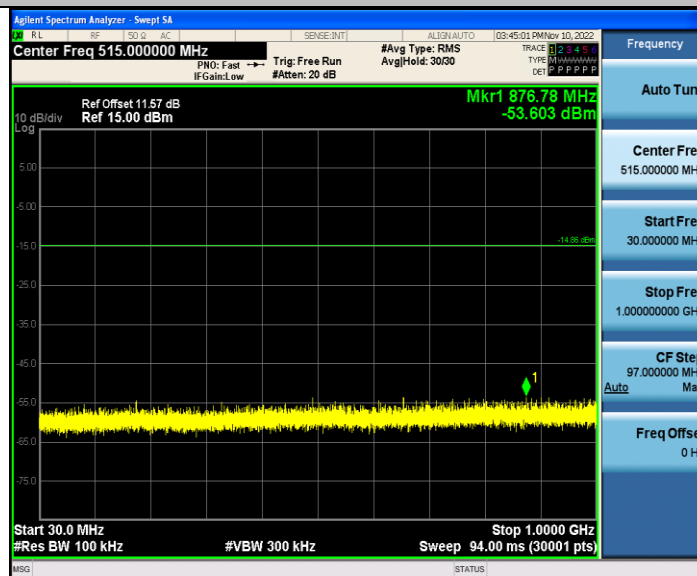


3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000



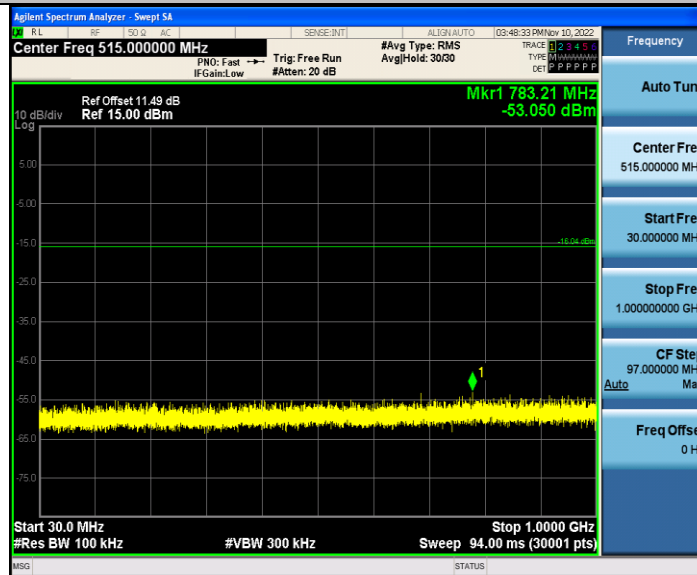
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000

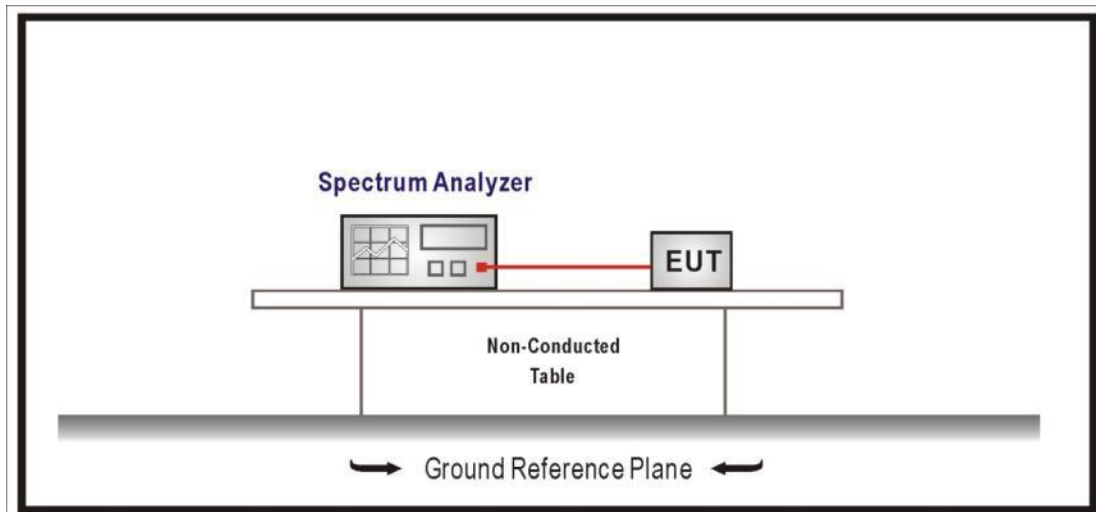


3DH5_Ant1_2480_1000~26500



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

N/A

4.9.2 Test Setup**4.9.3 Test Procedure**

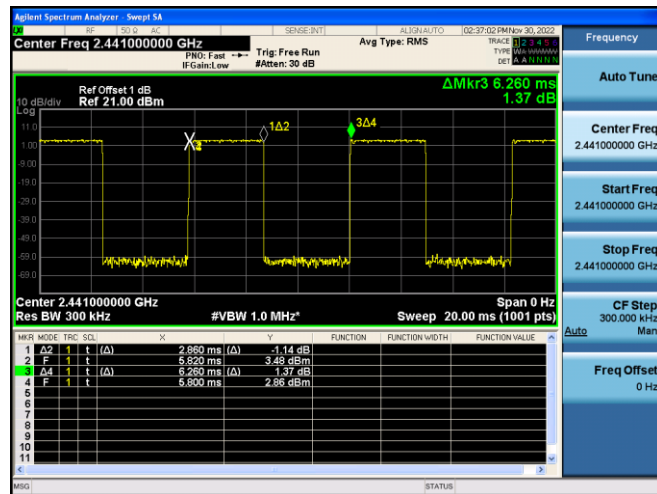
References Rule		Chapter	Description
☒	ANSI C63.10	11.6	Duty cycle (D), transmission duration (T), and maximum power control level

4.9.4 Test Data

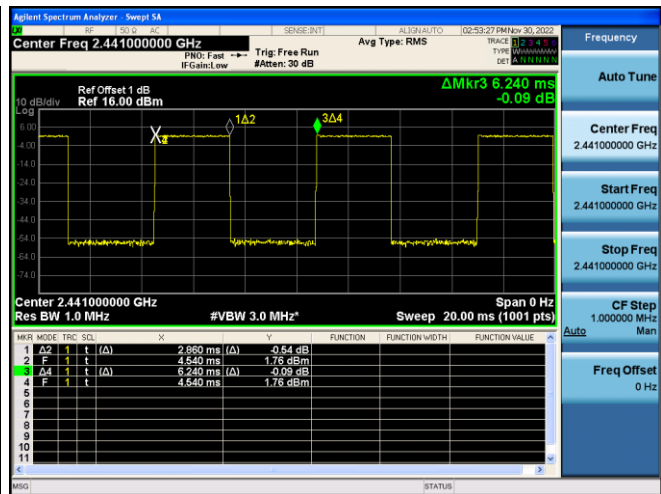
Test Mode	Tx On (ms)	Tx Off (ms)	VBW (kHz)	Tx On + Tx Off (ms)	Duty Cycle (%)
Mode 1	2.86	3.40	0.35	6.26	45.69
Mode 2	2.86	3.38	0.35	6.24	45.83
Mode 3	2.86	3.40	0.35	6.26	45.69

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.

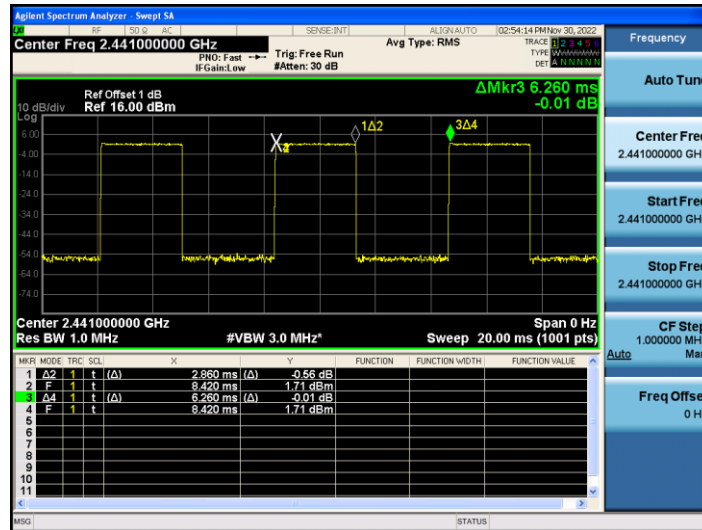
Mode 1 CH39 2441MHz



Mode 2 CH39 2441MHz



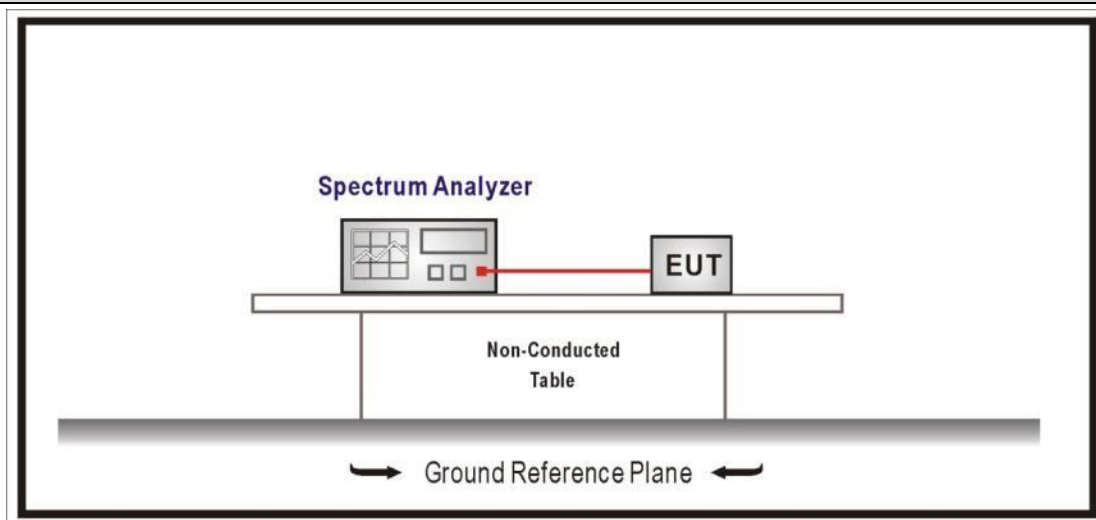
Mode 3 CH39 2441MHz



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

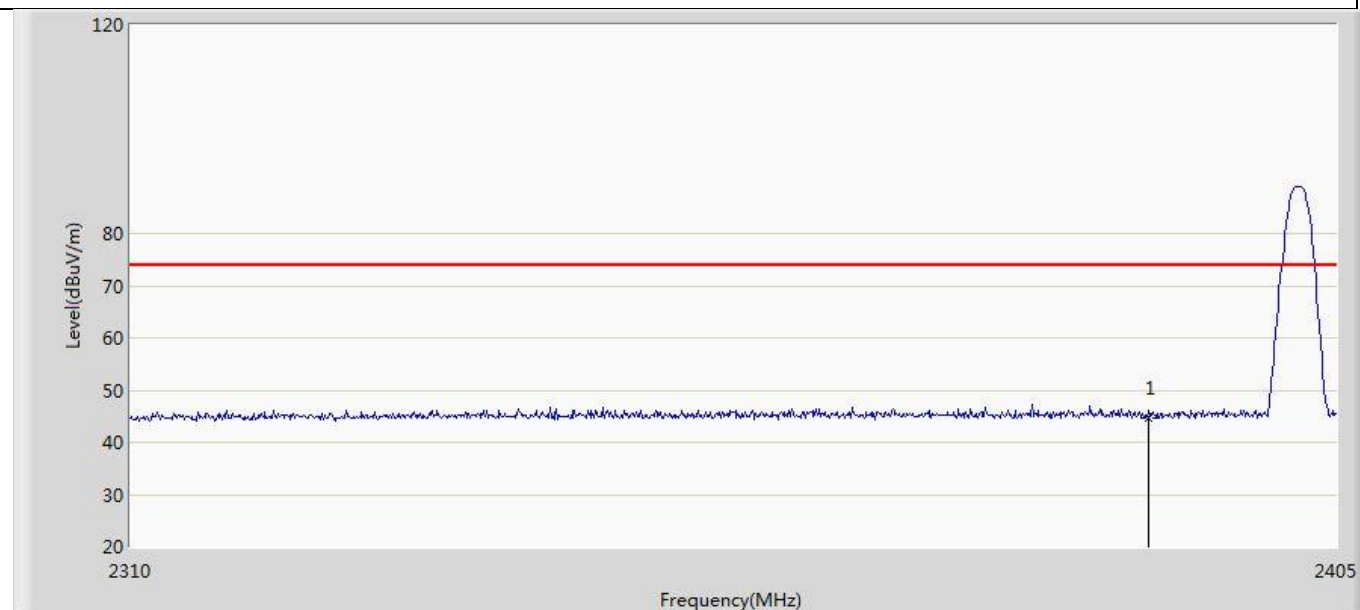
Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

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

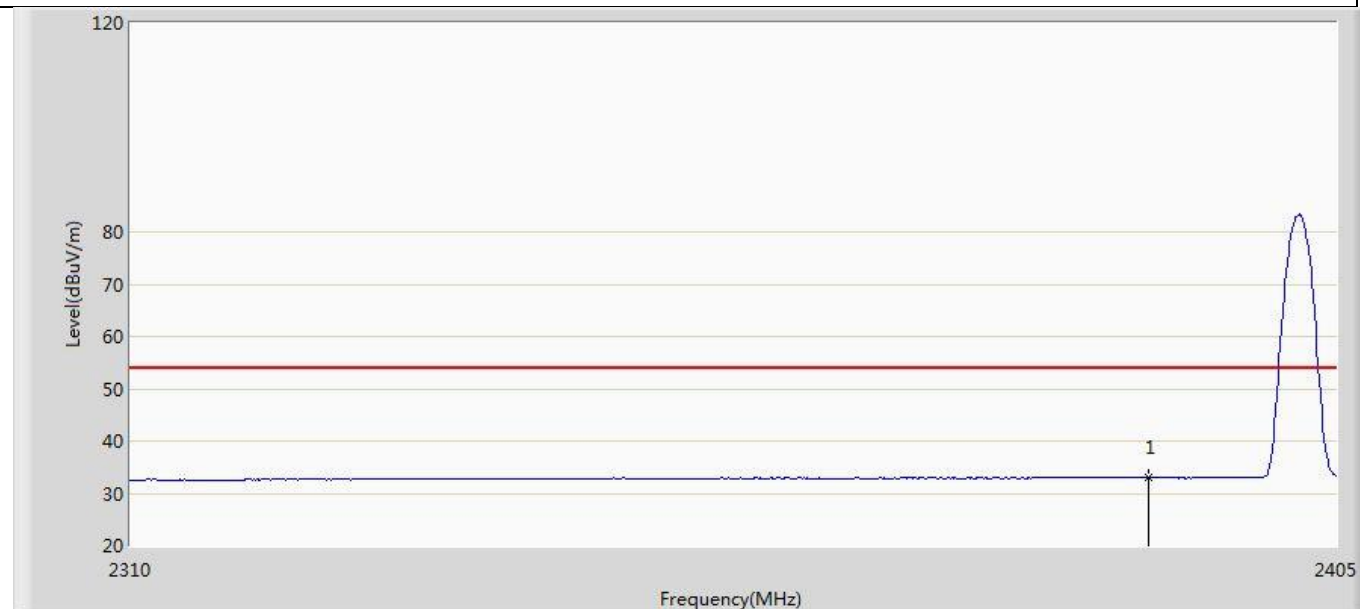
4.10.4 Test Data

Profile: 22A0738R	Page No.: 1
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by DH5	



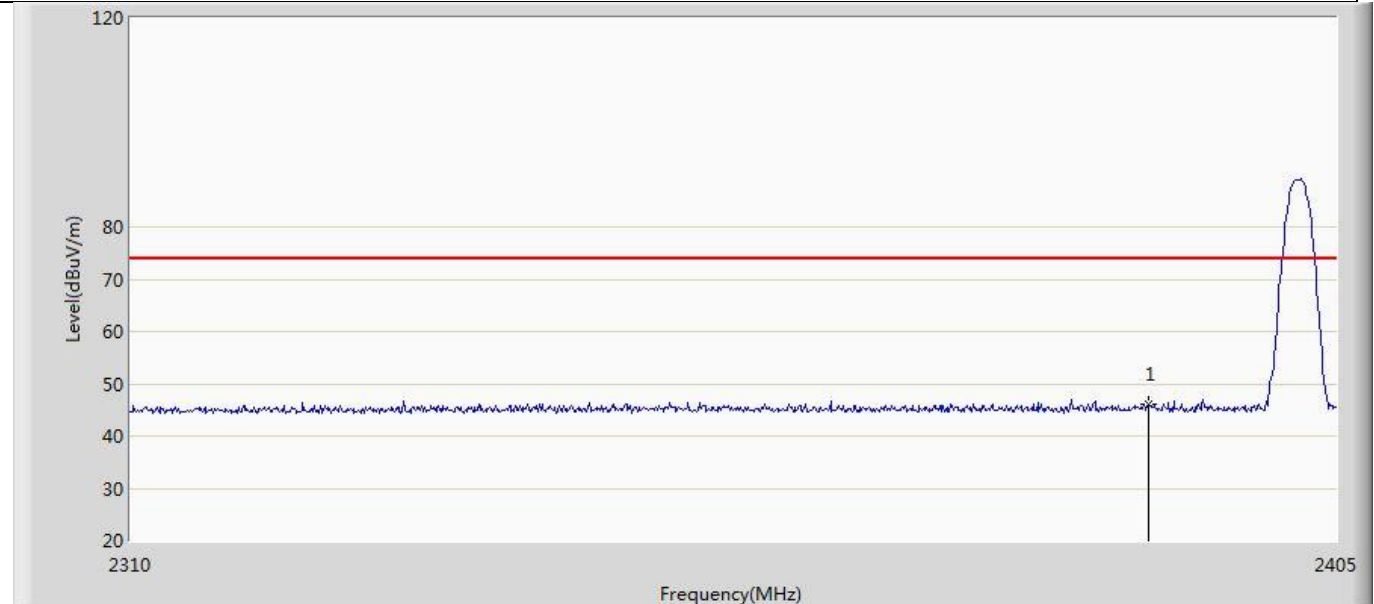
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	44.675	10.591	-29.325	74.000	34.084	PK

Profile: 22A0738R	Page No.: 2
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by DH5	



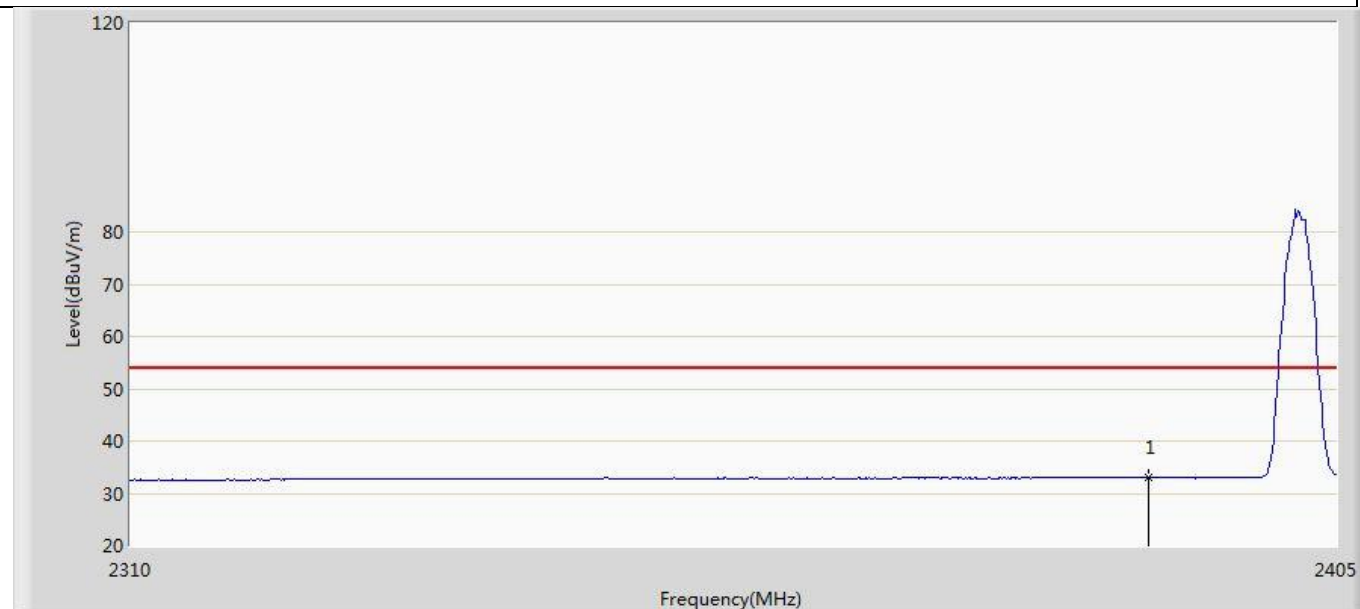
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	32.978	-1.106	-21.022	54.000	34.084	AV

Profile: 22A0738R	Page No.: 3
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by DH5	



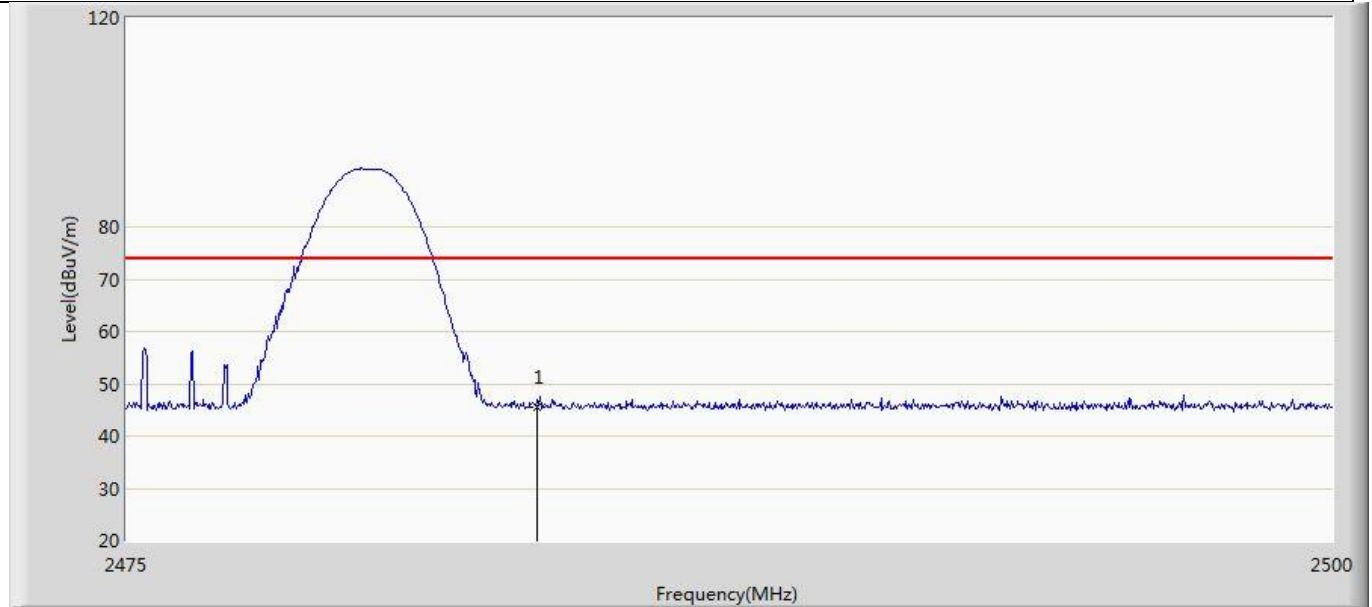
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	46.005	11.921	-27.995	74.000	34.084	PK

Profile: 22A0738R	Page No.: 4
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by DH5	



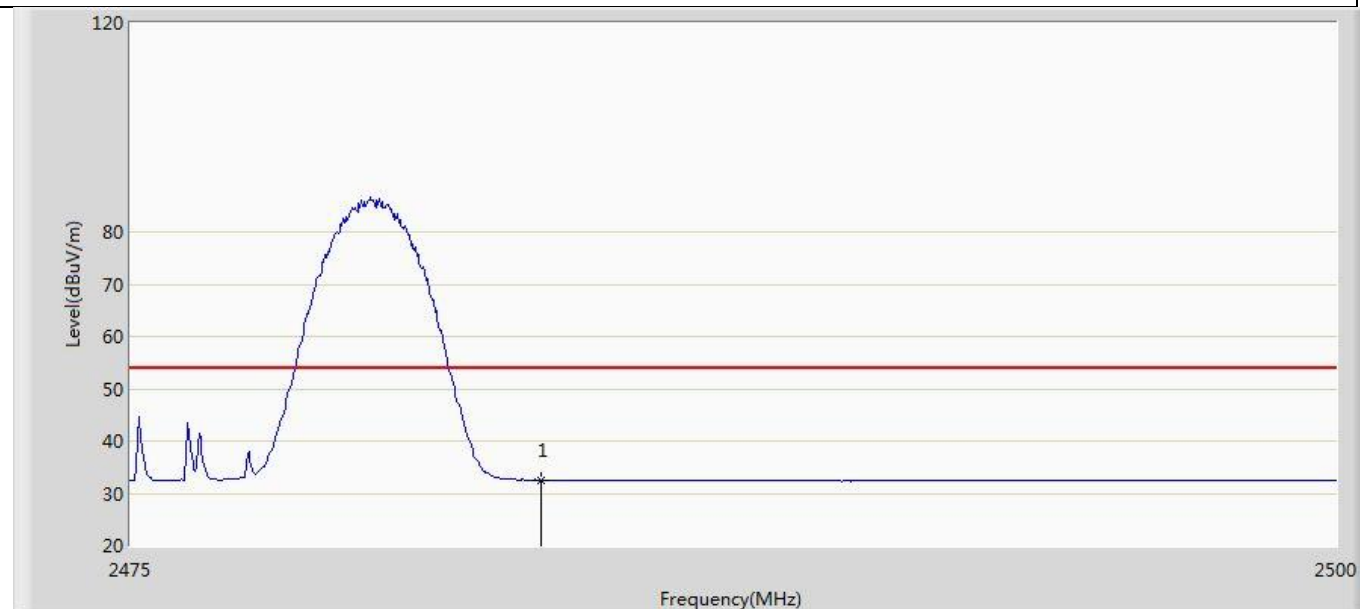
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	32.958	-1.126	-21.042	54.000	34.084	AV

Profile: 22A0738R	Page No.: 5
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by DH5	



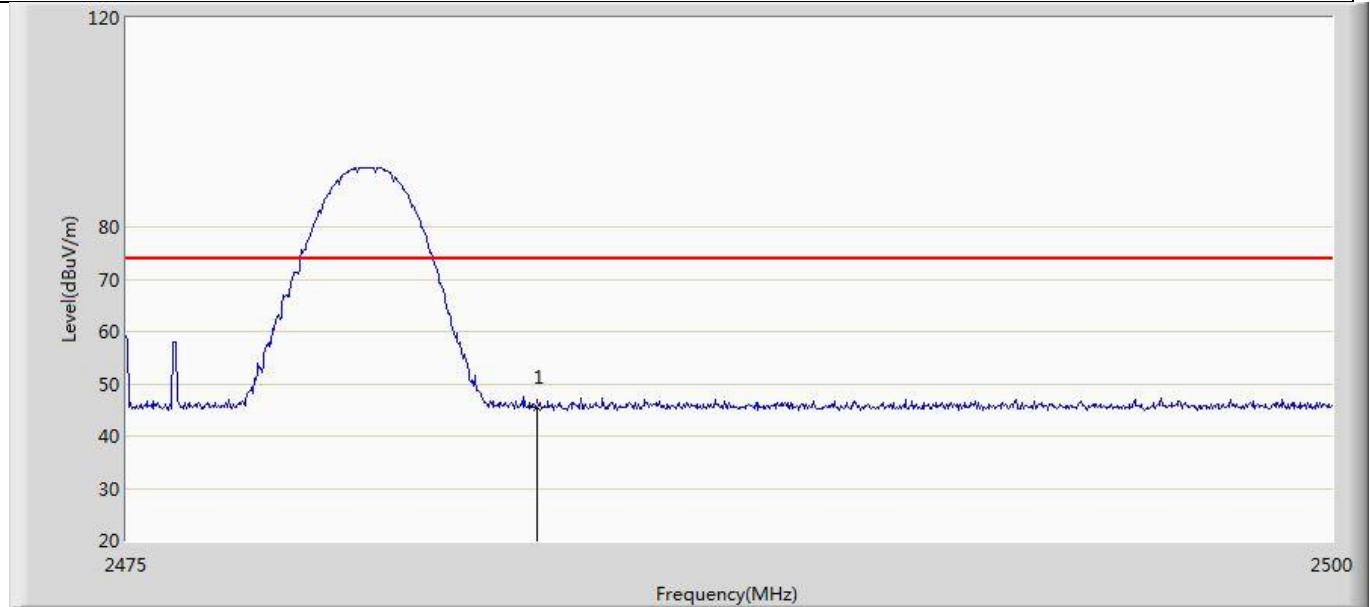
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.615	11.124	-28.385	74.000	34.491	PK

Profile: 22A0738R	Page No.: 6
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by DH5	



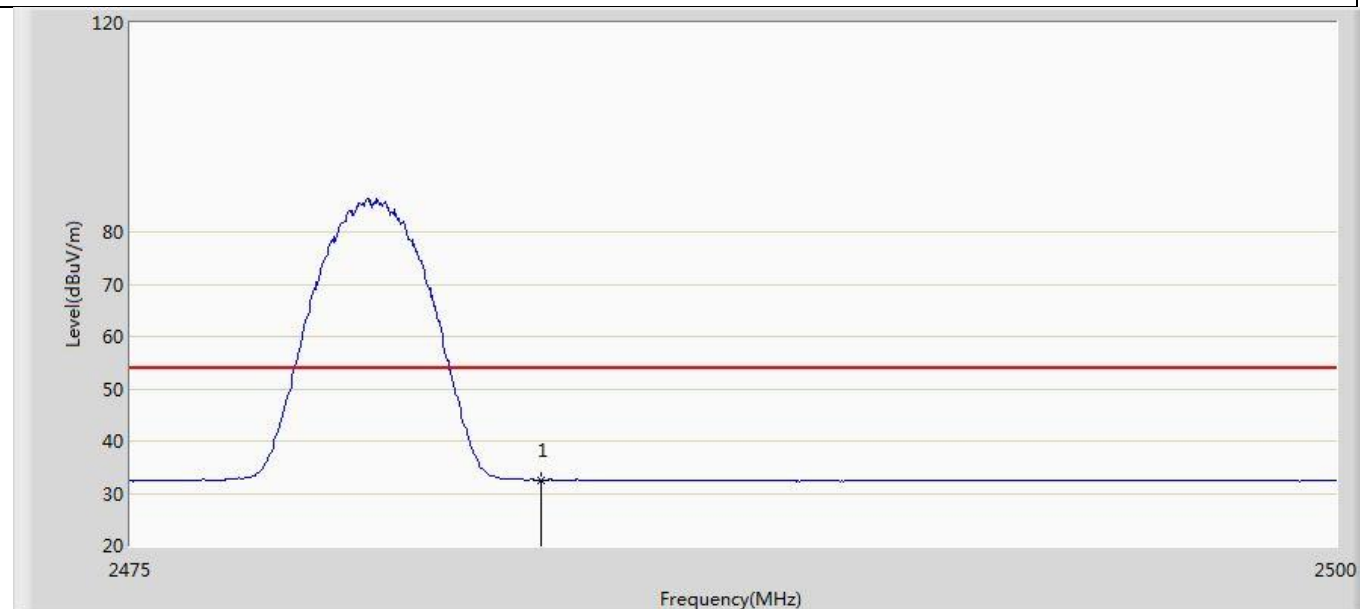
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	32.514	-1.977	-21.486	54.000	34.491	AV

Profile: 22A0738R	Page No.: 7
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by DH5	



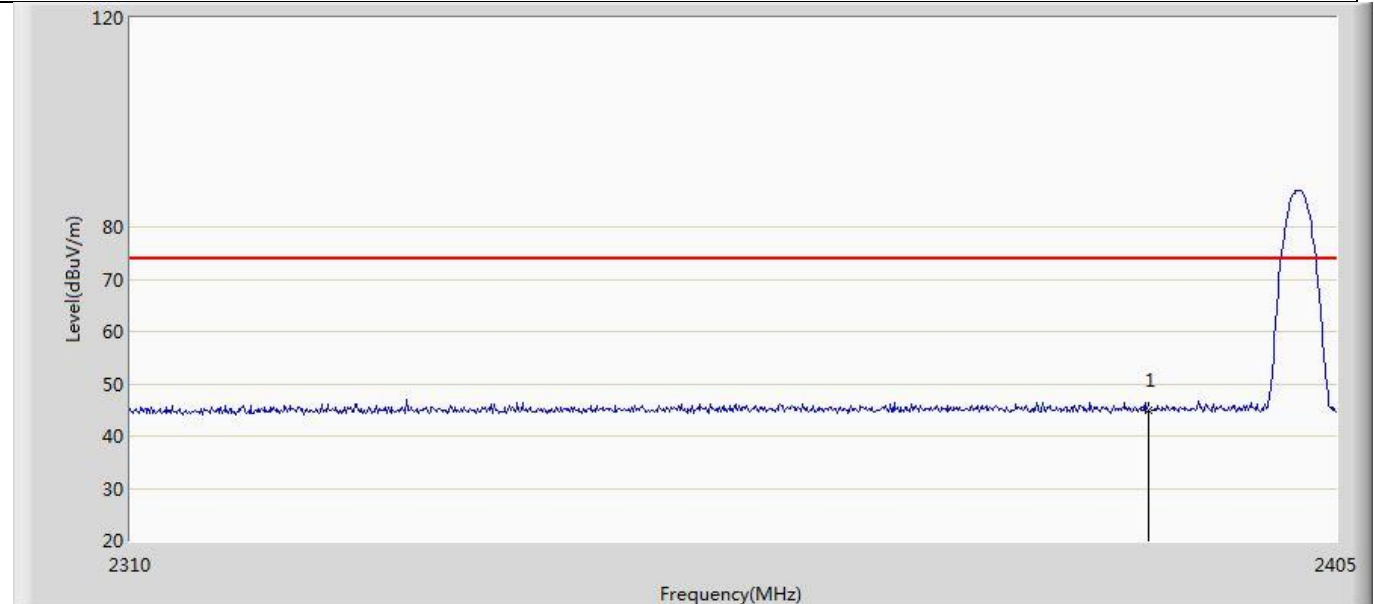
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.489	10.998	-28.511	74.000	34.491	PK

Profile: 22A0738R	Page No.: 8
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by DH5	



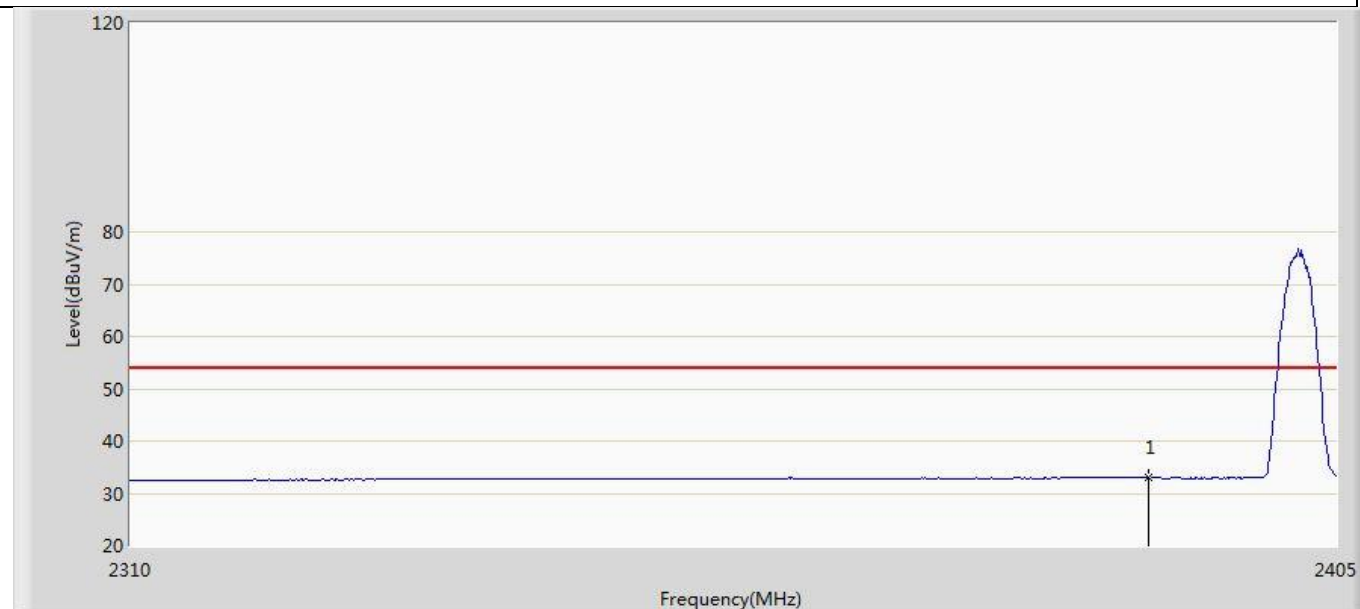
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	32.520	-1.971	-21.480	54.000	34.491	AV

Profile: 22A0738R	Page No.: 9
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 2DH5	



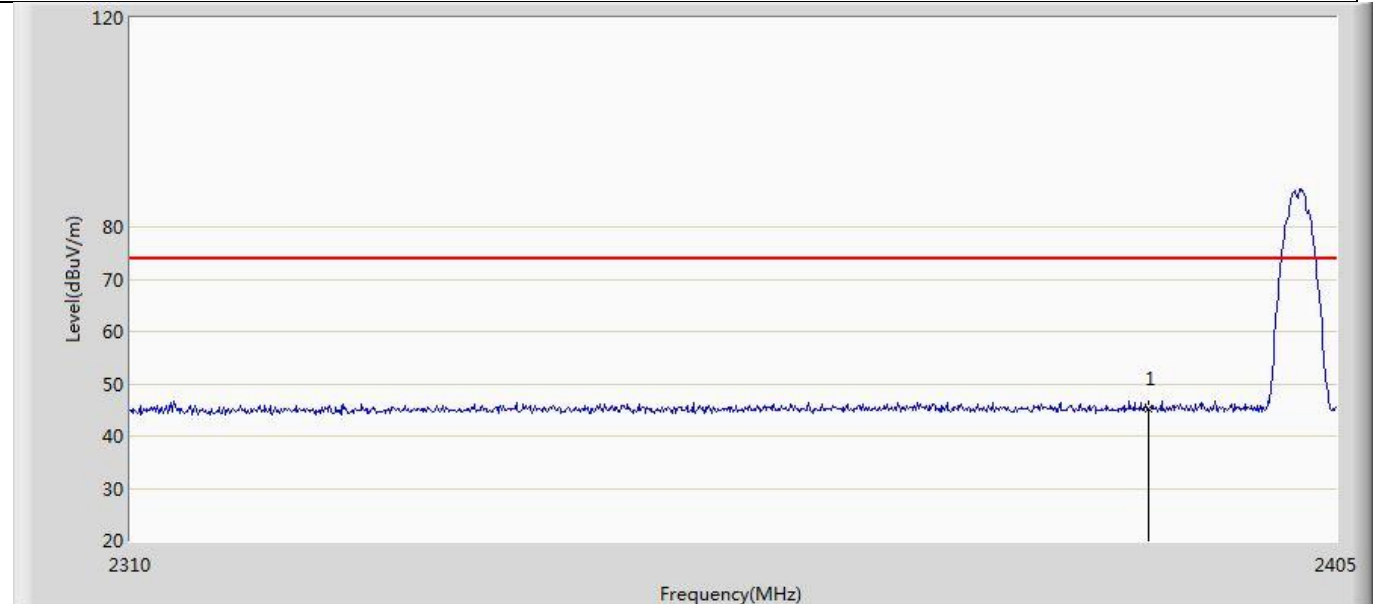
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	44.969	10.885	-29.031	74.000	34.084	PK

Profile: 22A0738R	Page No.: 10
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 2DH5	



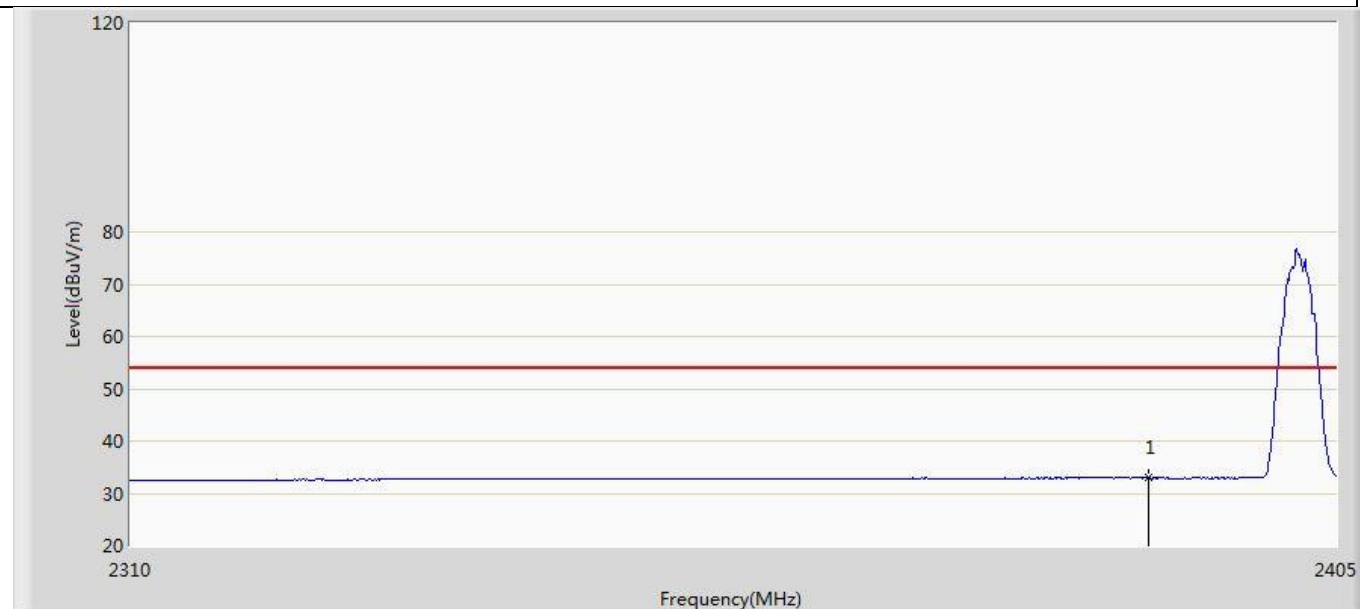
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	32.905	-1.179	-21.095	54.000	34.084	AV

Profile: 22A0738R	Page No.: 11
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 2DH5	



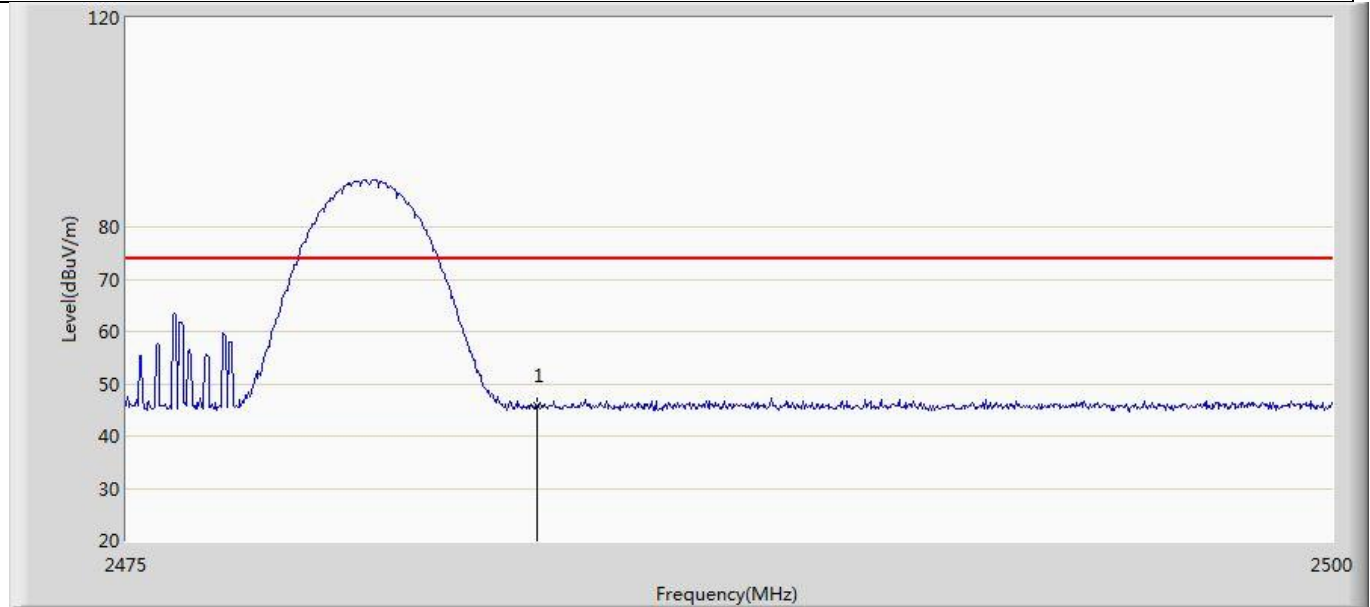
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	45.166	11.082	-28.834	74.000	34.084	PK

Profile: 22A0738R	Page No.: 12
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 2DH5	



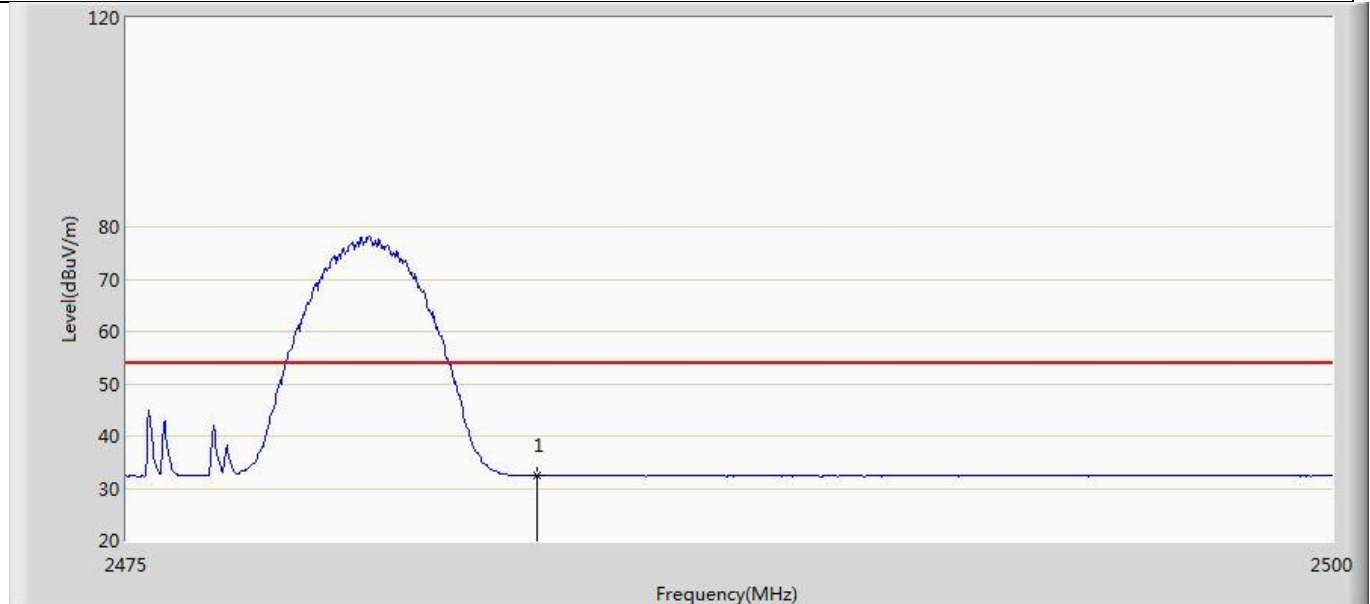
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	32.904	-1.180	-21.096	54.000	34.084	AV

Profile: 22A0738R	Page No.: 13
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by 2DH5	



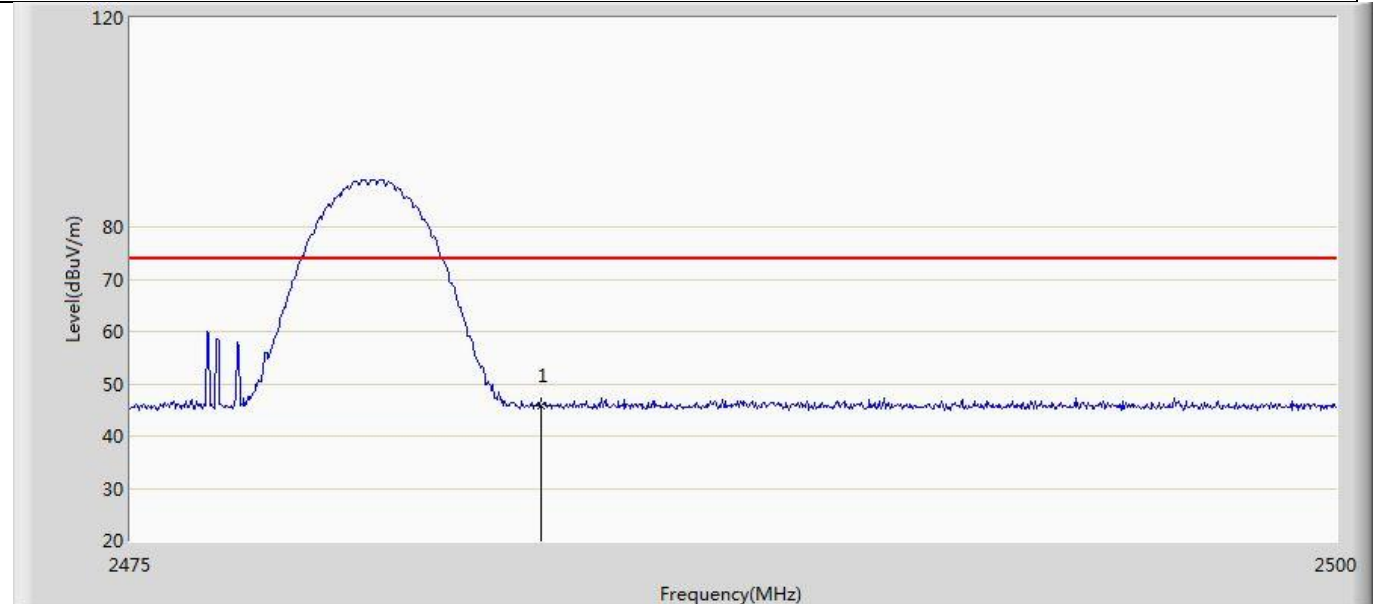
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.663	11.172	-28.337	74.000	34.491	PK

Profile: 22A0738R	Page No.: 14
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by 2DH5	



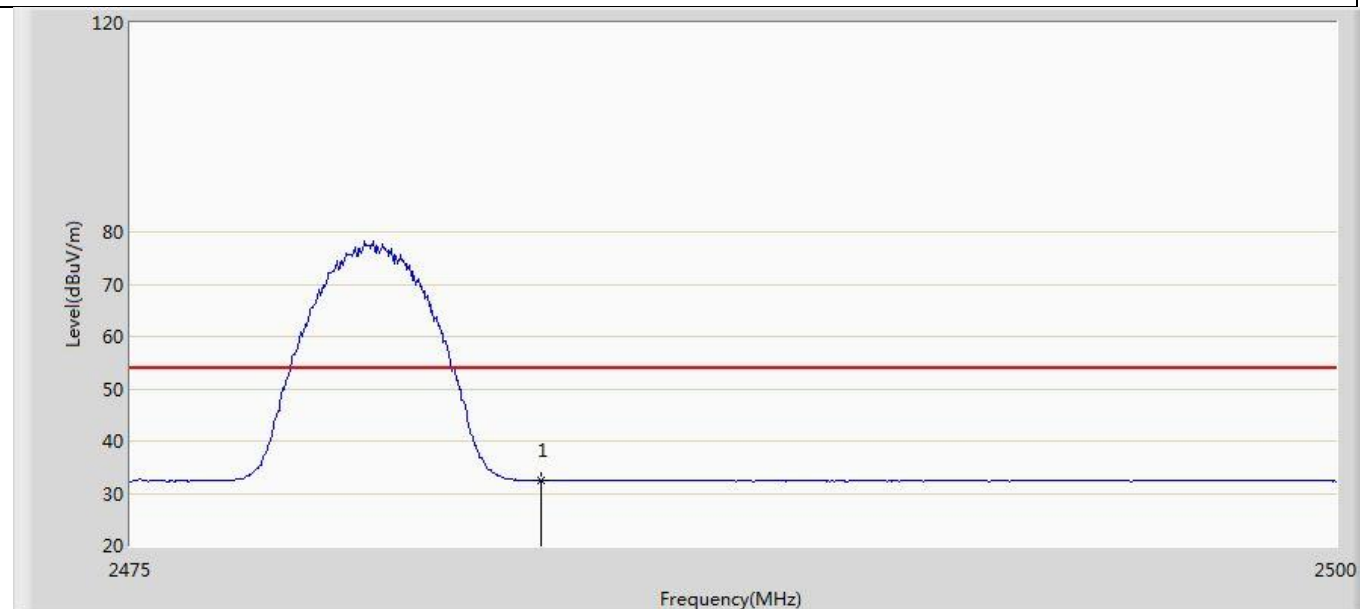
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	32.371	-2.120	-21.629	54.000	34.491	AV

Profile: 22A0738R	Page No.: 15
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by 2DH5	



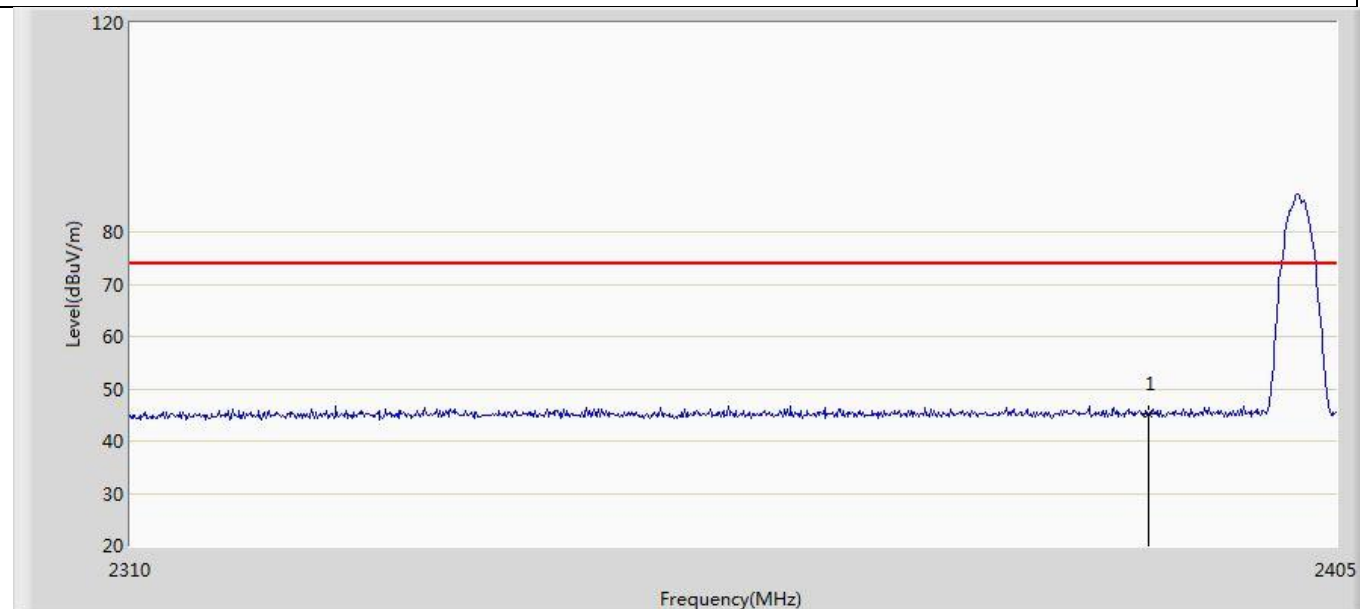
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.775	11.284	-28.225	74.000	34.491	PK

Profile: 22A0738R	Page No.: 16
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by 2DH5	



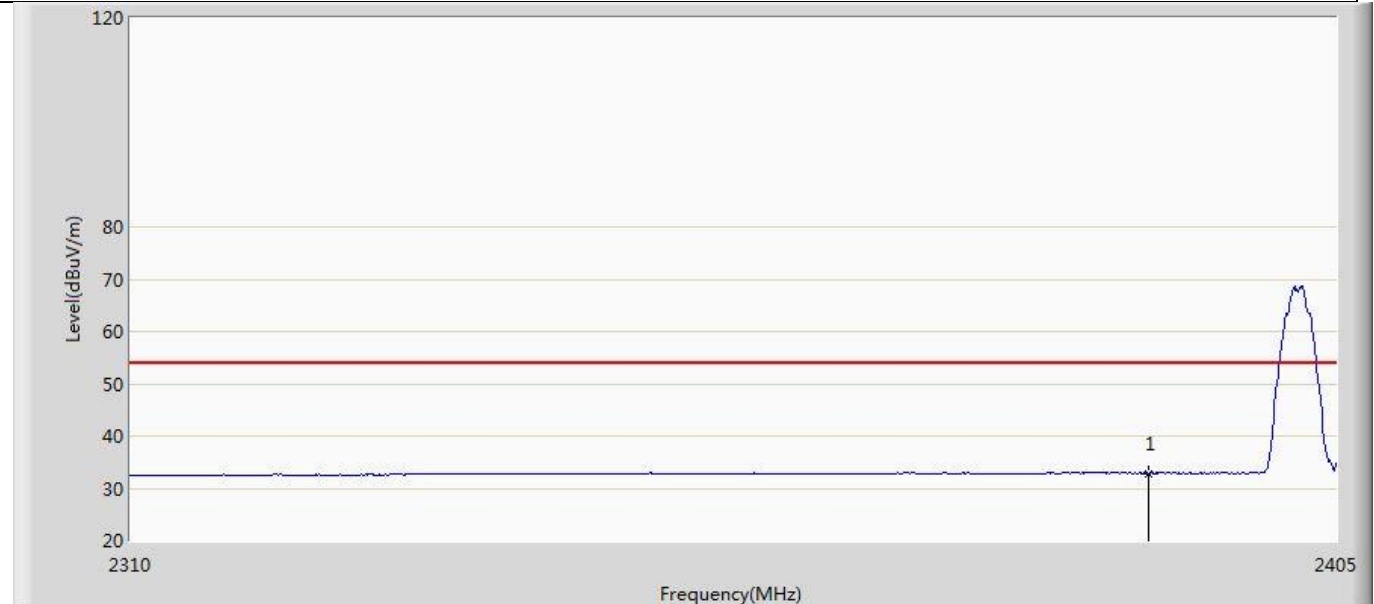
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	32.419	-2.072	-21.581	54.000	34.491	AV

Profile: 22A0738R	Page No.: 17
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 3DH5	



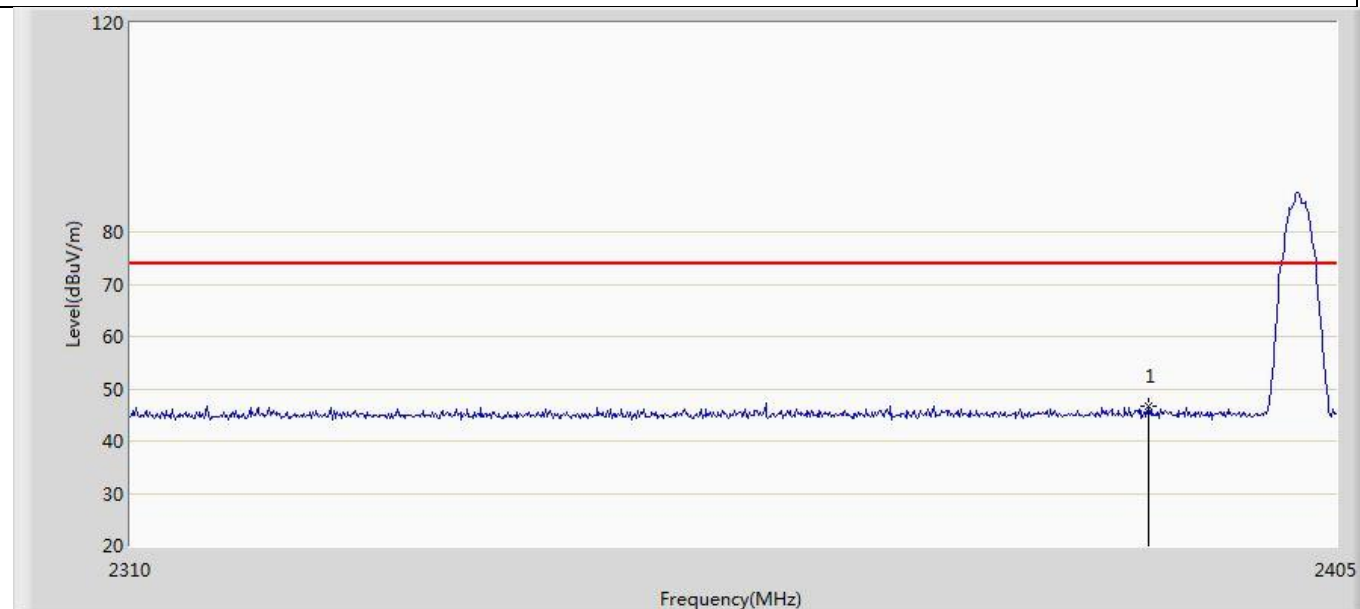
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	45.129	11.045	-28.871	74.000	34.084	PK

Profile: 22A0738R	Page No.: 18
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 3DH5	



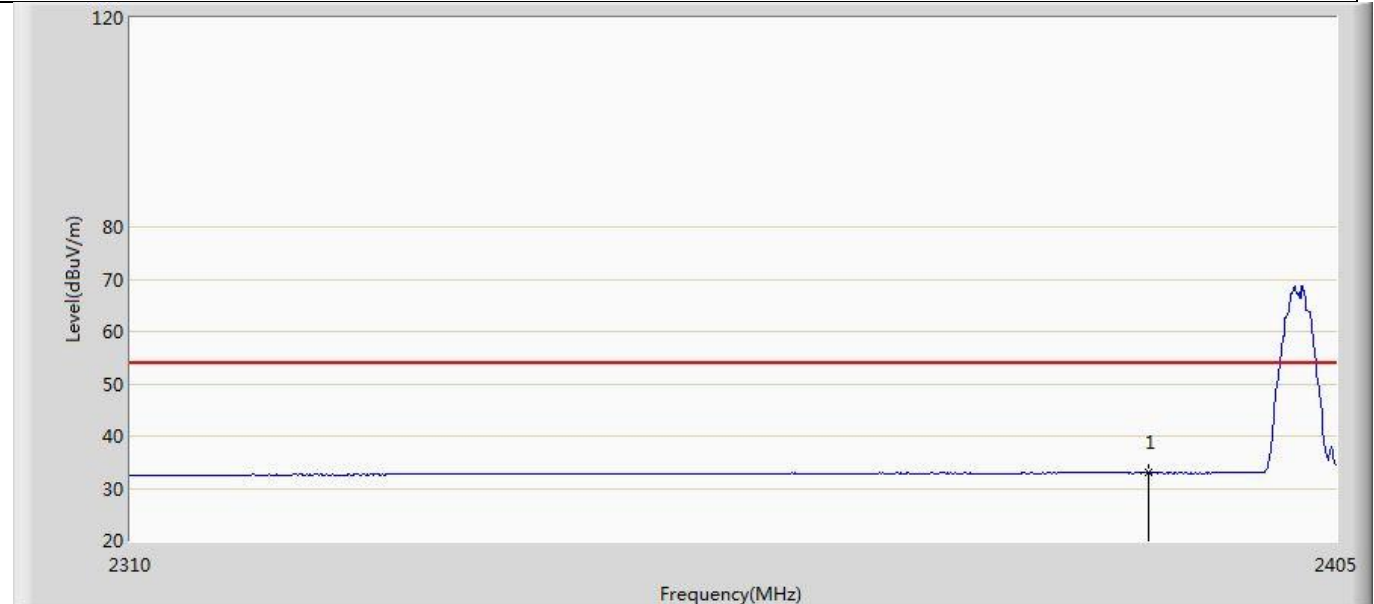
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	32.873	-1.211	-21.127	54.000	34.084	AV

Profile: 22A0738R	Page No.: 19
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 3DH5	



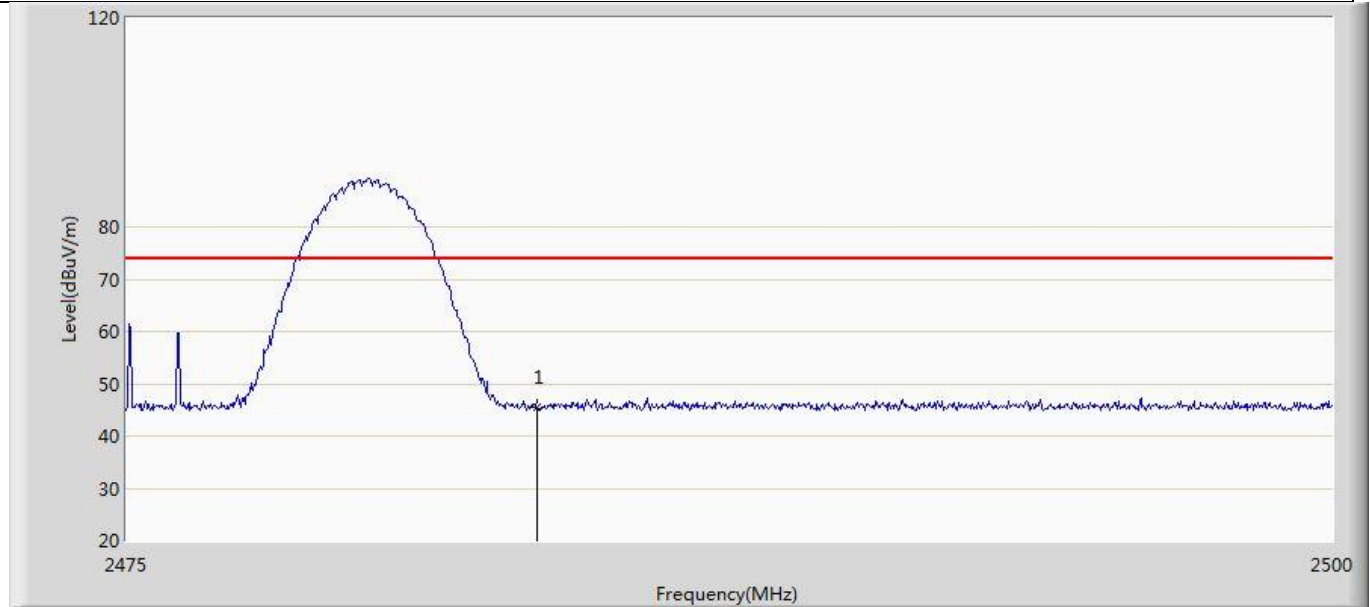
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	46.633	12.549	-27.367	74.000	34.084	PK

Profile: 22A0738R	Page No.: 20
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2402MHz by 3DH5	



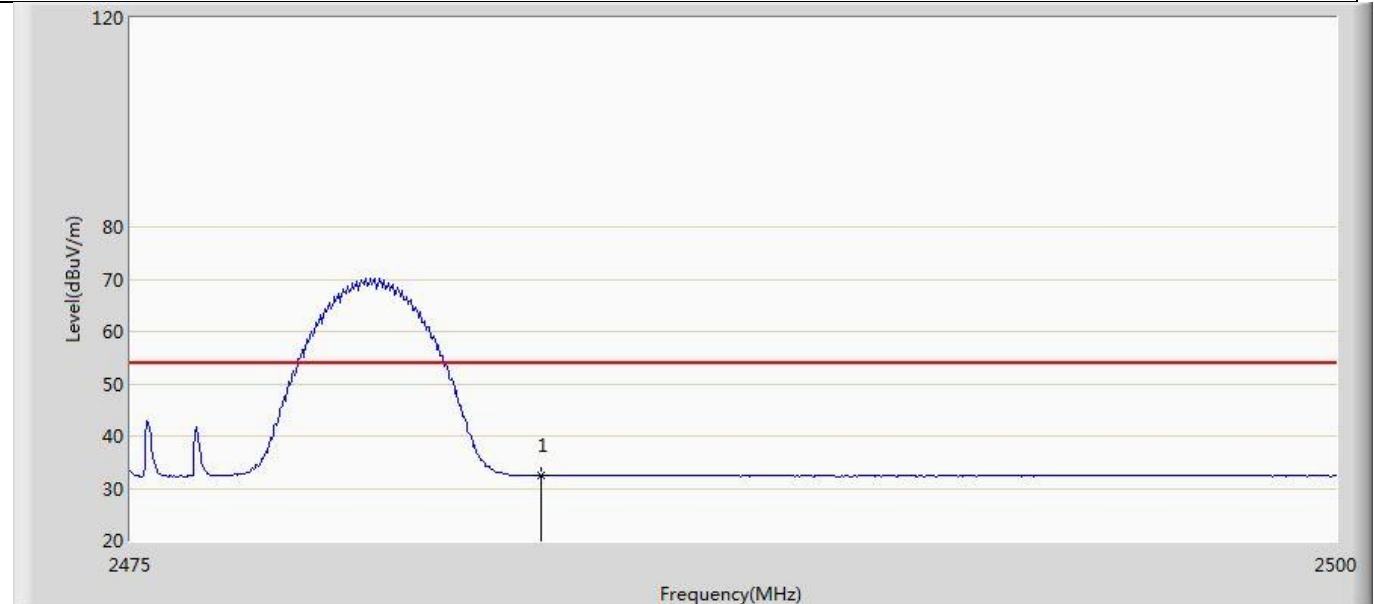
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	32.968	-1.116	-21.032	54.000	34.084	AV

Profile: 22A0738R	Page No.: 21
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by 3DH5	



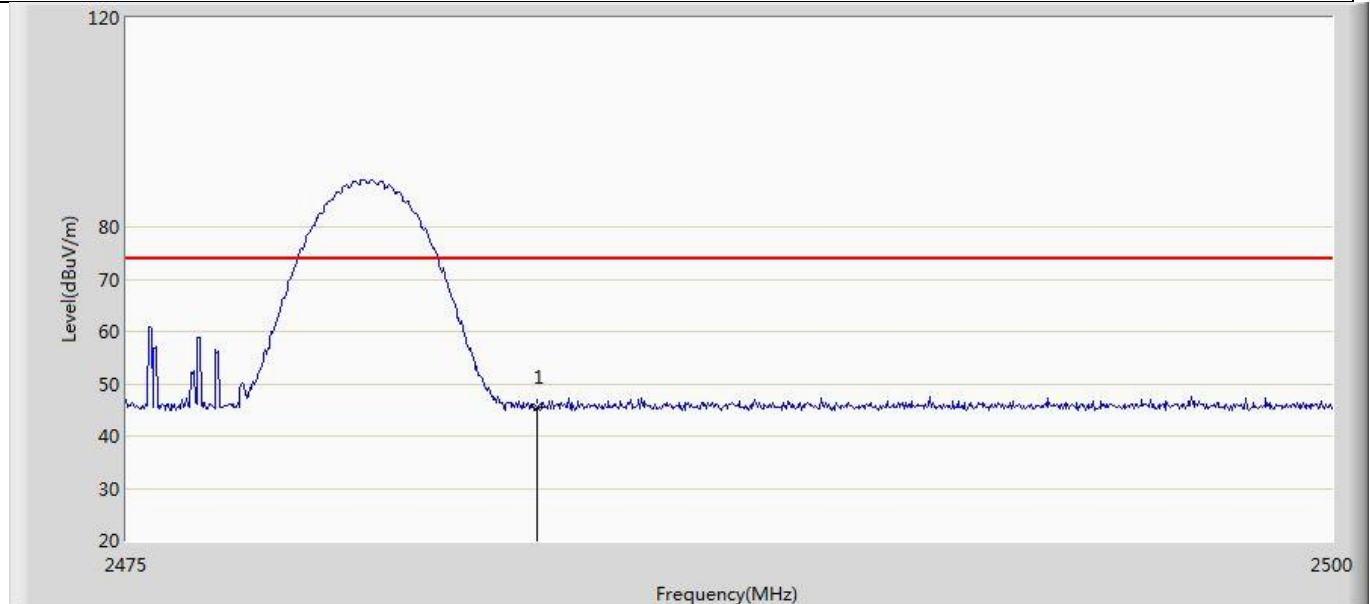
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.608	11.117	-28.392	74.000	34.491	PK

Profile: 22A0738R	Page No.: 22
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1:Transmit at 2480MHz by 3DH5	



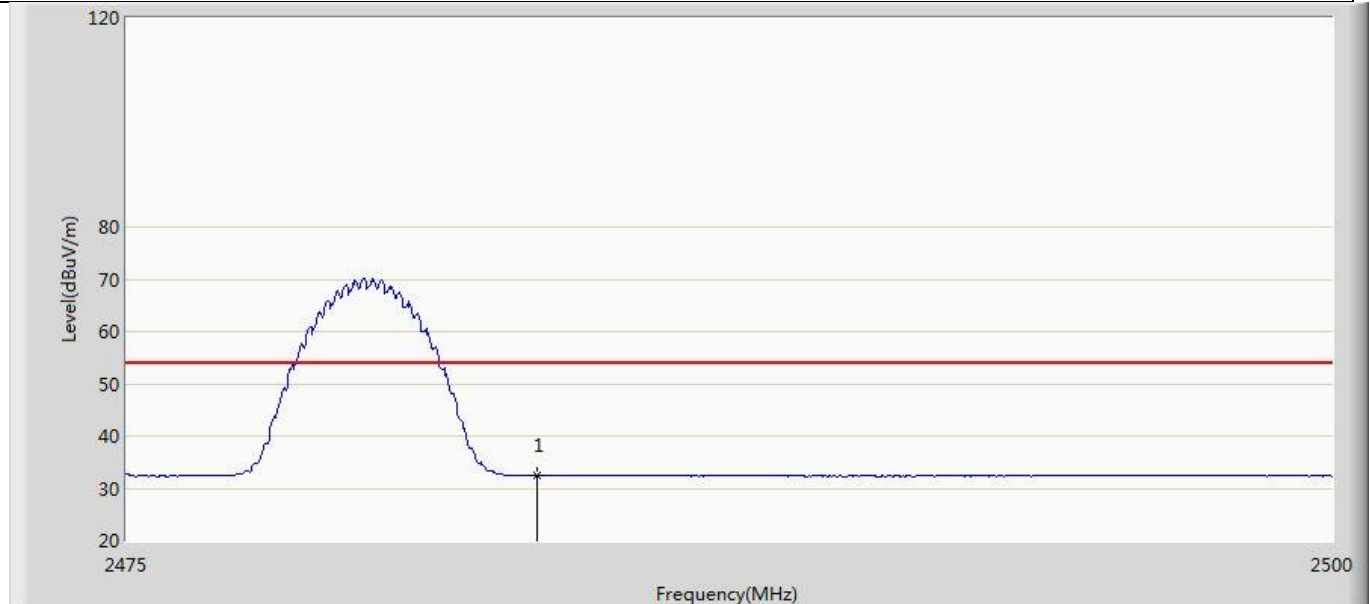
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	32.367	-2.124	-21.633	54.000	34.491	AV

Profile: 22A0738R	Page No.: 23
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1: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	45.601	11.110	-28.399	74.000	34.491	PK

Profile: 22A0738R	Page No.: 24
Engineer: YuLiu	
Site: AC5	Time: 2022/11/17 - 23:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: INFOTAINMENT HEADUNIT	Power: DC 12V
Note: Mode1: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	32.448	-2.043	-21.552	54.000	34.491	AV

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:

- | | |
|-------------------------------------|--|
| ☒ | 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 _____