118	-31.740	74.000	31.141	PK

Profile: 2250810R	Page No.: 11
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by 2DH5	



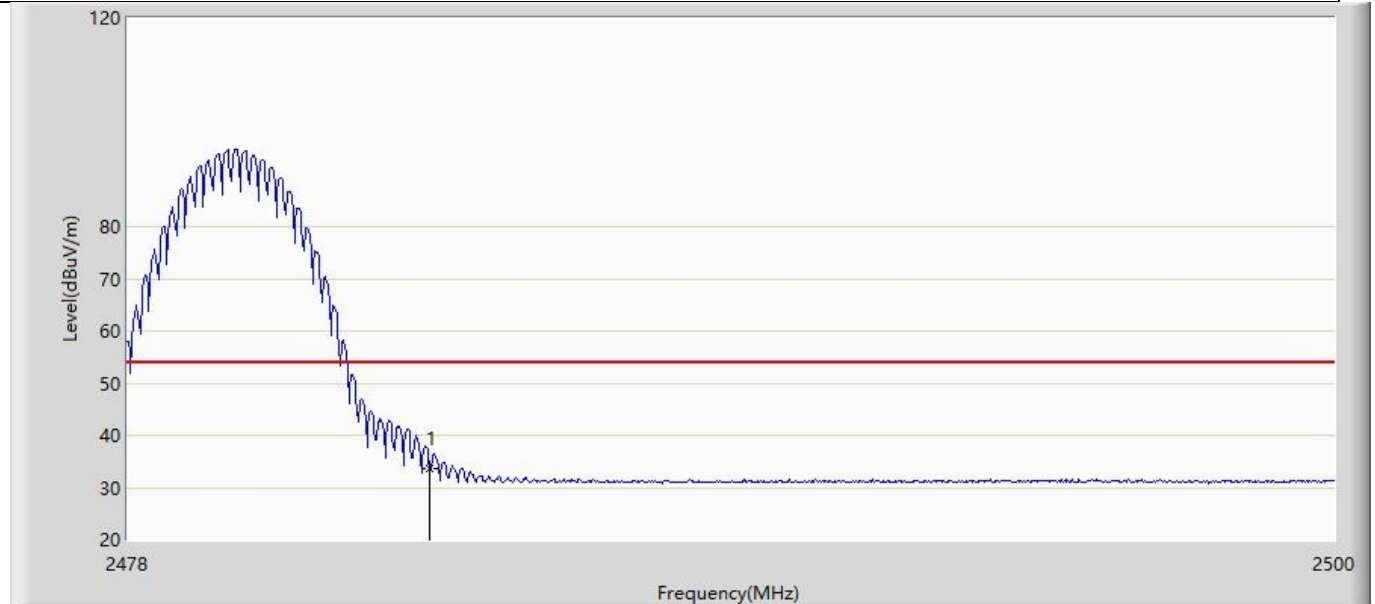
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	30.683	-0.459	-23.317	54.000	31.141	AV

Profile: 2250810R	Page No.: 12
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by 2DH5	



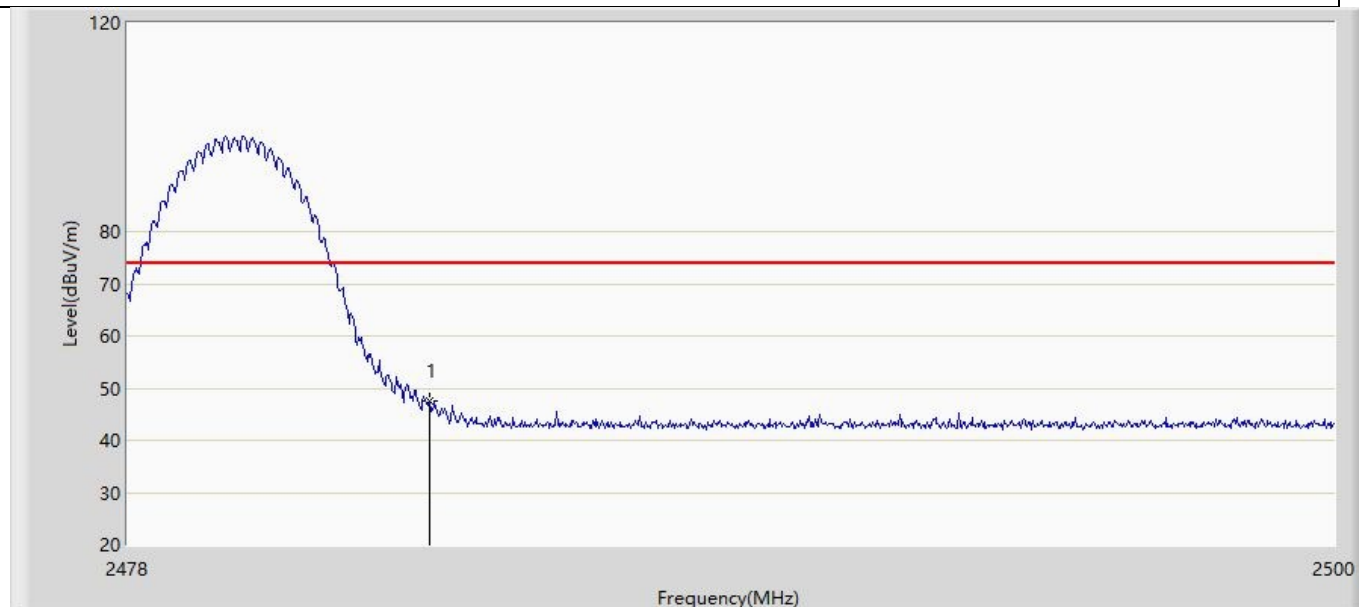
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.475	11.333	-31.525	74.000	31.141	PK

Profile: 2250810R	Page No.: 13
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:14
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 2DH5	



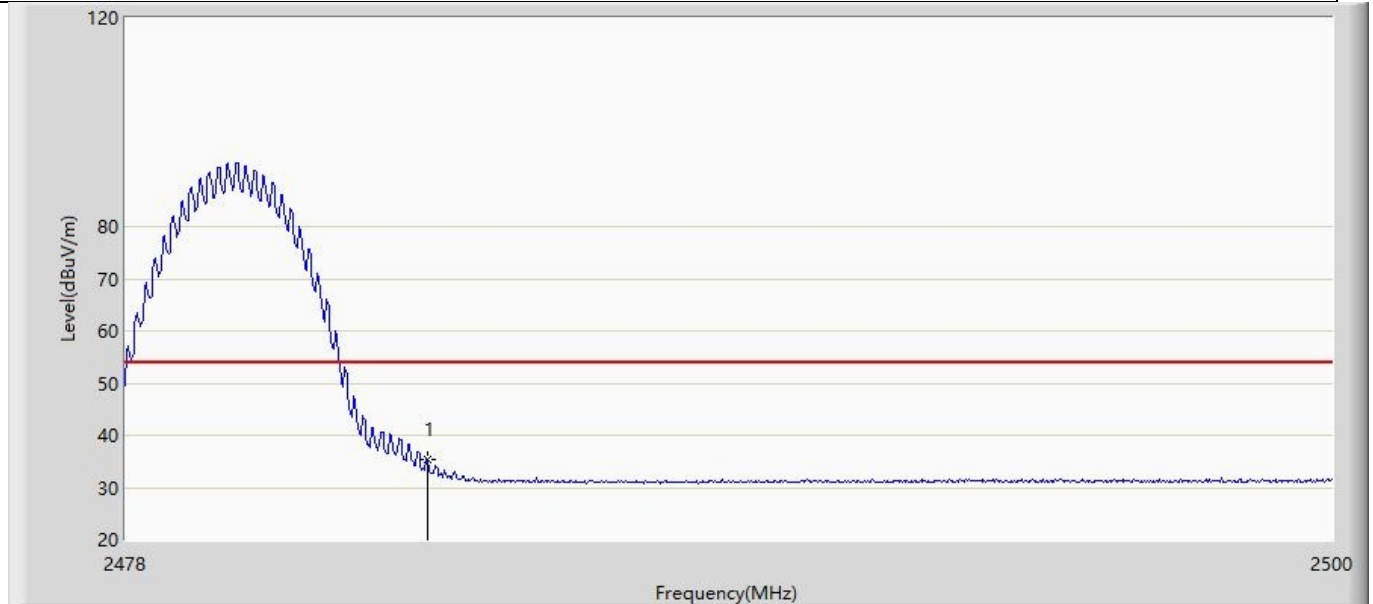
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	33.665	2.239	-20.335	54.000	31.426	AV

Profile: 2250810R	Page No.: 14
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 2DH5	



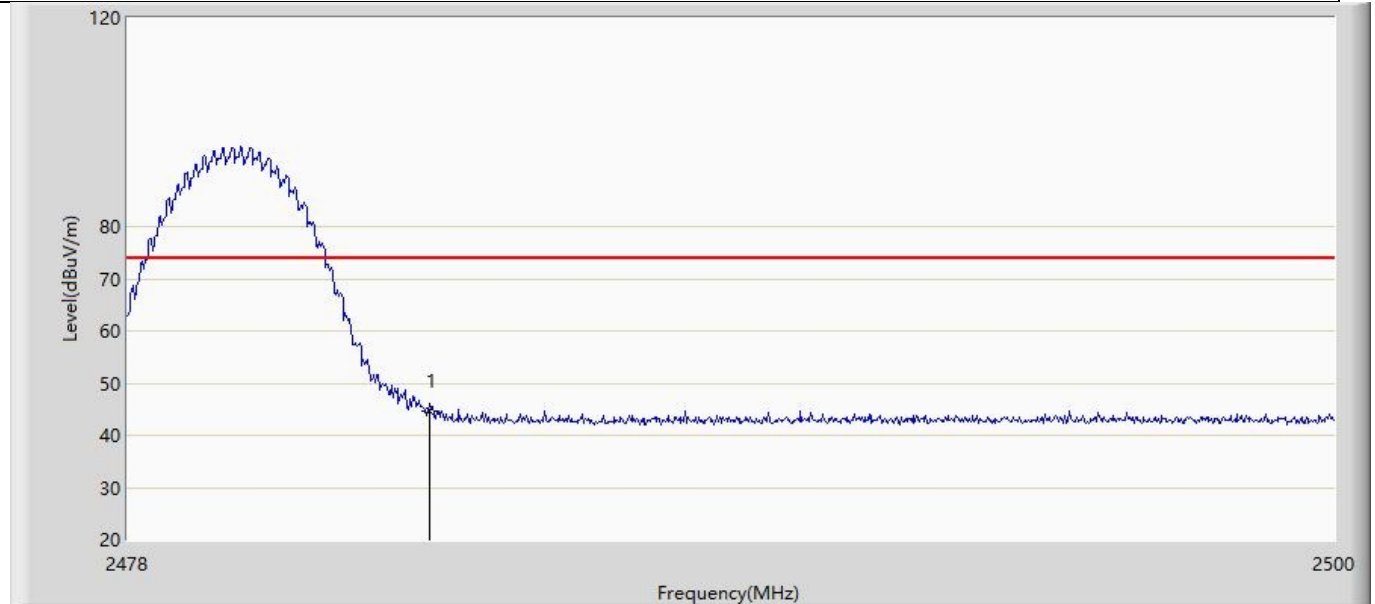
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	47.460	16.034	-26.540	74.000	31.426	PK

Profile: 2250810R	Page No.: 15
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 2DH5	



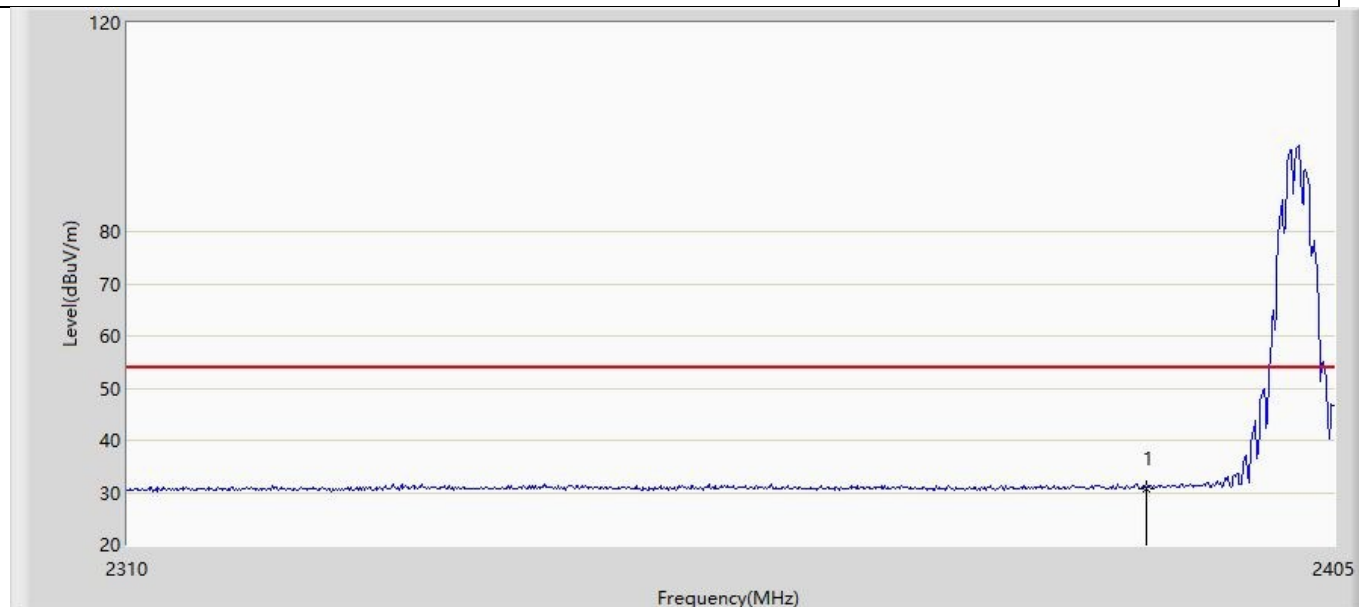
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	35.482	4.056	-18.518	54.000	31.426	AV

Profile: 2250810R	Page No.: 16
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by 2DH5	



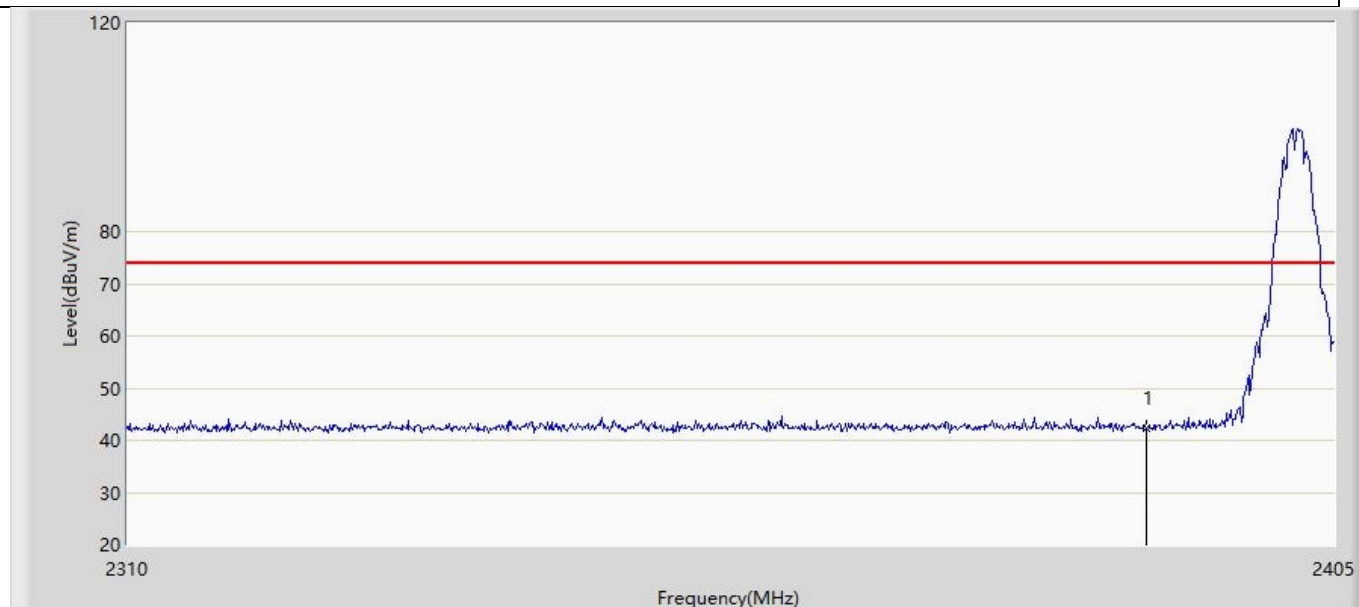
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	44.602	13.176	-29.398	74.000	31.426	PK

Profile: 2250810R	Page No.: 17
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by 3DH5	



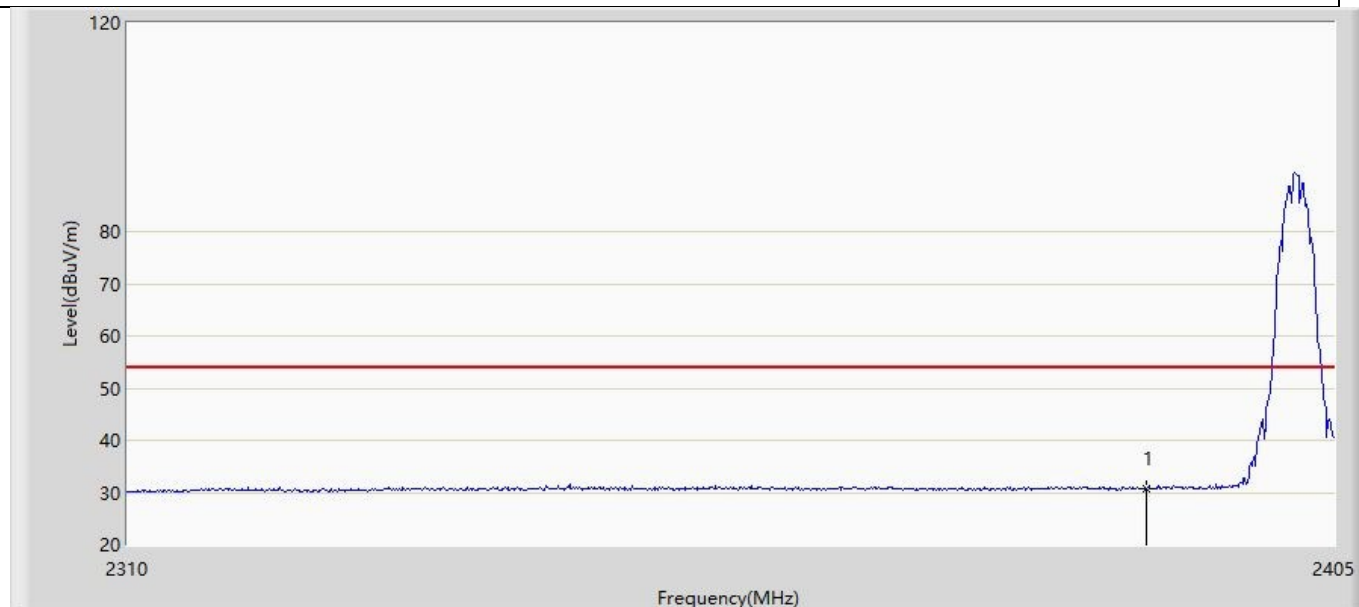
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	30.864	-0.278	-23.136	54.000	31.141	AV

Profile: 2250810R	Page No.: 18
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by 3DH5	



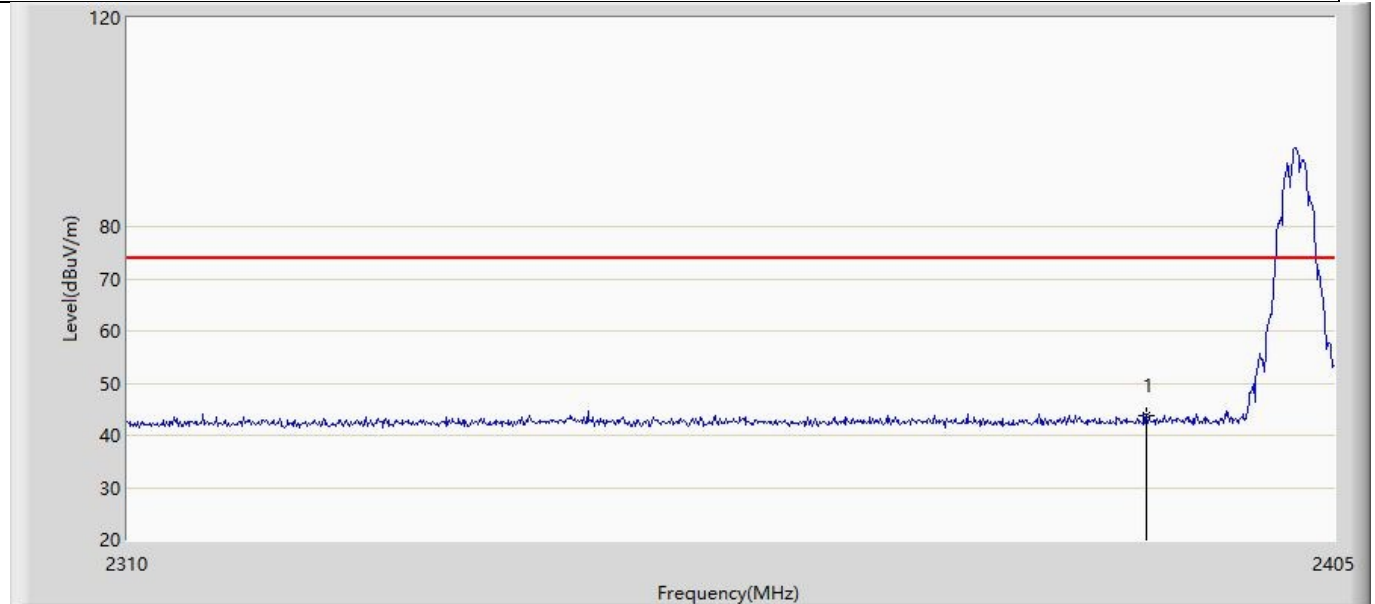
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.205	11.063	-31.795	74.000	31.141	PK

Profile: 2250810R	Page No.: 19
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by 3DH5	



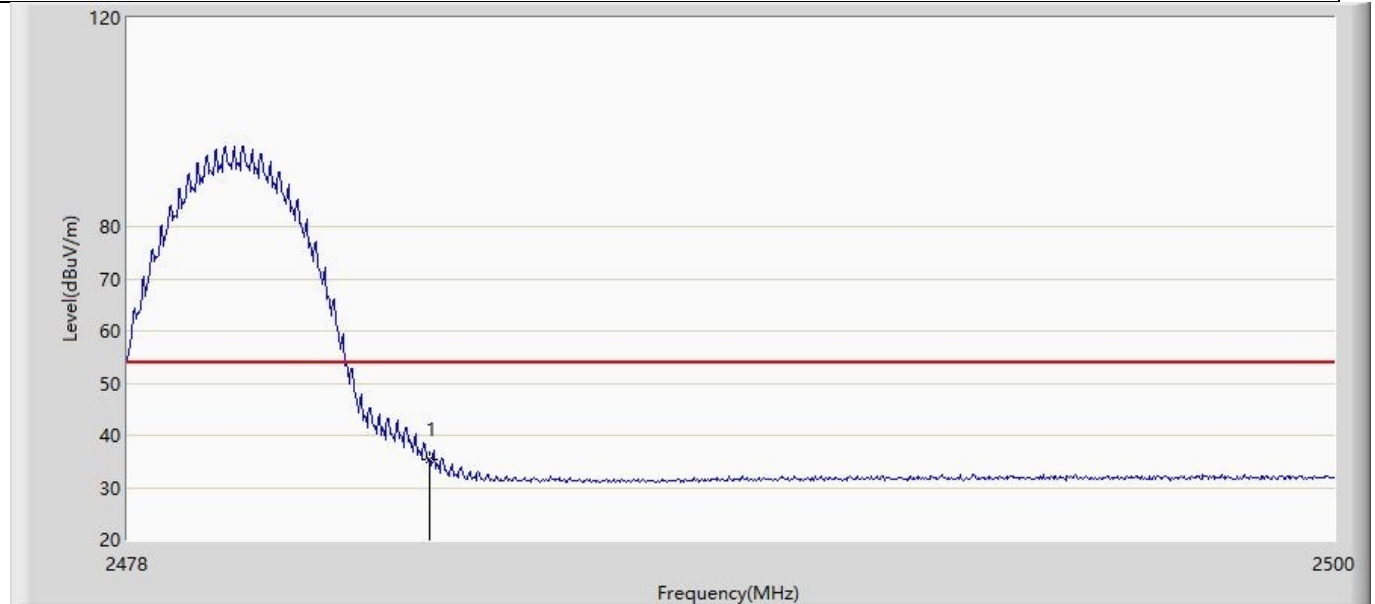
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	30.767	-0.375	-23.233	54.000	31.141	AV

Profile: 2250810R	Page No.: 20
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2402MHz by 3DH5	



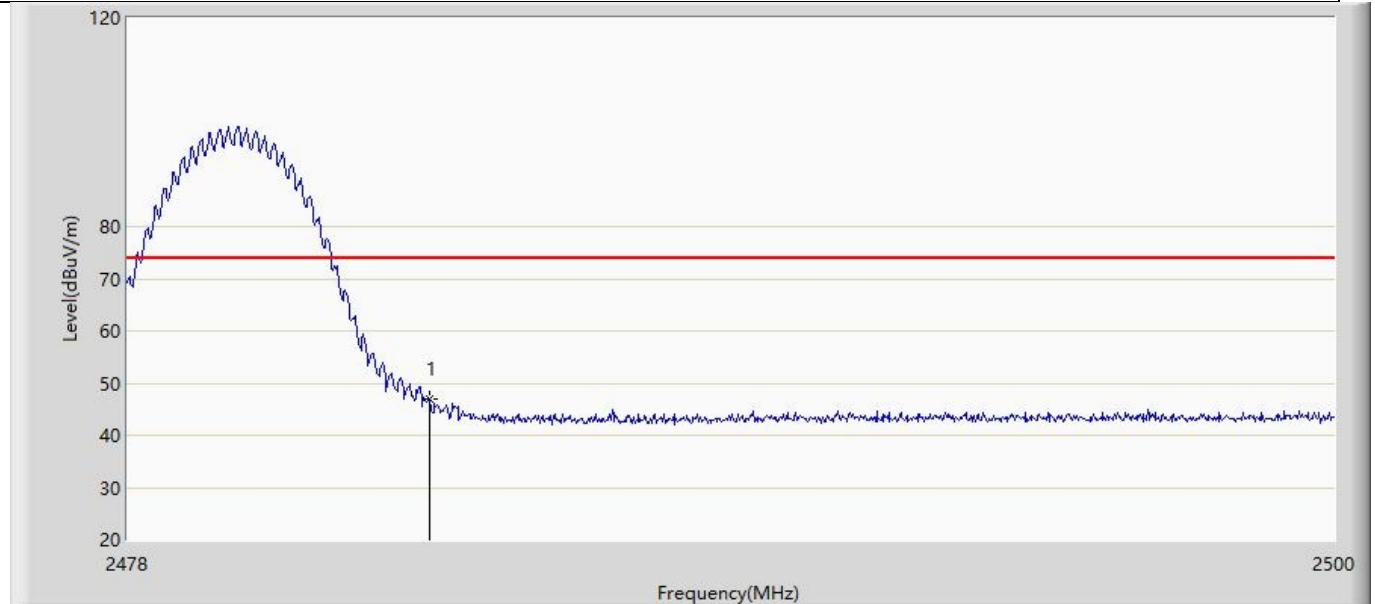
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	43.797	12.655	-30.203	74.000	31.141	PK

Profile: 2250810R	Page No.: 21
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by 3DH5	



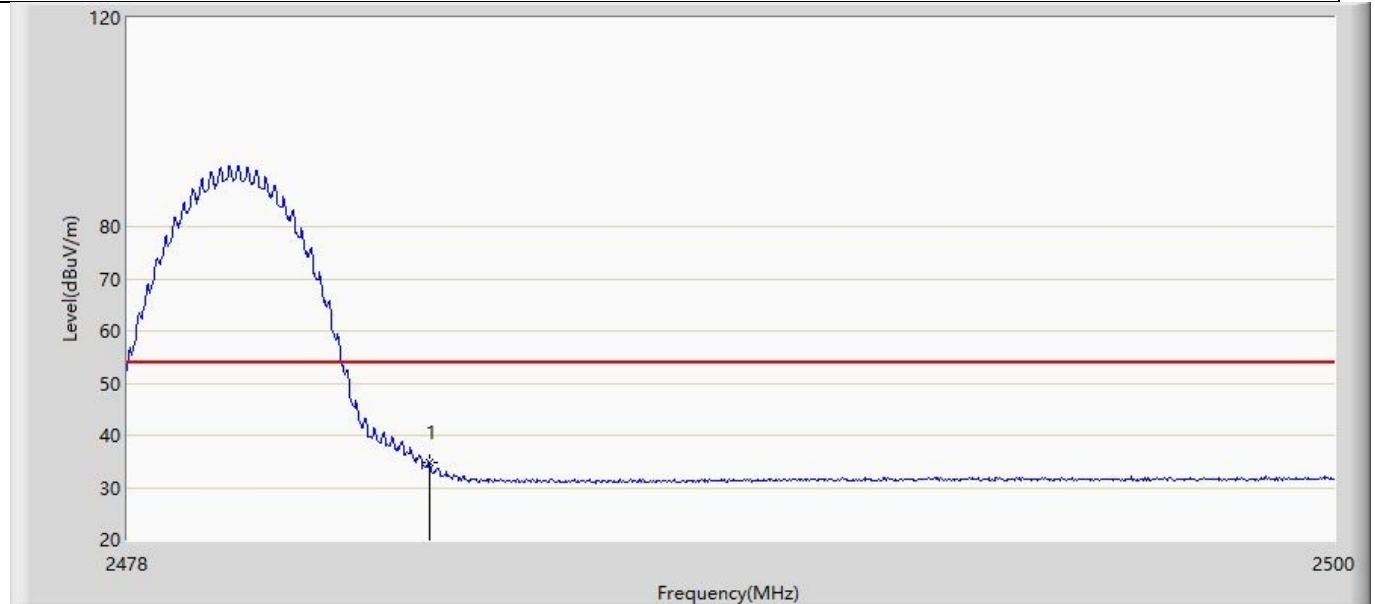
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	35.480	4.054	-18.520	54.000	31.426	AV

Profile: 2250810R	Page No.: 22
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Horizontal
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by 3DH5	



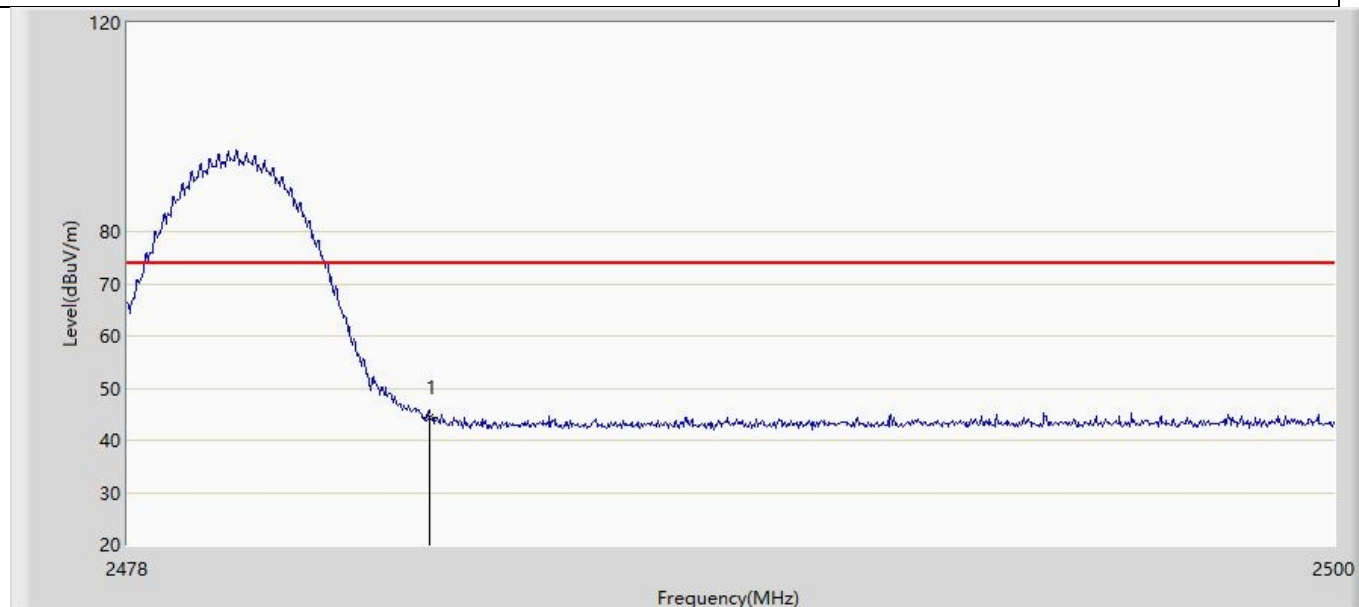
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	46.903	15.477	-27.097	74.000	31.426	PK

Profile: 2250810R	Page No.: 23
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by 3DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	34.861	3.435	-19.139	54.000	31.426	AV

Profile: 2250810R	Page No.: 24
Engineer: Yu Liu	
Site: AC5	Time: 2022/06/22 - 22:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: HORN_3117_00167055(1-18GHZ)	Polarity: Vertical
EUT: Computer BOX	Power: AC 120V/60Hz
Note: Mode 3:Transmit at 2480MHz by 3DH5	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	44.405	12.979	-29.595	74.000	31.426	PK

4.11 Antenna Requirement**VERDICT: PASS****4.11.1 Limit:****Standard**

FCC Part 15 Subpart C Paragraph 15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall 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 manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

4.11.2 Antenna Connector Construction:

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|-------------------------------------|--|
| ☒ | The use of a permanently attached antenna |
| ☐ | The antenna use of a unique coupling to the intentional radiator |
| ☐ | The use of a nonstandard antenna jack or electrical connector |

Please refer to the attached document "Internal Photograph" to show the antenna connector.

5 TEST SETUP PHOTO AND EUT PHOTO

Remark: The test setup photo and EUT Photo please see appendix.

_____ The End _____