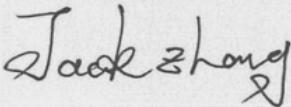




Test report No:
21A0273R-RF-US-P06V01

FCC&ISED TEST REPORT

Product Name	THERMAL MONOCULAR
TradeMark	Guide
Model and /or type reference	TD210/ TD410/ TD420/ TD430
FCC ID	2AKU5ZG09
Applicant's name / address	Wuhan Guide Sensmart Tech Co., Ltd NO.6 Huanglong Hill South Road, Donghu High-Tech Development Zone, Wuhan, Hubei, China
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 KDB558074 D01v05r02
Verdict Summary	IN COMPLIANCE
Documented By (name / position & signature)	Tim Cao/Project Engineer 
Approved by (name / position & signature)	Jack Zhang/ Supervisor 
Date of issue	2022-01-20
Report Version	V1.0
Report template No	Template_FCC Part 15C-RF-V1.0

INDEX

	page
Competences and Guarantees.....	4
General conditions.....	4
Environmental conditions	4
Possible test case verdicts	5
Abbreviations.....	5
Document History	6
ReMarks and Comments	6
Used Equipment	7
Uncertainty	9
1 General Information	10
1.1 General Description of the Item(s)	10
1.2 Antenna Information	11
1.3 Data Rate.....	12
1.4 Channel List.....	13
2 Description of Test Setup	14
2.1 Operating mode(s) used for tests	14
2.2 Support / Auxiliary equipment / unit / Test software for the EUT	14
2.3 Test Configuration / Block diagram used for tests	15
2.4 Testing process.....	16
3 Verdict summary section	17
3.1 Standards	17
3.2 Deviation(s) from the Standard(s) / Test Specification(s).....	17
3.3 Overview of results.....	18
3.4 Test Facility.....	19
4 Test Results.....	20
4.1 AC Power Line Conducted Emission	20
4.1.1 Limit.....	20
4.1.2 Test Setup.....	20
4.1.3 Test Procedure.....	20
4.1.4 Test Data	21
4.2 Emissions in restricted frequency bands.....	22
4.2.1 Limit.....	22
4.2.2 Test Setup.....	23
4.2.3 Test Procedure.....	24

4.2.4	Test Data	25
4.3	Emissions in non-restricted frequency band.....	51
4.3.1	Limit	51
4.3.2	Test Setup.....	51
4.3.3	Test Procedure.....	51
4.3.4	Test Data	52
4.4	Radiated Emission Band Edge	55
4.4.1	Limit	55
4.4.2	Test Setup.....	55
4.4.3	Test Procedure.....	56
4.4.4	Test Data	57
4.5	DTS Bandwidth	90
4.5.1	Limit	90
4.5.2	Test Setup.....	90
4.5.3	Test Procedure.....	90
4.5.4	Test Data	91
4.6	Fundamental emission output power	92
4.6.1	Limit	92
4.6.2	Test Setup.....	92
4.6.3	Test Procedure.....	93
4.6.4	Test Data	94
4.7	Power Density.....	95
4.7.1	Limit:	95
4.7.2	Test Setup.....	95
4.7.3	Test Procedure.....	95
4.7.4	Test Data	96
4.8	Antenna Requirement	97
4.8.1	Limit:	97
4.8.2	Antenna Connector Construction:	97
5	Test setup photo and EUT Photo	98

COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial PEUT: Handheld Thermal Binoculars Suzhou, 215006, P.R. China
Date(receive sample)	Dec. 20, 2021
Date (start test)	Dec. 27, 2021
Date (finish test)	Jan. 17, 2022

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	: Equipment Under Test
QP	: Quasi-Peak
CAV	: CISPR Average
AV	: Average
CDN	: Coupling Decoupling Network
SAC	: Semi-Anechoic Chamber
OATS	: Open Area Test Site
BW	: Bandwidth
AM	: Amplitude Modulation
PM	: Pulse Modulation
HCP	: Horizontal Coupling Plane
VCP	: Vertical Coupling Plane
U_N	: Nominal voltage
Tx	: Transmitter
Rx	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
21A0273R-RF-US-P06V01	V1.0	Initial issue of report.	2022-01-20

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China Market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
 - Chapter 1.1 General Description of the Item(s);
 - Chapter 1.2 Antenna Information;
 - Chapter 1.3 Data Rate;
 - Chapter 1.4 Channel List.

USED EQUIPMENT

AC Power Line Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100906	2021.04.28	2022.04.27
Two-Line V-Network	R&S	ENV216	101044	2021.03.20	2022.03.19
50ohm Termination	SHX	TF2	7081402	2021.09.04	2022.09.03
50ohm Termination	SHX	TF2	7081403	2021.09.04	2022.09.03
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	TR1-TH	2021.07.09	2022.07.08
Dekra test software	Dekra	-	-	-	-

Emissions in non-restricted frequency bands/ Occupied Bandwidth/ Fundamental emission output power Power Spectral Density / TR8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2021.07.11	2022.07.10
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2021.03.20	2022.03.19
Coaxial Cable	Woken	A50-SMAMSMAM-1m	20111443	2021.06.10	2022.06.09
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2021.07.09	2022.07.08

Radiated Emission(30MHz-1GHz) / AC2

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100176	2021.08.15	2022.08.14
Loop Antenna	R&S	HFH2-Z2	833799/003	2021.03.04	2022.03.03
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9168	1231	2021.04.19	2022.04.18
Coaxial Cable	Huber+Suhner	RG 214	AC3-C	2021.03.31	2022.03.30
Temperature/Humidity Meter	RTS	RTS-8S	AC3-TH	2021.11.23	2022.11.22

Radiated Emission / AC5(1GHz-40GHz)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2021.03.20	2022.03.19
Amplifier	Keleto	LNPA	SK20190225	2021.09.26	2022.09.25
Pre-Amplifier	EMCI	EMC184045SE	980263	2021.05.22	2022.05.21
DRG Horn Antenna	ETS-Lindgren	3117	167055	2021.08.06	2022.08.05
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2021.04.19	2022.04.18
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2021.03.31	2022.03.30
Coaxial Cable	ROSENBERGER	LA1-C011-2000/3000	AC5-40G	2021.03.20	2022.03.19

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

Test item	Uncertainty
AC Power Line Conducted Emission	9kHz~150kHz: 2.80dB 150kHz~30MHz: 2.40dB
Peak Power Output	± 1.27 dB
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~200MHz: 3.50 dB 300MHz~1GHz: 3.60 dB Vertical: 30MHz~200MHz: 3.60 dB 300MHz~1GHz: 3.50 dB
Radiated Emission(1GHz~26.5GHz)	Horizontal: 1GHz~18GHz: 5.00 dB Vertical: 1GHz~18GHz: 4.80 dB
RF antenna conducted test	± 1.27 dB
Radiated Emission Band Edge	± 3.9 dB
DTS Bandwidth	± 150 Hz
Occupied Bandwidth	± 1 kHz
Power Density	± 1.27 dB

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Product Name..... :	THERMAL MONOCULAR
Model No. :	TD210/ TD410/ TD420/ TD430
TradeMark	Guide
FCC ID	2AKU5ZG09
Hardware Version	V1.0
Software Version..... :	V1.0.13
Manufacturer..... :	Wuhan Guide Sensmart Tech Co., Ltd
Manufacturer address	NO.6 Huanglong Hill South Road, Donghu High-Tech Development Zone, Wuhan, Hubei, China
Model difference	Different lens resolutions and different software function.

Wireless specification..... :	WIFI
Operating frequency range(s)..... :	2400~2483.5MHz
Type of modulation	DSSS: BPSK,QPSK,CCK OFDM: BPSK, QPSK, 16QAM, 64QAM
Number of channel..... :	802.11b/g/n(20MHz): 11 802.11n(40MHz): 9

Rated power supply	Voltage and Frequency	
	☐	AC: 220 - 240 V, 50/60 Hz
	☐	AC: 100 - 240 V, 50/60 Hz
	☐	DC: 12 - 24 Vdc
	☒	Battery: 3.7 V
	☒	Adapter: 5 V

1.2 Antenna Information

Antenna model / type number	Molex 146153		
Antenna serial number	N/A		
Antenna Delivery	☒	1TX + 1RX	
	☐	2TX + 2RX	
	☐	Others:.....	
Antenna technology	☒	SISO	
	☐	MIMO	☐ Basic ☐ CDD ☐ Sectorized ☐ Beam-forming
Antenna Type	☐	External	☐ Dipole ☐ Sectorized
	☒	Internal	☒ PIFA ☐ PCB ☐ Metal Antenna
Antenna Gain.....	3.27 dBi		

1.3 Data Rate

IEEE 802.11b

Modulation	Data Rate(Mb/s)
DSSS	1
DSSS	2
CCK	5.5
CCK	11

IEEE 802.11g

Modulation	Coding rate	Data Rate(Mb/s)
BPSK	1/2	6
BPSK	3/4	9
QPSK	1/2	12
QPSK	3/4	18
16-QAM	1/2	24
16-QAM	3/4	36
64-QAM	2/3	48
64-QAM	3/4	54

IEEE 802.11n

Spatial streams	MCS Index	Modulation	Coding rate	Data Rate(Mb/s)			
				20MHz		40MHz	
				800ns GI	400ns GI	800ns GI	400ns GI
1	0	BPSK	1/2	6.5	7.2	13.5	15.0
1	1	QPSK	1/2	13.0	14.4	27.0	30.0
1	2	QPSK	3/4	19.5	21.7	40.5	45.0
1	3	16-QAM	1/2	26.0	28.9	54.0	60.0
1	4	16-QAM	3/4	39.0	43.3	81.0	90.0
1	5	64-QAM	2/3	52.0	57.8	108.0	120.0
1	6	64-QAM	3/4	58.5	65.0	121.5	135.0
1	7	64-QAM	5/6	65.0	72.2	135.0	150.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Symbol	Explanation
R	Code rate
GI	guard interval

1.4 Channel List

IEEE 802.11b/g & IEEE 802.11n(20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	008	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz	-	-

IEEE 802.11n(40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
003	2422 MHz	004	2427 MHz	005	2432 MHz	006	2437 MHz
007	2442 MHz	008	2447 MHz	009	2452 MHz	-	-

Note: The General Description of the Item(s), antenna information, Data Rate and Channel List in clause 1 are provided and confirmed by the client.

2 DESCRIPTION OF TEST SETUP

2.1 Operating mode(s) used for tests

During the tests the following operating mode(s) has(have) been used.

Test Mode	Mode 1: Transmit by 802.11b
	Mode 2: Transmit by 802.11g
	Mode 3: Transmit by 802.11n(20MHz)
	Mode 4: Transmit by 802.11n(40MHz)

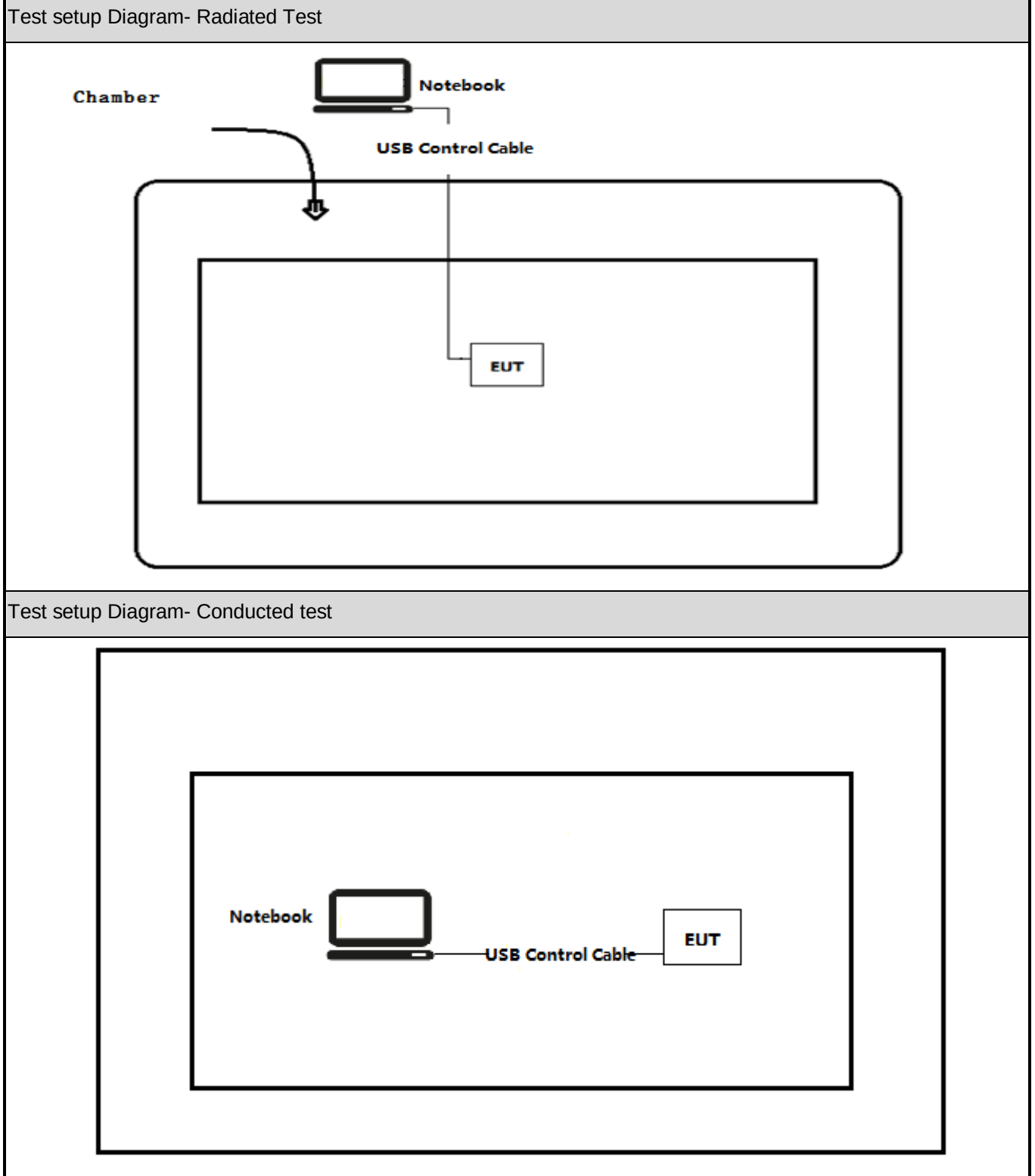
2.2 Support / Auxiliary equipment / unit / Test software for the EUT

The EUT has been tested with the following auxiliary equipment / unit / software:

Auxiliary equipment	Type / Version	Manufacturer	Supplied by
Notebook	Think pad x220	Lenovo	Adapter
Software	Type / Version	Manufacturer	Supplied by
IPOP	4.1	N/A	N/A

2.3 Test Configuration / Block diagram used for tests

The following test setup / configuration / block diagram has been used during the tests:



2.4 Testing process

1	Setup the EUT as shown in Section 2.3.
2	Execute the [IPOP] on the notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Verify that the EUT works properly.

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
FCC CFR Title 47 Part 15 Subpart C Section 15.247	2021	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10	2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01V05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

The following deviation(s) was / were made from the published requirements of the listed standards: N/A.

(Please define the deviations from the standard(s) if applicable)

3.3 Overview of results

Requirement – Test case	Basic standard(s)	Verdict	ReMark
AC Power Line Conducted Emission	FCC 15.207	PASS	---
Emissions in restricted frequency bands	FCC 15.247(d), 15.209	PASS	---
Emissions in non-restricted frequency bands	FCC 15.247(d)	PASS	---
Radiated Emission Band Edge	FCC 15.247(d), 15.209	PASS	---
Fundamental emission output power	FCC 15.247(b)(3)	PASS	---
DTS Bandwidth	FCC 15.247(a)(2)	PASS	---
Power Spectral Density	FCC 15.247(e)	PASS	---
Antenna Requirement	FCC 15.203	PASS	---

3.4 Test Facility

USA : FCC Designation Number: CN1199

4 TEST RESULTS

4.1 AC Power Line Conducted Emission	VERDICT: N/A
---	---------------------

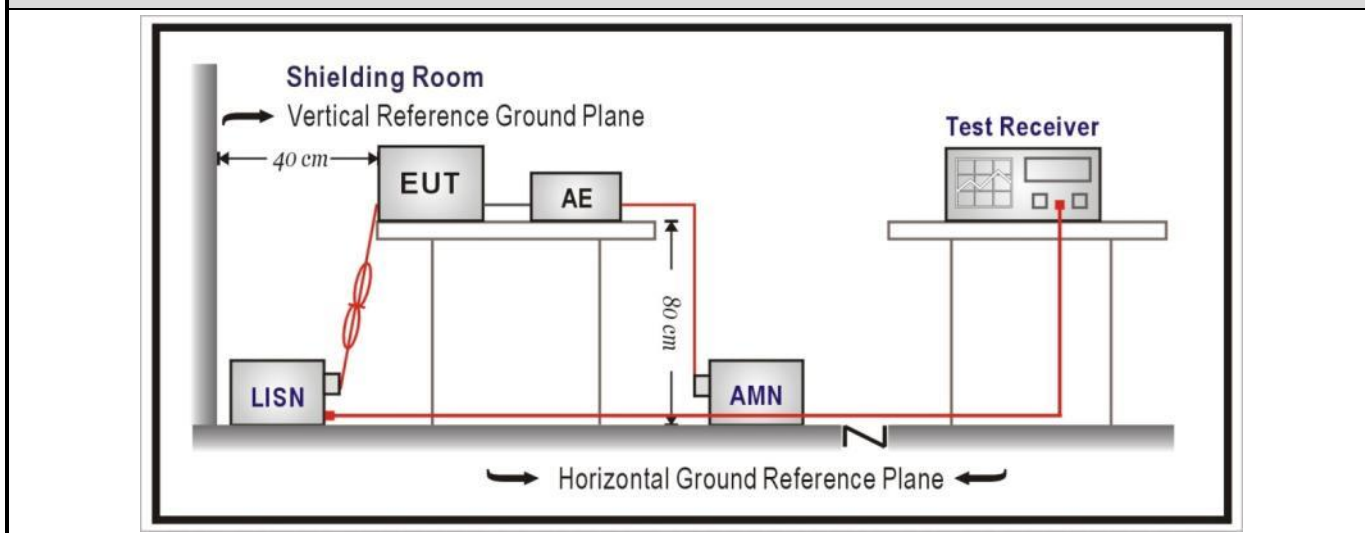
4.1.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.207	
Frequency range [MHz]	Limit: QP [dB(μ V) ¹⁾]	Limit: AV [dB(μ V) ¹⁾]
0,15 - 0,50	66 - 56 ²⁾	56 - 46 ²⁾
0,50 - 5,0	56	46
5,0 - 30	60	50

¹⁾ At the transition frequency, the lower limit applies.

²⁾ The limit decreases linearly with the logarithm of the frequency.

4.1.2 Test Setup



4.1.3 Test Procedure

	References Rule	Chapter	Item
☒	ANSI C63.10-2013	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices

4.1.4 Test Data

N/A: EUT is powered by battery.

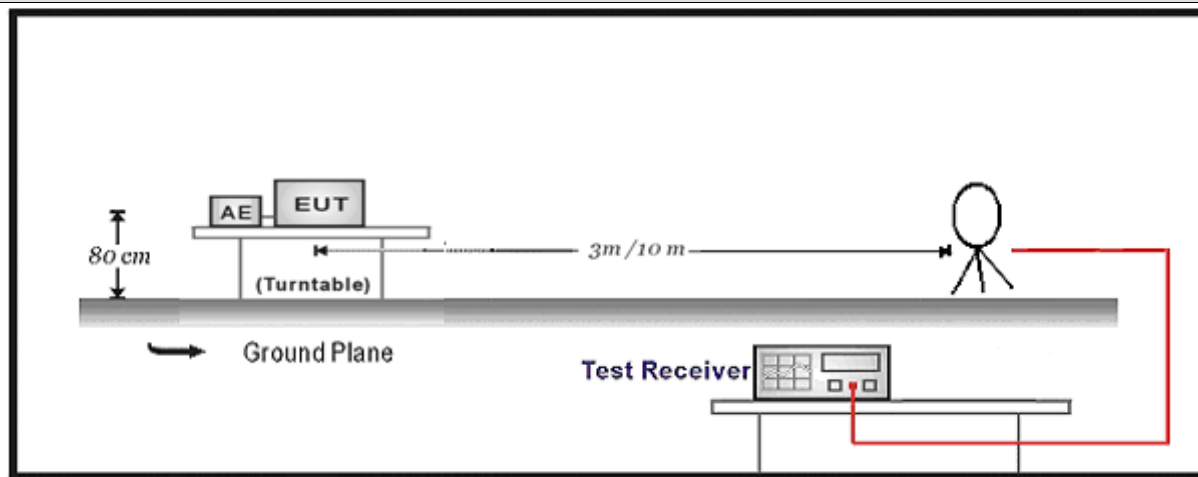
4.2 Emissions in restricted frequency bands**VERDICT: PASS****4.2.1 Limit**

Standard		FCC Part 15 Subpart C Paragraph 15.205; 15.209	
Restricted Bands of operation for FCC			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
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
8.81425 – 8.81475	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	Above 38.6
13.36 – 13.41	--	--	--
Restricted Band Emissions Limit			
Frequency (MHz)	Field strength (µV/m)	Field strength (dBµV/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300 ^(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 ^(Note 1)
1.705 - 30	30	29.5	30 ^(Note 1)
30 - 88	100	40	3 ^(Note 2)
88 - 216	150	43.5	3 ^(Note 2)
216 - 960	200	46	3 ^(Note 2)
Above 960	500	54	3 ^(Note 2)
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).			
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated			

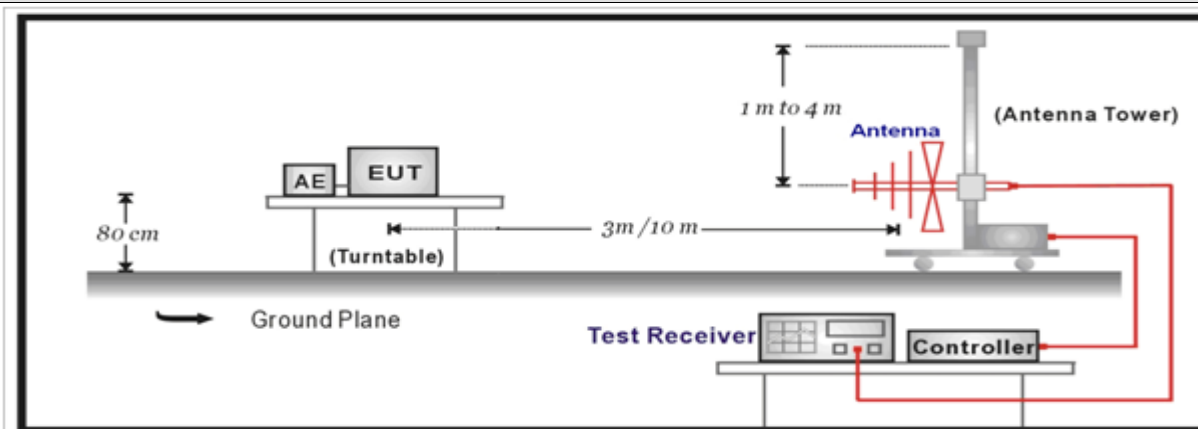
that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.2.2 Test Setup

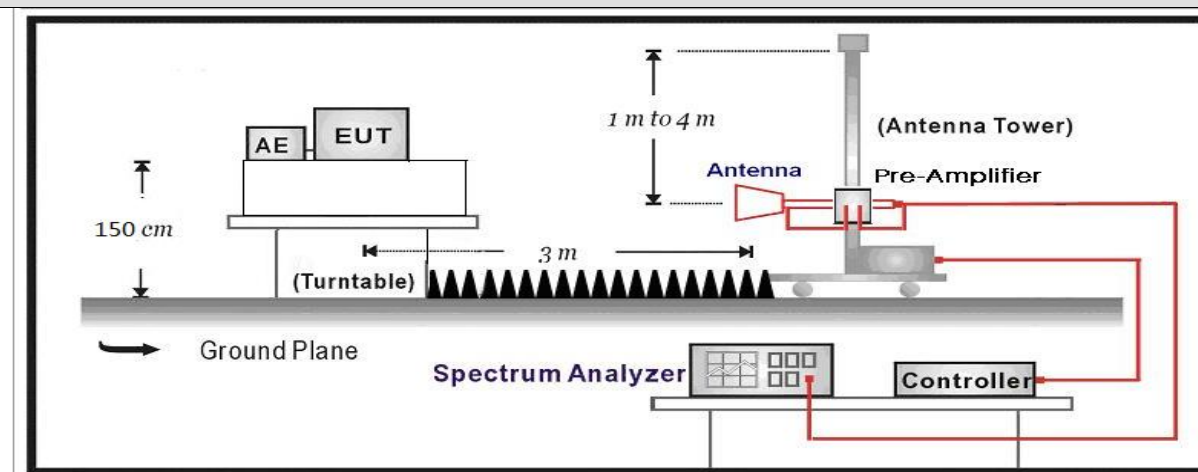
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:

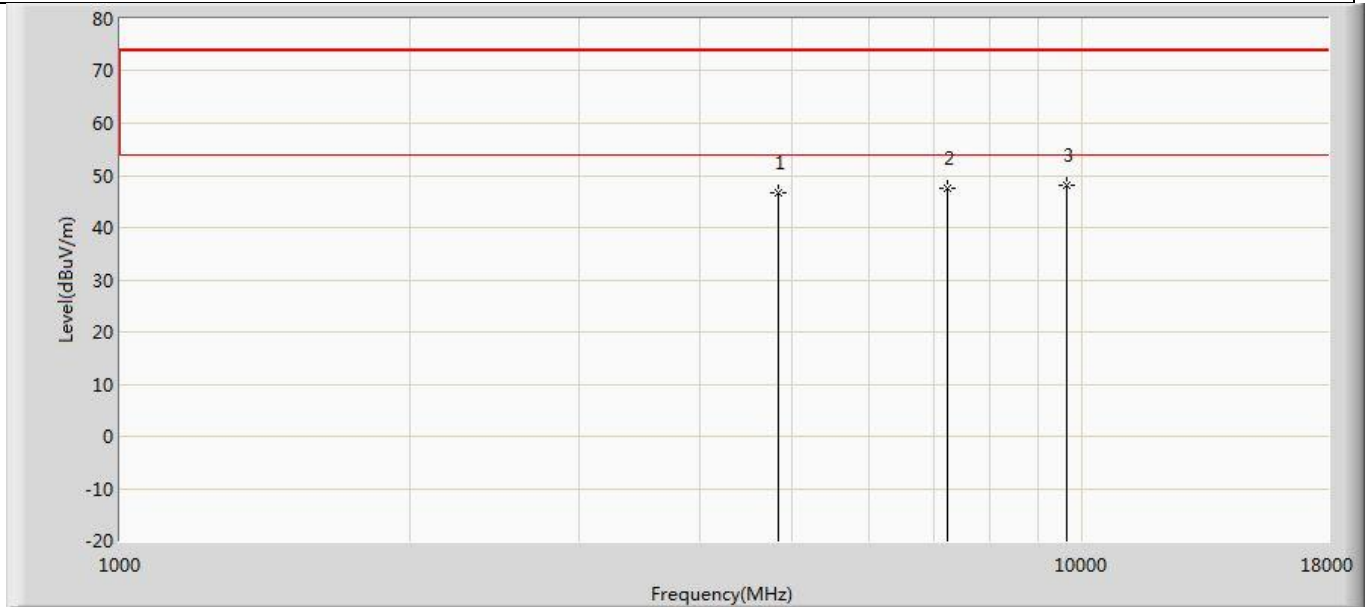


4.2.3 Test Procedure

	References Rule		Chapter	Description
☒	ANSI C63.10		11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10	11.12.1	Radiated emission measurements
	☒	ANSI C63.10	6.3	Radiated spurious emission test
	☒	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
	☐	ANSI C63.10	11.12.2	Antenna-port conducted measurements
	☐	ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	☐	ANSI C63.10	11.12.2.4	Peak power measurement procedure
	☐	ANSI C63.10	11.12.2.5	Average power measurement procedures
	☐	ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	☐	ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	☐	ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

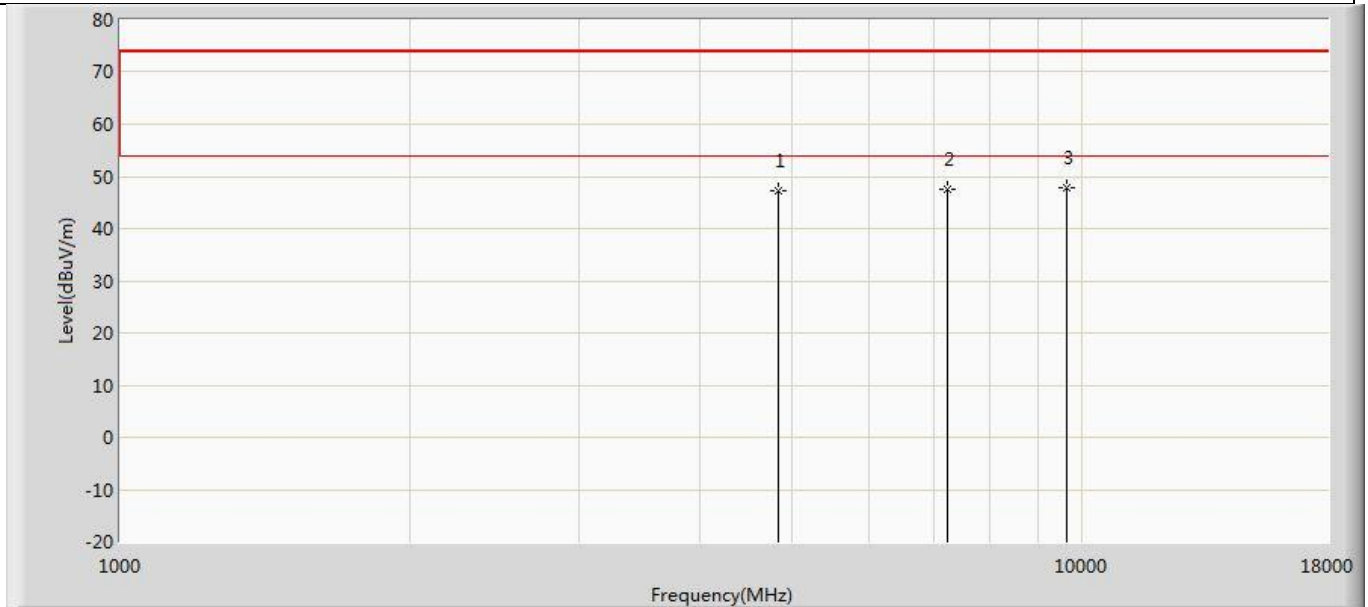
4.2.4 Test Data

Profile: 21A0273R	Page No.: 25
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2412MHz by 11b	



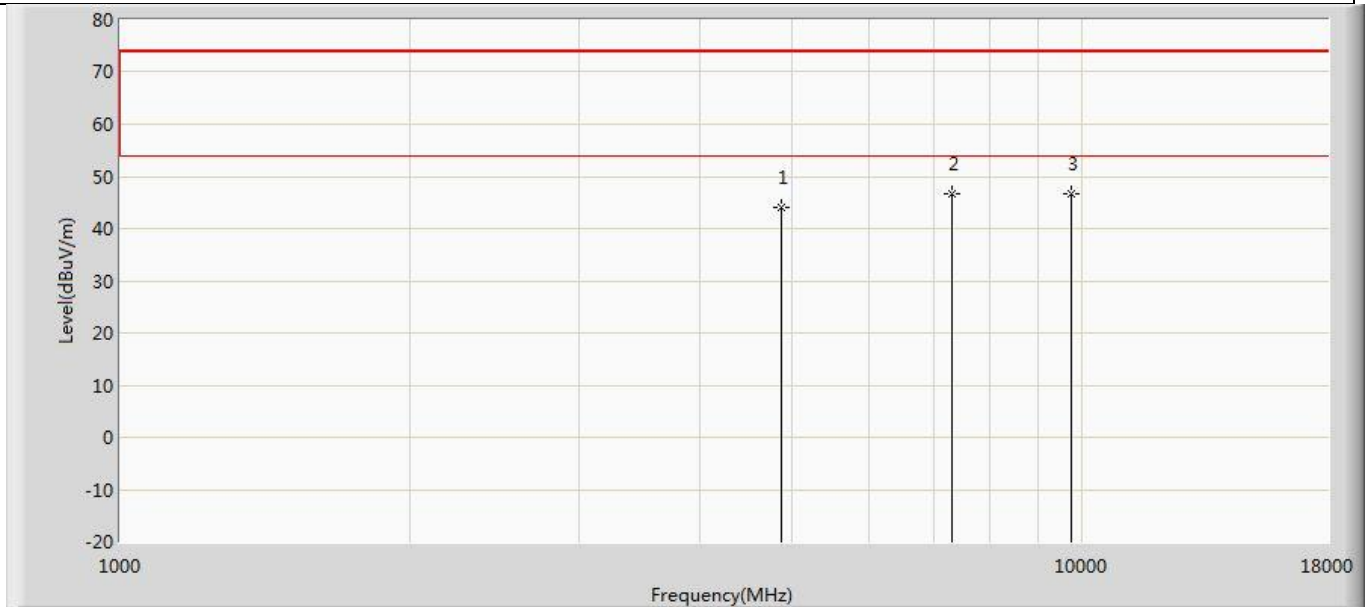
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	46.588	52.628	-27.412	74.000	-6.039	PK
2		7236.000	47.498	49.732	-26.502	74.000	-2.233	PK
3	*	9648.000	48.246	46.711	-25.754	74.000	1.535	PK

Profile: 21A0273R	Page No.: 26
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2412MHz by 11b	



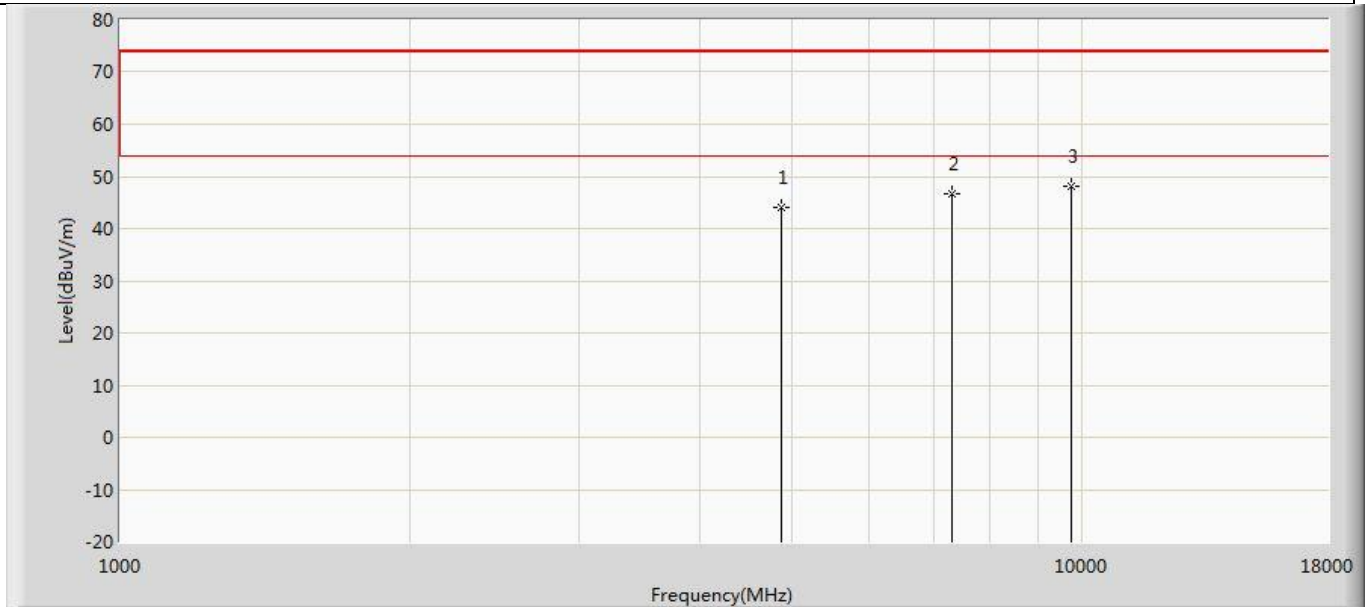
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	47.327	53.367	-26.673	74.000	-6.039	PK
2		7236.000	47.455	49.689	-26.545	74.000	-2.233	PK
3	*	9648.000	47.893	46.358	-26.107	74.000	1.535	PK

Profile: 21A0273R	Page No.: 27
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2437MHz by 11b	



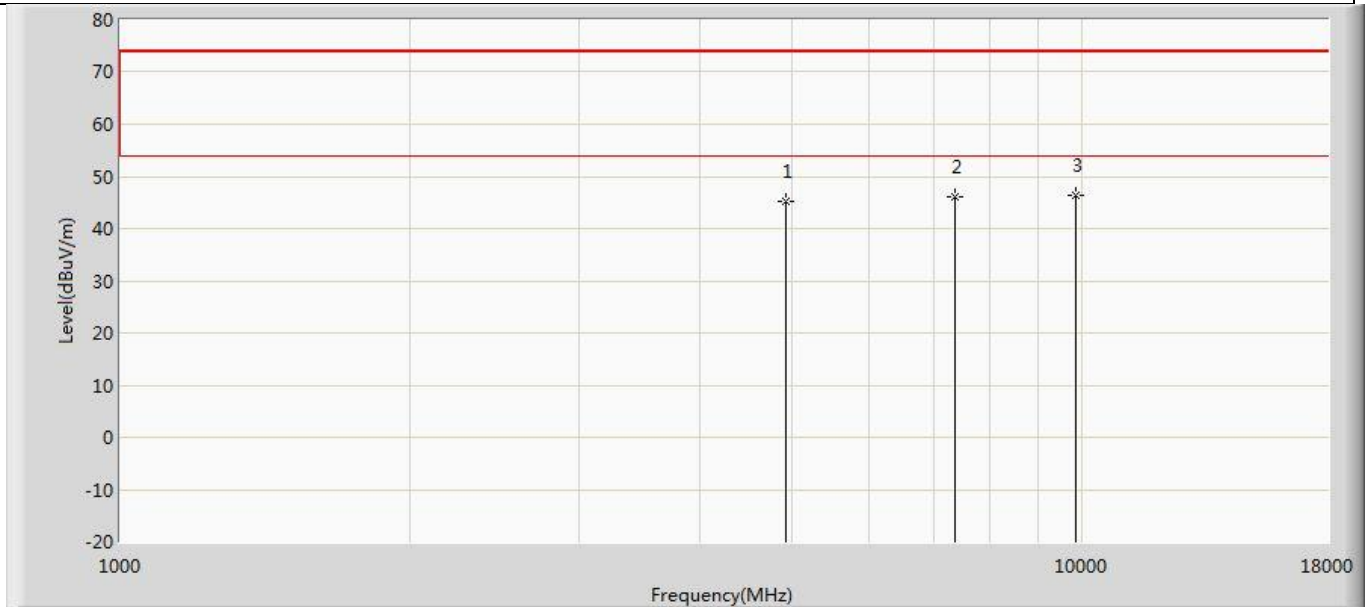
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.202	49.774	-29.798	74.000	-5.572	PK
2	*	7311.000	46.798	48.475	-27.202	74.000	-1.677	PK
3		9748.000	46.722	45.392	-27.278	74.000	1.329	PK

Profile: 21A0273R	Page No.: 28
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2437MHz by 11b	



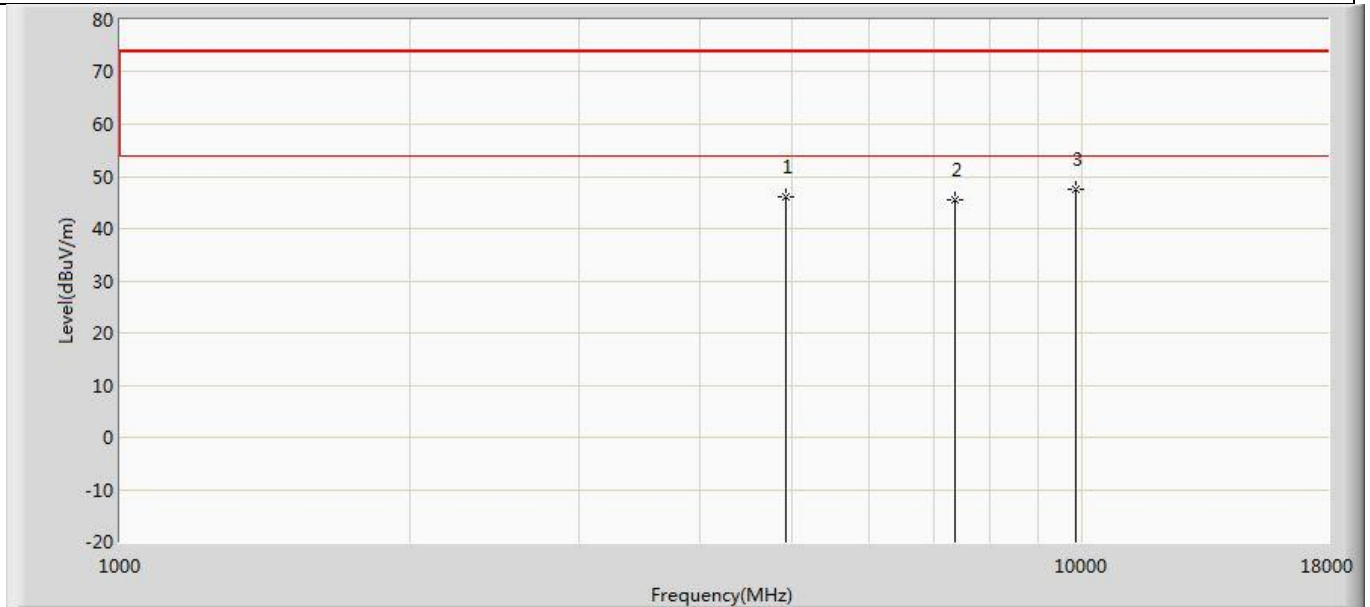
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.023	49.595	-29.977	74.000	-5.572	PK
2		7311.000	46.685	48.362	-27.315	74.000	-1.677	PK
3	*	9748.000	48.011	46.681	-25.989	74.000	1.329	PK

Profile: 21A0273R	Page No.: 29
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2462MHz by 11b	



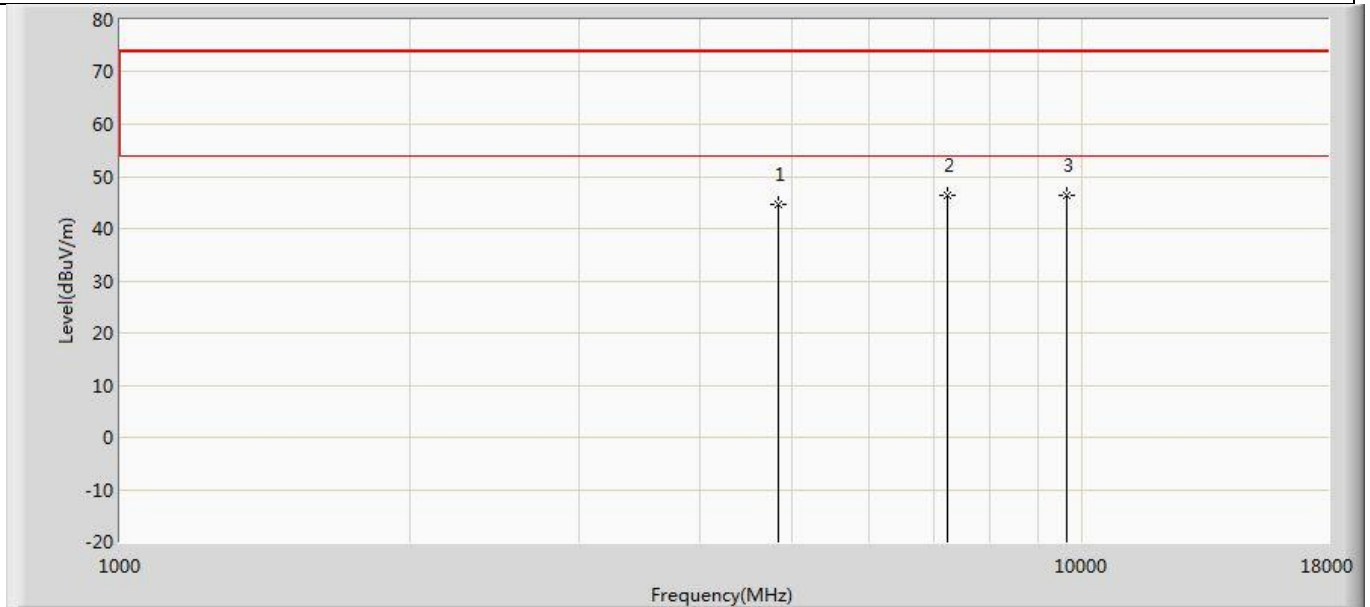
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	45.355	51.247	-28.645	74.000	-5.892	PK
2		7386.000	46.003	48.862	-27.997	74.000	-2.858	PK
3	*	9848.000	46.479	45.783	-27.521	74.000	0.696	PK

Profile: 21A0273R	Page No.: 30
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2462MHz by 11b	



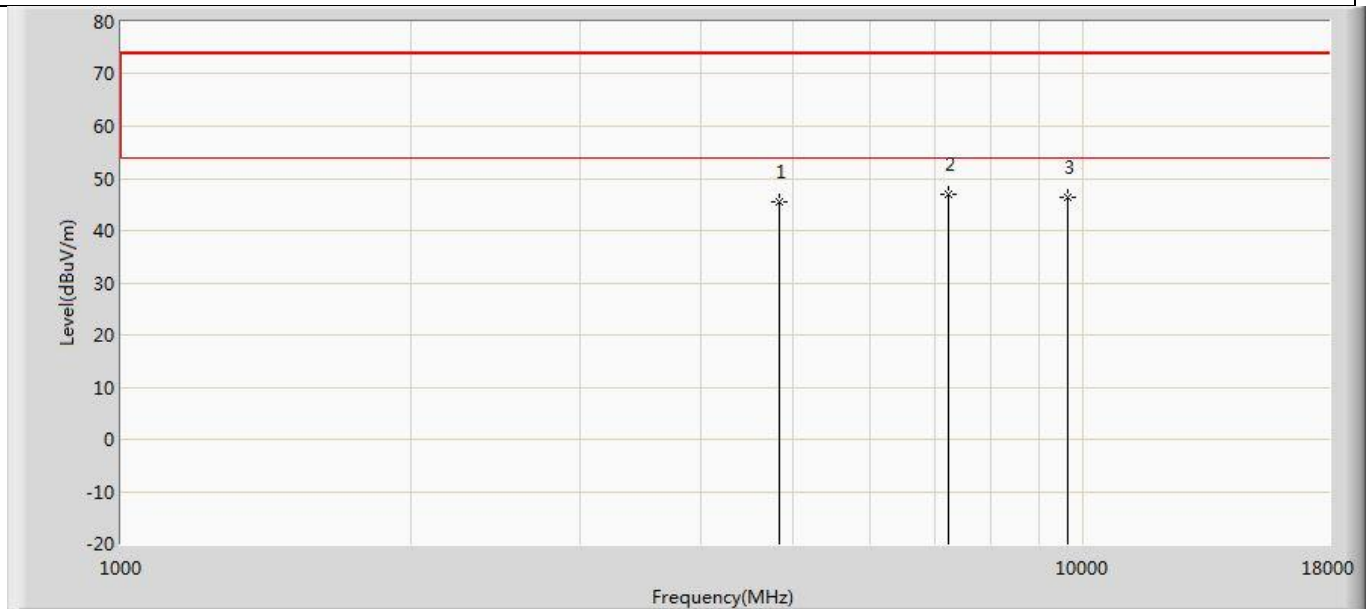
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	46.067	51.959	-27.933	74.000	-5.892	PK
2		7386.000	45.595	48.454	-28.405	74.000	-2.858	PK
3	*	9848.000	47.400	46.704	-26.600	74.000	0.696	PK

Profile: 21A0273R	Page No.: 31
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2412MHz by 11g	



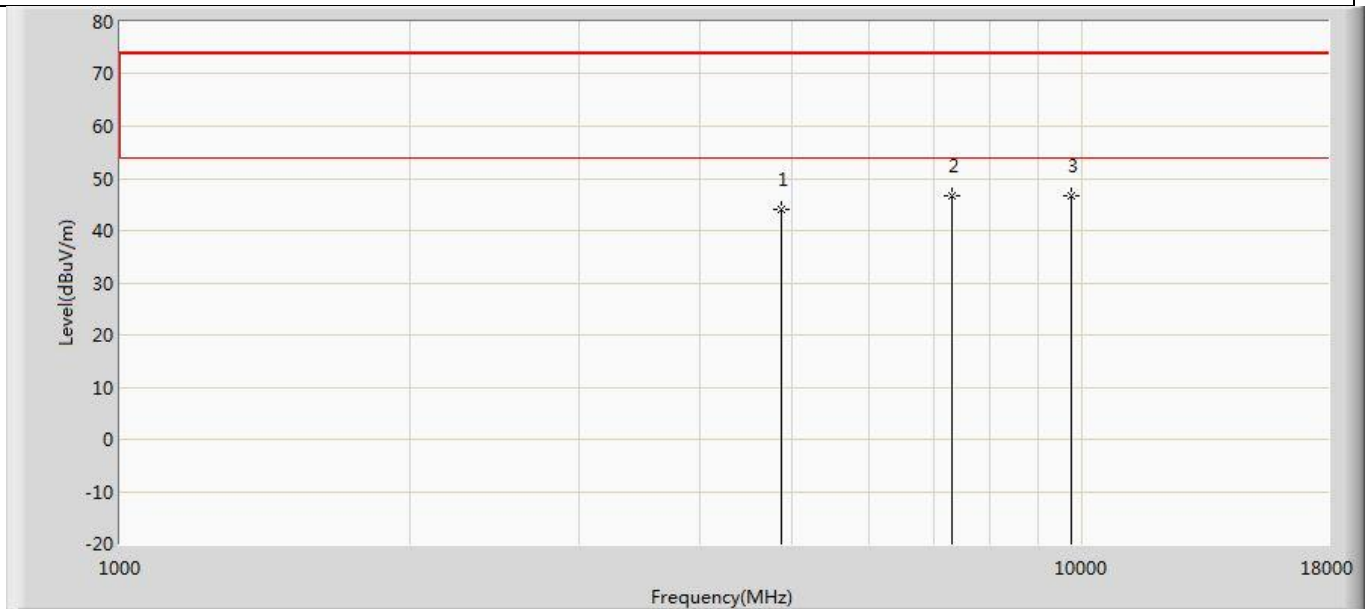
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	44.582	50.622	-29.418	74.000	-6.039	PK
2	*	7236.000	46.380	48.614	-27.620	74.000	-2.233	PK
3		9648.000	46.240	44.705	-27.760	74.000	1.535	PK

Profile: 21A0273R	Page No.: 32
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2412MHz by 11g	



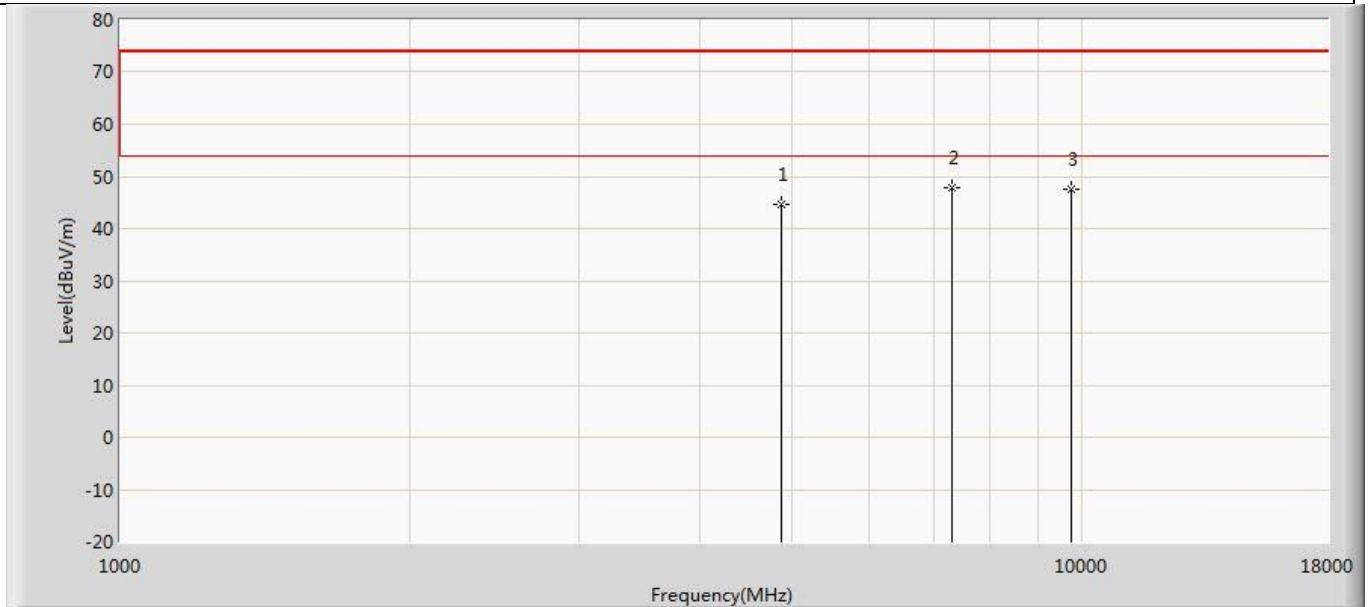
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	45.526	51.566	-28.474	74.000	-6.039	PK
2	*	7236.000	46.891	49.125	-27.109	74.000	-2.233	PK
3		9648.000	46.237	44.702	-27.763	74.000	1.535	PK

Profile: 21A0273R	Page No.: 33
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2437MHz by 11g	



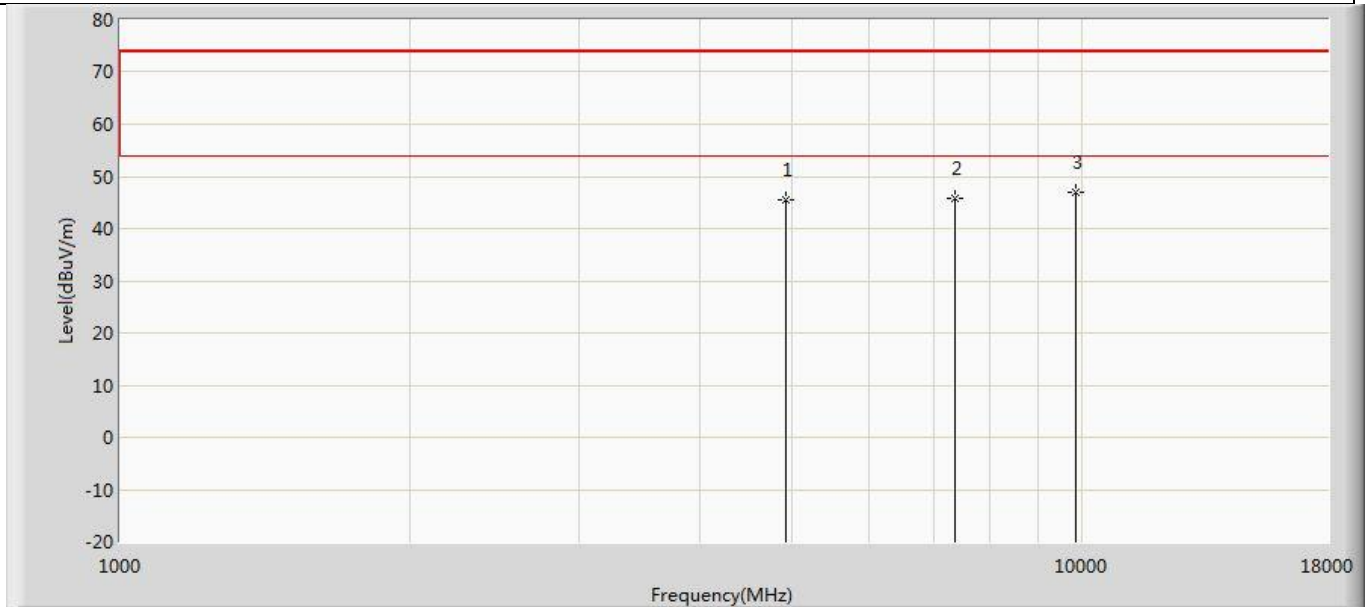
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.103	49.675	-29.897	74.000	-5.572	PK
2		7311.000	46.529	48.206	-27.471	74.000	-1.677	PK
3	*	9748.000	46.591	45.261	-27.409	74.000	1.329	PK

Profile: 21A0273R	Page No.: 34
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2437MHz by 11g	



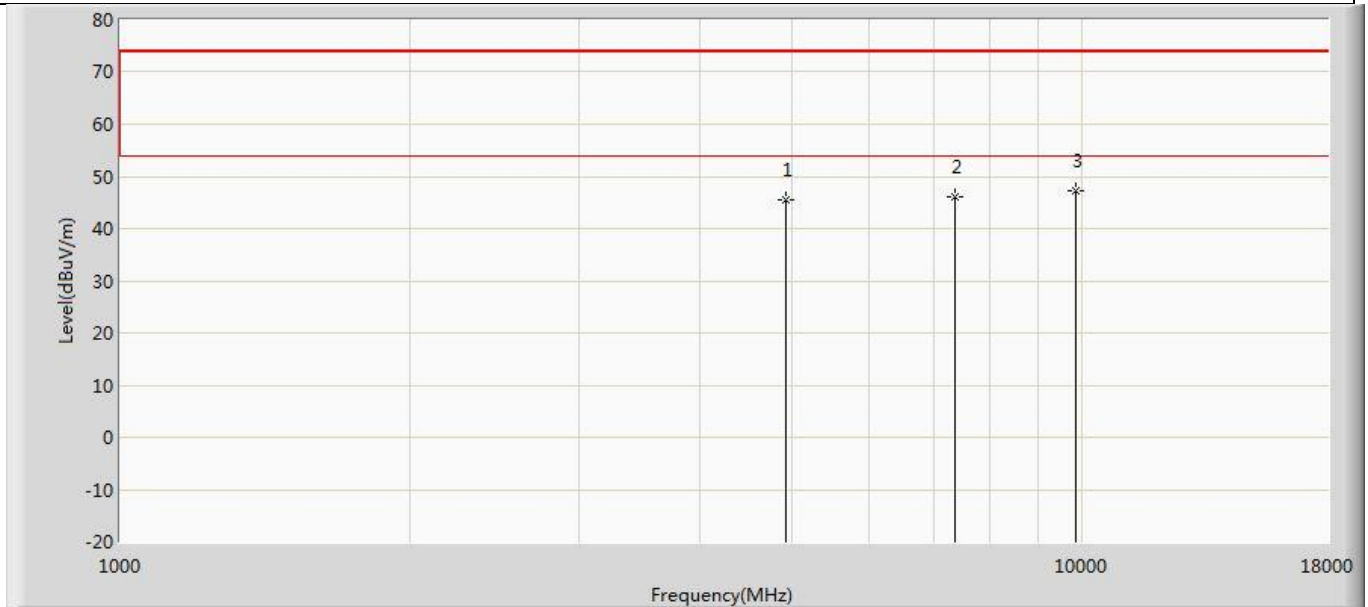
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.610	50.182	-29.390	74.000	-5.572	PK
2	*	7311.000	47.951	49.628	-26.049	74.000	-1.677	PK
3		9748.000	47.442	46.112	-26.558	74.000	1.329	PK

Profile: 21A0273R	Page No.: 35
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2462MHz by 11g	



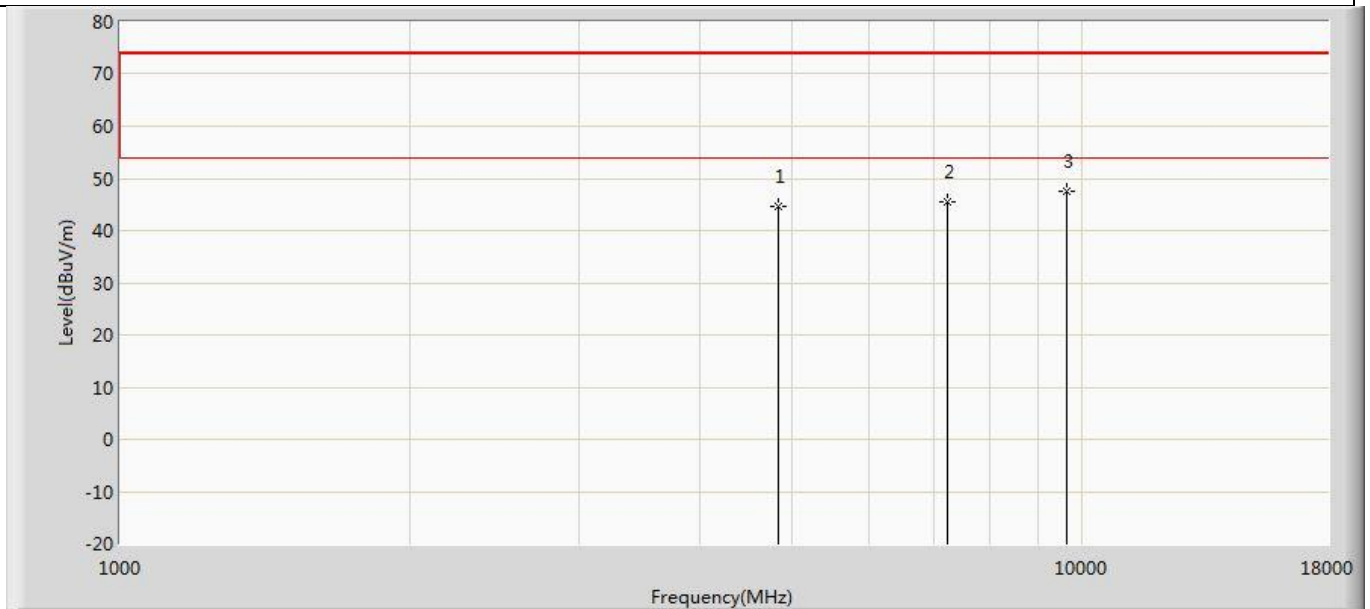
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	45.403	51.295	-28.597	74.000	-5.892	PK
2		7386.000	45.797	48.656	-28.203	74.000	-2.858	PK
3	*	9848.000	47.035	46.339	-26.965	74.000	0.696	PK

Profile: 21A0273R	Page No.: 36
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2462MHz by 11g	



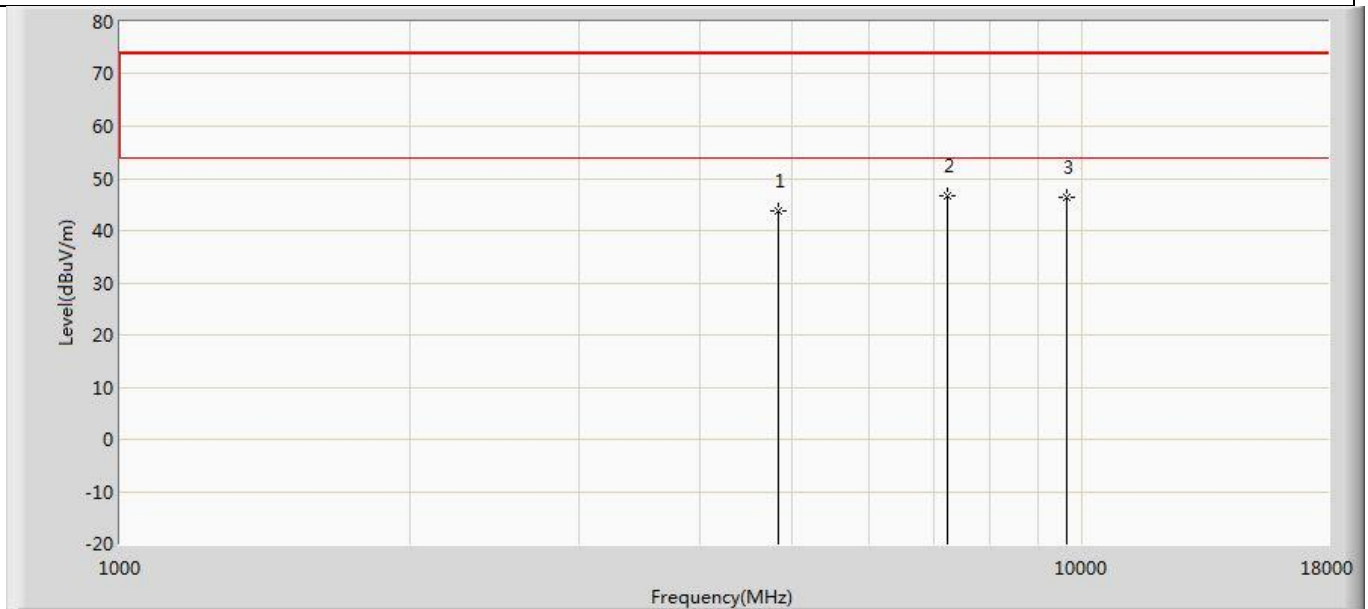
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	45.614	51.506	-28.386	74.000	-5.892	PK
2		7386.000	45.951	48.810	-28.049	74.000	-2.858	PK
3	*	9848.000	47.362	46.666	-26.638	74.000	0.696	PK

Profile: 21A0273R	Page No.: 37
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2412MHz by 11n(20 MHz)	



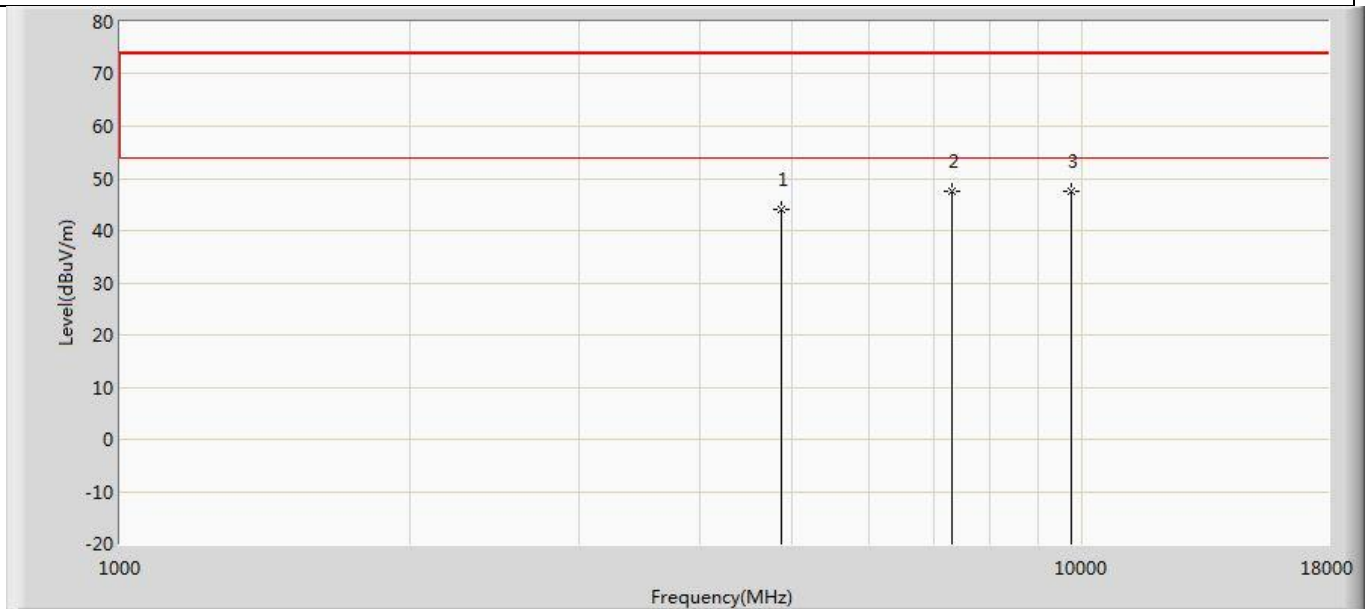
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	44.697	50.737	-29.303	74.000	-6.039	PK
2		7236.000	45.633	47.867	-28.367	74.000	-2.233	PK
3	*	9648.000	47.525	45.990	-26.475	74.000	1.535	PK

Profile: 21A0273R	Page No.: 38
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2412MHz by 11n(20 MHz)	



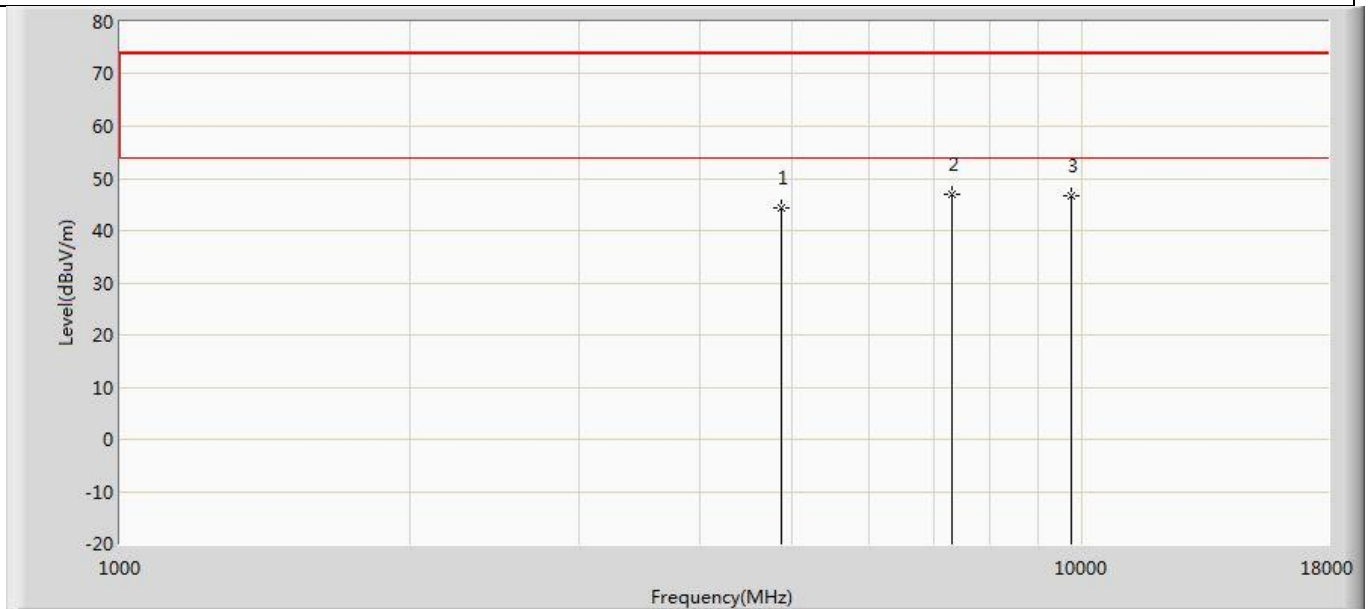
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4824.000	43.635	49.675	-30.365	74.000	-6.039	PK
2	*	7236.000	46.542	48.776	-27.458	74.000	-2.233	PK
3		9648.000	46.294	44.759	-27.706	74.000	1.535	PK

Profile: 21A0273R	Page No.: 39
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2437MHz by 11n(20 MHz)	



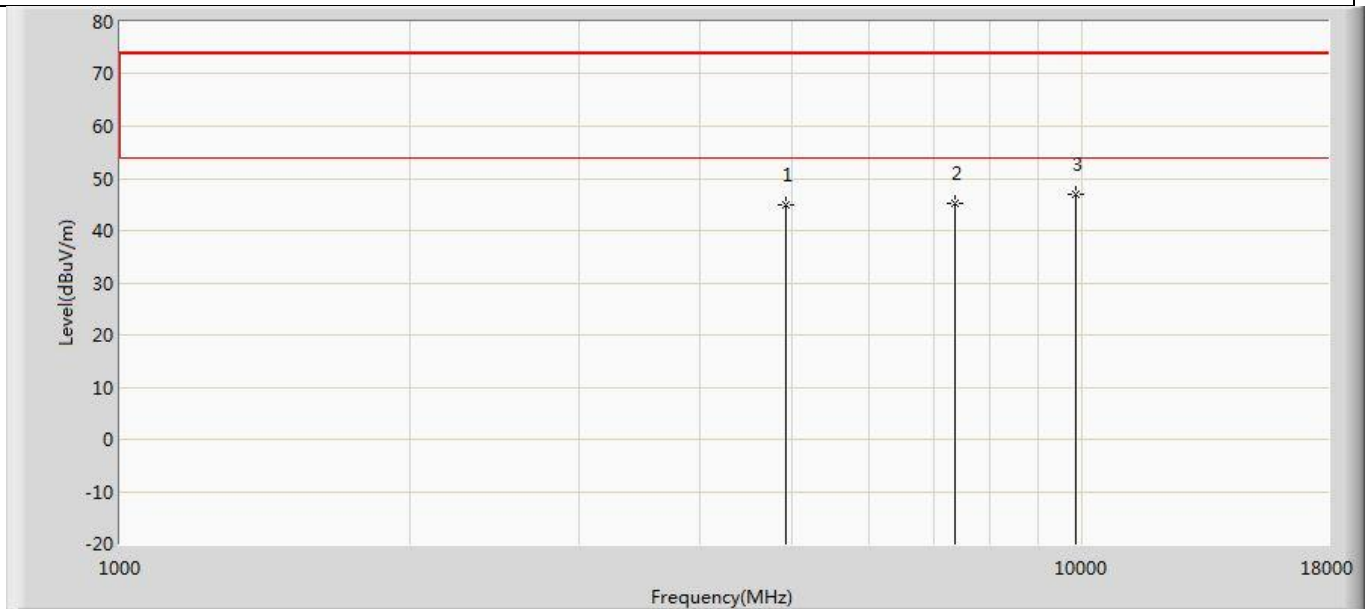
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.023	49.595	-29.977	74.000	-5.572	PK
2	*	7311.000	47.588	49.265	-26.412	74.000	-1.677	PK
3		9748.000	47.568	46.238	-26.432	74.000	1.329	PK

Profile: 21A0273R	Page No.: 40
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2437MHz by 11n(20 MHz)	



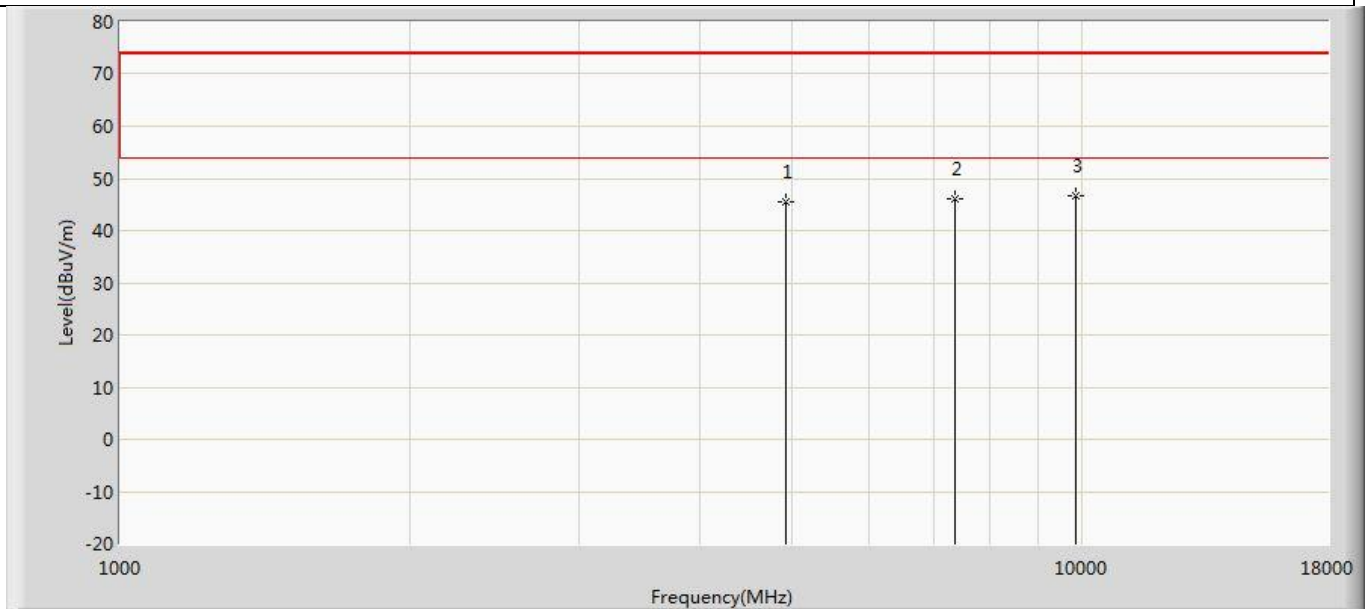
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.325	49.897	-29.675	74.000	-5.572	PK
2	*	7311.000	46.871	48.548	-27.129	74.000	-1.677	PK
3		9748.000	46.643	45.313	-27.357	74.000	1.329	PK

Profile: 21A0273R	Page No.: 41
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2462MHz by 11n(20 MHz)	



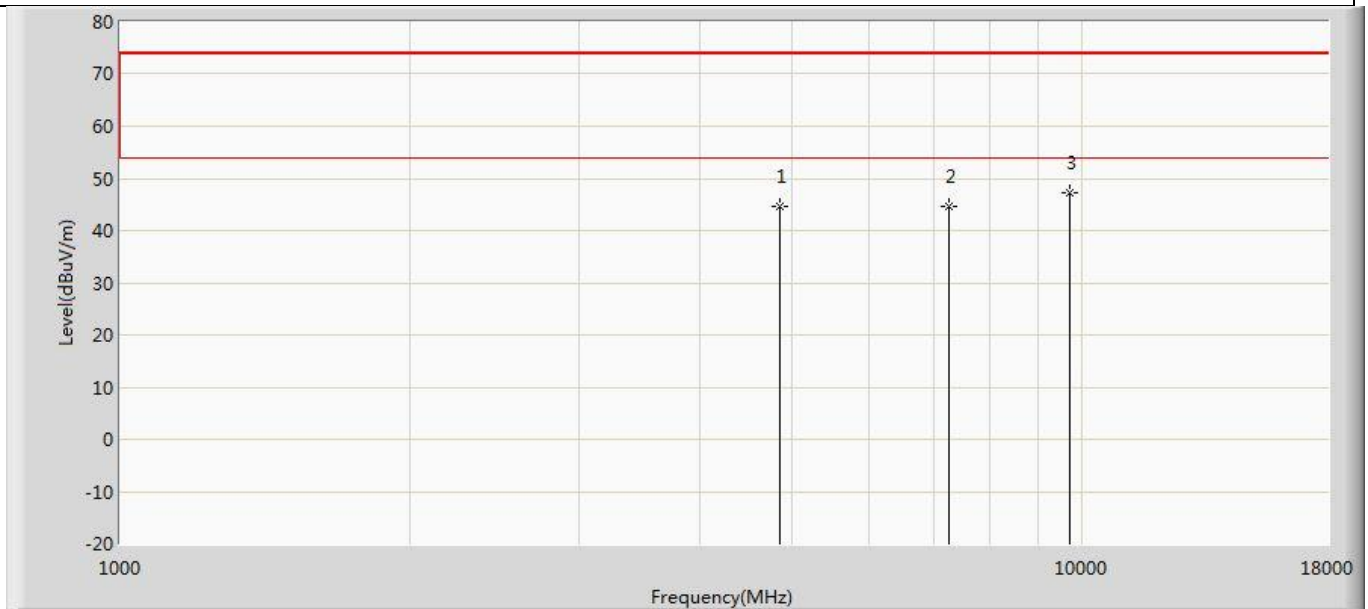
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	45.062	50.954	-28.938	74.000	-5.892	PK
2		7386.000	45.160	48.019	-28.840	74.000	-2.858	PK
3	*	9848.000	46.942	46.246	-27.058	74.000	0.696	PK

Profile: 21A0273R	Page No.: 42
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2462MHz by 11n(20 MHz)	



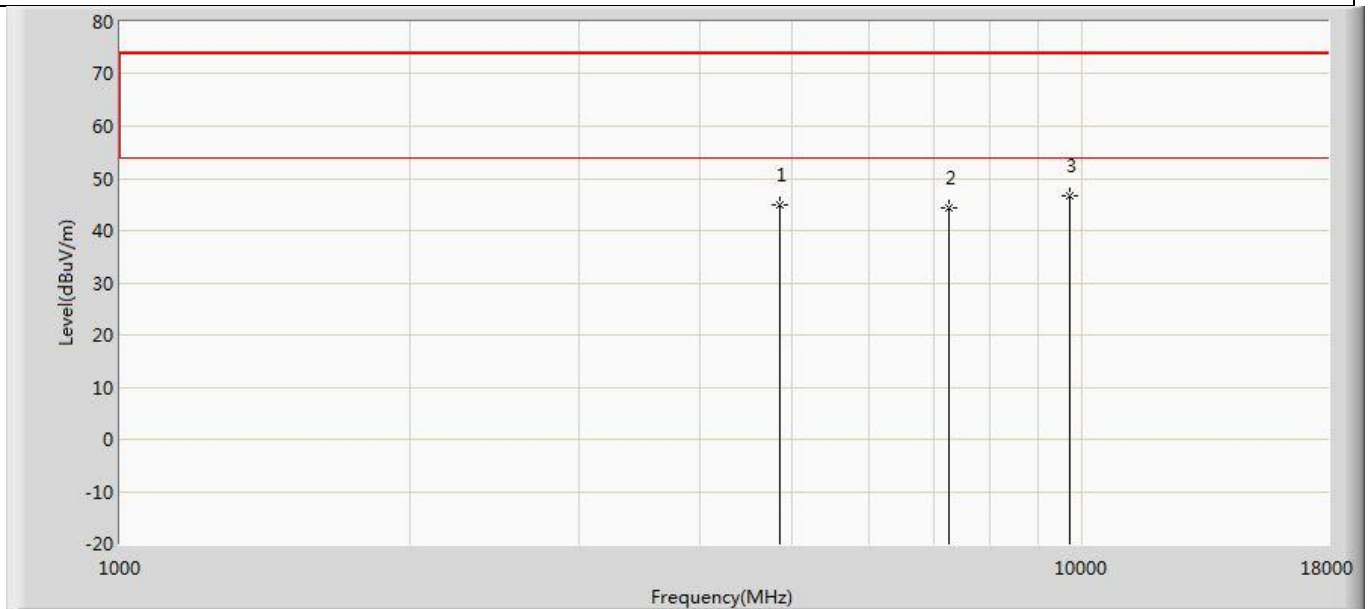
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4924.000	45.560	51.452	-28.440	74.000	-5.892	PK
2		7386.000	45.973	48.832	-28.027	74.000	-2.858	PK
3	*	9848.000	46.600	45.904	-27.400	74.000	0.696	PK

Profile: 21A0273R	Page No.: 43
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2422MHz by 11n(40 MHz)	



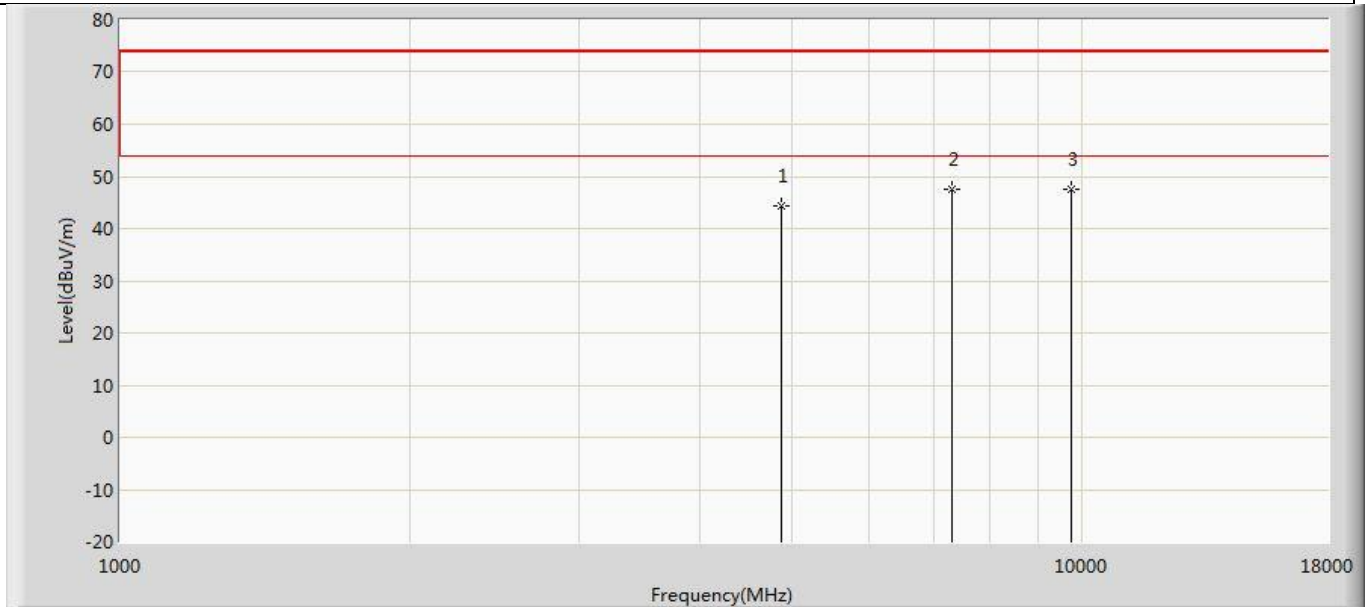
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4844.000	44.586	50.676	-29.414	74.000	-6.091	PK
2		7266.000	44.685	46.867	-29.315	74.000	-2.182	PK
3	*	9688.000	47.151	45.295	-26.849	74.000	1.856	PK

Profile: 21A0273R	Page No.: 44
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2422MHz by 11n(40 MHz)	



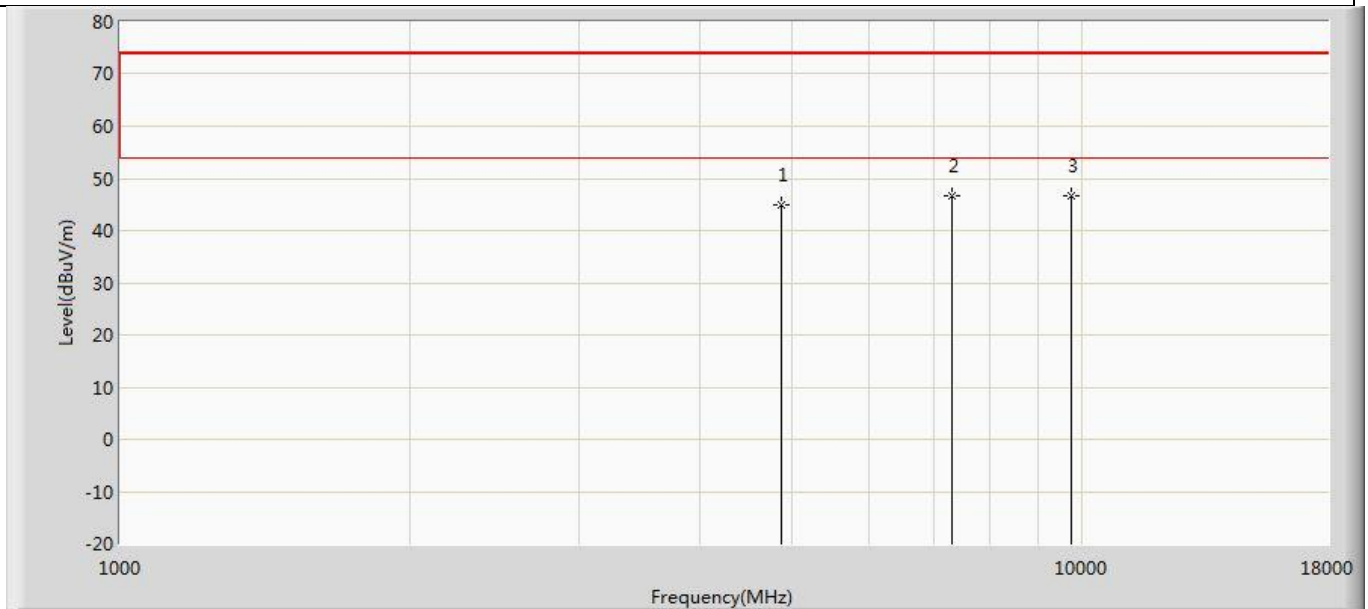
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4844.000	45.071	51.161	-28.929	74.000	-6.091	PK
2		7266.000	44.341	46.523	-29.659	74.000	-2.182	PK
3	*	9688.000	46.732	44.876	-27.268	74.000	1.856	PK

Profile: 21A0273R	Page No.: 45
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2437MHz by 11n(40 MHz)	



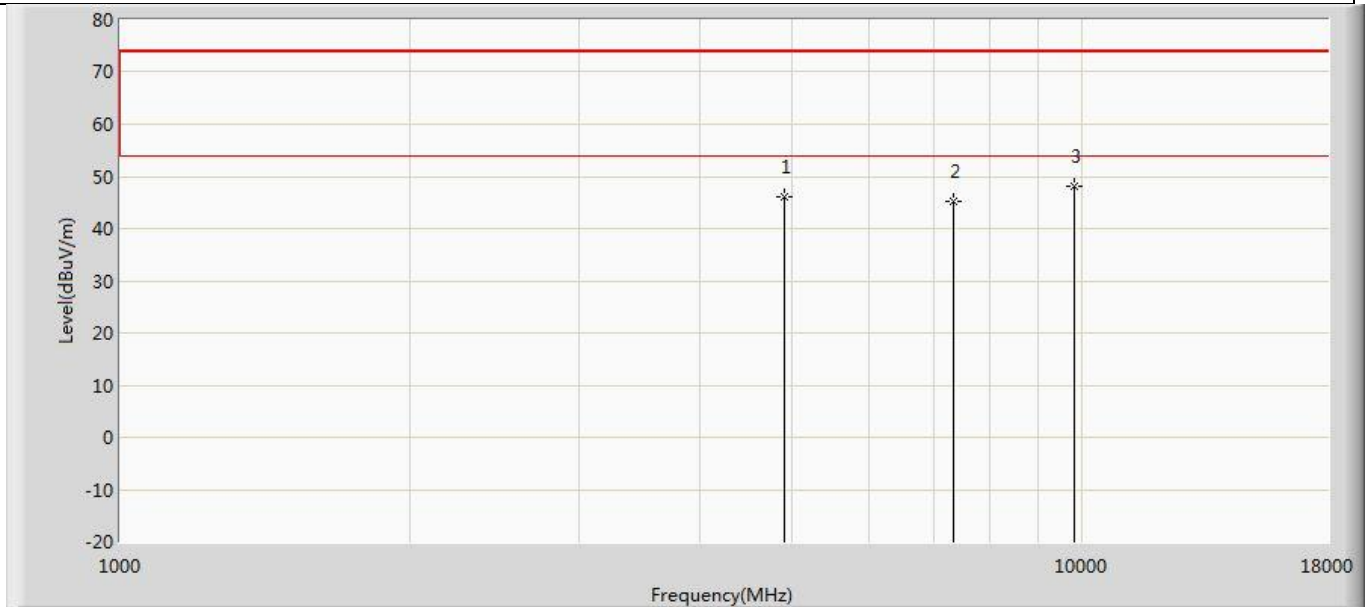
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.212	49.784	-29.788	74.000	-5.572	PK
2	*	7311.000	47.540	49.217	-26.460	74.000	-1.677	PK
3		9748.000	47.465	46.135	-26.535	74.000	1.329	PK

Profile: 21A0273R	Page No.: 46
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2437MHz by 11n(40 MHz)	



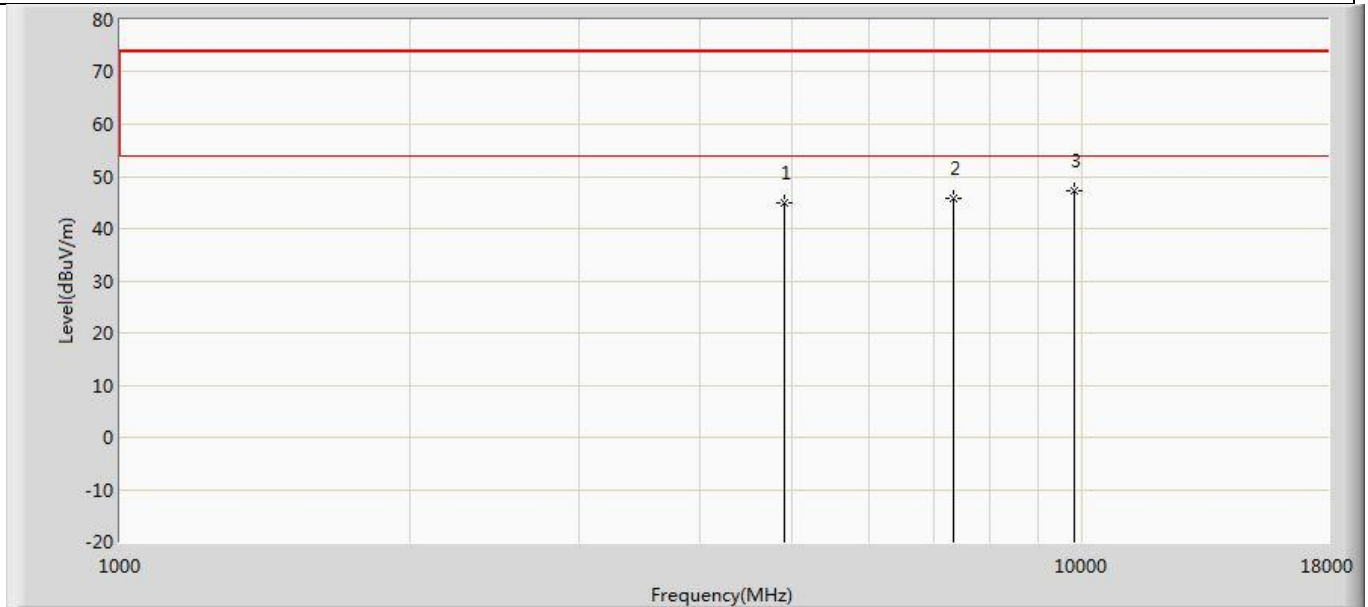
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4874.000	44.831	50.403	-29.169	74.000	-5.572	PK
2	*	7311.000	46.719	48.396	-27.281	74.000	-1.677	PK
3		9748.000	46.664	45.334	-27.336	74.000	1.329	PK

Profile: 21A0273R	Page No.: 47
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2452MHz by 11n(40 MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4904.000	46.089	52.099	-27.911	74.000	-6.010	PK
2		7356.000	45.106	47.840	-28.894	74.000	-2.734	PK
3	*	9808.000	48.248	46.721	-25.752	74.000	1.526	PK

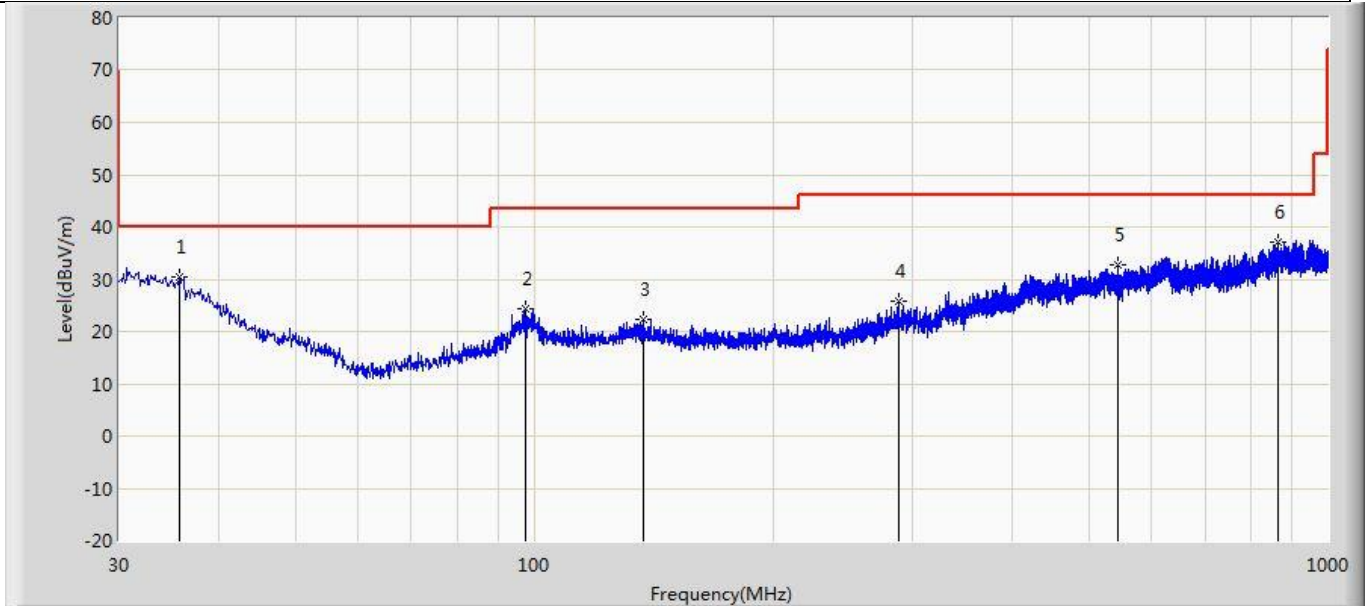
Profile: 21A0273R	Page No.: 48
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/16 - 20:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2452MHz by 11n(40 MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4904.000	44.951	50.961	-29.049	74.000	-6.010	PK
2		7356.000	45.790	48.524	-28.210	74.000	-2.734	PK
3	*	9808.000	47.279	45.752	-26.721	74.000	1.526	PK

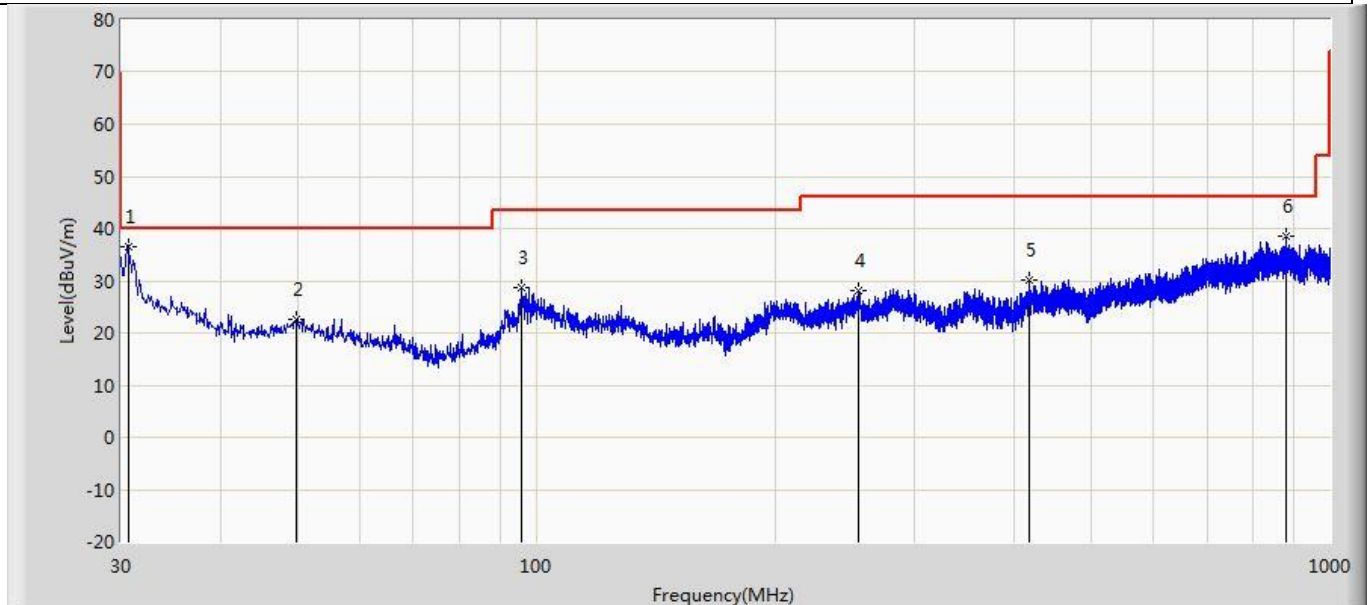
The worst case of Radiated Emission below 1GHz:

Profile: 21A0273R	Page No.: 43
Engineer: Carlos. Shen	
Site: AC2	Time: 2021/12/23 - 06:21
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		35.699	30.355	4.029	-9.645	40.000	26.326	PK
2		97.415	24.245	8.279	-19.255	43.500	15.966	PK
3		137.549	22.405	4.869	-21.095	43.500	17.536	PK
4		288.384	25.758	5.225	-20.242	46.000	20.533	PK
5		544.100	32.659	4.868	-13.341	46.000	27.791	PK
6	*	863.715	37.159	4.457	-8.841	46.000	32.702	PK

Profile: 21A0273R	Page No.: 44
Engineer: Carlos. Shen	
Site: AC2	Time: 2021/12/23 - 06:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode1	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	30.606	36.615	12.777	-3.385	40.000	23.838	PK
2		49.885	22.689	3.285	-17.311	40.000	19.404	PK
3		95.839	28.615	8.494	-14.885	43.500	20.121	PK
4		255.161	28.124	3.830	-17.876	46.000	24.294	PK
5		418.485	30.178	3.643	-15.822	46.000	26.535	PK
6		879.963	38.415	5.085	-7.585	46.000	33.330	PK

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).
3. The test frequency range, 9kHz~30MHz and Above 18GHz worst case are at least 6dB below the limits, therefore no data appear in the report.
4. This limit applies for using average detector, if the test result of peak is lower than average limit, then average measurement needn't be performed.

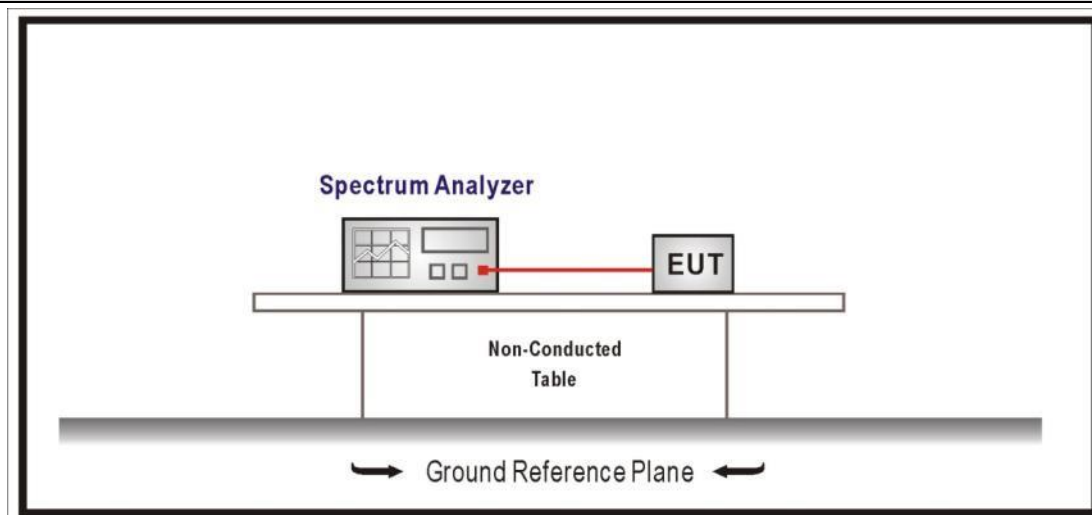
4.3 Emissions in non-restricted frequency band**VERDICT: PASS****4.3.1 Limit**

Standard	FCC Part 15 Subpart C Paragraph 15.247(d)
-----------------	---

RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30dBc(Note1)
RF Output power(PK detector)	20dBc(Note2)

Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

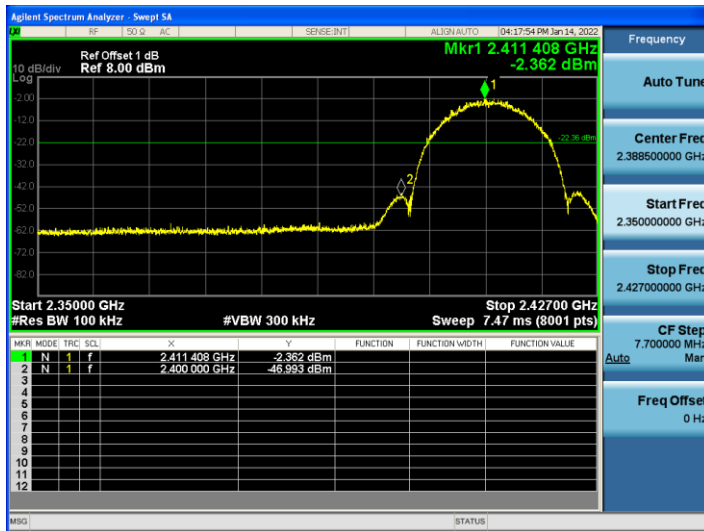
Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

4.3.2 Test Setup**4.3.3 Test Procedure**

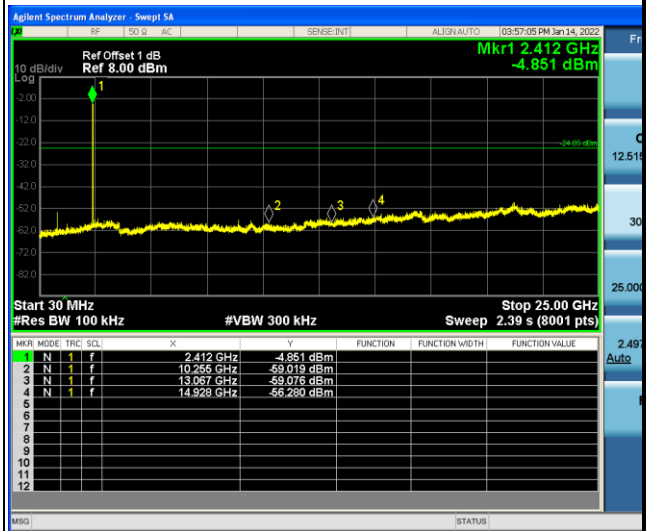
References Rule		Chapter	Description
☒	ANSI C63.10	11.11	Emissions in non-restricted frequency bands
☒	ANSI C63.10	11.11.1	General
☒	ANSI C63.10	11.11.2	Reference level measurement
☒	ANSI C63.10	11.11.3	Emission level measurement

4.3.4 Test Data

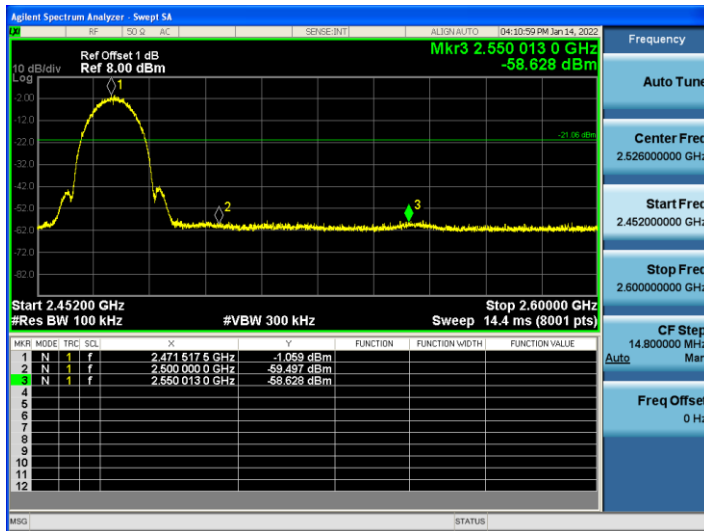
Mode 1 CH01(2412MHz)



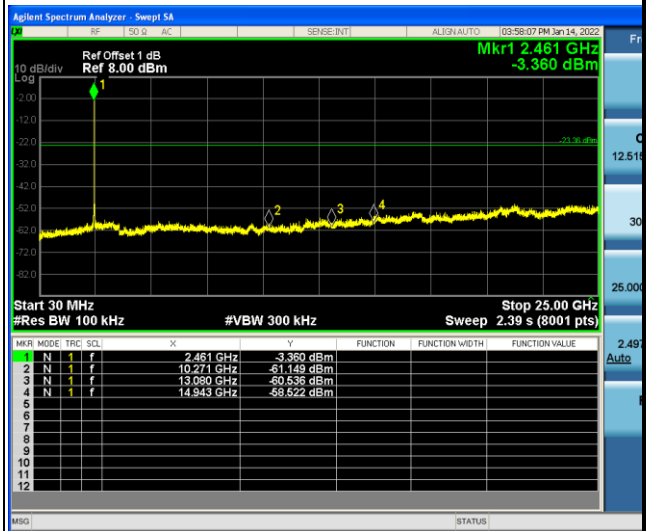
Mode 1 CH1(2412MHz)



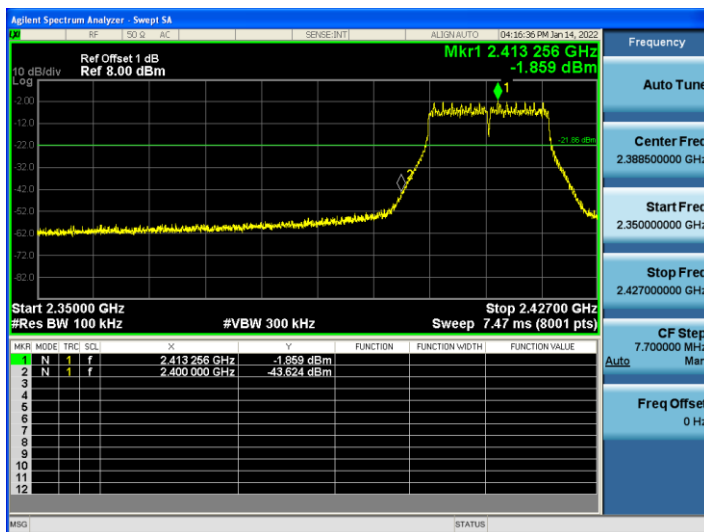
Mode 1 CH11(2462MHz)



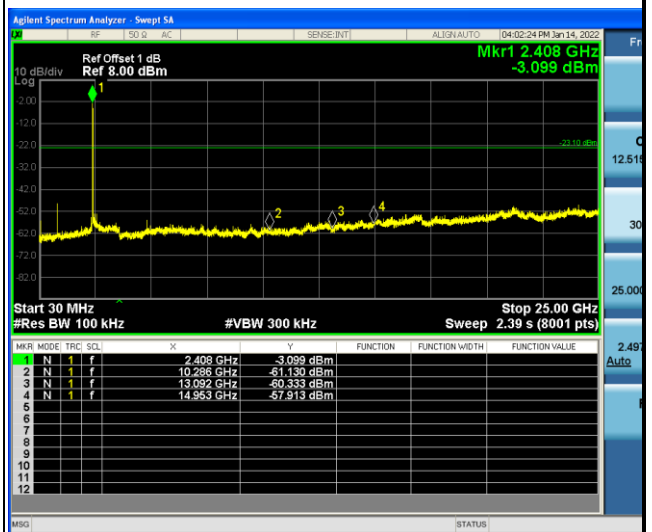
Mode 1 CH11(2462MHz)



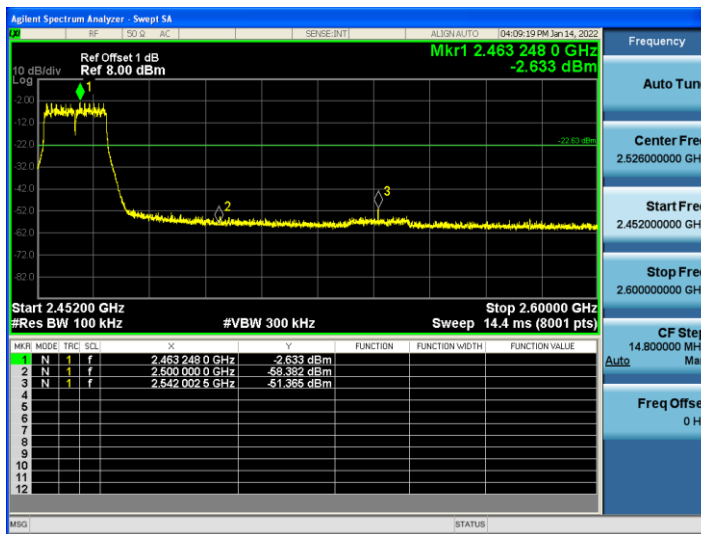
Mode 2 CH01(2412MHz)



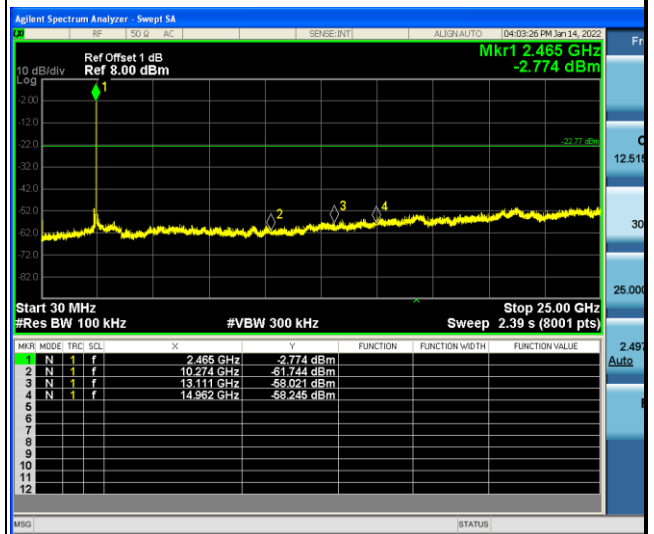
Mode 2 CH1(2412MHz)



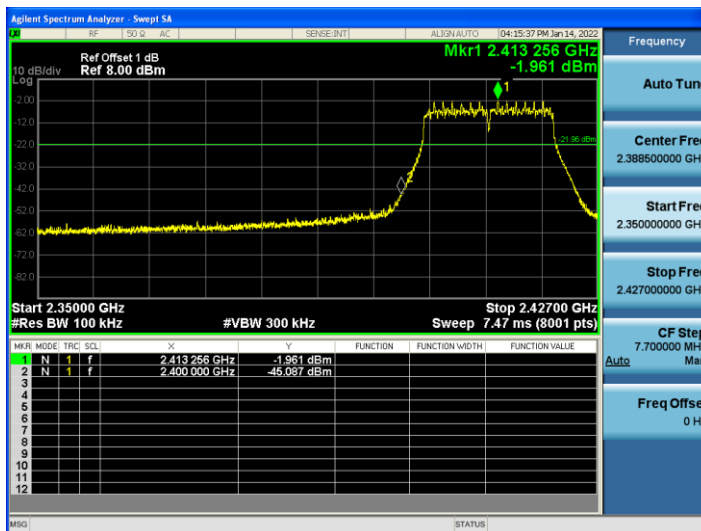
Mode 2 CH11(2462MHz)



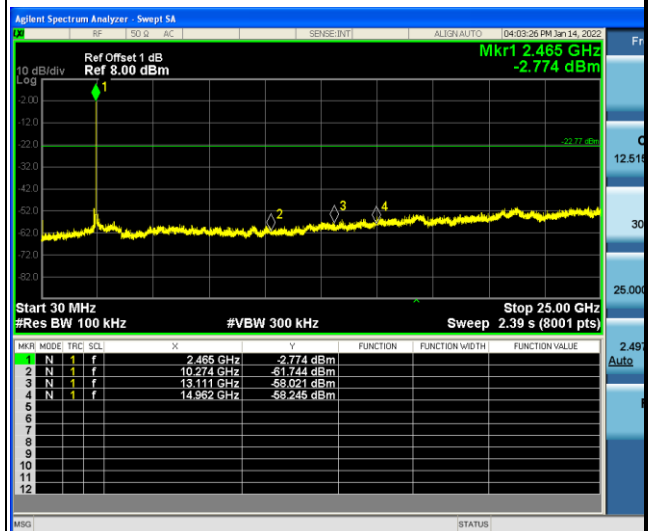
Mode 2 CH11(2462MHz)



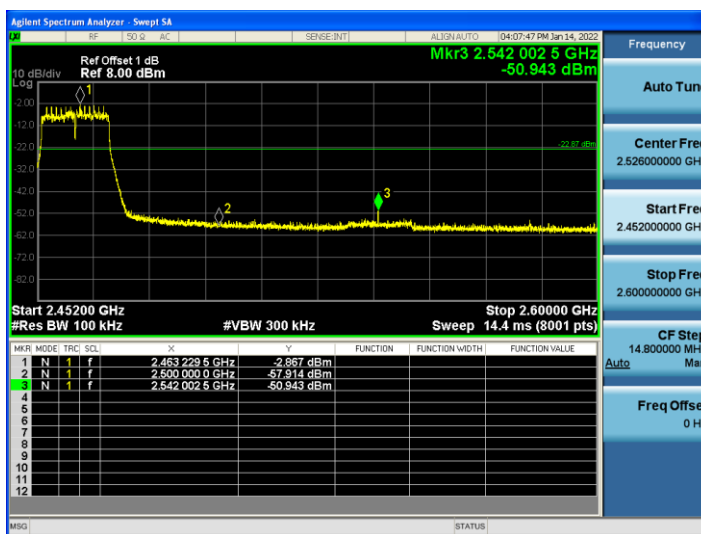
Mode 3 CH01(2412MHz)



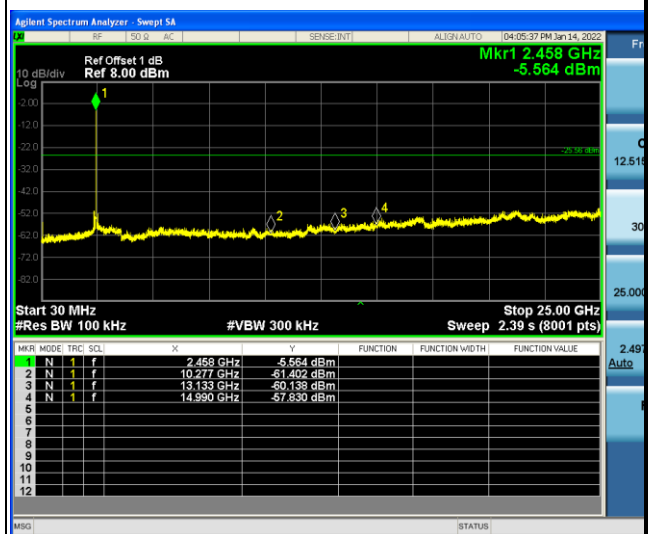
Mode 3 CH1(2412MHz)



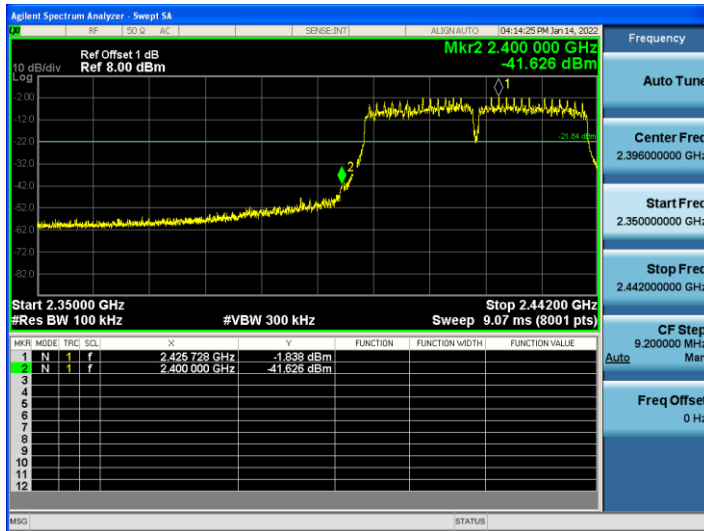
Mode 3 CH11(2462MHz)



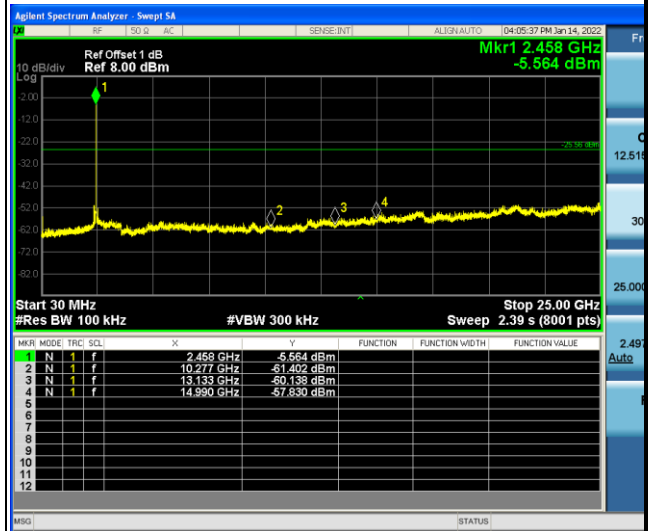
Mode 3 CH11(2462MHz)



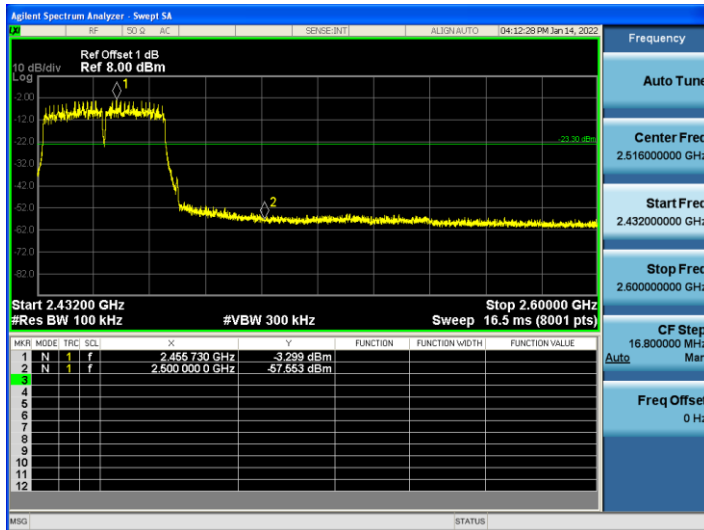
Mode 4 CH03(2422MHz)



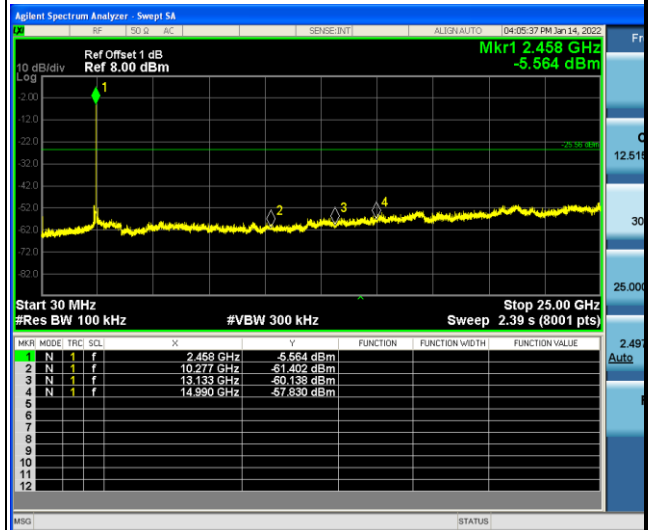
Mode 4 CH03(2422MHz)



Mode 4 CH09(2452MHz)



Mode 4 CH09(2452MHz)



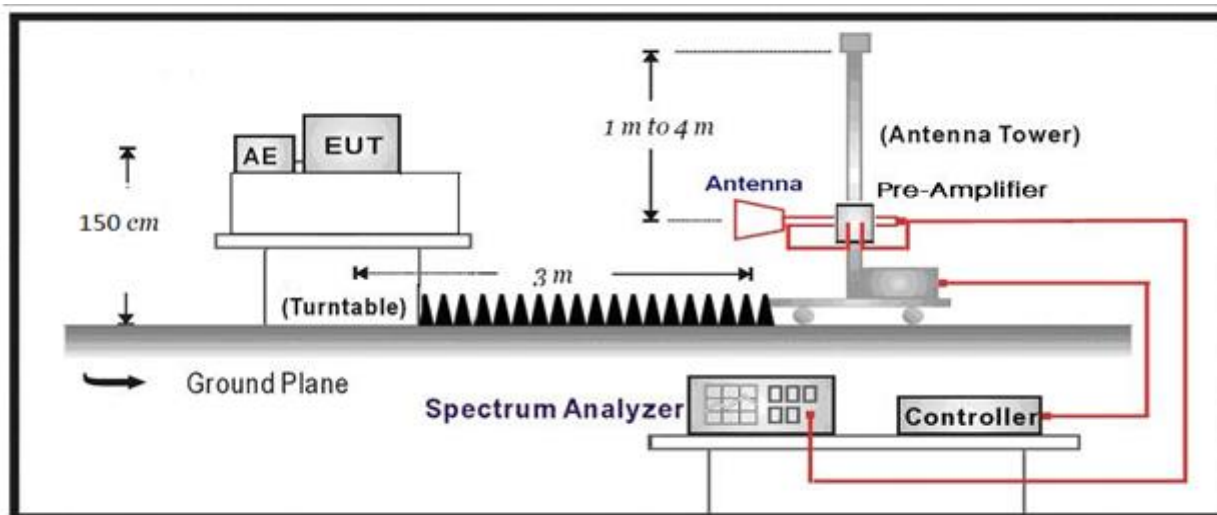
4.4 Radiated Emission Band Edge**VERDICT: PASS****4.4.1 Limit****Standard** FCC Part 15 Subpart C Paragraph 15.247(d) , 15.205, 15.209

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.

4.4.2 Test Setup

Above 1GHz Test Setup:



4.4.3 Test Procedure

	References Rule		Chapter	Description
☒	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		11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10	11.12.1	Radiated emission measurements
	☒	ANSI C63.10	6.3	Radiated spurious emission test
☐	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
	☐	ANSI C63.10	11.12.2	Antenna-port conducted measurements
		☐	ANSI C63.10	11.12.2.3 Quasi-peak measurement procedure
		☐	ANSI C63.10	11.12.2.4 Peak power measurement procedure
		☐	ANSI C63.10	11.12.2.5 Average power measurement procedures
		☐	ANSI C63.10	11.12.2.5.1 Trace averaging with continuous EUT transmission at full power
		☐	ANSI C63.10	11.12.2.5.2 Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
		☐	ANSI C63.10	11.12.2.5.3 Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

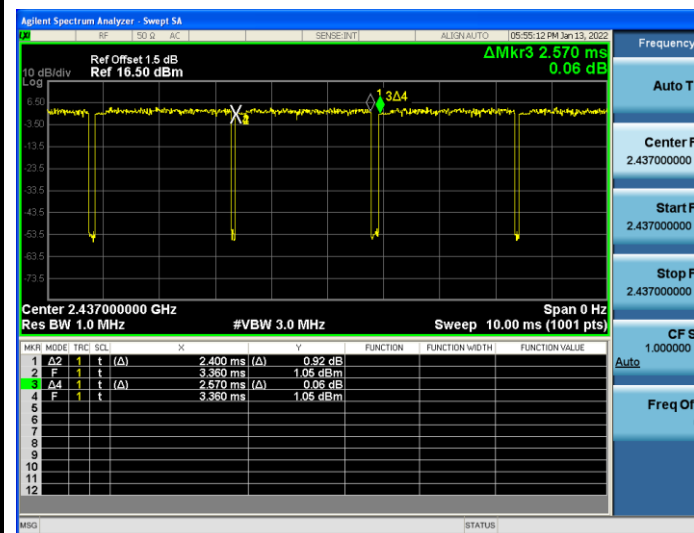
4.4.4 Test Data

Test Mode	Tx On (ms)	VBW (kHz)	Tx On + Tx Off (ms)	Duty Cycle (%)
1	2.4000	0.5	2.5700	93.39
2	0.2470	5.0	0.3920	63.01
3	0.2280	5.0	0.3900	58.46
4	0.1264	8.0	0.2992	42.25

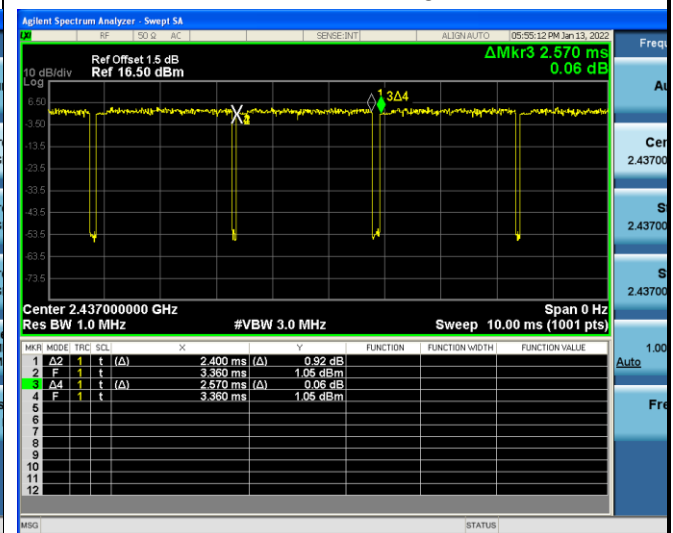
Note 1: T means the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

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.

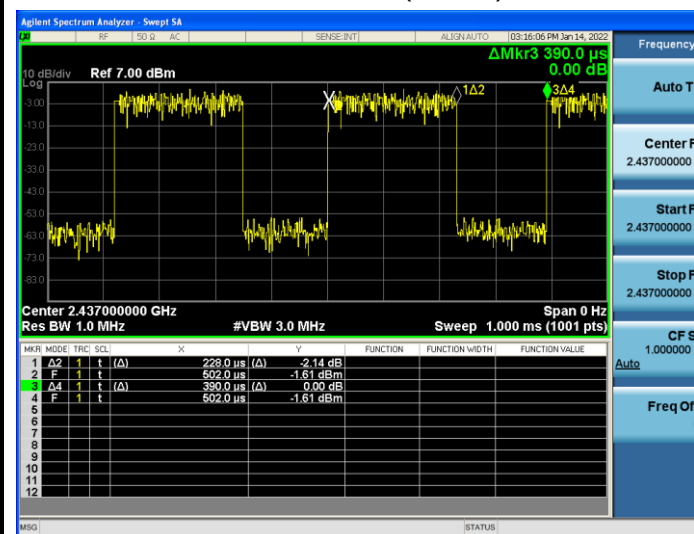
Mode 1: 802.11b



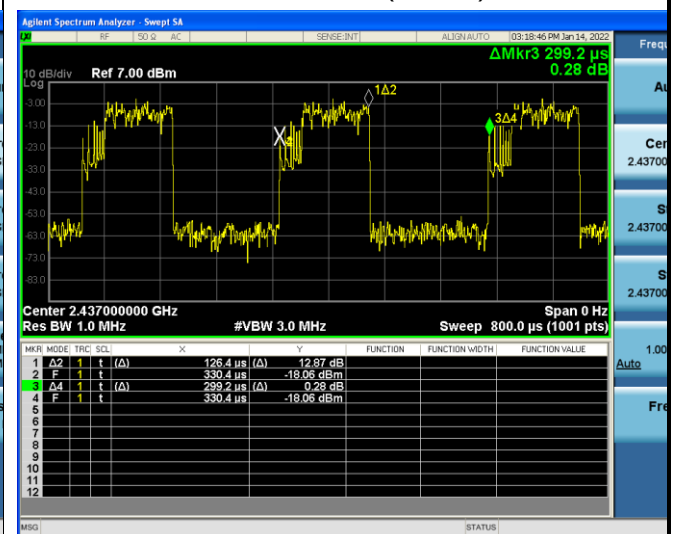
Mode 2: 802.11g



Mode 3: 802.11n(20MHz)

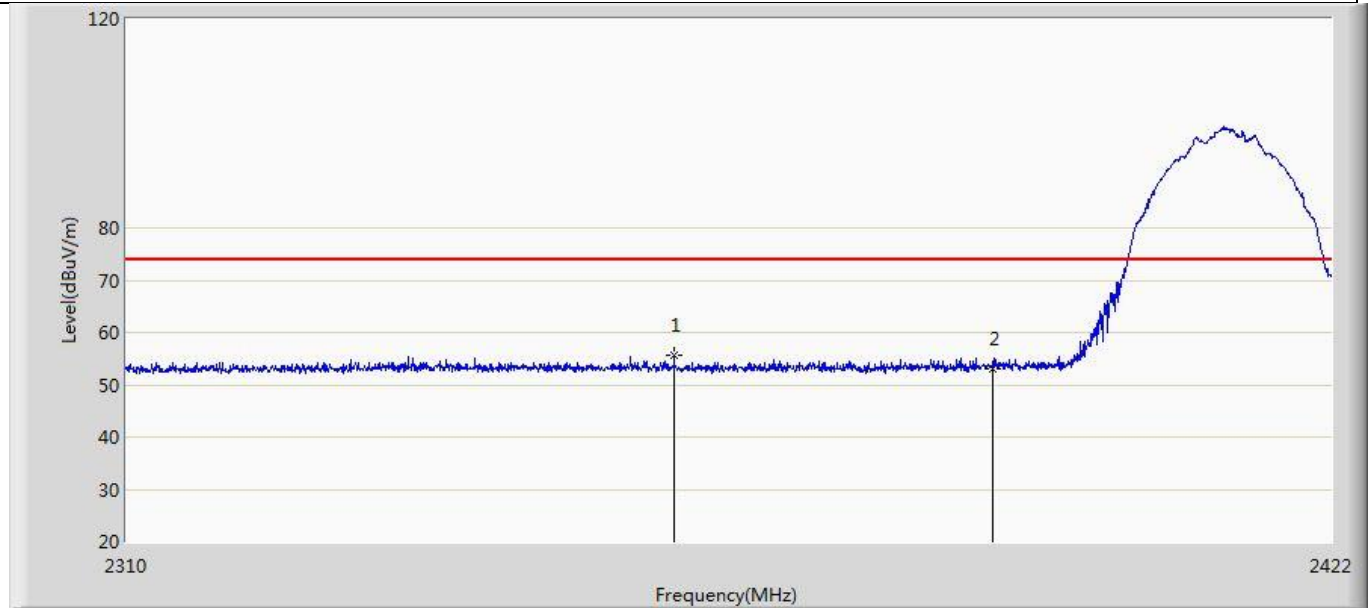


Mode 3: 802.11n(40MHz)



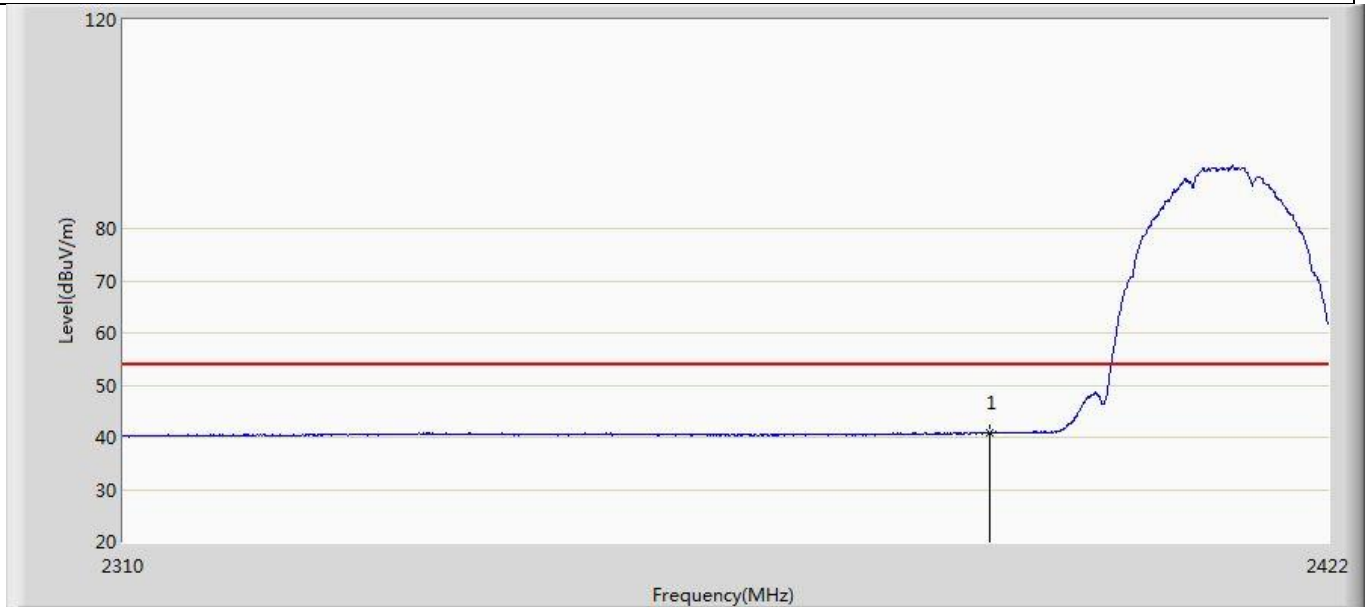
Bandedge test data:

Profile: 21A0273R	Page No.: 2
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2402MHz by 11b	



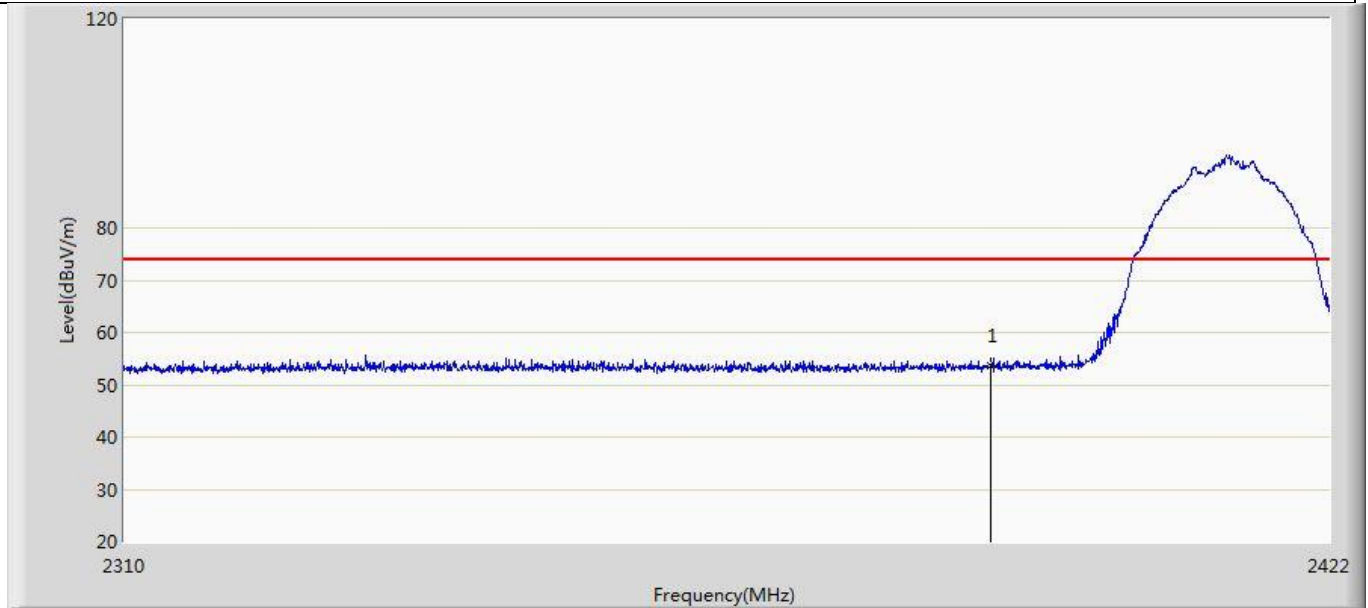
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2360.288	55.576	17.404	-18.424	74.000	38.171	PK
2		2390.000	53.118	14.813	-20.882	74.000	38.305	PK

Profile: 21A0273R	Page No.: 1
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2402MHz by 11b	



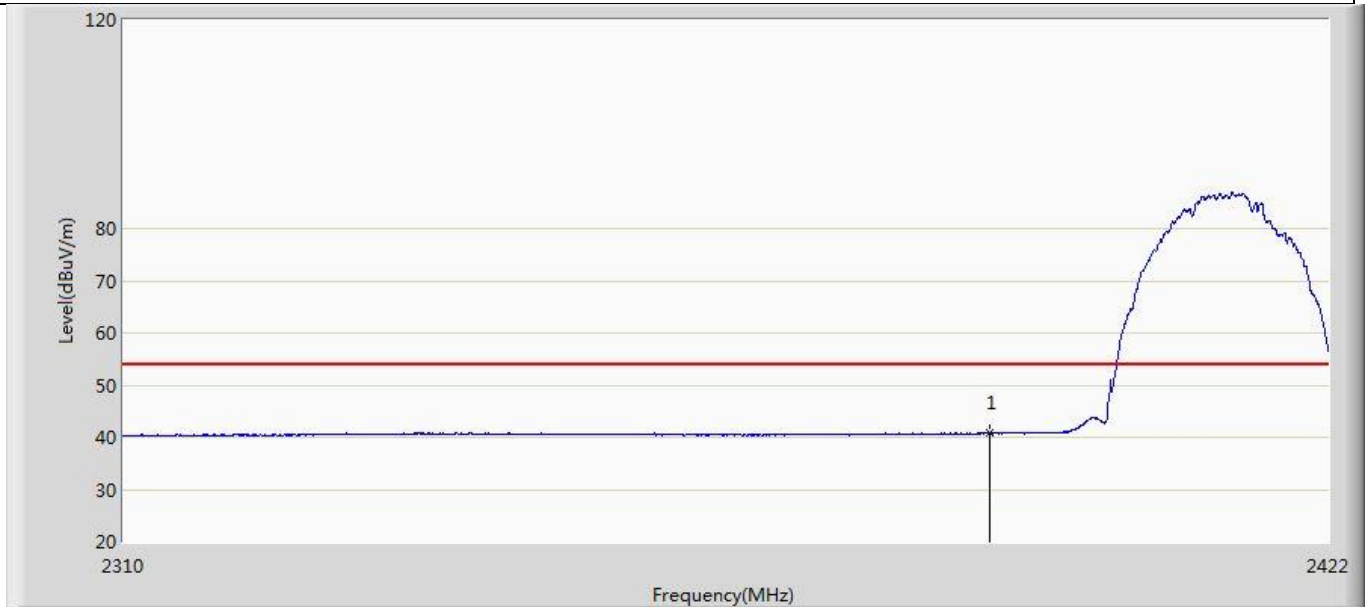
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	40.830	2.525	-13.170	54.000	38.305	AV

Profile: 21A0273R	Page No.: 4
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2402MHz by 11b	



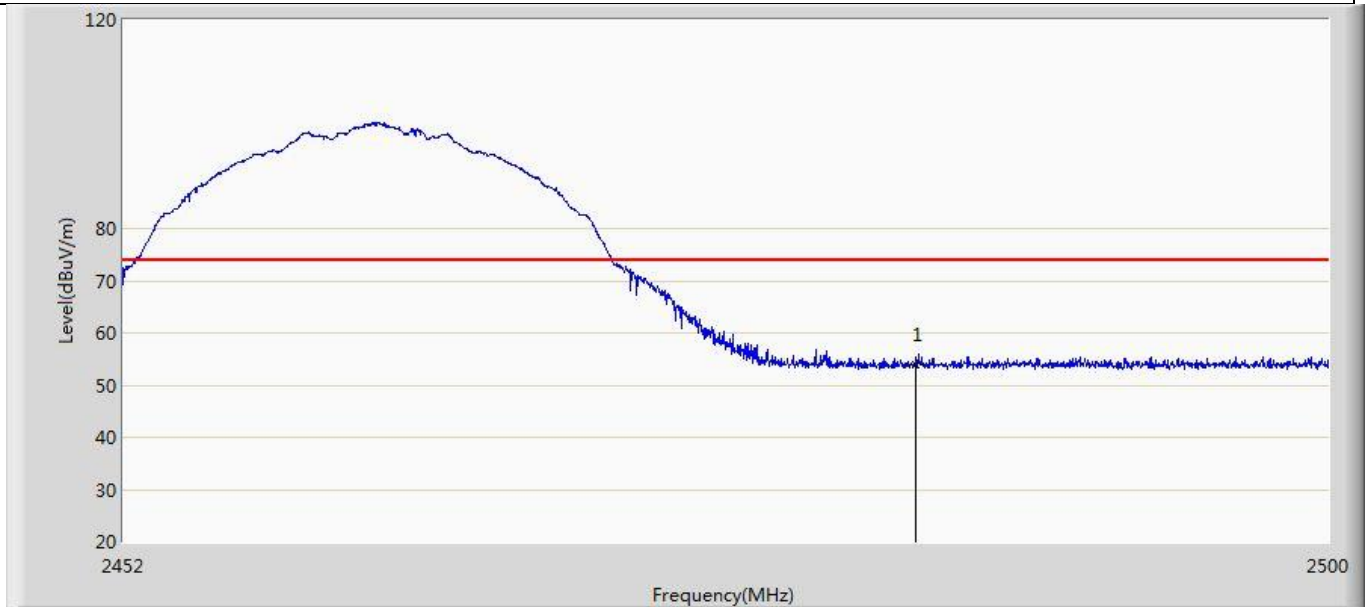
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	53.709	15.404	-20.291	74.000	38.305	PK

Profile: 21A0273R	Page No.: 3
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2402MHz by 11b	



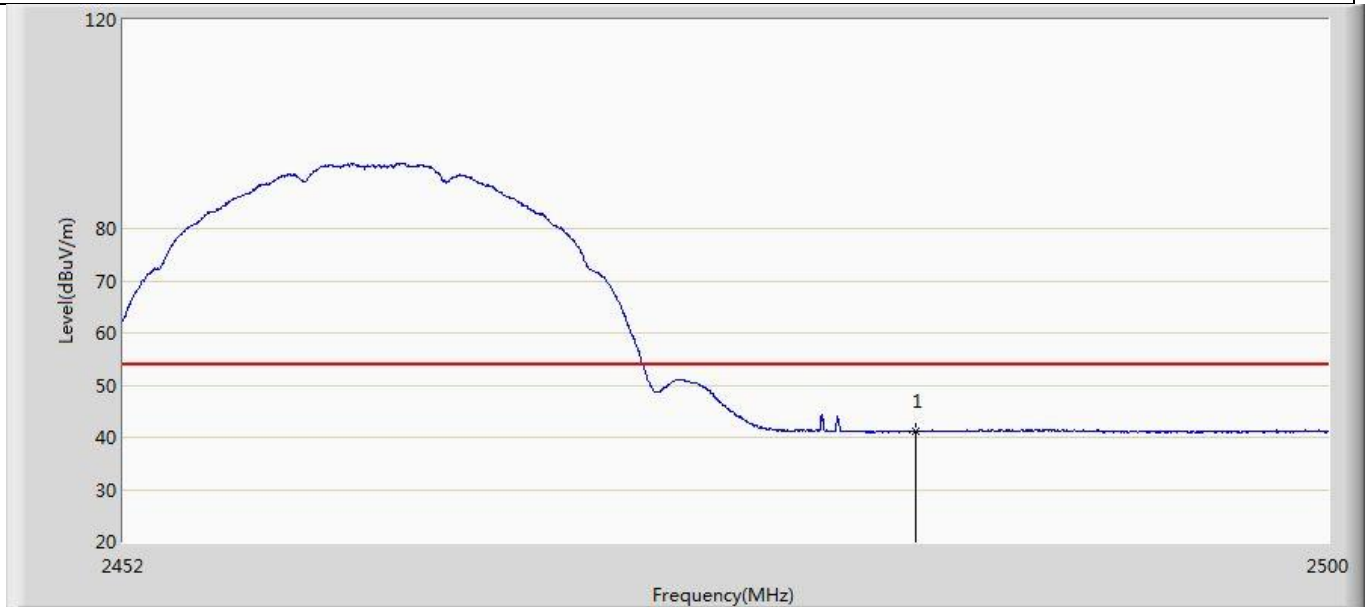
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	40.730	2.425	-13.270	54.000	38.305	AV

Profile: 21A0273R	Page No.: 6
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2462MHz by 11b	



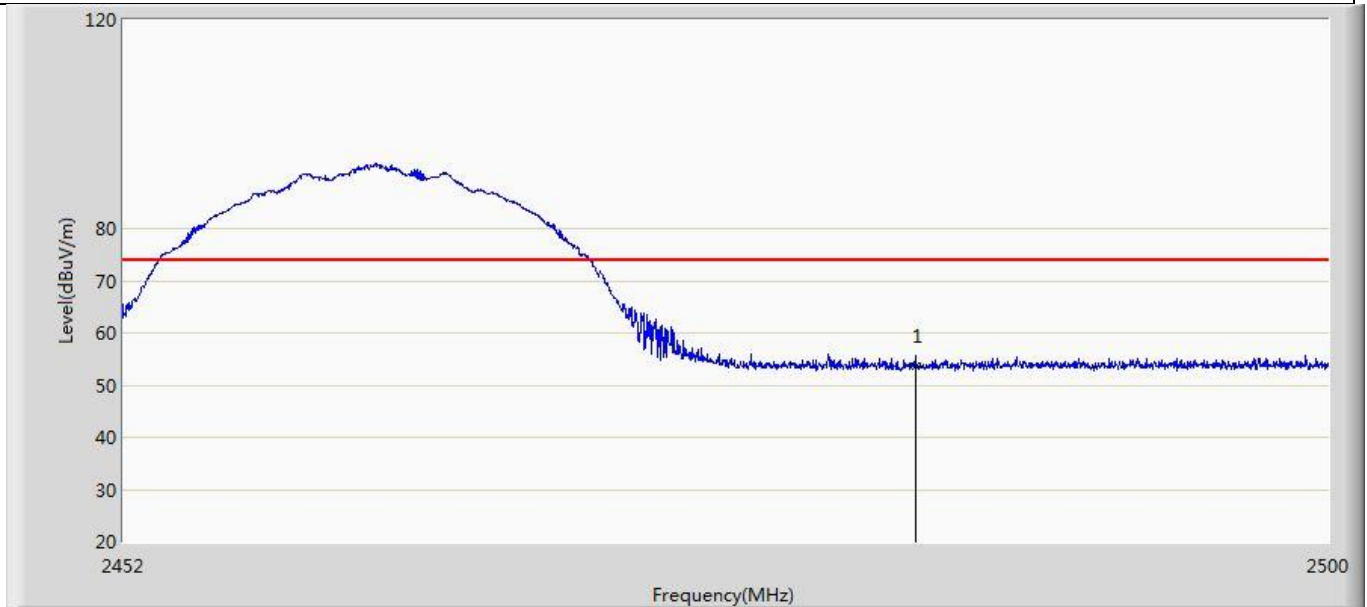
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	53.844	15.390	-20.156	74.000	38.453	PK

Profile: 21A0273R	Page No.: 5
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2462MHz by 11b	



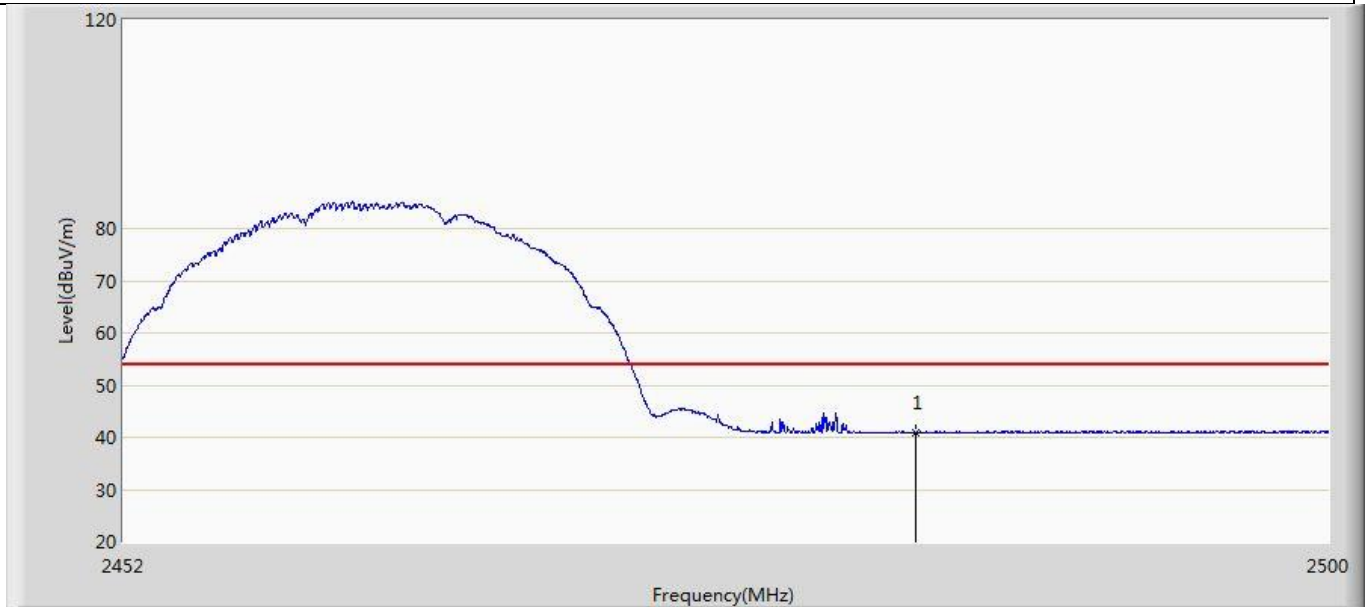
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	41.120	2.666	-12.880	54.000	38.453	AV

Profile: 21A0273R	Page No.: 8
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2462MHz by 11b	



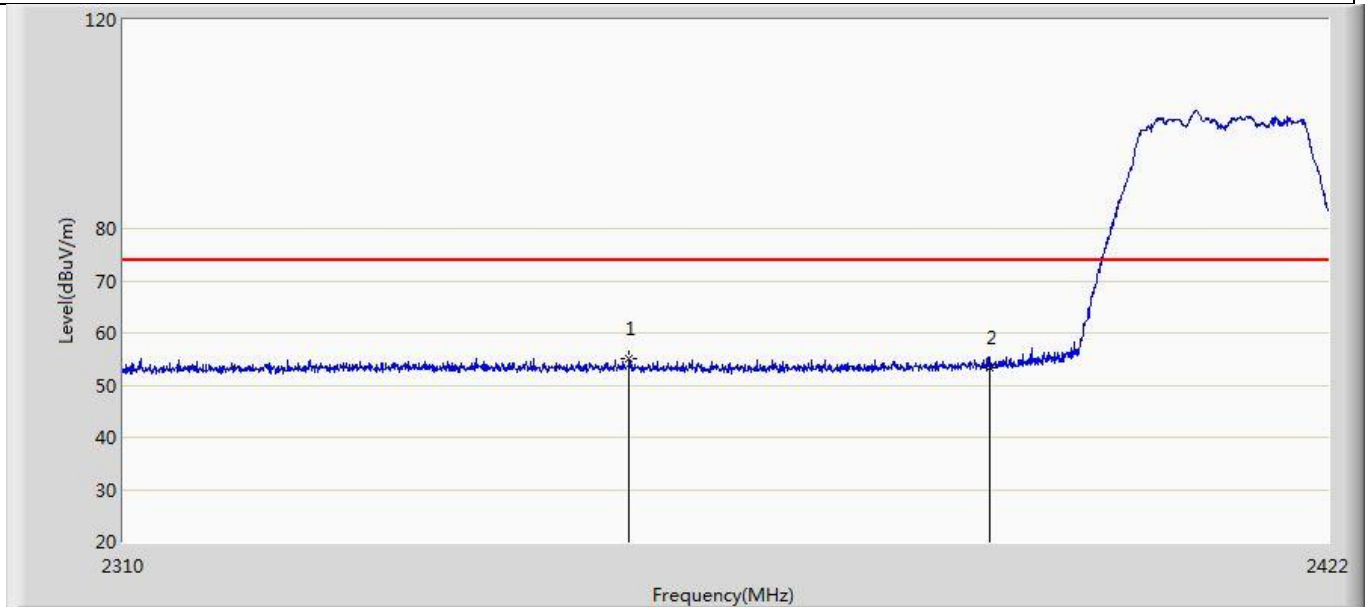
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	53.552	15.098	-20.448	74.000	38.453	PK

Profile: 21A0273R	Page No.: 7
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 1:Transmit at 2462MHz by 11b	



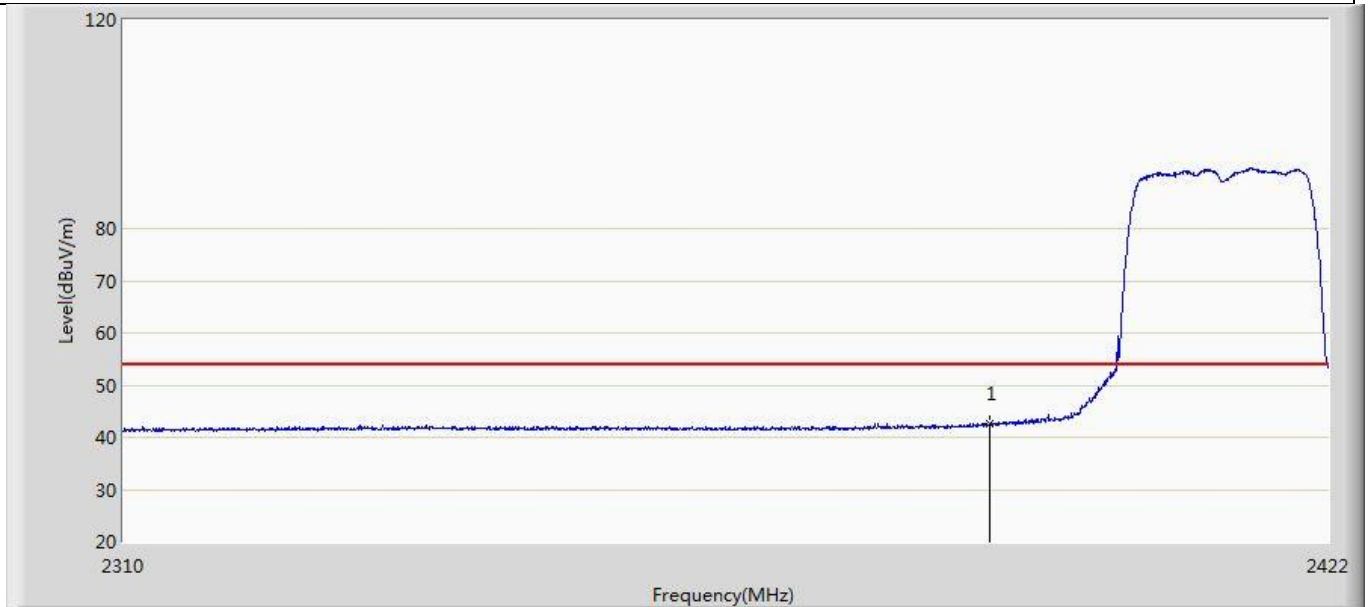
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	40.948	2.494	-13.052	54.000	38.453	AV

Profile: 21A0273R	Page No.: 10
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2402MHz by 11g	



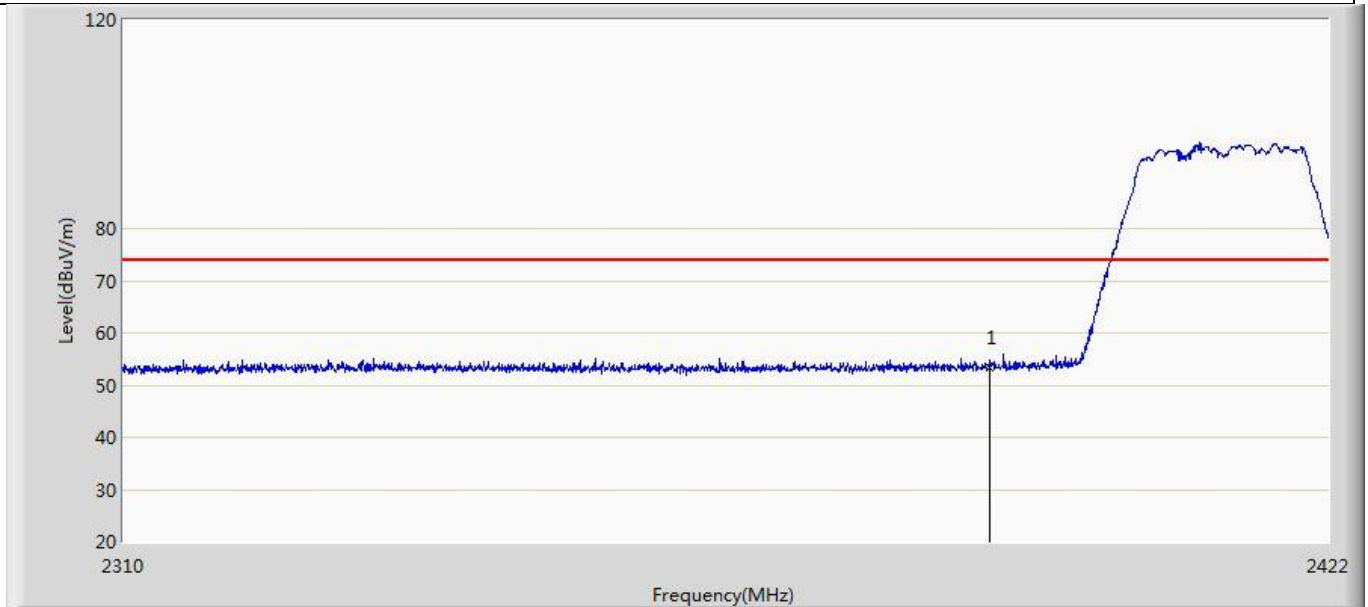
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2356.368	55.145	16.953	-18.855	74.000	38.192	PK
2		2390.000	53.447	15.142	-20.553	74.000	38.305	PK

Profile: 21A0273R	Page No.: 9
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 2:Transmit at 2402MHz by 11g	



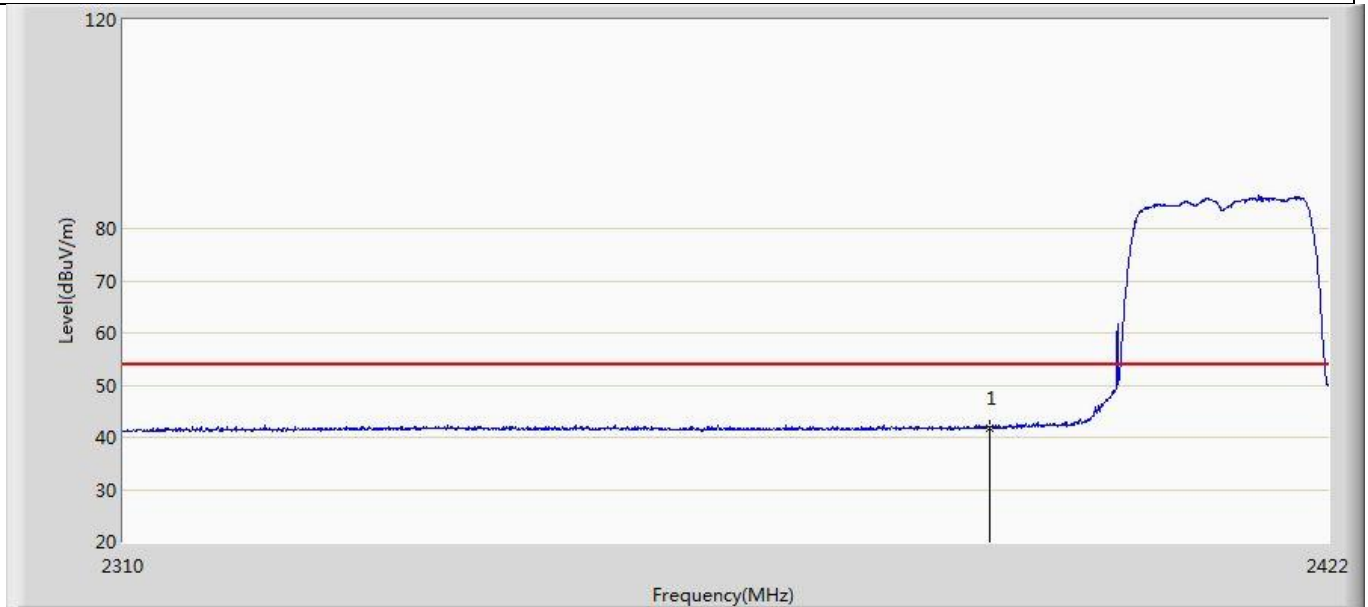
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.585	4.280	-11.415	54.000	38.305	AV

Profile: 21A0273R	Page No.: 12
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2402MHz by 11g	



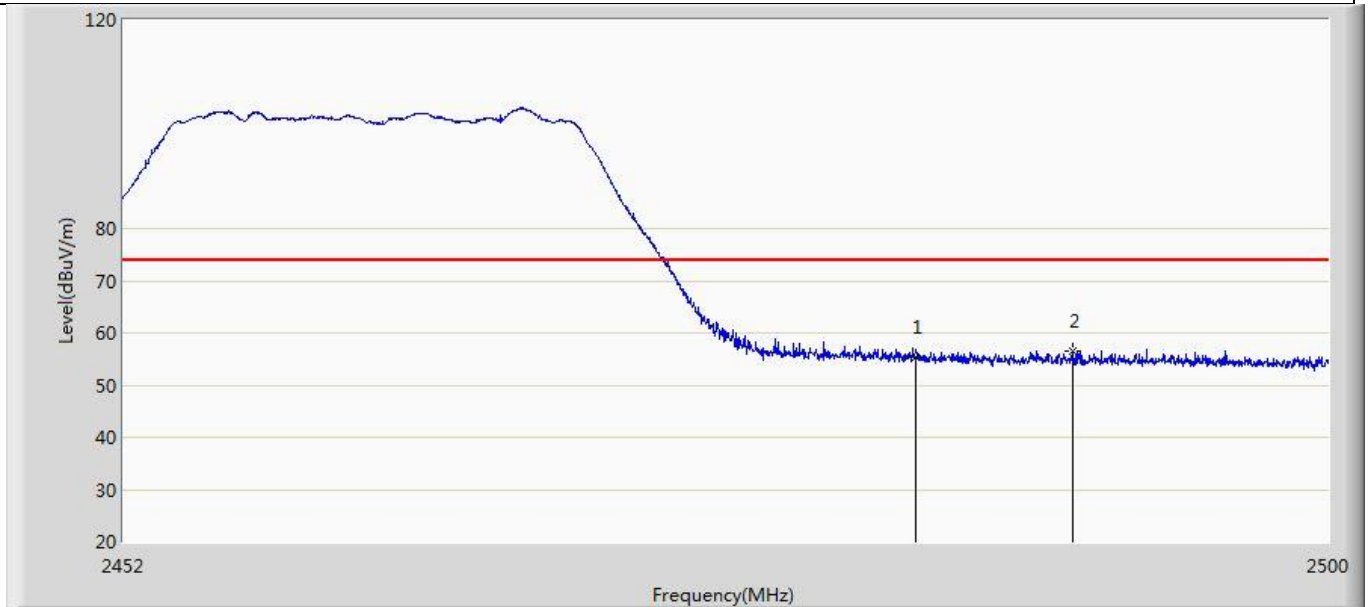
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	53.300	14.995	-20.700	74.000	38.305	PK

Profile: 21A0273R	Page No.: 11
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 07:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2402MHz by 11g	



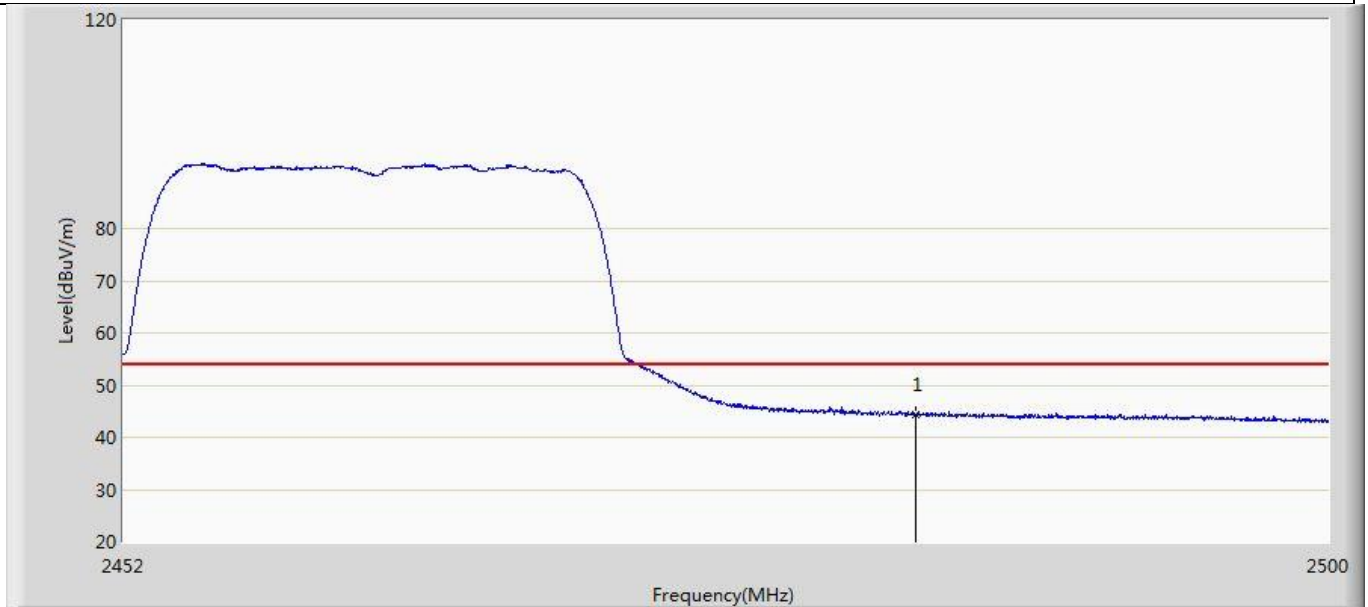
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	41.804	3.499	-12.196	54.000	38.305	AV

Profile: 21A0273R	Page No.: 14
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2462MHz by 11g	



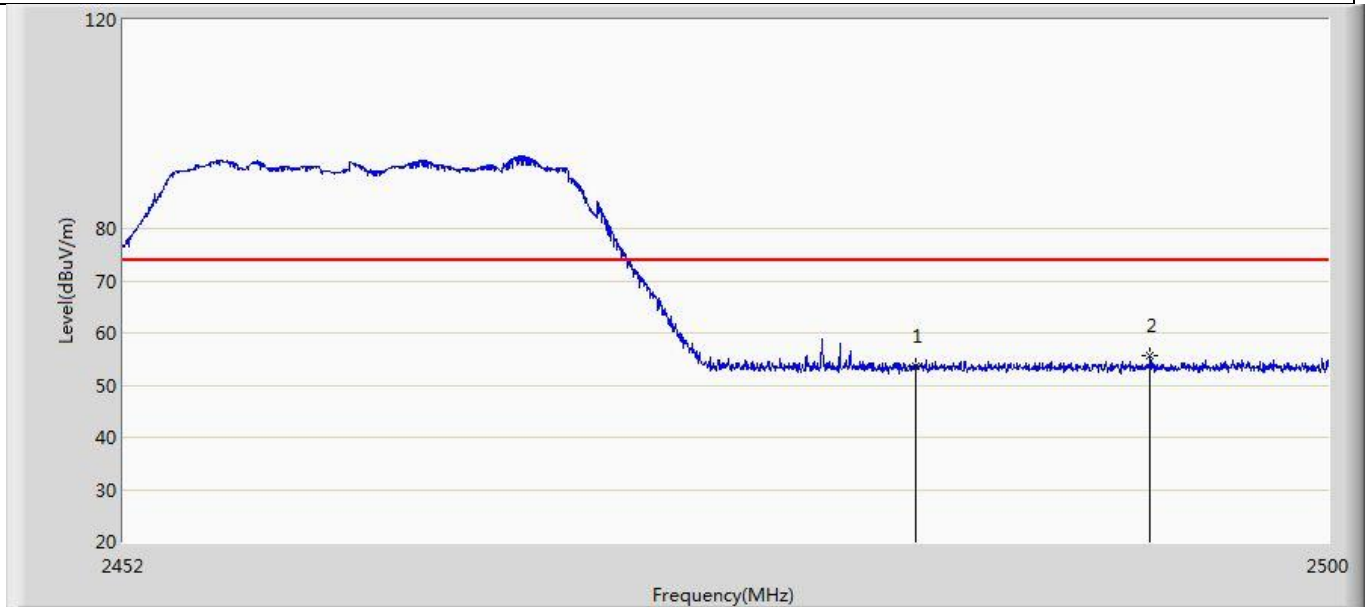
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2483.500	55.273	16.819	-18.727	74.000	38.453	PK
2	*	2489.728	56.610	18.140	-17.390	74.000	38.471	PK

Profile: 21A0273R	Page No.: 13
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2462MHz by 11g	



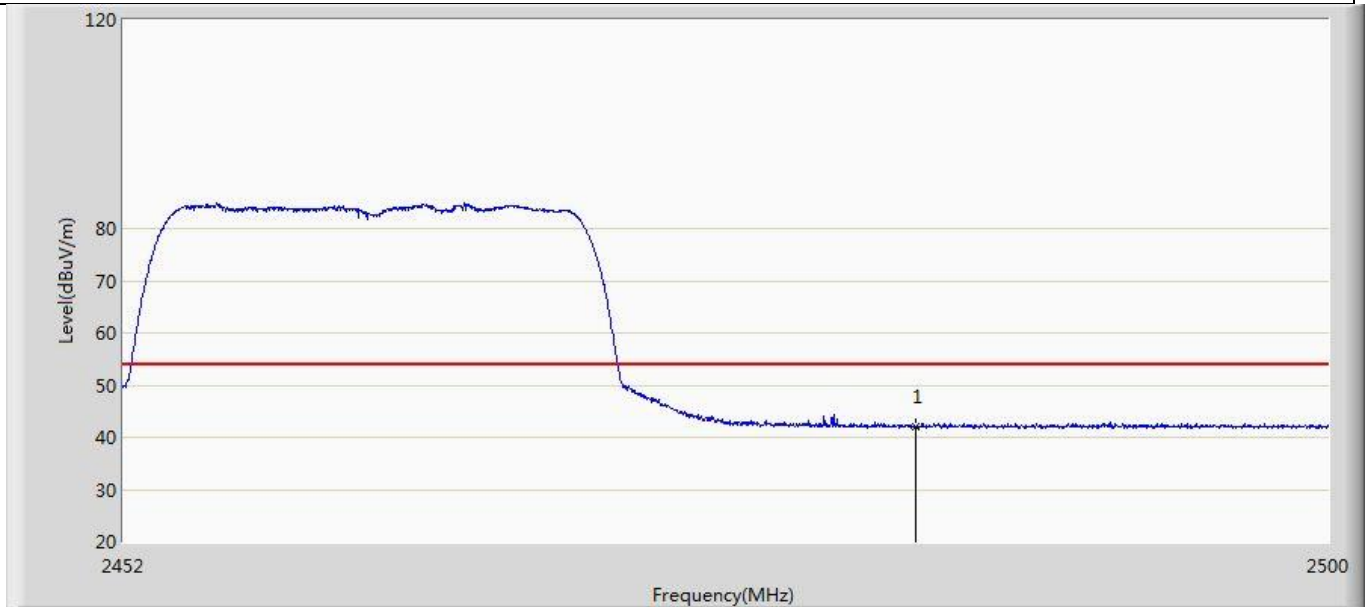
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	44.447	5.993	-9.553	54.000	38.453	AV

Profile: 21A0273R	Page No.: 16
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2462MHz by 11g	



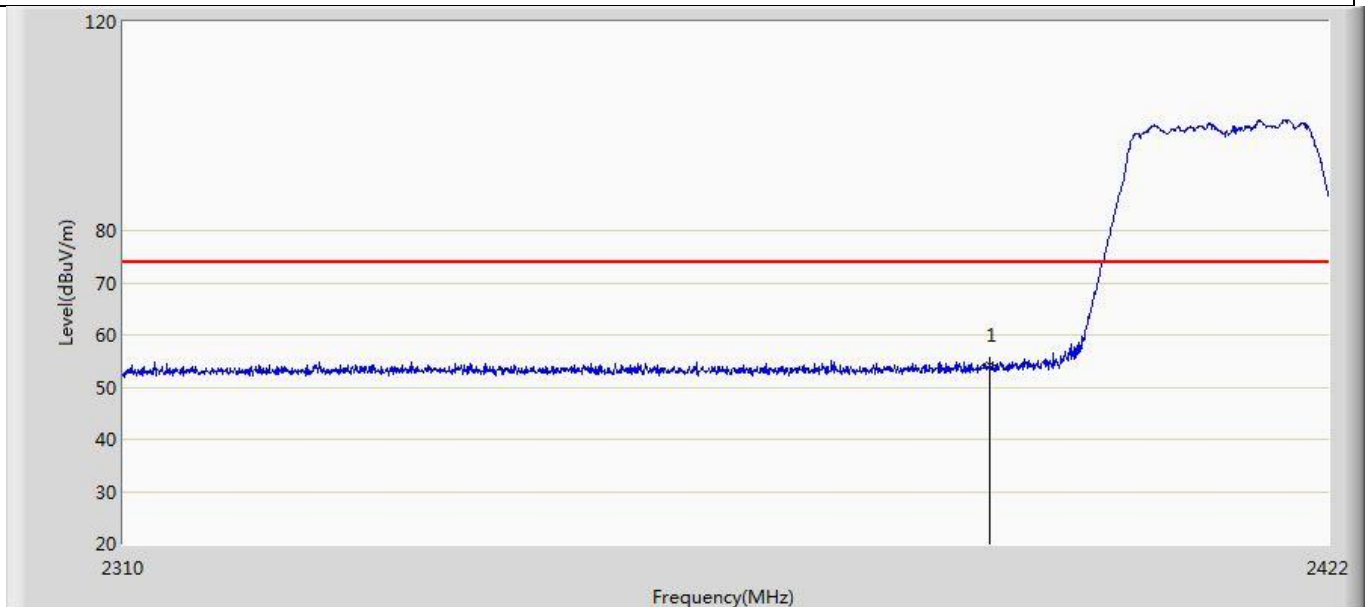
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2483.500	53.503	15.049	-20.497	74.000	38.453	PK
2	*	2492.872	55.702	17.224	-18.298	74.000	38.479	PK

Profile: 21A0273R	Page No.: 15
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode :Transmit at 2462MHz by 11g	



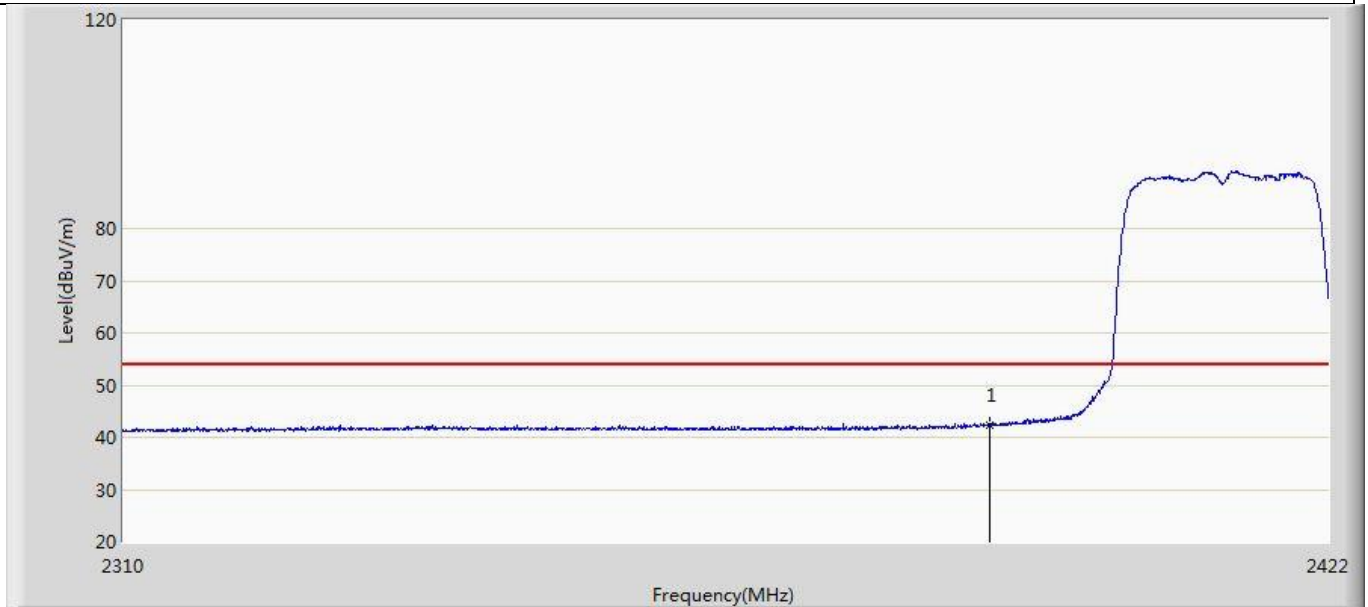
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	41.988	3.534	-12.012	54.000	38.453	AV

Profile: 21A0273R	Page No.: 18
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:09
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2402MHz by 11n(20MHz)	



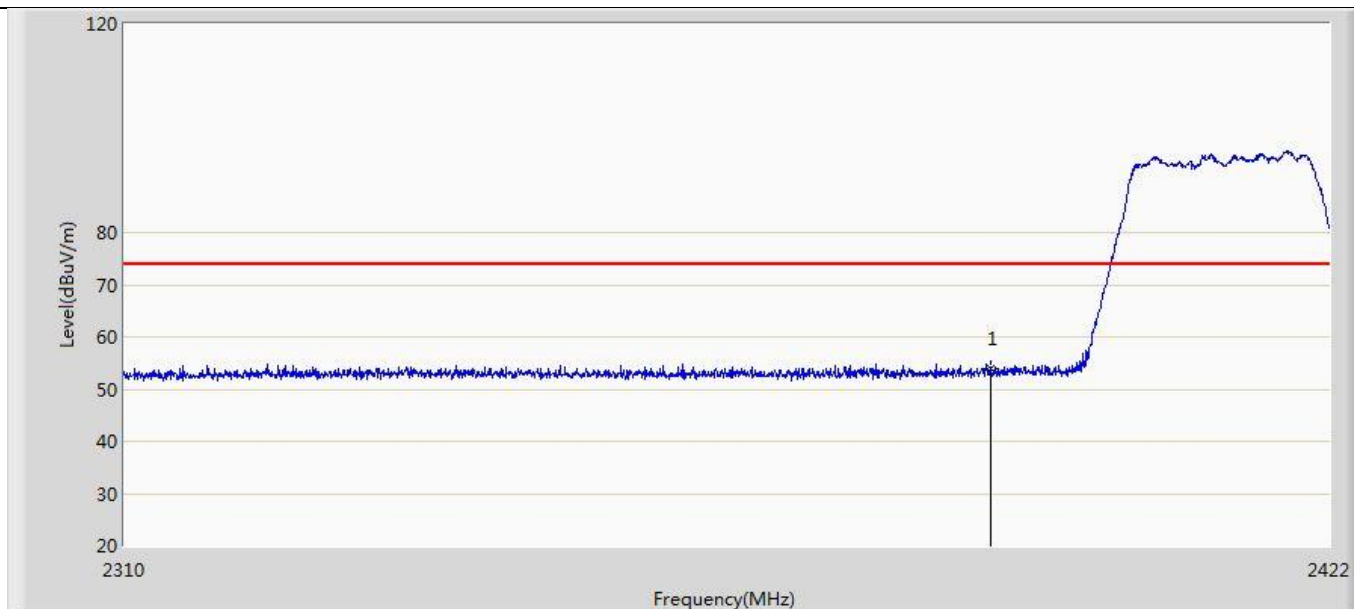
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	54.251	15.946	-19.749	74.000	38.305	PK

Profile: 21A0273R	Page No.: 17
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2402MHz by 11n(20MHz)	



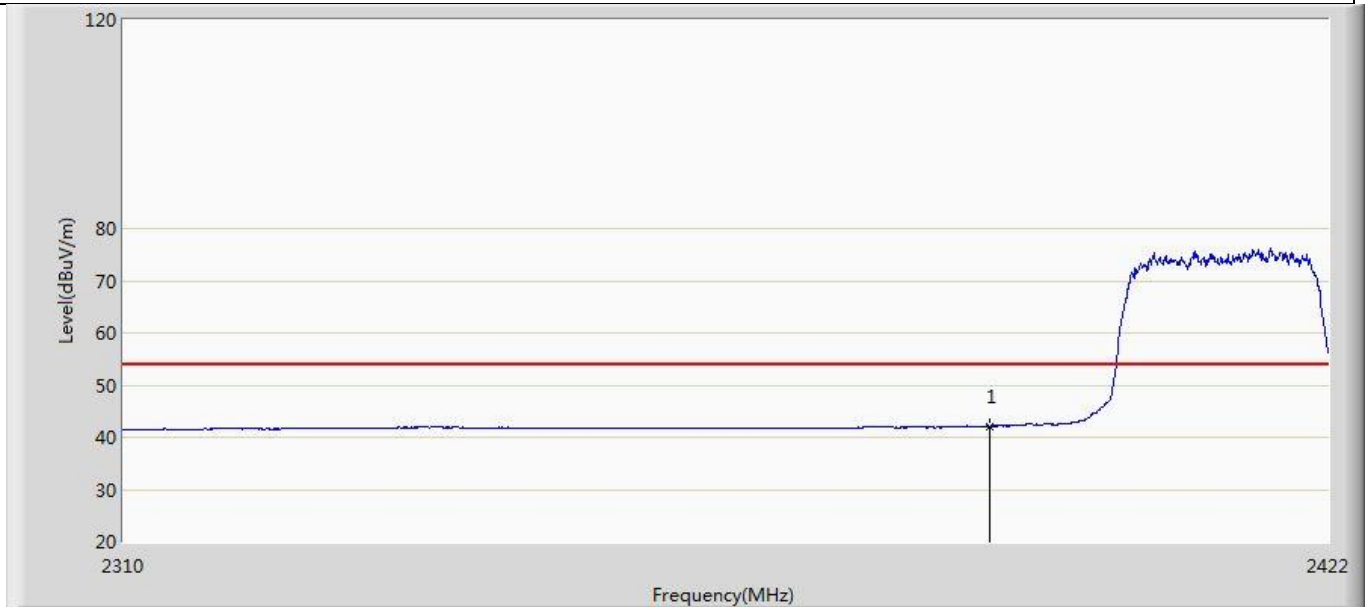
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.379	4.074	-11.621	54.000	38.305	AV

Profile: 21A0273R	Page No.: 20
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2402MHz by 11n(20MHz)	



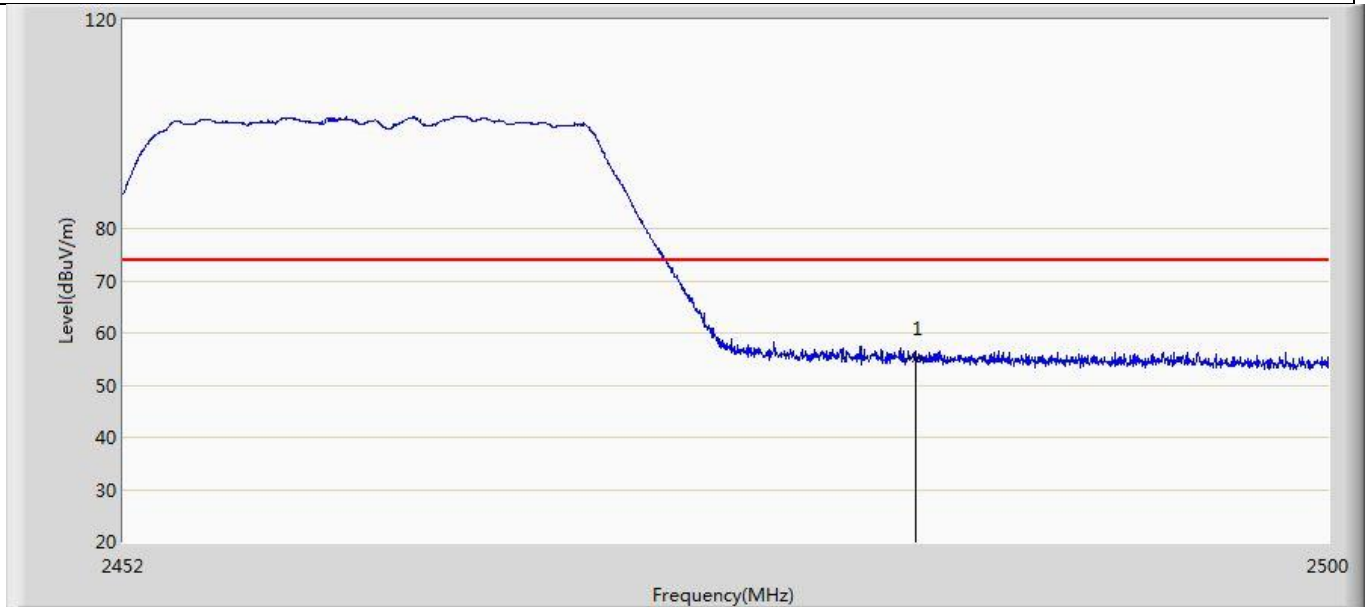
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	53.792	15.487	-20.208	74.000	38.305	PK

Profile: 21A0273R	Page No.: 19
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2402MHz by 11n(20MHz)	



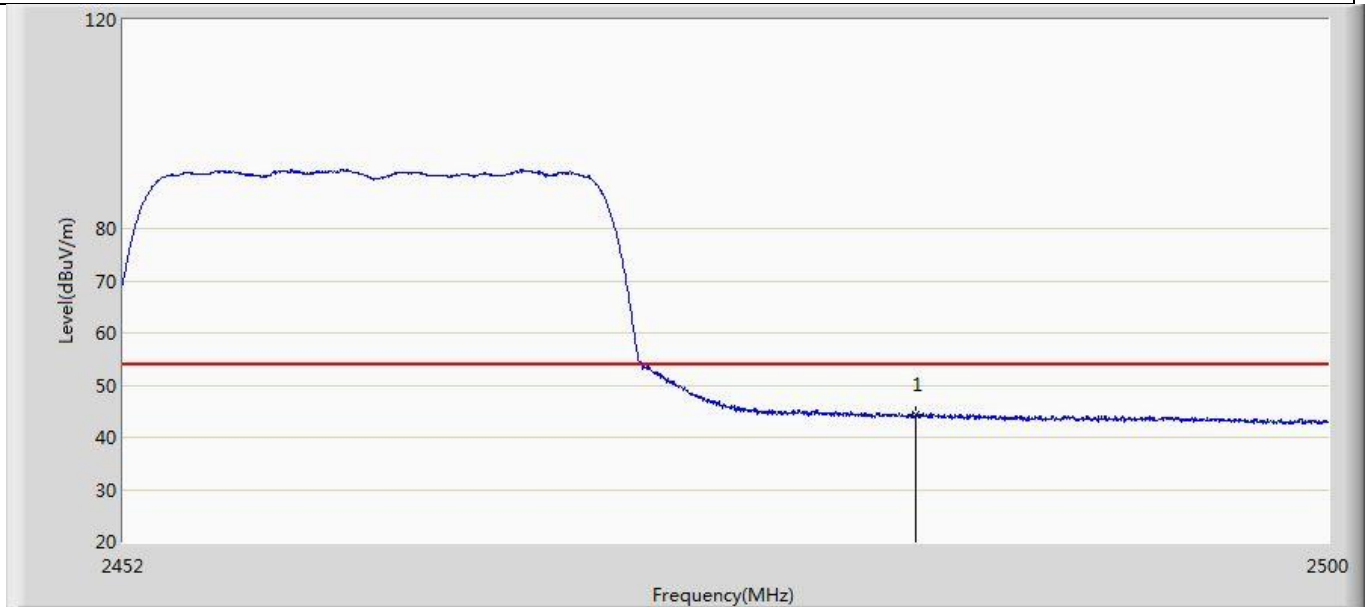
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.078	3.773	-11.922	54.000	38.305	AV

Profile: 21A0273R	Page No.: 22
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2462MHz by 11n(20MHz)	



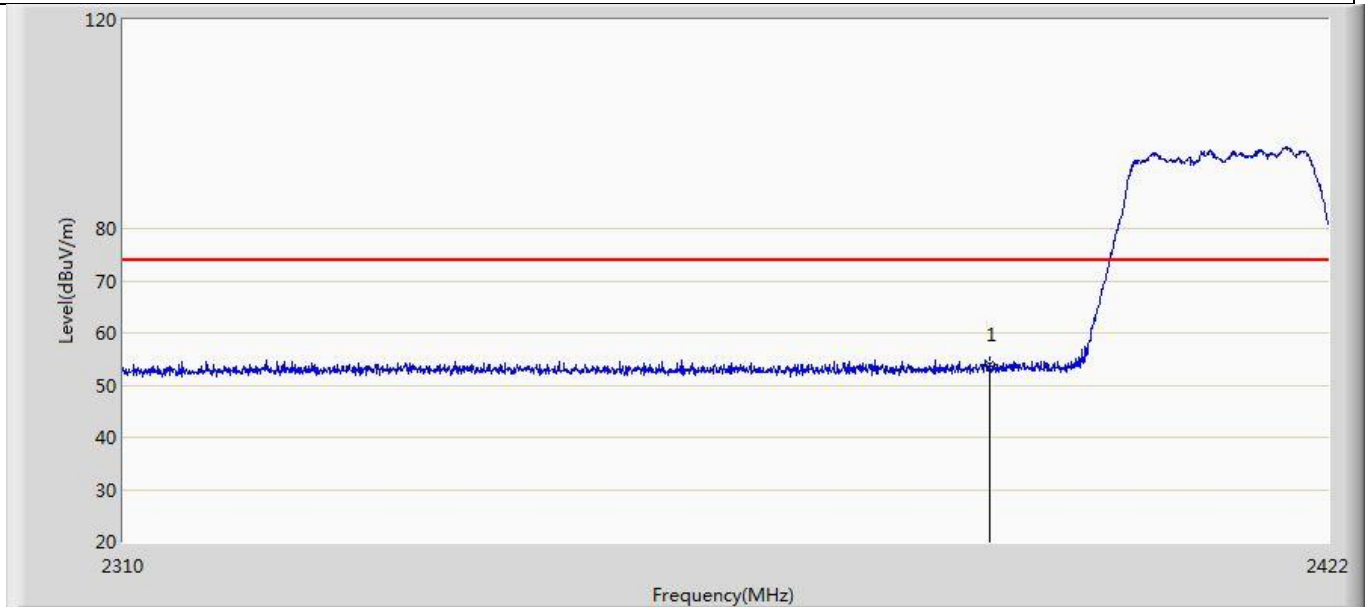
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	55.127	16.673	-18.873	74.000	38.453	PK

Profile: 21A0273R	Page No.: 21
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:13
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2462MHz by 11n(20MHz)	



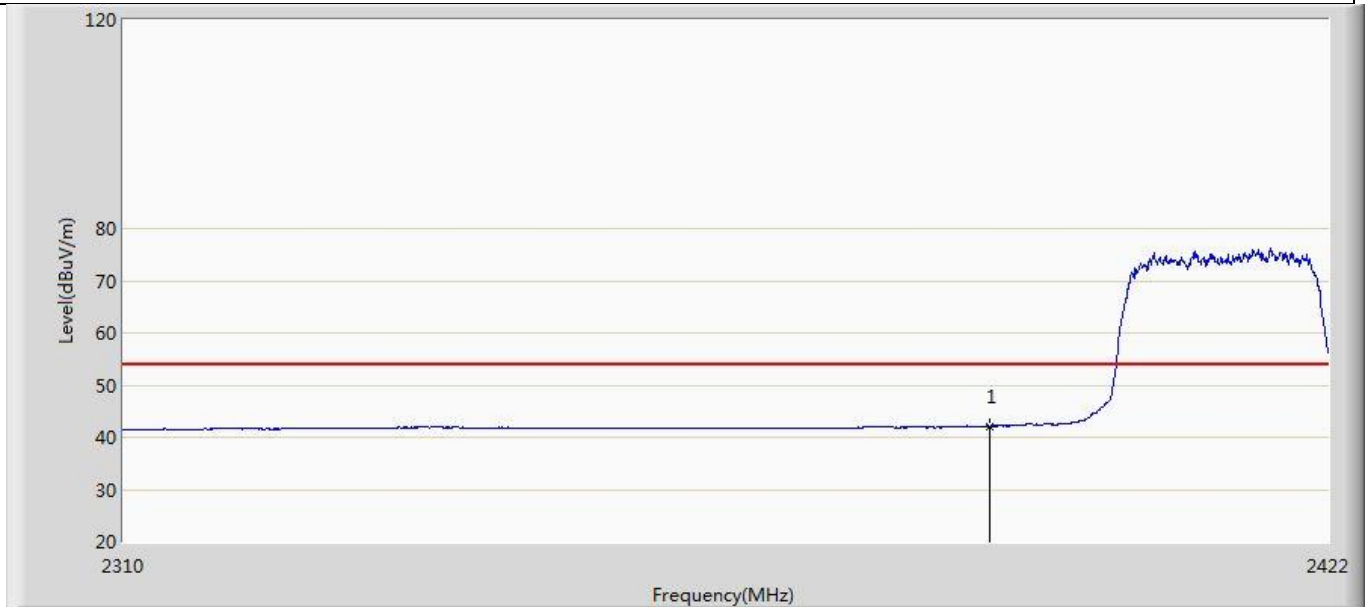
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	44.245	5.791	-9.755	54.000	38.453	AV

Profile: 21A0273R	Page No.: 20
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2402MHz by 11n(20MHz)	



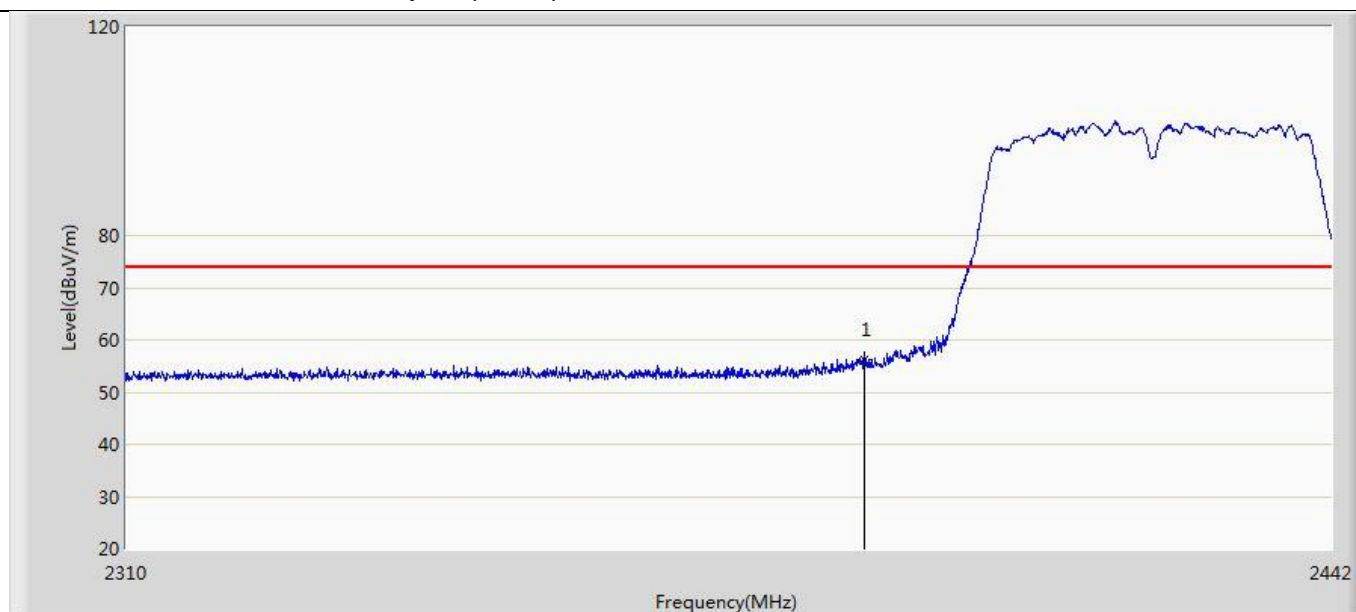
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	53.792	15.487	-20.208	74.000	38.305	PK

Profile: 21A0273R	Page No.: 19
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 3:Transmit at 2402MHz by 11n(20MHz)	



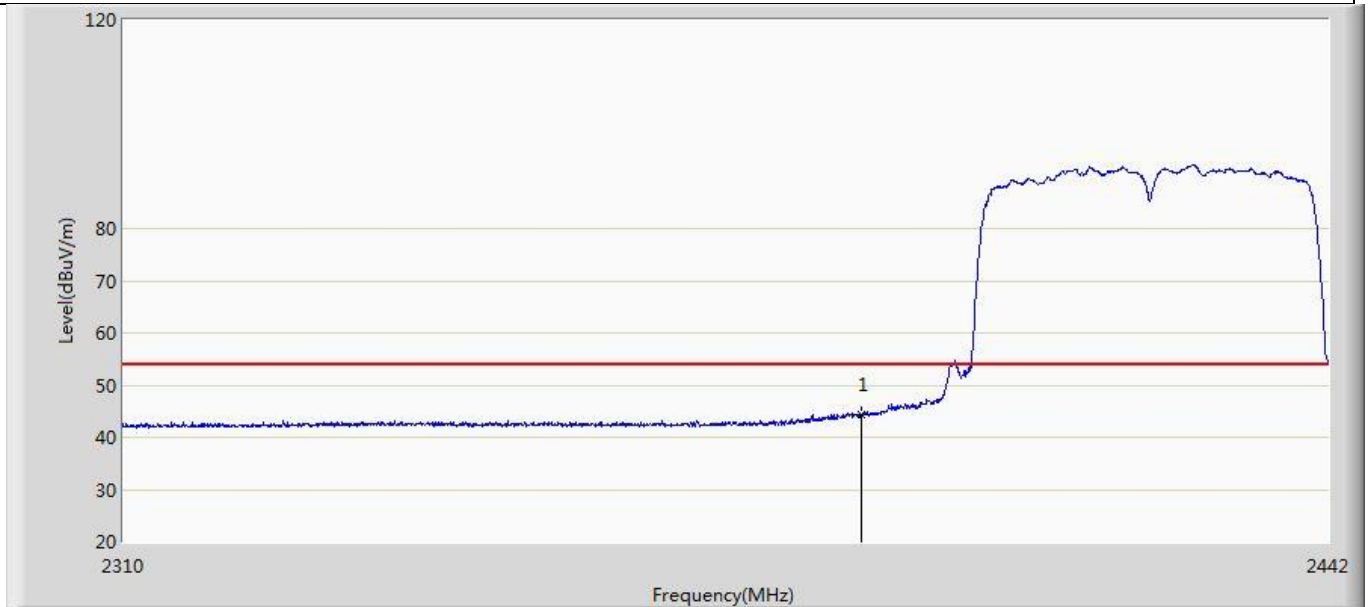
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.078	3.773	-11.922	54.000	38.305	AV

Profile: 21A0273R	Page No.: 26
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2422MHz by 11n(40MHz)	



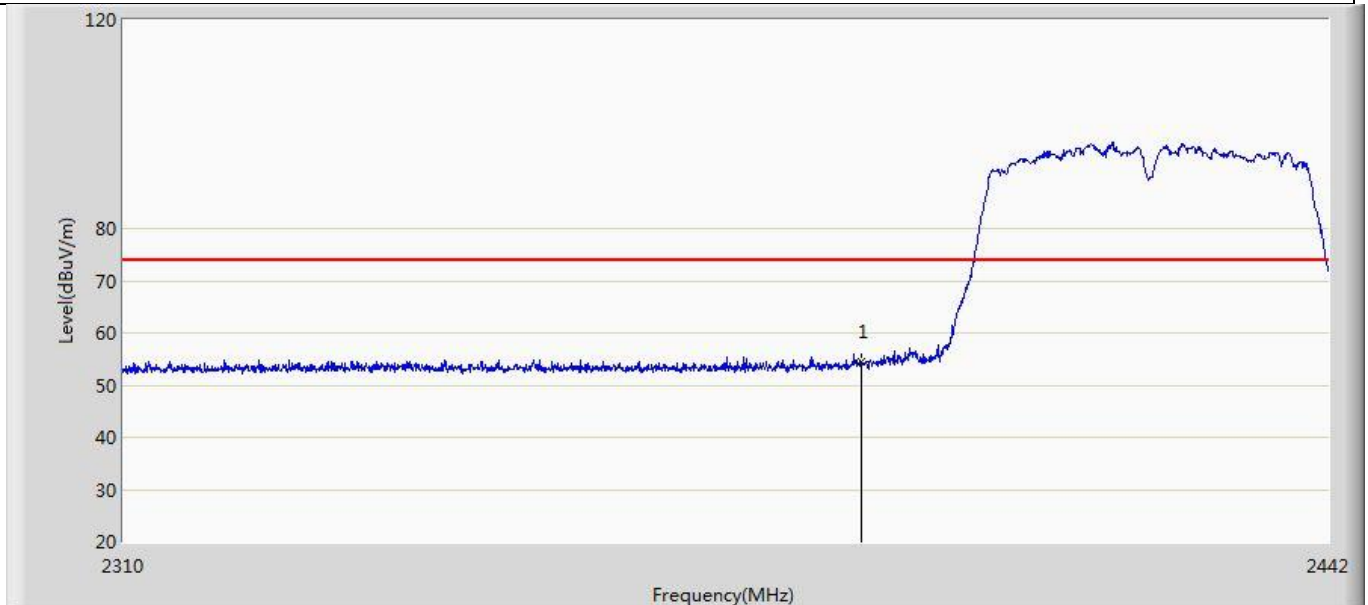
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	56.374	18.069	-17.626	74.000	38.305	PK

Profile: 21A0273R	Page No.: 25
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2422MHz by 11n(40MHz)	



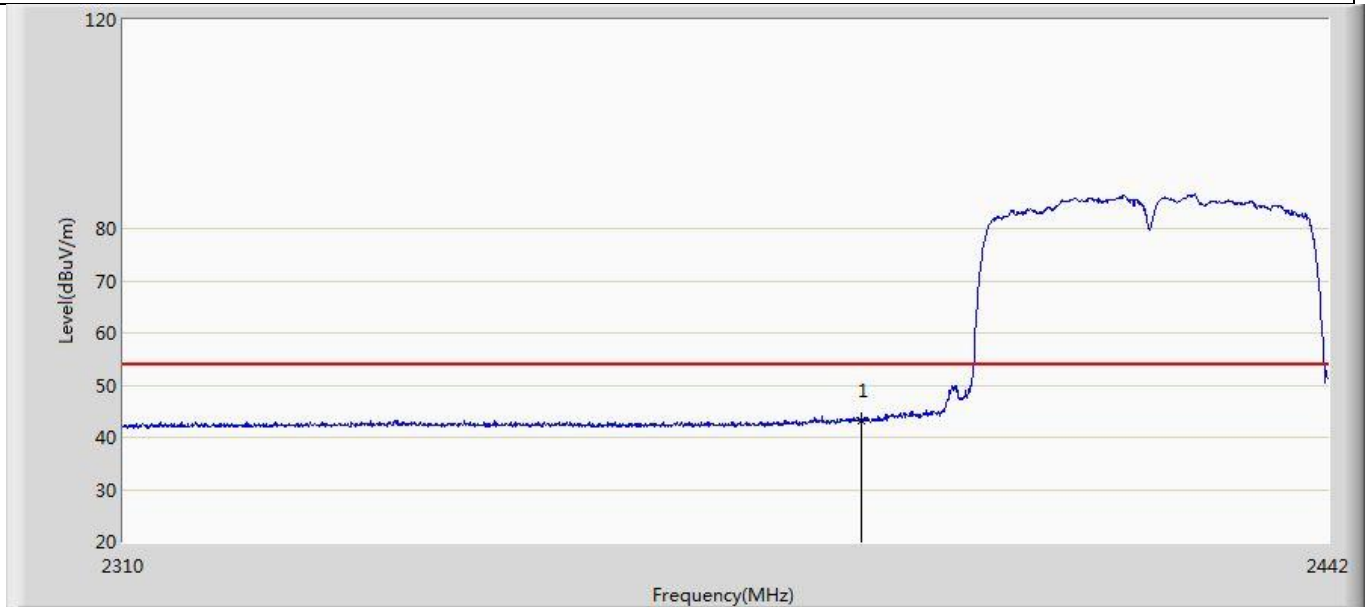
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	44.416	6.111	-9.584	54.000	38.305	AV

Profile: 21A0273R	Page No.: 28
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2422MHz by 11n(40MHz)	



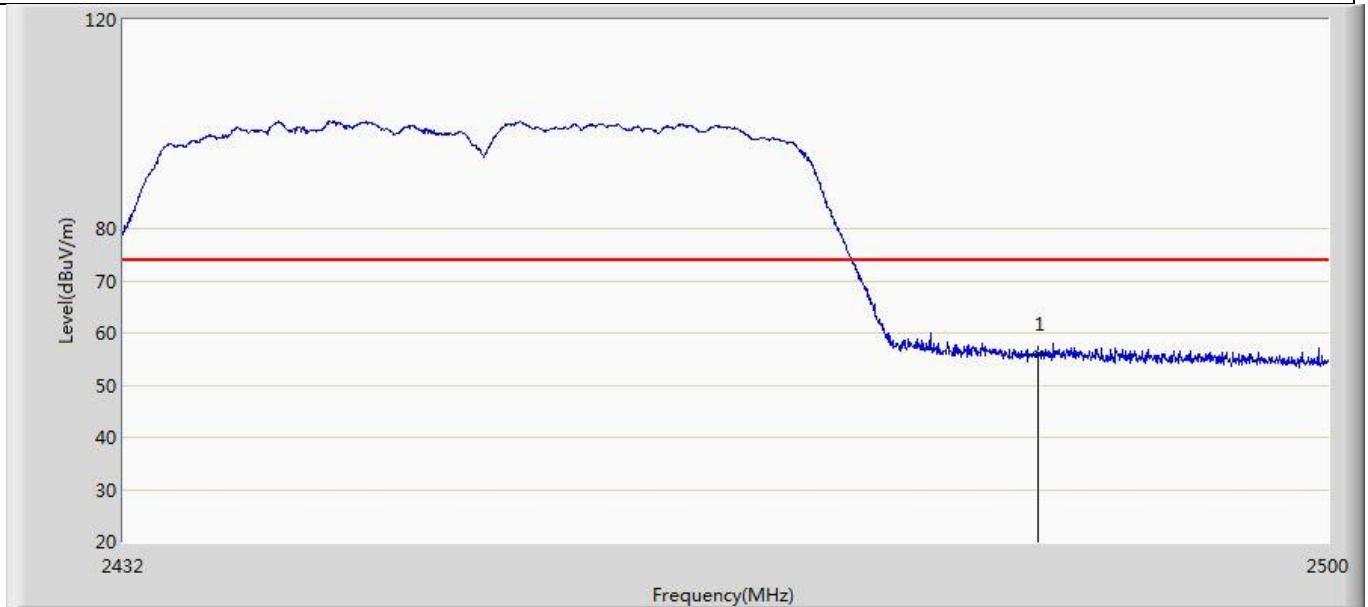
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	54.508	16.203	-19.492	74.000	38.305	PK

Profile: 21A0273R	Page No.: 27
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2422MHz by 11n(40MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	43.178	4.873	-10.822	54.000	38.305	AV

Profile: 21A0273R	Page No.: 30
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2452MHz by 11n(40MHz)	



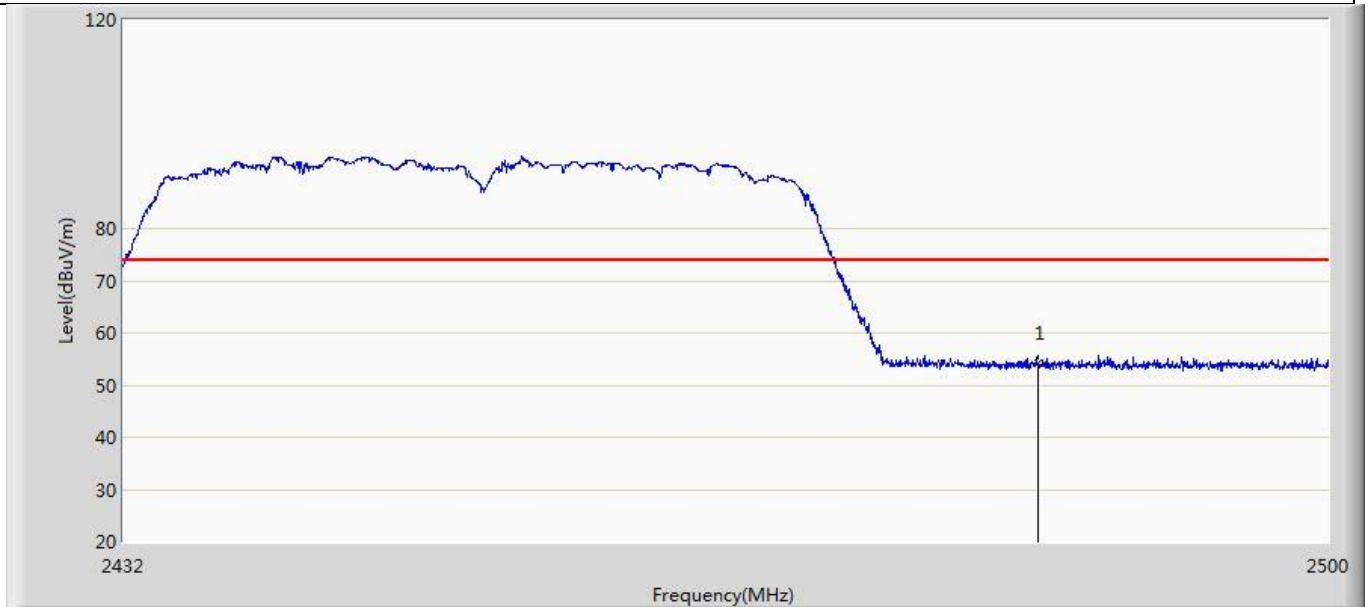
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	55.936	17.482	-18.064	74.000	38.453	PK

Profile: 21A0273R	Page No.: 29
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2452MHz by 11n(40MHz)	



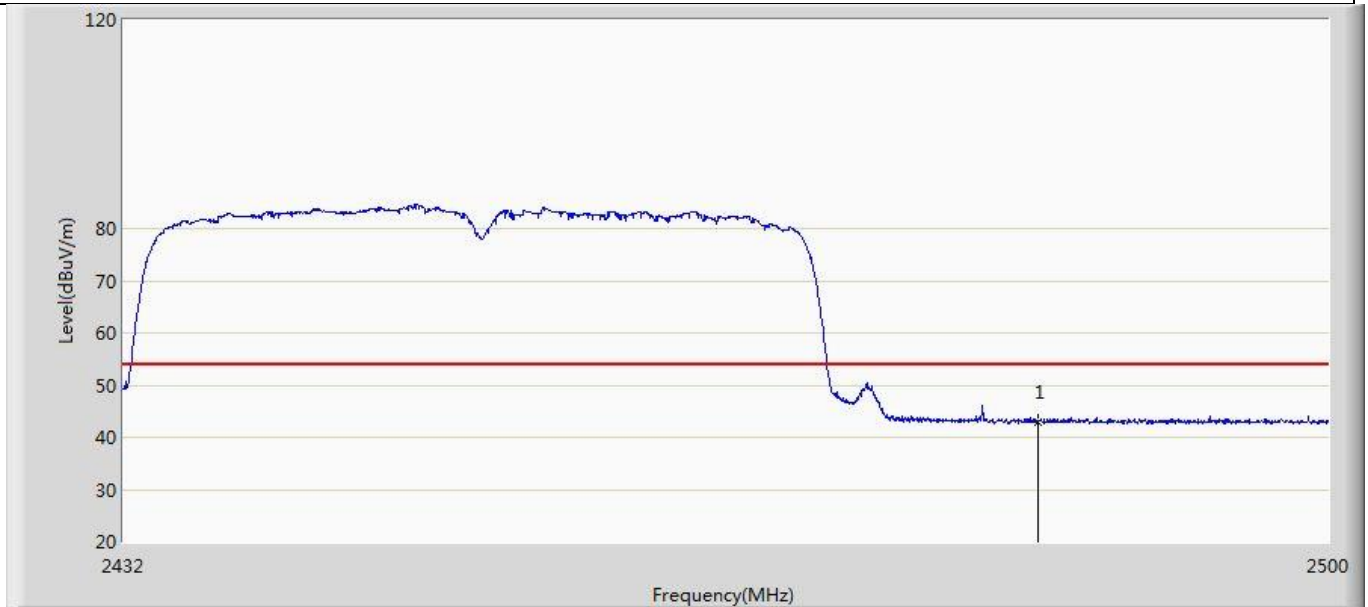
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	45.788	7.334	-8.212	54.000	38.453	AV

Profile: 21A0273R	Page No.: 32
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2452MHz by 11n(40MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	54.180	15.726	-19.820	74.000	38.453	PK

Profile: 21A0273R	Page No.: 31
Engineer: Carlos. Shen	
Site: AC5	Time: 2022/01/16 - 08:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: THERMAL MONOCULAR	Power: Battery 3.7V
Note: Mode 4:Transmit at 2452MHz by 11n(40MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	42.862	4.408	-11.138	54.000	38.453	AV

Note:

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

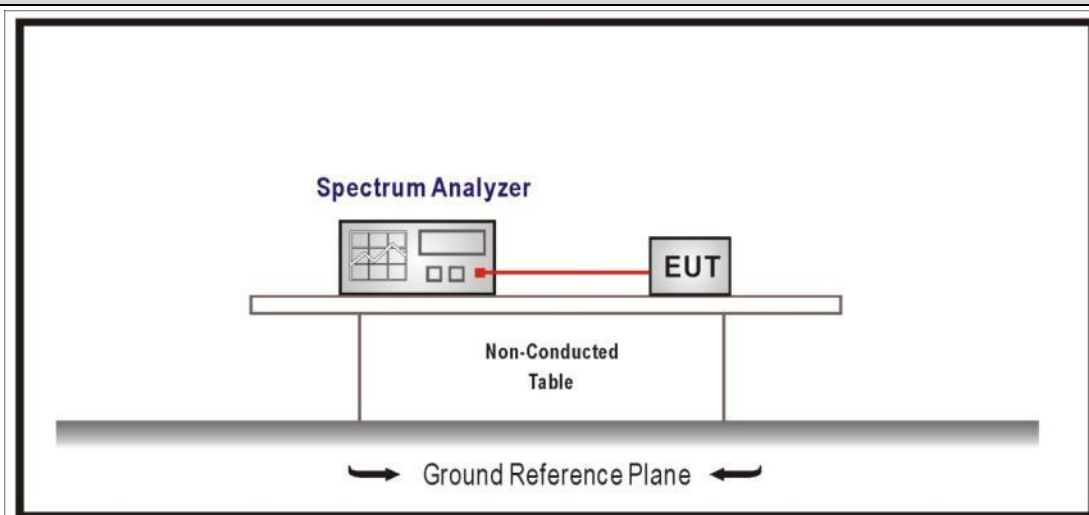
4.5 DTS Bandwidth**VERDICT: PASS****4.5.1 Limit**

Standard	FCC Part 15 Subpart C Paragraph 15.247 (a)(2)
-----------------	---

Systems using digital modulation techniques operate in the 2400-2483.5 MHz. The minimum 6 dB bandwidth shall be at least 500 kHz

Standard	ANSI C63.10 Paragraph 6.7
-----------------	---------------------------

The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs. The occupied bandwidth should be within the required frequency range.

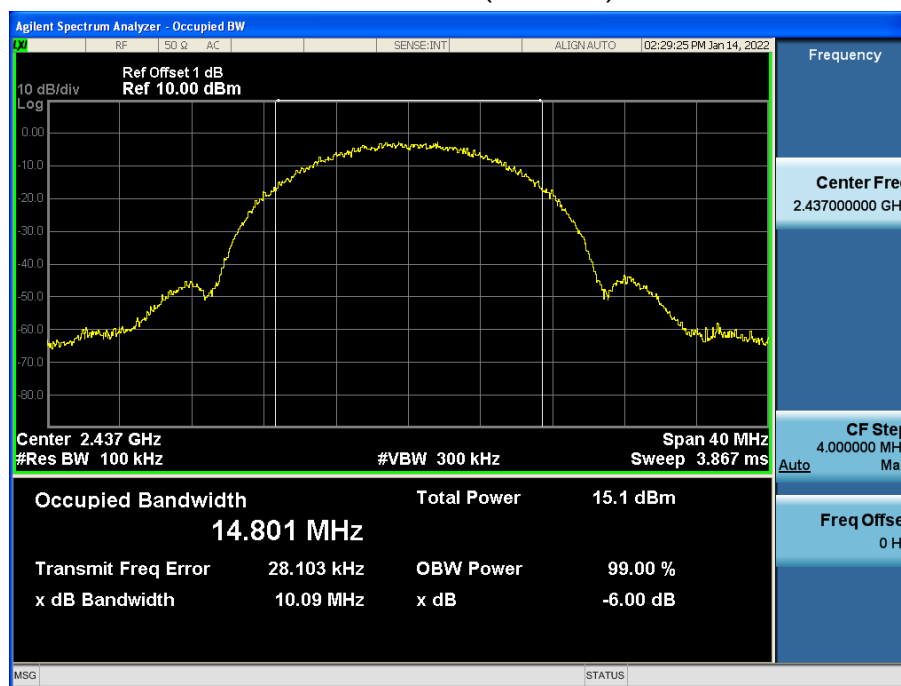
4.5.2 Test Setup**4.5.3 Test Procedure**

	Reference Rule	Chapter	Description
☒	ANSI C63.10	11.8	DTS bandwidth
	☐ ANSI C63.10	11.8.1	Option 1
	☒ ANSI C63.10	11.8.2	Option 2
☒	ANSI C63.10	6.9	Occupied bandwidth
	☐ ANSI C63.10	6.9.2	relative measurement procedure
	☒ ANSI C63.10	6.9.3	power bandwidth (99%) measurement procedure

4.5.4 Test Data

Mode	CH.	Test Freq. (MHz)	6dB Occupied Bandwidth (MHz)	Limit (kHz)	Result
1	1	2412	10.26	≥500	Pass
	6	2437	10.09	≥500	Pass
	11	2462	10.16	≥500	Pass
2	1	2412	16.45	≥500	Pass
	6	2437	16.48	≥500	Pass
	11	2462	16.44	≥500	Pass
3	1	2412	17.67	≥500	Pass
	6	2437	17.54	≥500	Pass
	11	2462	17.66	≥500	Pass
4	3	2422	35.22	≥500	Pass
	6	2437	35.49	≥500	Pass
	9	2452	35.22	≥500	Pass

Note: The worst case of Occupied Bandwidth as below:

6dB Occupied Bandwidth**Mode 1 CH06 (2437MHz)**

4.6 Fundamental emission output power

VERDICT: PASS

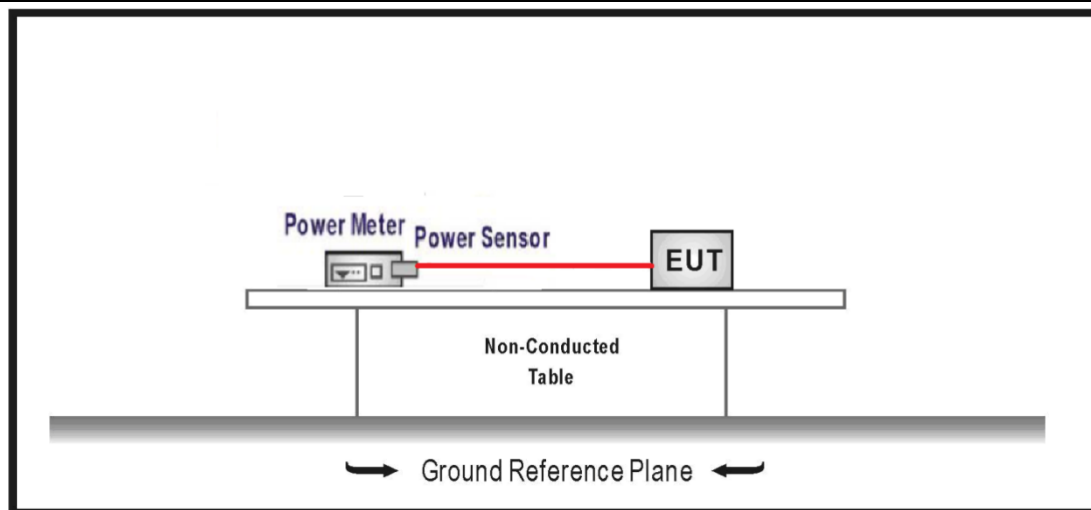
4.6.1 Limit

Standard		FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
☒	GTX <6dBi	Pout≤30dBm
☐	GTX >6dBi	
☐	Non-Fix point-point	Pout≤30-(GTX -6)
☐	Fix point-point	Pout≤30-[(GTX-6)]/3
☐	Point-to-multipoint	Pout≤30-(GTX-6)
☐	Overlap Beams	Pout≤30-[(GTX-6)]/3
☐	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3
☐	single directional beam	Pout≤30-[(GTX-6)]/3+8dB

Note 1 : GTX directional gain of transmitting antennas.

Note 2 : Pout is maximum peak conducted output power .

4.6.2 Test Setup



4.6.3 Test Procedure

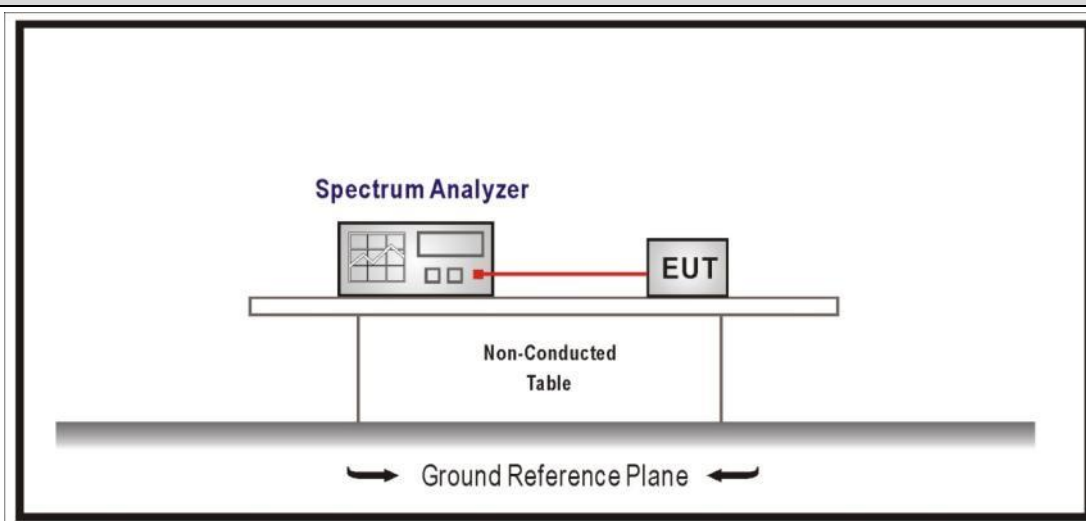
	References Rule		Chapter	Description
☒	ANSI C63.10		11.9	Fundamental emission output power
	☒	ANSI C63.10	11.9.1	Maximum peak conducted output power
	☐	ANSI C63.10	11.9.1.1	RBW $\geq$ DTS bandwidth
		ANSI C63.10	11.9.1.2	Integrated band power method
		☒ ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method
	☐	ANSI C63.10	11.9.2	Maximum conducted (average) output power
	☐	☐ ANSI C63.10	11.9.2.2	Measurement using a spectrum analyzer (SA)
		☐ ANSI C63.10	11.9.2.2.2	Method AVGSA-1(Duty cycle $\geq$ 98%)
		☐ ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle $\geq$ 98%)
		☐ ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle $\leq$ 98%)
		☐ ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle $\leq$ 98%)
		☐ ANSI C63.10	11.9.2.2.4	Method AVGSA-3
		☐ ANSI C63.10	11.9.2.2.5	Method AVGSA-3A
		☐ ANSI C63.10	11.9.2.3	Measurement using a power meter (PM)
		☐ ANSI C63.10	11.9.2.3.1	Method AVGPM
		☐ ANSI C63.10	11.9.2.3.2	Method AVGPM-G

4.6.4 Test Data

Mode	Channel	Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power Limit (dBm)	Result
Mode 1	1	2412	8.12	≤ 30	Pass
	6	2437	7.93	≤ 30	Pass
	11	2462	8.06	≤ 30	Pass
Mode 2	1	2412	8.36	≤ 30	Pass
	6	2437	8.39	≤ 30	Pass
	11	2462	8.31	≤ 30	Pass
Mode 3	1	2412	8.19	≤ 30	Pass
	6	2437	8.05	≤ 30	Pass
	11	2462	8.63	≤ 30	Pass
Mode 4	3	2422	8.42	≤ 30	Pass
	6	2437	8.49	≤ 30	Pass
	9	2452	8.39	≤ 30	Pass

4.7 Power Density**VERDICT: PASS****4.7.1 Limit:****Standard**

FCC Part 15 Subpart C Paragraph 15.247 (e)

Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$ **4.7.2 Test Setup****4.7.3 Test Procedure**

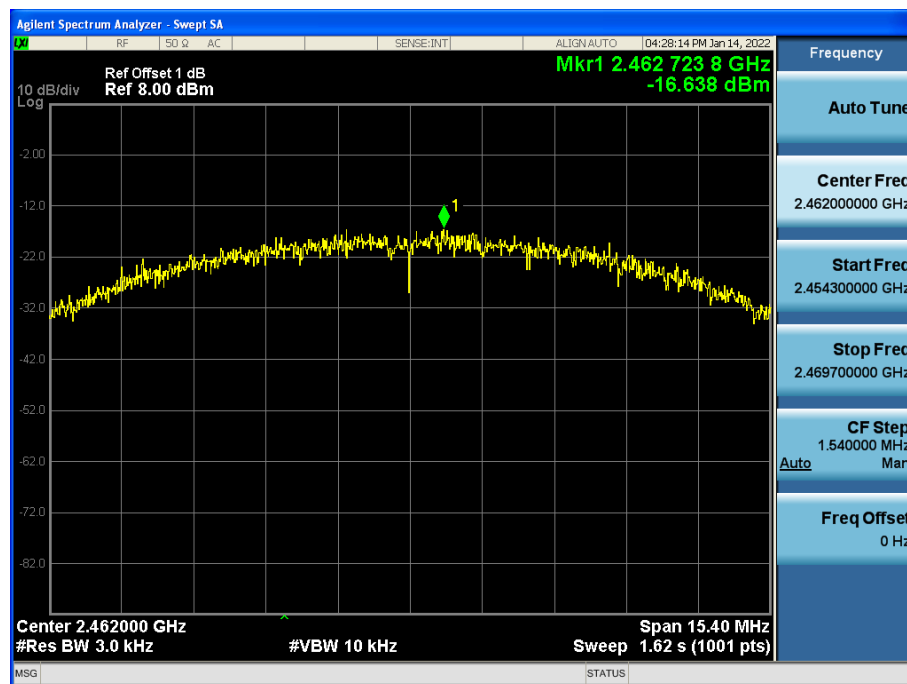
	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
	☒	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	☐	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle $\geq 98\%$)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq 98\%$)
	☐	ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle $< 98\%$)
	☐	ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle $< 98\%$)
	☐	ANSI C63.10	11.10.7	Method AVGPSD-3
	☐	ANSI C63.10	11.10.8	Method AVGPSD-3A

4.7.4 Test Data

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	1	2412	-17.692	≤ 8	Pass
	6	2437	-16.804	≤ 8	Pass
	11	2462	-16.638	≤ 8	Pass
2	1	2412	-17.492	≤ 8	Pass
	6	2437	-17.484	≤ 8	Pass
	11	2462	-17.567	≤ 8	Pass
3	1	2412	-16.847	≤ 8	Pass
	6	2437	-16.958	≤ 8	Pass
	11	2462	-16.849	≤ 8	Pass
4	3	2422	-17.007	≤ 8	Pass
	6	2437	-17.901	≤ 8	Pass
	9	2452	-17.652	≤ 8	Pass

Note: The worst case of PSD as below:

Mode 1 / CH11 / 2462MHz



4.8 Antenna Requirement**VERDICT: PASS****4.8.1 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.	

4.8.2 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 _____