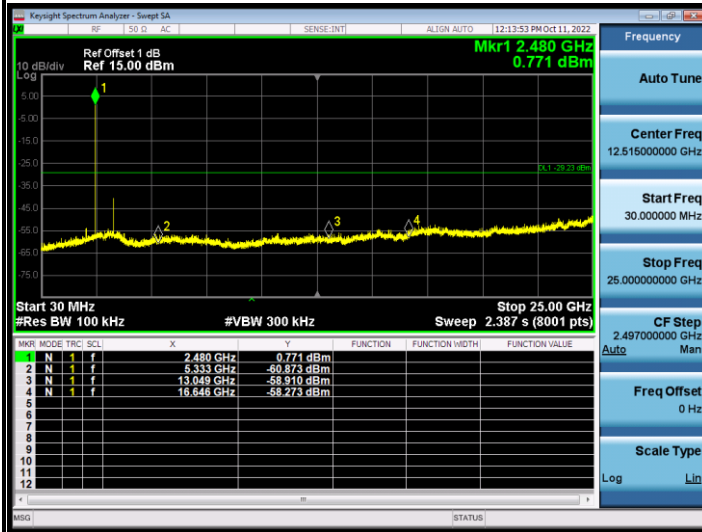
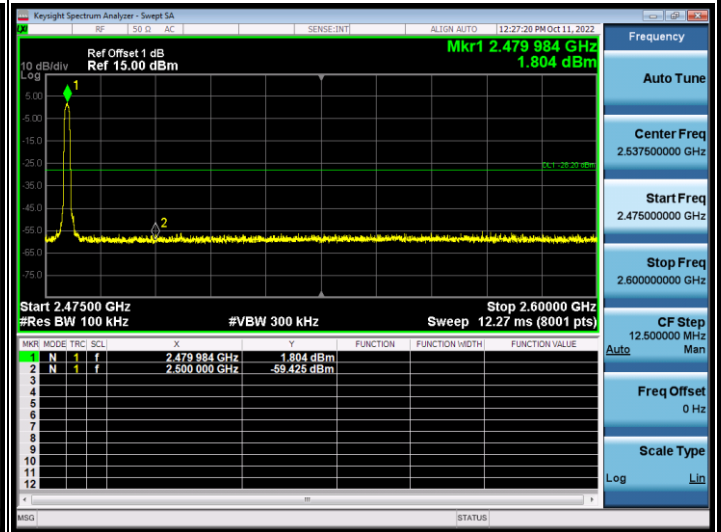


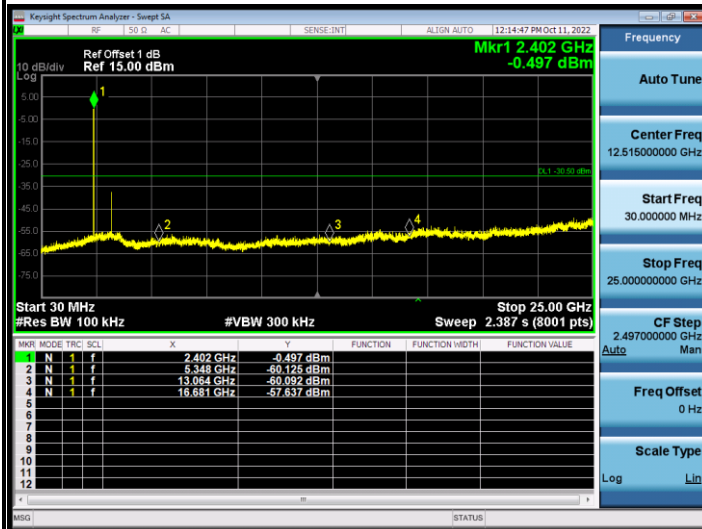
Mode 2 CH78(2480MHz)



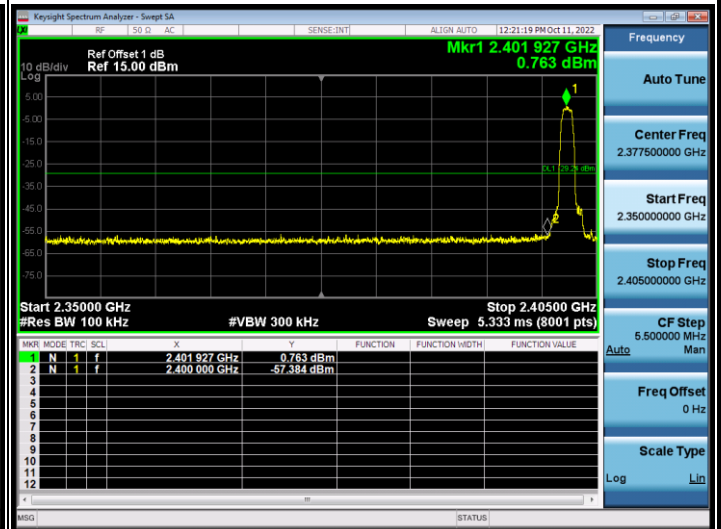
Mode 2 CH78(2480MHz)



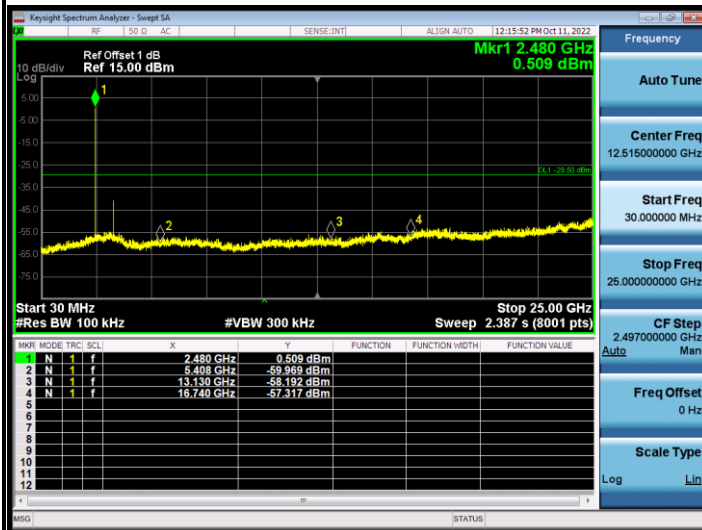
Mode 3 CH00(2402MHz)



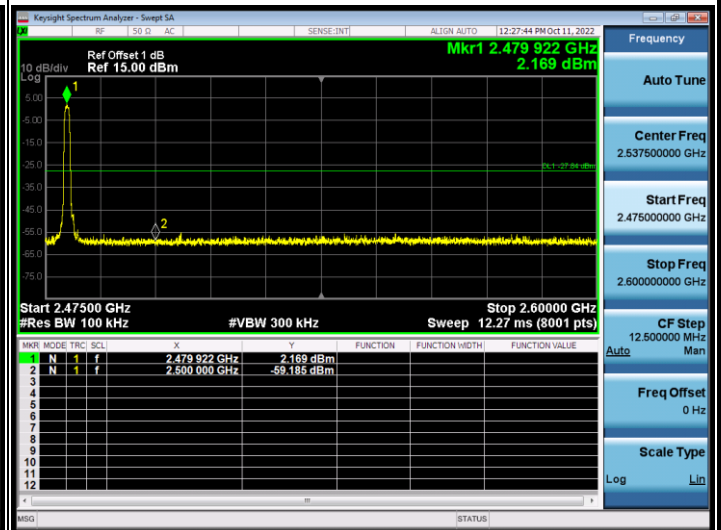
Mode 3 CH00(2402MHz)



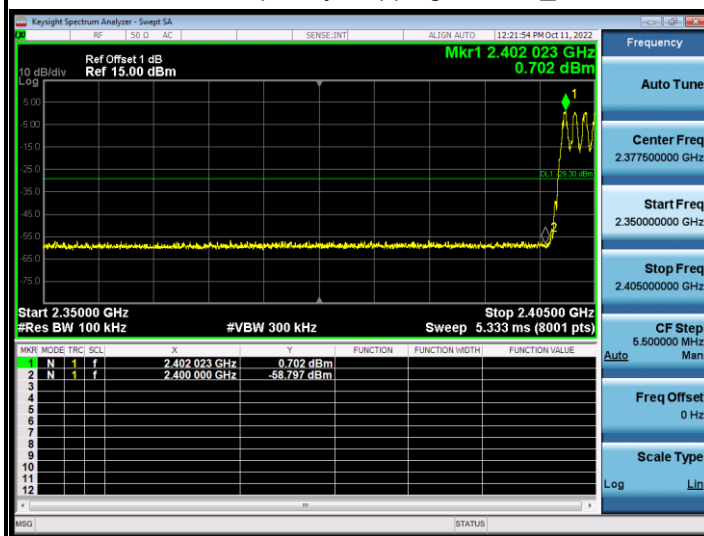
Mode 3 CH78(2480MHz)



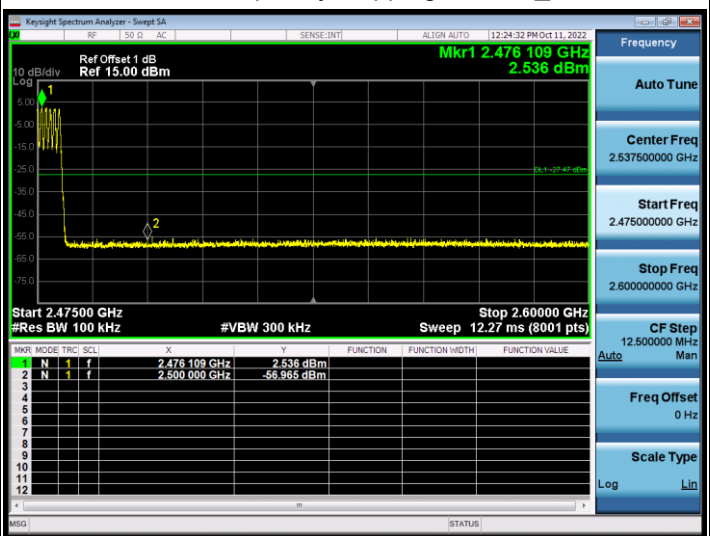
Mode 3 CH78(2480MHz)



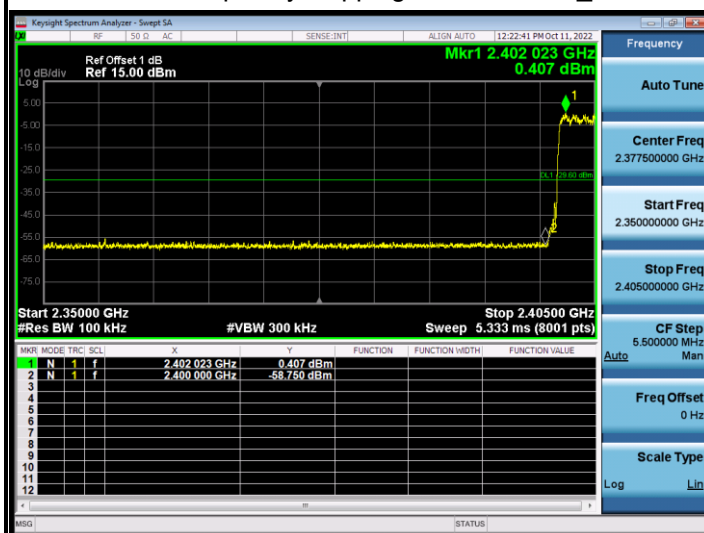
Mode 4 Frequency Hopping - GFSK_DH5



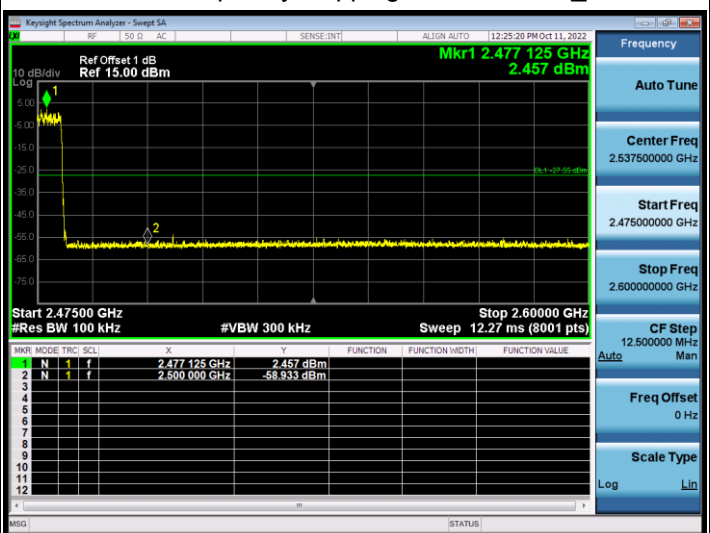
Mode 4 Frequency Hopping - GFSK_DH5



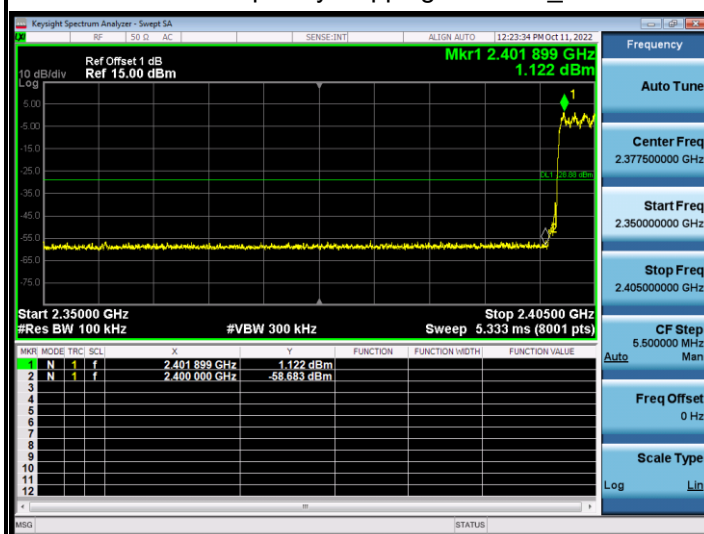
Mode 5 Frequency Hopping - Pi/4 DQPSK_DH5



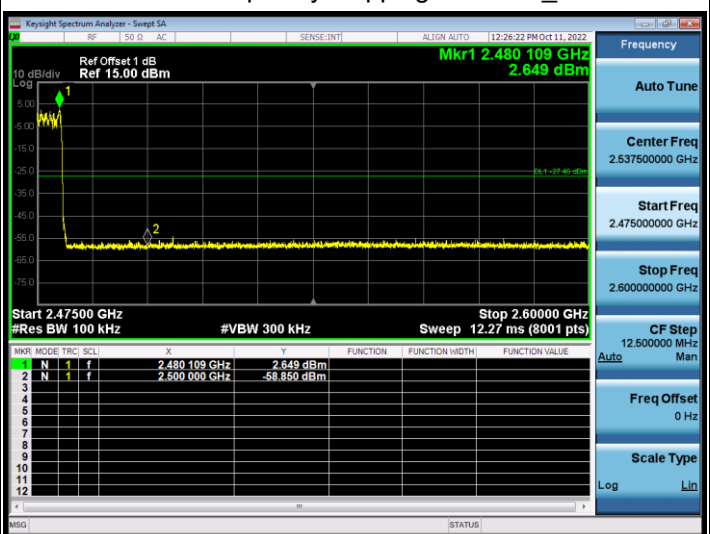
Mode 5 Frequency Hopping - Pi/4 DQPSK_DH5



Mode 6 Frequency Hopping - 8DPSK_DH5

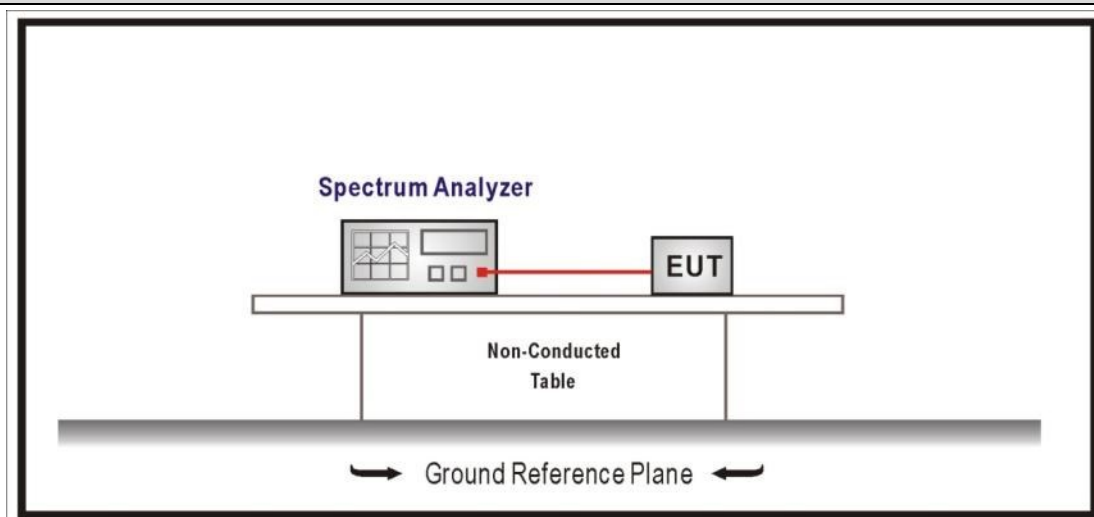


Mode 6 Frequency Hopping - 8DPSK_DH5



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

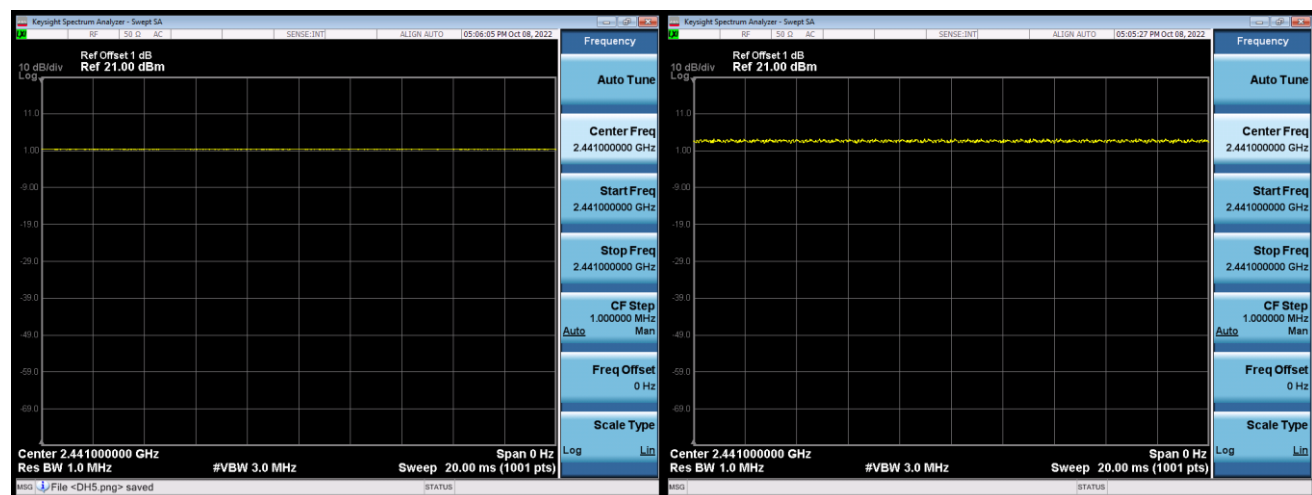
Test Mode	Tx On (ms)	Tx Off (ms)	VBW (kHz)	Tx On + Tx Off (ms)	Duty Cycle (%)
Mode 1	-	-	3000	-	100
Mode 2	-	-	3000	-	100
Mode 3	-	-	3000	-	100

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.

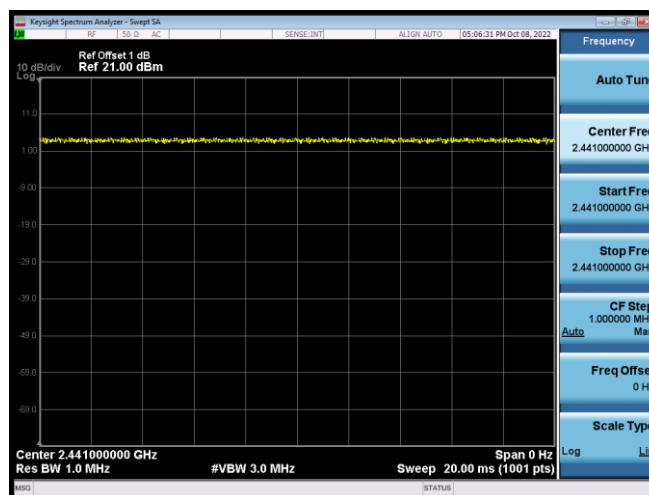
Note 2: According to C63.10, if continuous transmission of the EUT ($D \geq 98\%$) cannot be achieved and the duty cycle is constant (duty cycle variations are less than $\pm 2\%$), for Radiated Emission Band Edge and Radiated Emission, for average detector set: $VBW \geq 3RBW$ will be used; If continuous transmission of the EUT ($D \geq 98\%$) cannot be achieved and the duty cycle is not constant (duty cycle variations exceed $\pm 2\%$), 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



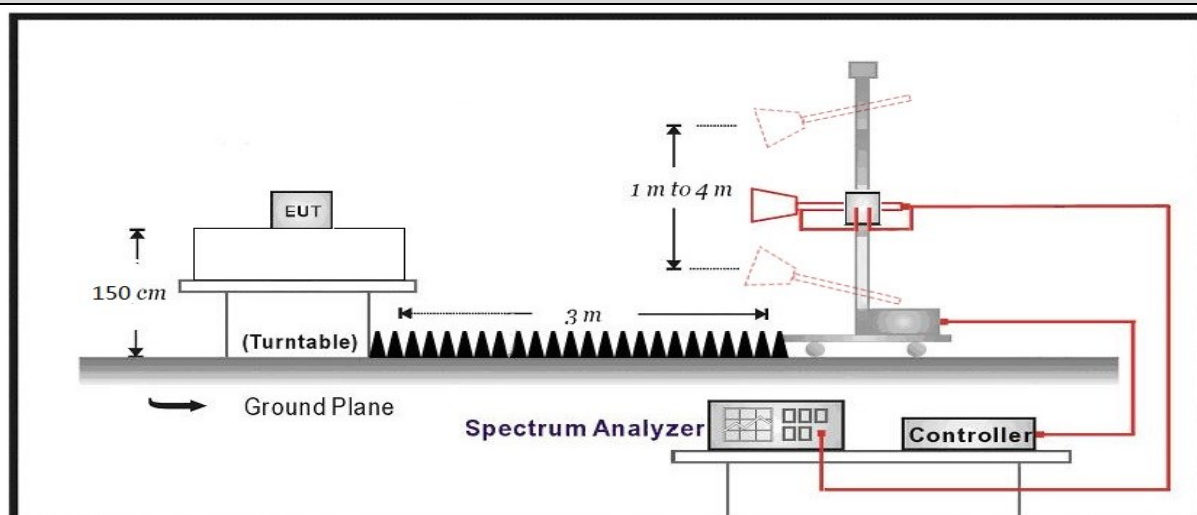
Mode 3 CH39 2441MHz



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.

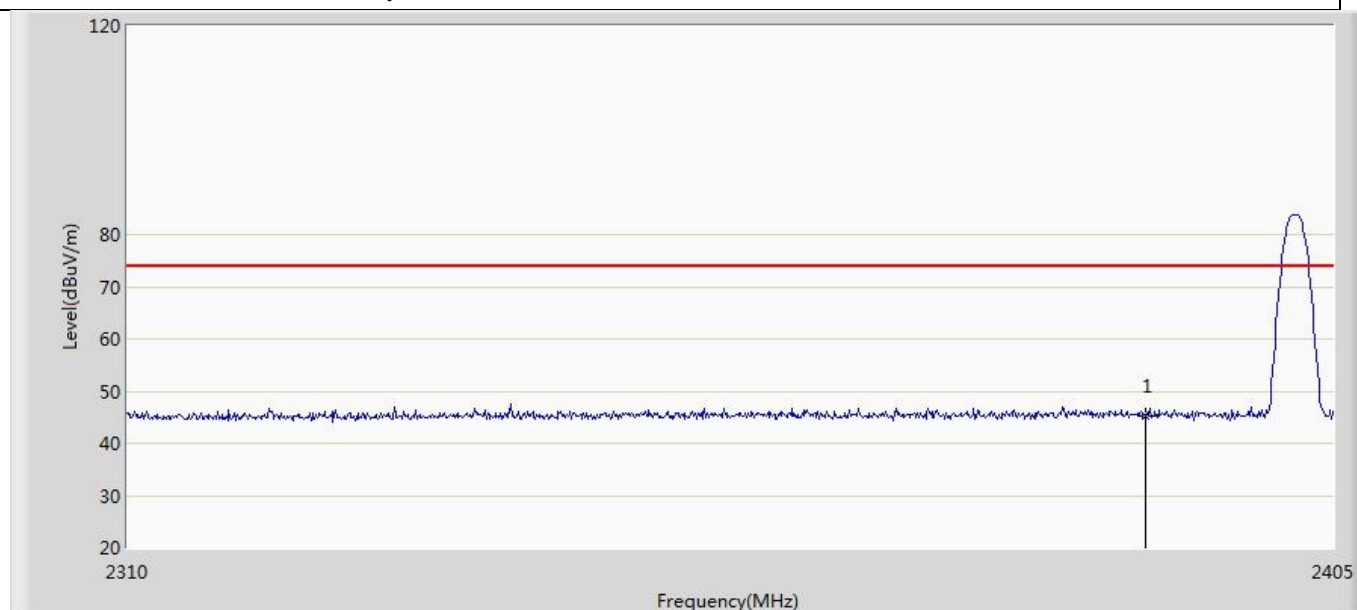
4.10.2 Test Setup**4.10.3 Test Procedure**

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

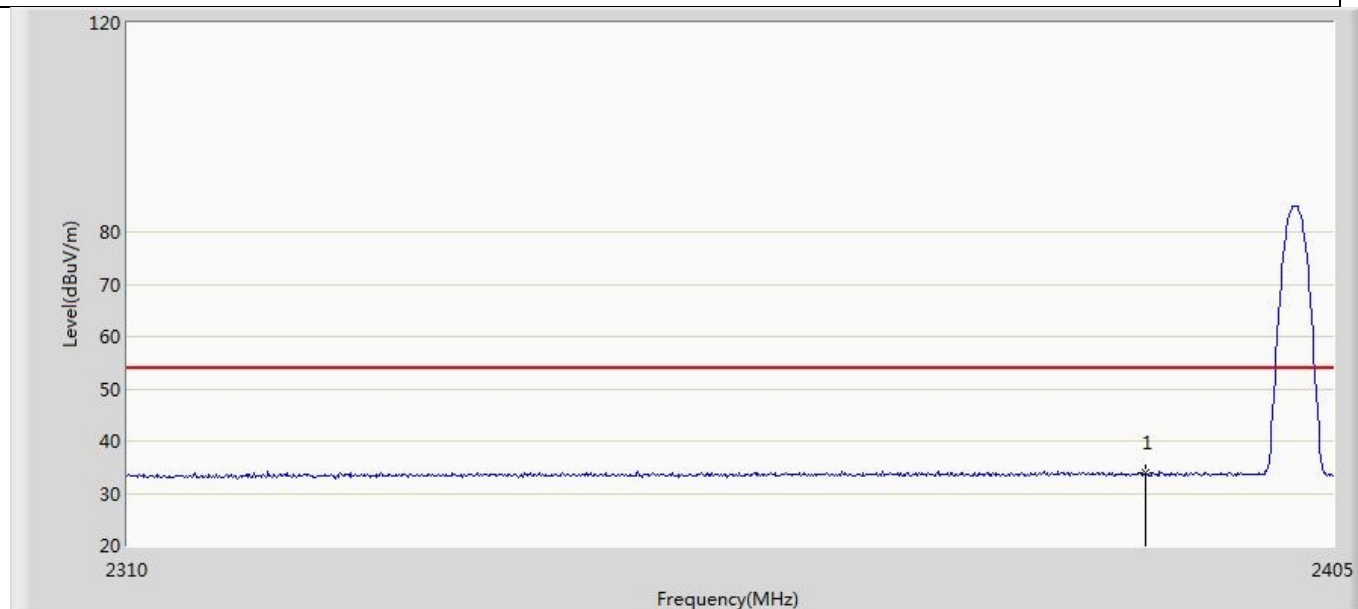
4.10.4 Test Data

Profile: 2290438R	Page No.: 37
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 01:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2402MHz by DH5	



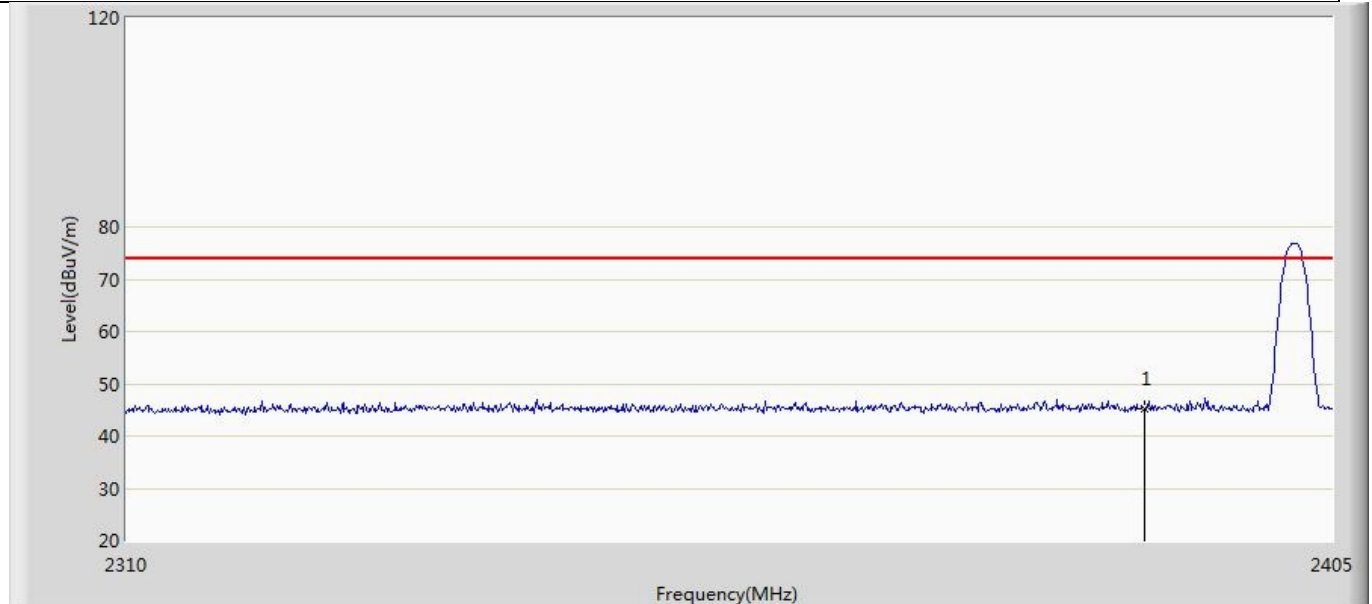
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	45.246	11.162	-28.754	74.000	34.084	PK

Profile: 2290438R	Page No.: 38
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 01:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2402MHz by DH5	



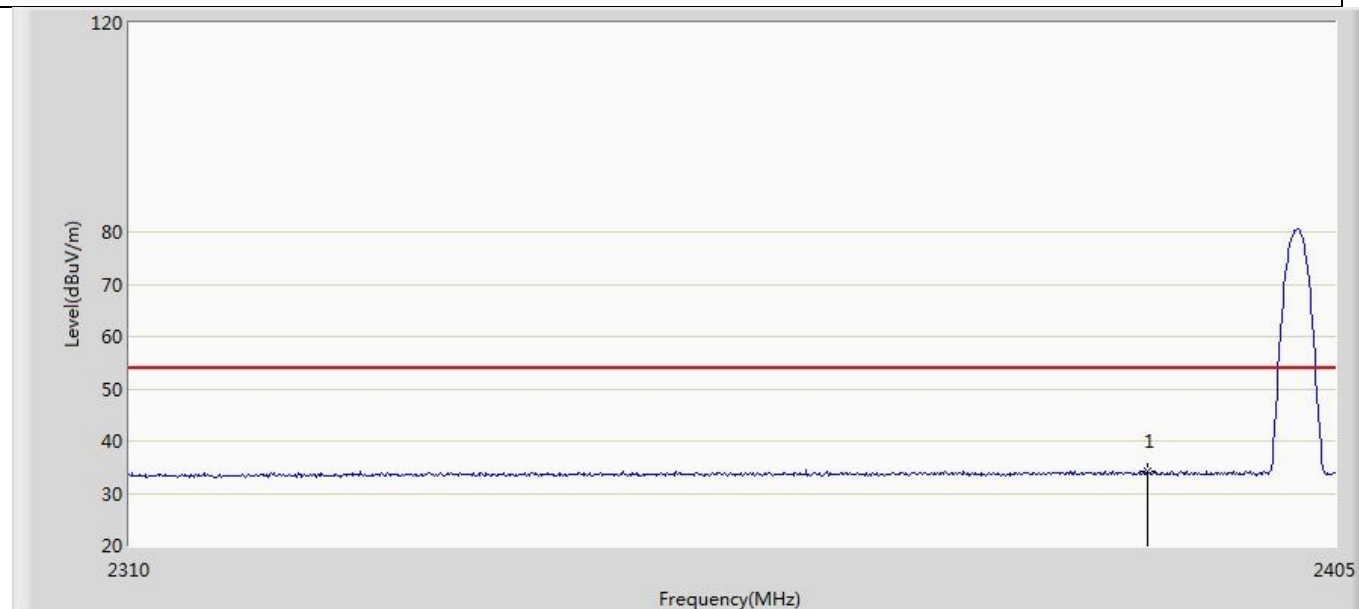
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	33.855	-0.229	-20.145	54.000	34.084	AV

Profile: 2290438R	Page No.: 39
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 01:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2402MHz by DH5	



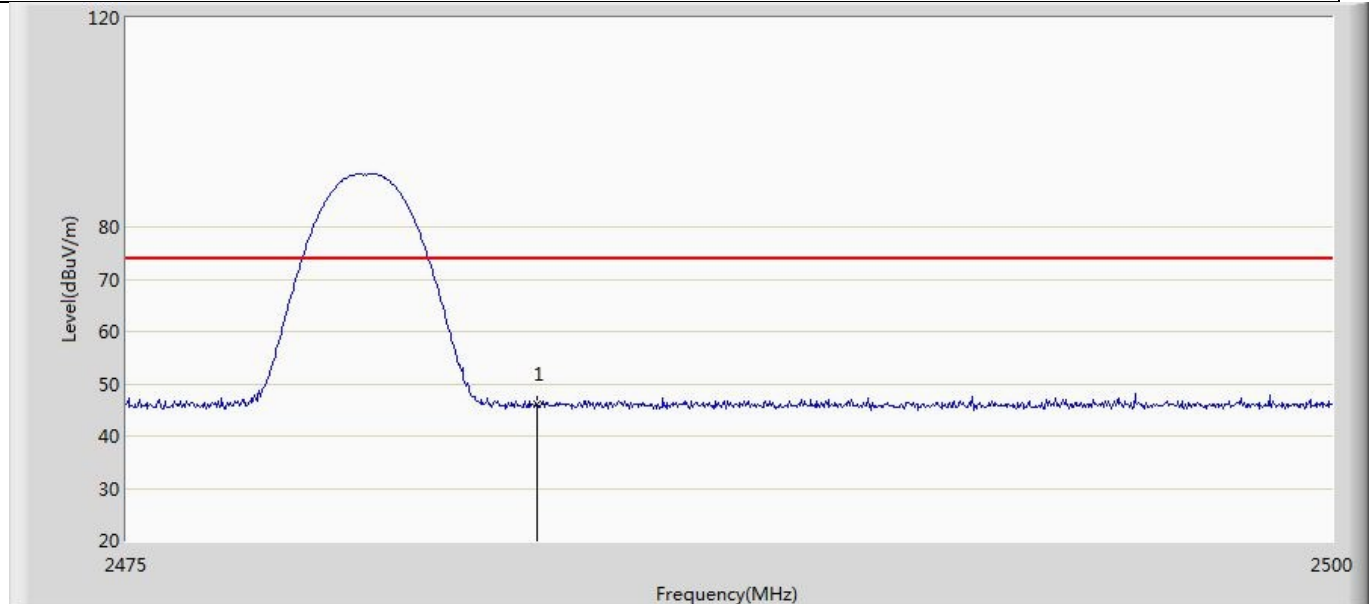
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	45.171	11.087	-28.829	74.000	34.084	PK

Profile: 2290438R	Page No.: 40
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 01:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2402MHz by DH5	



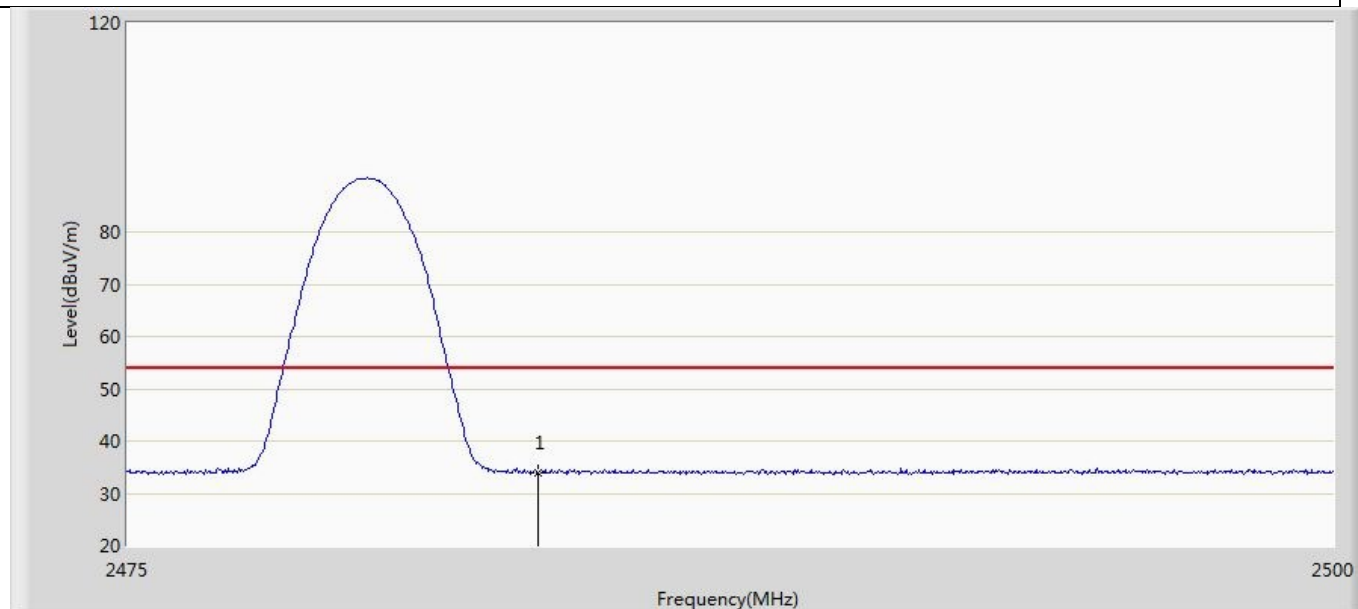
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	34.066	-0.018	-19.934	54.000	34.084	AV

Profile: 2290438R	Page No.: 41
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2480MHz by DH5	



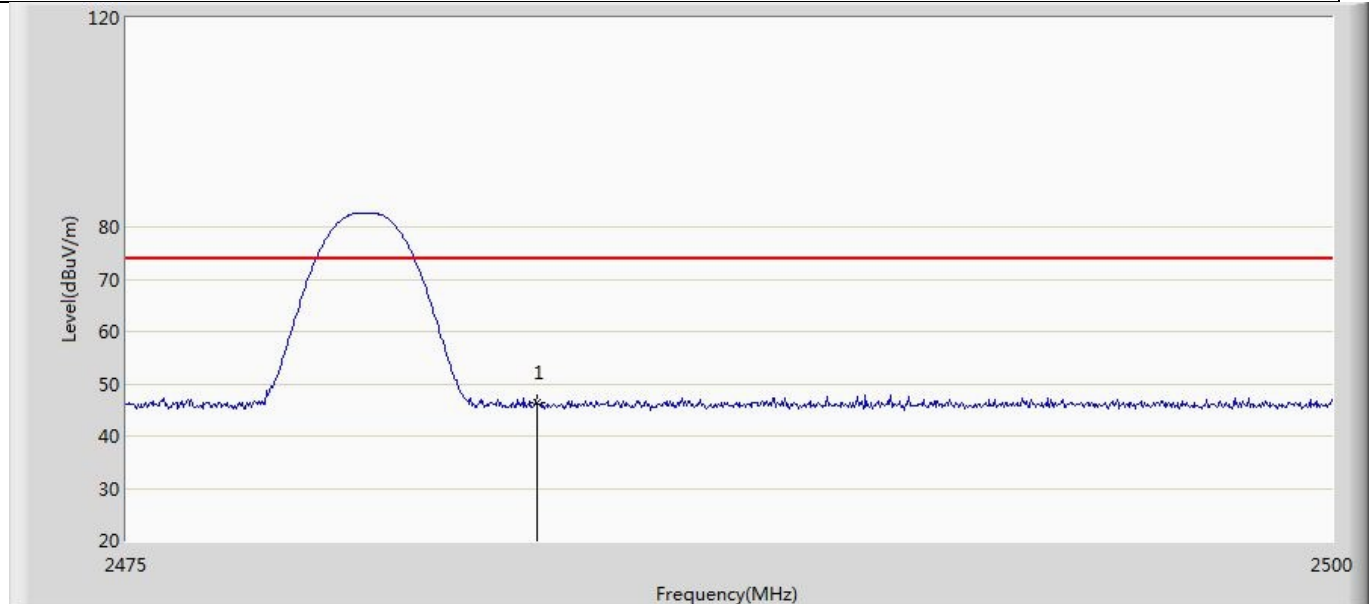
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	46.086	11.595	-27.914	74.000	34.491	PK

Profile: 2290438R	Page No.: 42
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2480MHz by DH5	



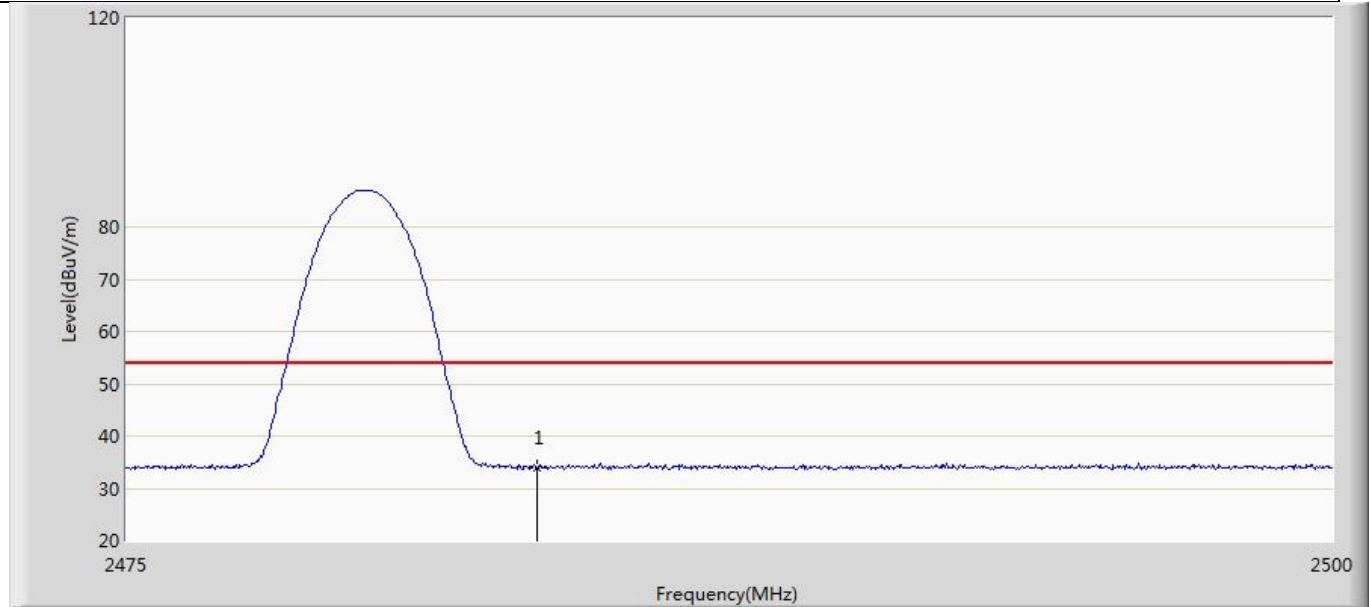
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	33.829	-0.662	-20.171	54.000	34.491	AV

Profile: 2290438R	Page No.: 43
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2480MHz by DH5	



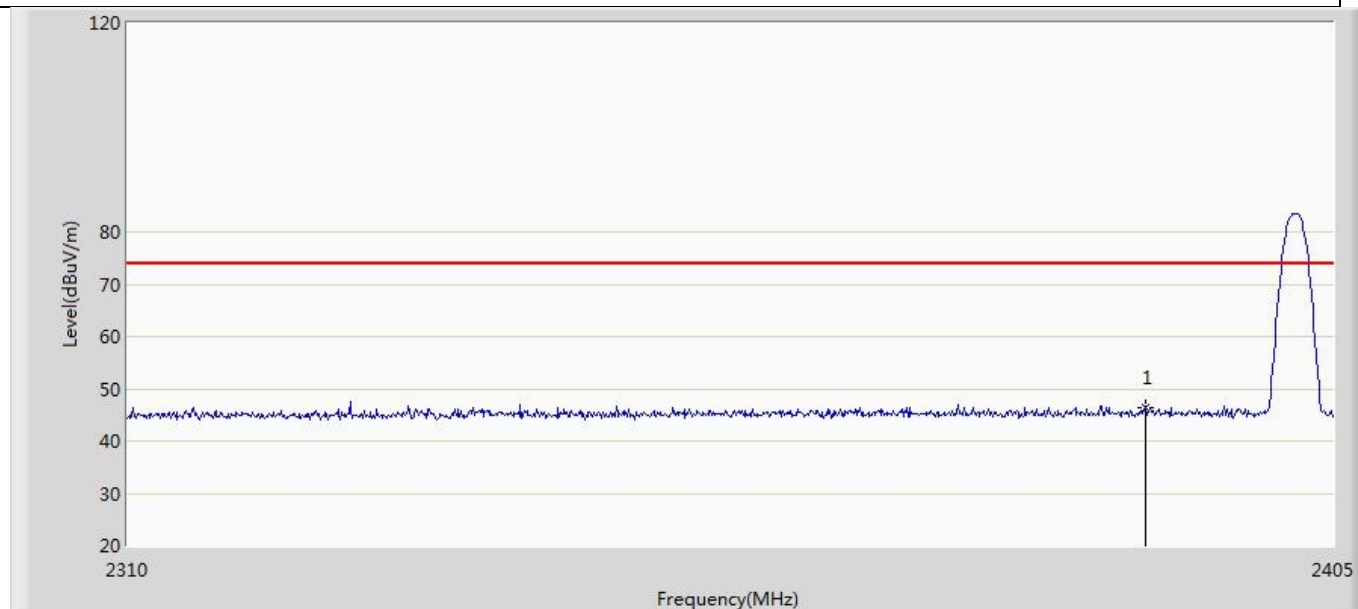
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	46.459	11.968	-27.541	74.000	34.491	PK

Profile: 2290438R	Page No.: 44
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode1:Transmit at 2480MHz by DH5	



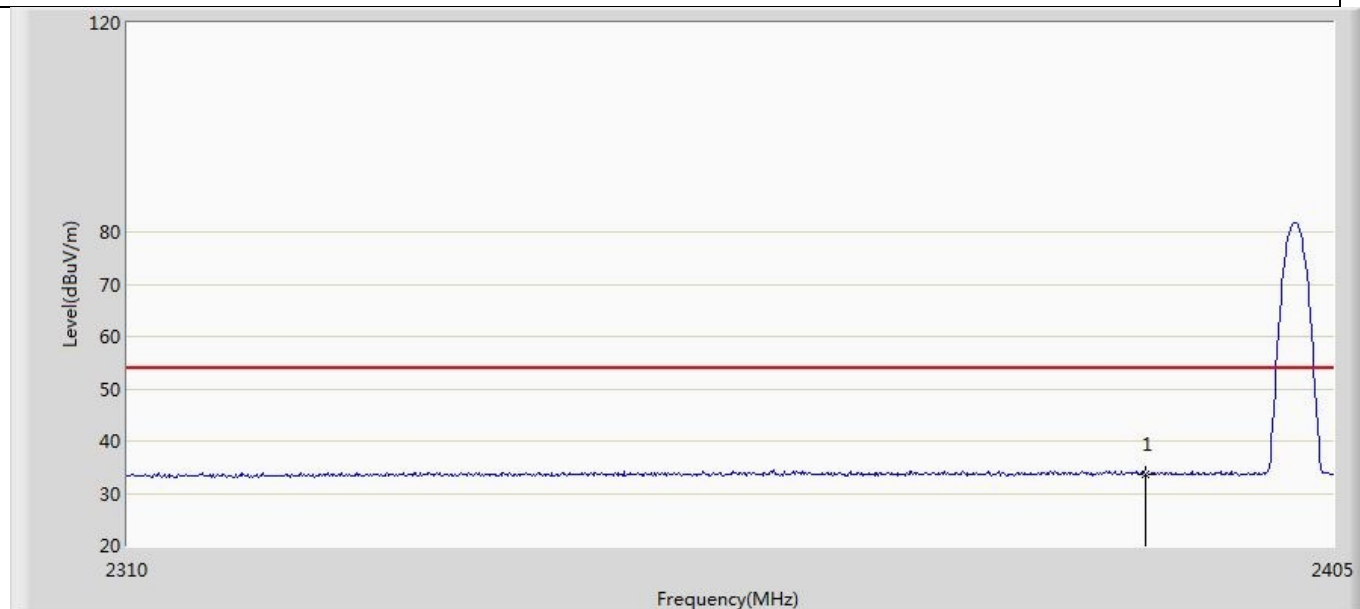
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	33.976	-0.515	-20.024	54.000	34.491	AV

Profile: 2290438R	Page No.: 45
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2402MHz by 2DH5	



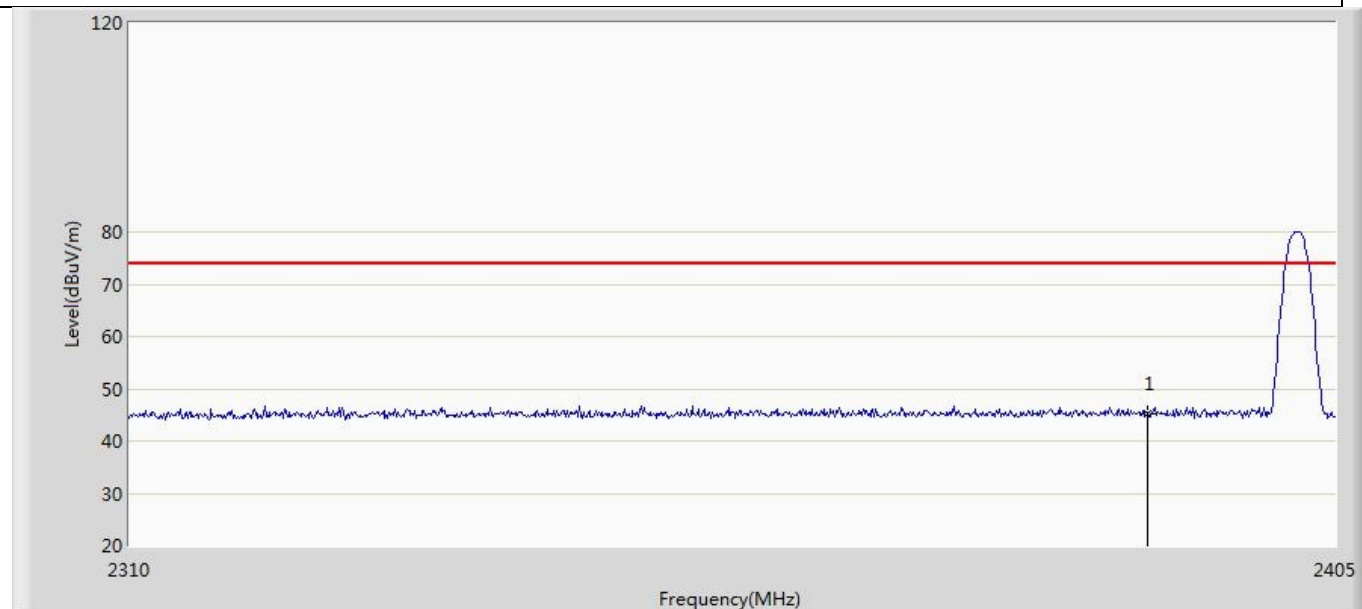
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	46.444	12.360	-27.556	74.000	34.084	PK

Profile: 2290438R	Page No.: 46
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2402MHz by 2DH5	



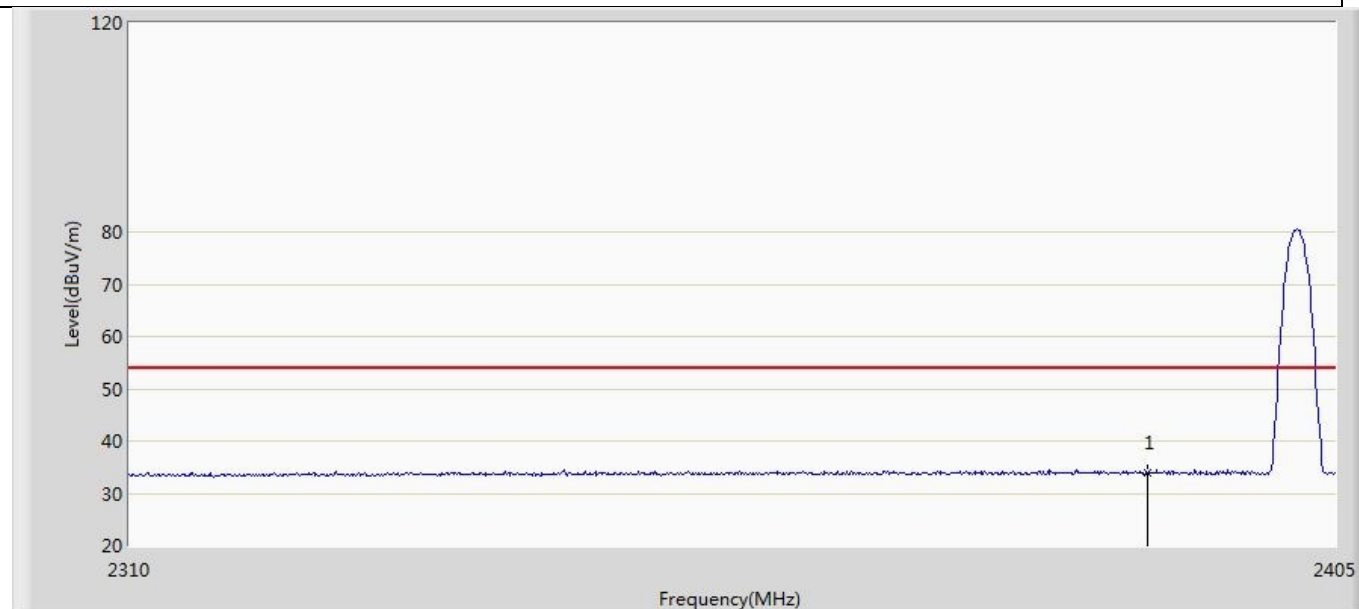
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	33.538	-0.546	-20.462	54.000	34.084	AV

Profile: 2290438R	Page No.: 47
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2402MHz by 2DH5	



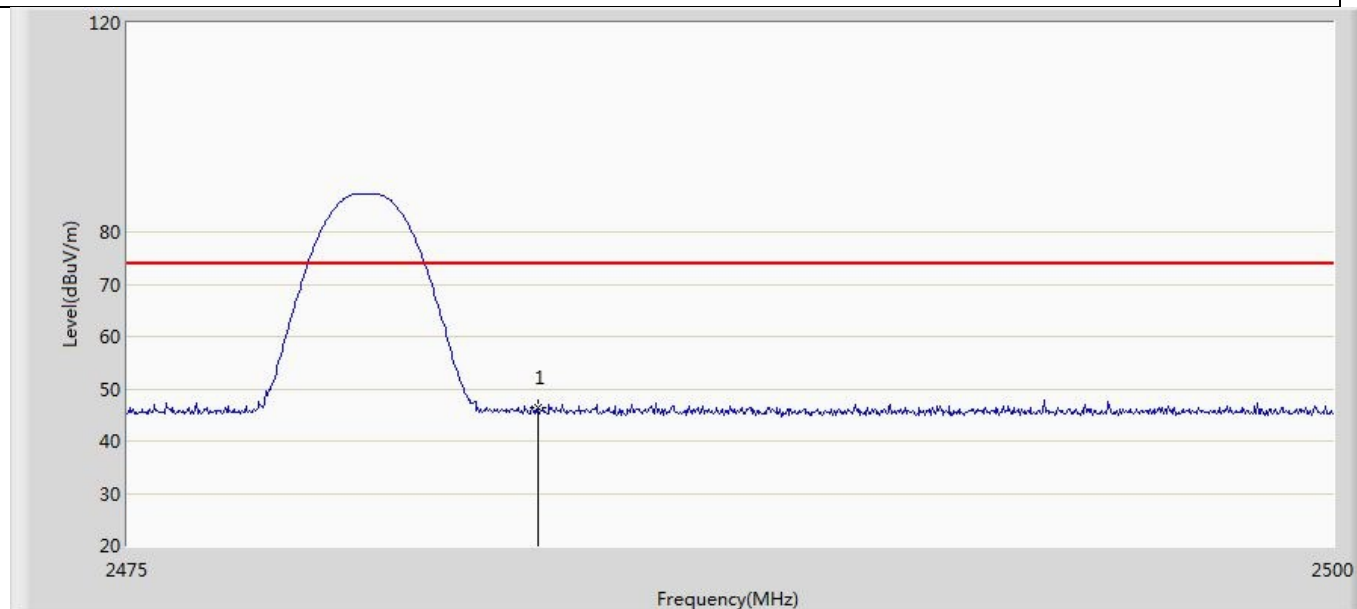
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	45.337	11.253	-28.663	74.000	34.084	PK

Profile: 2290438R	Page No.: 48
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2402MHz by 2DH5	



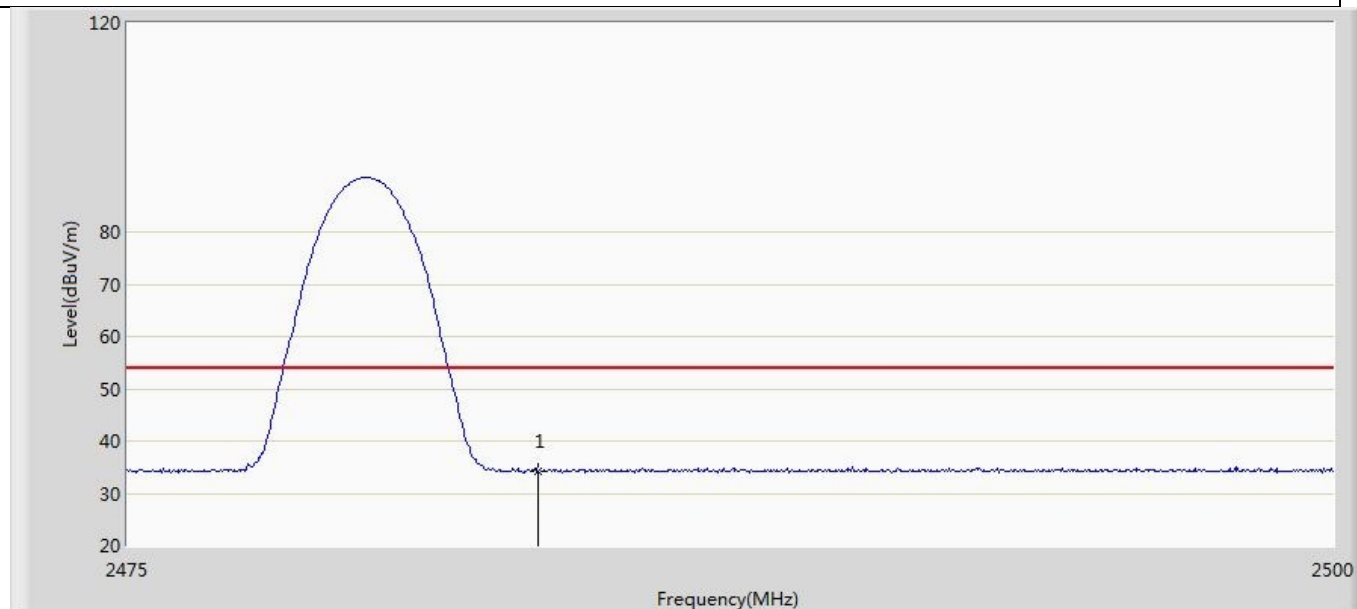
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	33.867	-0.217	-20.133	54.000	34.084	AV

Profile: 2290438R	Page No.: 49
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2480MHz by 2DH5	



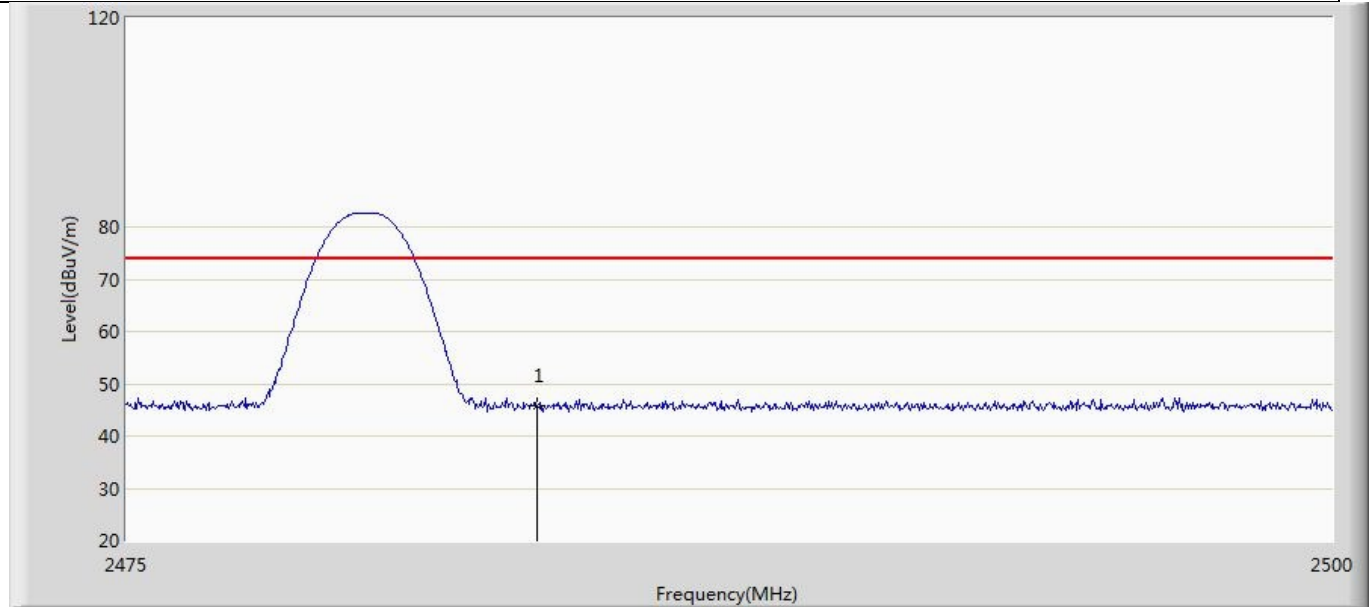
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	46.342	11.851	-27.658	74.000	34.491	PK

Profile: 2290438R	Page No.: 50
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2480MHz by 2DH5	



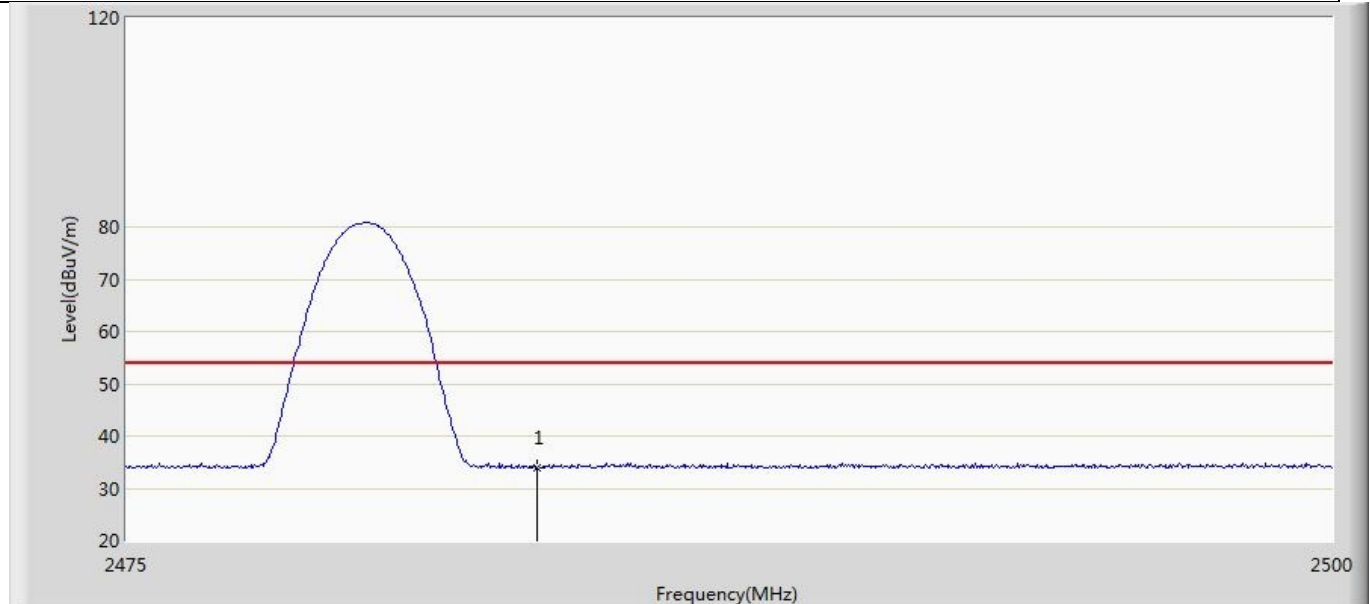
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	34.222	-0.269	-19.778	54.000	34.491	AV

Profile: 2290438R	Page No.: 51
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:18
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2480MHz by 2DH5	



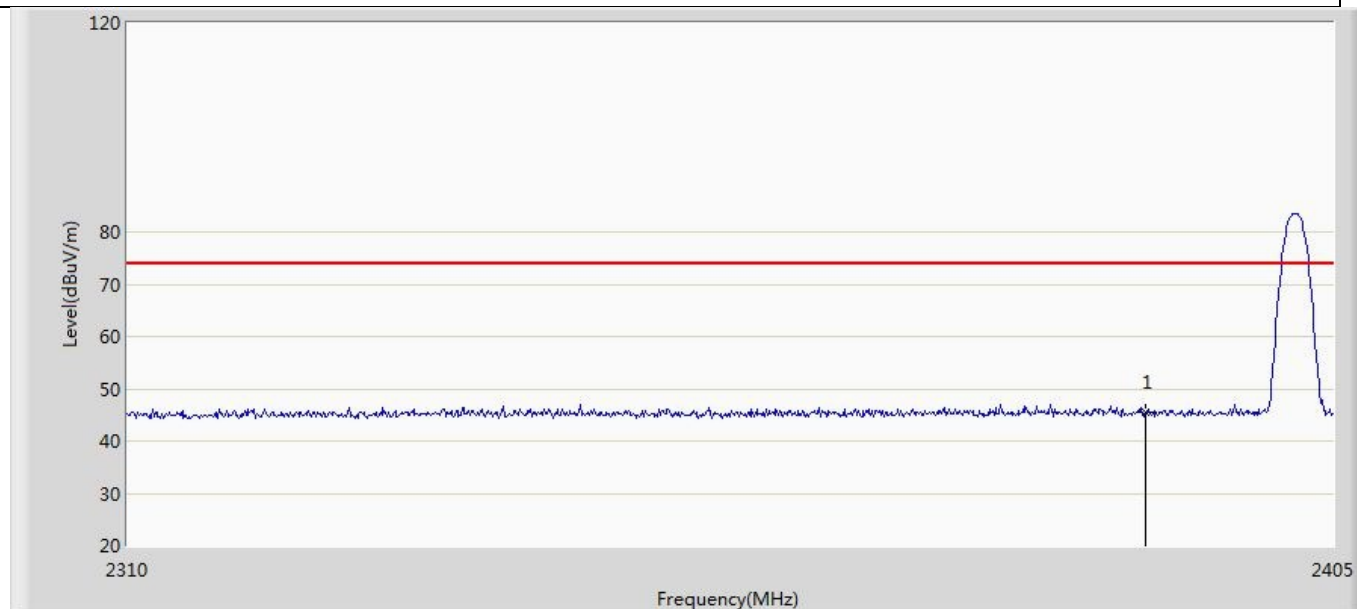
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.799	11.308	-28.201	74.000	34.491	PK

Profile: 2290438R	Page No.: 52
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode2:Transmit at 2480MHz by 2DH5	



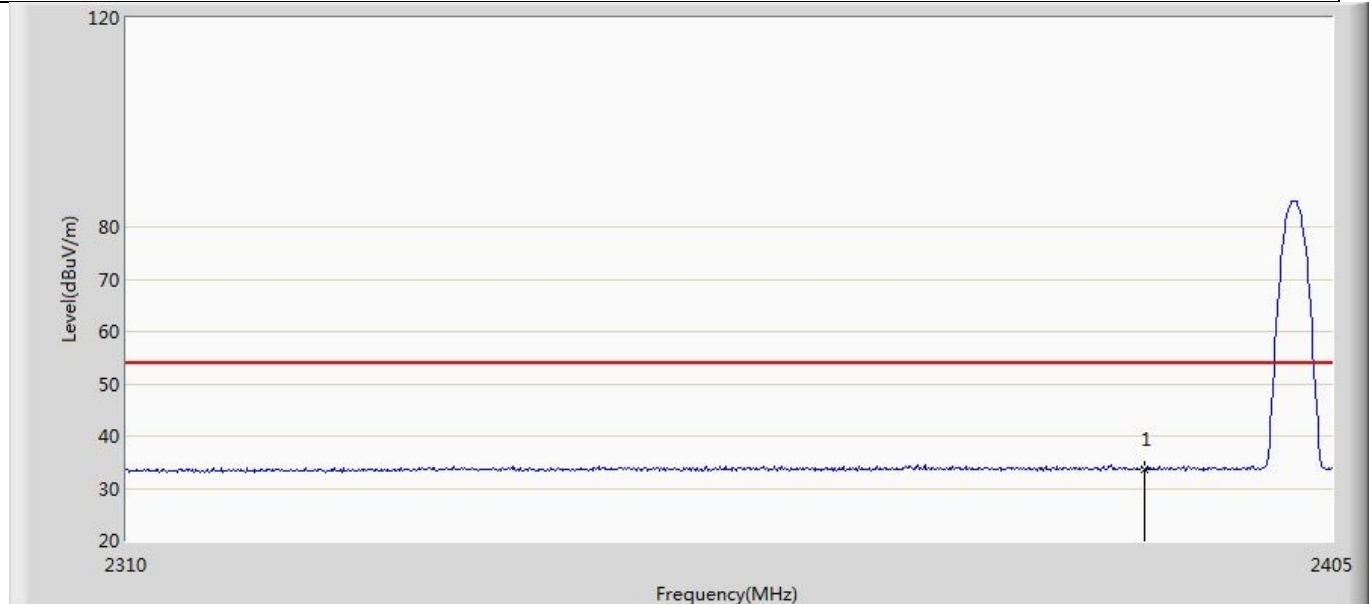
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	34.018	-0.473	-19.982	54.000	34.491	AV

Profile: 2290438R	Page No.: 53
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3:Transmit at 2402MHz by 3DH5	



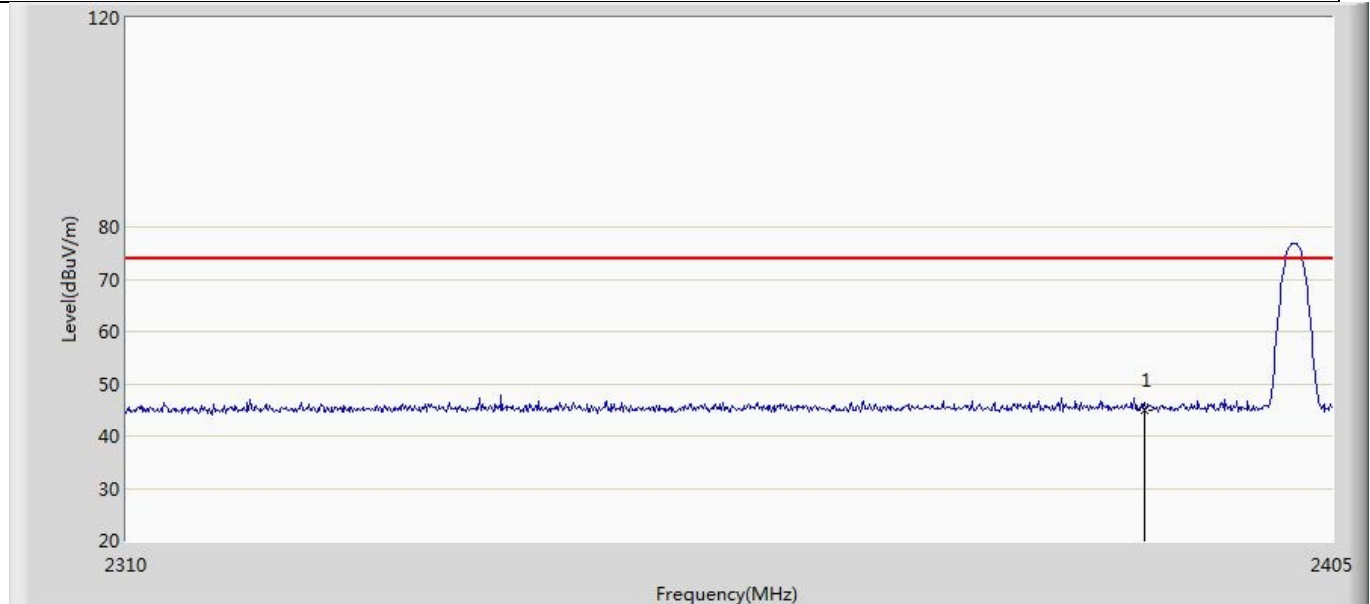
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	45.575	11.491	-28.425	74.000	34.084	PK

Profile: 2290438R	Page No.: 54
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3:Transmit at 2402MHz by 3DH5	



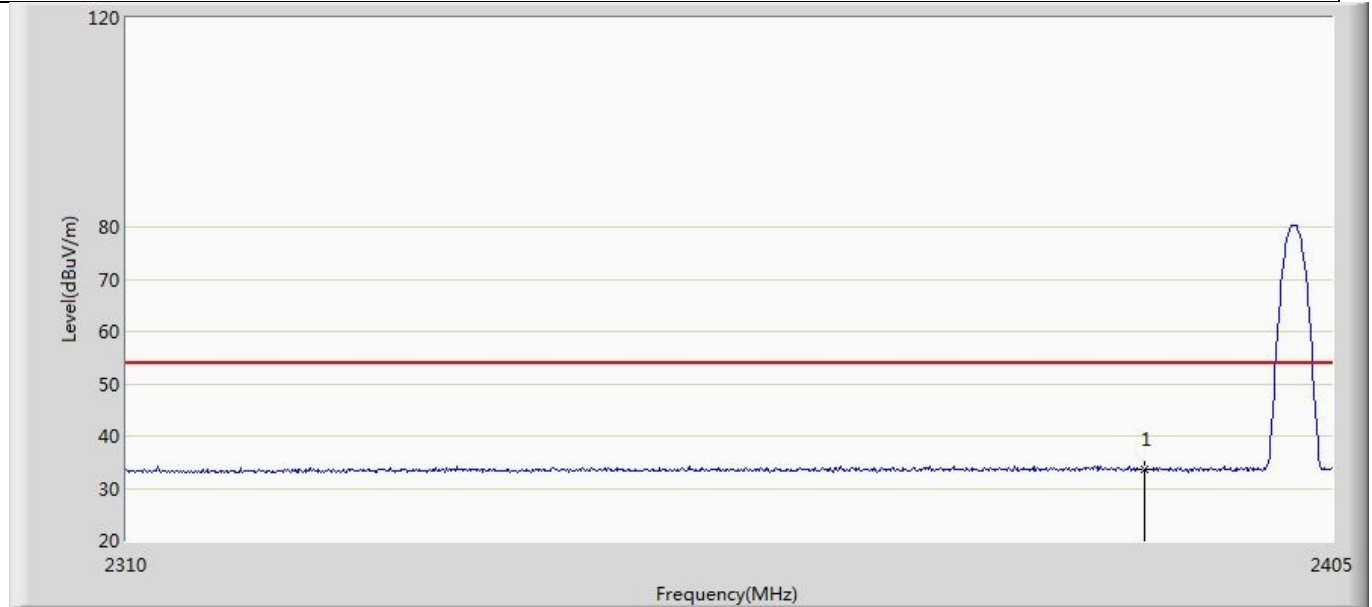
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	33.613	-0.471	-20.387	54.000	34.084	AV

Profile: 2290438R	Page No.: 55
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3:Transmit at 2402MHz by 3DH5	



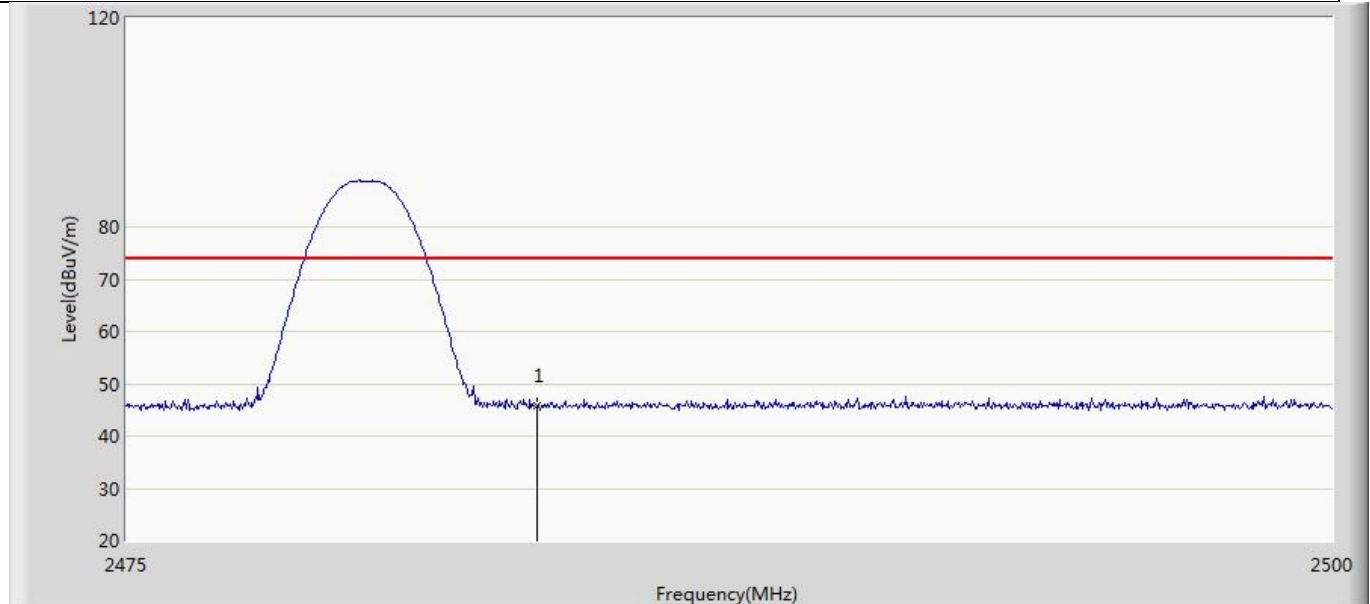
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	44.959	10.875	-29.041	74.000	34.084	PK

Profile: 2290438R	Page No.: 56
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3:Transmit at 2402MHz by 3DH5	



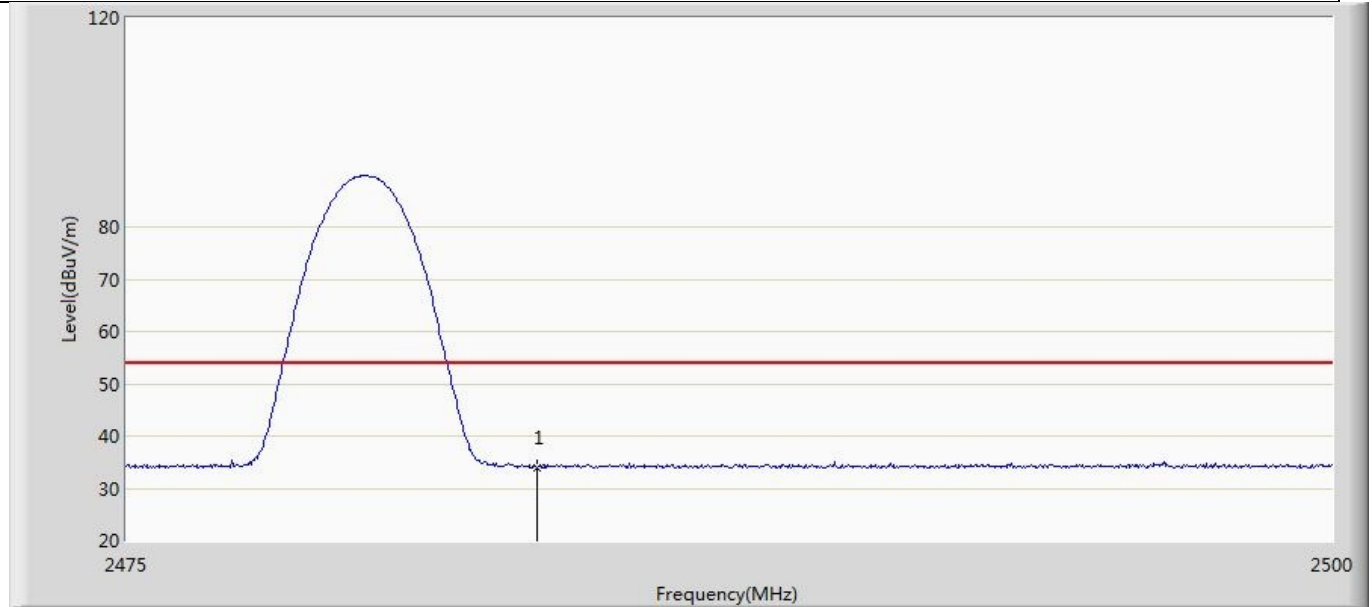
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	33.743	-0.341	-20.257	54.000	34.084	AV

Profile: 2290438R	Page No.: 57
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3:Transmit at 2480MHz by 3DH5	



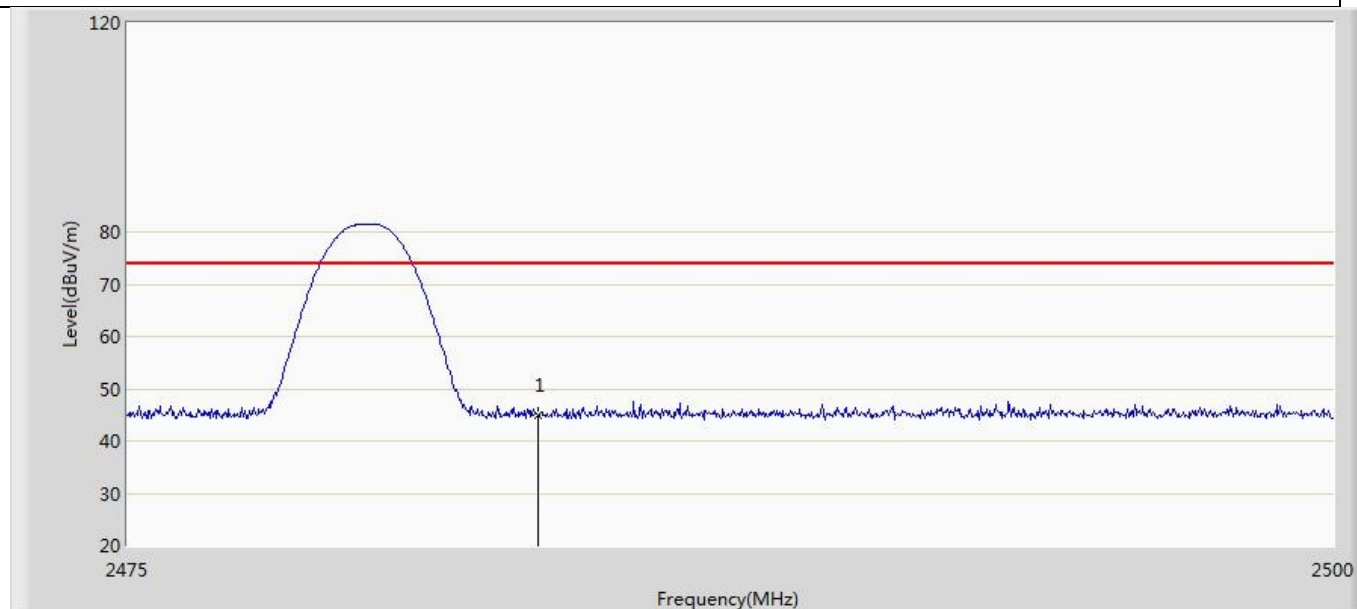
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.812	11.321	-28.188	74.000	34.491	PK

Profile: 2290438R	Page No.: 58
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Horizontal
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3:Transmit at 2480MHz by 3DH5	



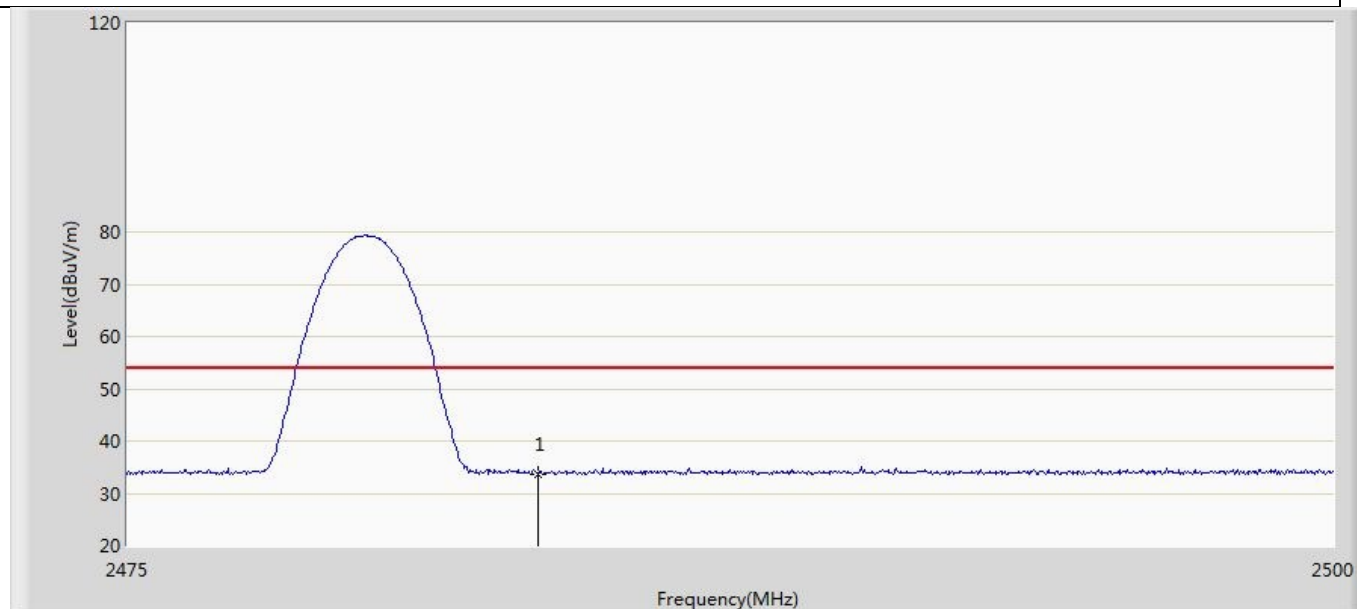
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	33.853	-0.638	-20.147	54.000	34.491	AV

Profile: 2290438R	Page No.: 59
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3: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	44.994	10.503	-29.006	74.000	34.491	PK

Profile: 2290438R	Page No.: 60
Engineer: Yu Liu	
Site: AC5	Time: 2022/11/09 - 02:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)2022	Polarity: Vertical
EUT: BTWDB02	Power: DC 3.3V
Note: Mode3: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	33.682	-0.809	-20.318	54.000	34.491	AV

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)

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 _____