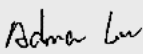




Test report No:
2190372R-RF-US-P06V02

FCC TEST REPORT

Product Name	M8 DeskPhone
Trademark	Alcatel-Lucent Enterprise
Model and /or type reference	M8
FCC ID	OL3M8
Applicant's name / address	ALE International 32, Avenue Kléber – 92700 Colombes – FRANCE
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 KDB558074 D01 15.247 Meas Guidance v05r02
Verdict Summary	IN COMPLIANCE
Tested by (name / position & signature)	Adma Lu/Project Engineer 
Approved by (name / position & signature)	Jack Zhang/Supervisor 
Date of issue	2022-03-08
Report Version	V1.2
Report template No	Template_FCC 15.247-RF-V1.0

INDEX

	page
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 Channel List.....	12
2 Description of Test Setup.....	13
2.1 Operating mode(s) used for tests	13
2.2 Auxiliary equipment / Test software for the EUT	13
2.3 Test Configuration / Block diagram used for tests.....	14
2.4 Testing process	15
3 Verdict summary section.....	16
3.1 Standards	16
3.2 Deviation(s) from the Standard(s) / Test Specification(s).....	16
3.3 Overview of results	17
3.4 Test Facility.....	18
4 Test Results	19
4.1 AC Power Line Conducted Emission.....	19
4.1.1 Limit	19
4.1.2 Test Setup	19
4.1.3 Test Procedure	19
4.1.4 Test Data	20
4.2 Emissions in restricted frequency bands	22
4.2.1 Limit	22
4.2.2 Test Setup	24
4.2.3 Test Procedure	25
4.2.4 Test Data	26
4.3 Emissions in non-restricted frequency band	42

4.3.1	Limit	42
4.3.2	Test Setup	42
4.3.3	Test Procedure	42
4.3.4	Test Data	43
4.4	Duty cycle	45
4.4.1	Limit	45
4.4.2	Test Setup	45
4.4.3	Test Procedure	45
4.4.4	Test Data	46
4.5	Band Edge	47
4.5.1	Limit	47
4.5.2	Test Setup	47
4.5.3	Test Procedure	47
4.5.4	Test Data	48
4.6	DTS Bandwidth	64
4.6.1	Limit	64
4.6.2	Test Setup	64
4.6.3	Test Procedure	64
4.6.4	Test Data	65
4.7	Fundamental emission output power	66
4.7.1	Limit	66
4.7.2	Test Setup	66
4.7.3	Test Procedure	67
4.7.4	Test Data	68
4.8	Power Density	69
4.8.1	Limit:	69
4.8.2	Test Setup	69
4.8.3	Test Procedure	69
4.8.4	Test Data	70
4.9	Antenna Requirement	71
4.9.1	Limit:	71
4.9.2	Antenna Connector Construction:	71
5	Test setup photo and EUT Photo	72

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 Park Suzhou, 215006, P.R. China
Date(receive sample)	Sep. 13, 2021
Date (start test)	Sep. 25, 2021
Date (finish test)	Feb. 22, 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
T_x	: Transmitter
R_x	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2190372R-RF-US-P06V02	V1.0	Initial issue of report.	2022-03-01
2190372R-RF-US-P06V02	V1.1	Page7 Updated device list information.	2022-03-07
2190372R-RF-US-P06V02	V1.2	Page21 Modified Note for AC Power Line Conducted Emission Test Data.	2022-03-08

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 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	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/Band Edge/ 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
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2021.07.11	2022.07.10
4TX MIMO Power Sensor	Keysight	X8750A	MY59400102	2022.02.09	2023.02.08
Coaxial Cable	Woken	SFL402	F02-150410-044	2021.12.30	2022.12.29
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2021.07.09	2022.07.08

Radiated Emission(30MHz-1GHz) / AC3

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	2022.03.02	2023.03.01
Bilog Antenna	Teseq GmbH	CBL6112D	27613	2021.08.23	2022.08.22
Coaxial Cable	Huber+Suhner	RG 214	AC3-C	2021.03.31	2022.03.30
Temperature/Humidity Meter	RTS	RTS-8S	AC3-TH	2021.07.09	2022.07.08
Dekra test software	Dekra	-	-	-	-

Radiated Emission(1GHz-40GHz) / AC5

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	2021.04.16	2022.04.15
Preamplifier	EMCI	EMC184045SE	980263	2021.05.22	2022.05.21
DRG Horn Antenna	ETS-Lindgren	3117	00167055	2021.08.23	2022.08.22
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2021.04.14	2023.04.13
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
High-Pass Filter	Wainwright	WHKX3.0/18G- 12SS	AC5&AC6	2021.06.08	2022.06.07
Temperature/Humidity Meter	RTS	RTS-8S	AC5-TH	2021.07.09	2022.07.08
Dekra test software	Dekra	-	-	-	-

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%. The Uncertainties is comply with standard required as below.

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	M8 DeskPhone
Model No.	M8
FCC ID	OL3M8
Manufacturer	ALE International
Manufacturer Address.....	32, Avenue Kléber – 92700 Colombes – FRANCE

Wireless specification.....	Bluetooth 5.0				
Operating frequency range(s)	2400~2483.5MHz				
Type of Modulation.....	GFSK				
PHYs	☒	LE 1M	☒	LE 2M	☐ LE Coded S=2/8
Data Rate	☒	1Mbit/s	☒	2Mbit/s	☐ 500/125 Kbit/s
Number of channel	40				

Rated power supply	Voltage and Frequency	
	☐	AC: 220 – 240 V, 50/60 Hz
	☐	AC: 110 – 130 Vac, 50/60 Hz
	☒	48 Volt via POE
	☒	Adapter: Input: 100-240V,50/60H, 0.3A Output:5V,2A ,10W
Mounting position	☒	Table top equipment
	☐	Wall/Ceiling mounted equipment
	☐	Floor standing equipment
	☐	Head-mounted equipment
	☐	Other: Watch

1.2 Antenna Information

Antenna model / type number	N/A		
Antenna serial number	N/A		
Antenna Delivery	☒	1TX + 1RX	
	☐	2TX + 2RX	
	☐	Others:.....	
Antenna technology	☒	SISO	
	☐	MIMO	☐ CDD
	☐ Beam-forming		
Antenna Type	☐	External	☐ Dipole
	☐		☐ Sectorized
	☒	Internal	☐ PIFA
	☐		☒ PCB
	☐		☐ Dipole
	☐		☐ Others.....
Antenna Gain	2.61dBi		

1.3 Channel List

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

Note: The general description of the Item(s), antenna information 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 For Bluetooth	Mode1: Transmit by LE_1Mbps
	Mode1: Transmit by LE_2Mbps

2.2 Accessories Information

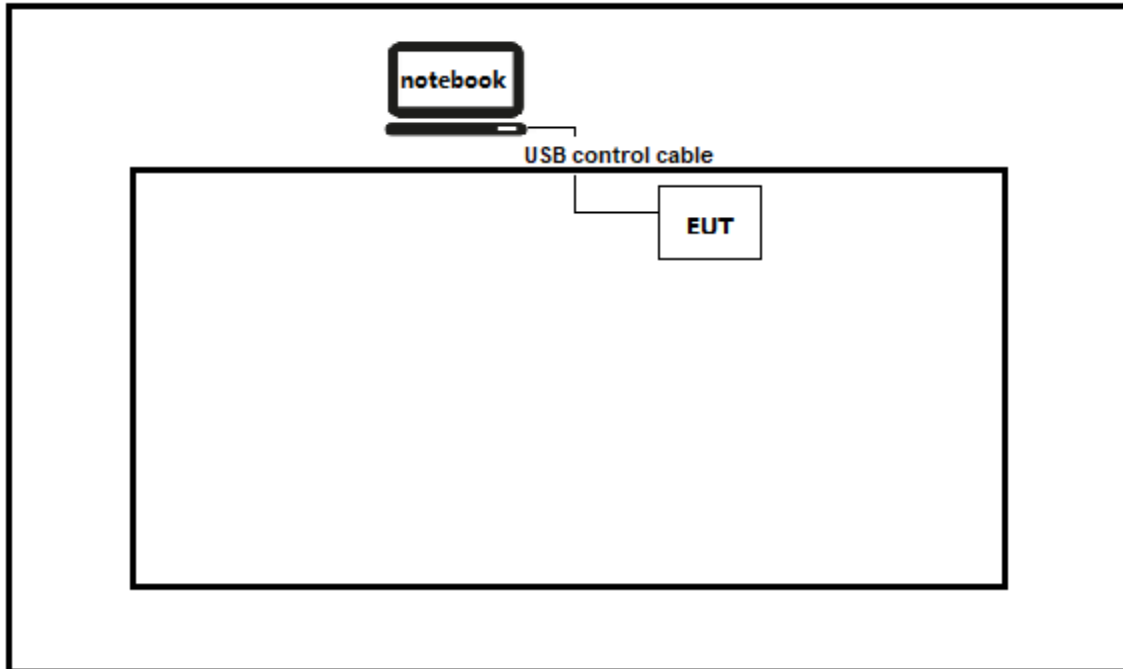
Accessories Information	Brand/model name	Cable		
		Length used during test [m]	Attached during test	Shielded
LAN Cable	N/A	10	☒	☒
LAN Cable	N/A	0.5	☒	☒

2.3 Auxiliary equipment / Test software for the EUT

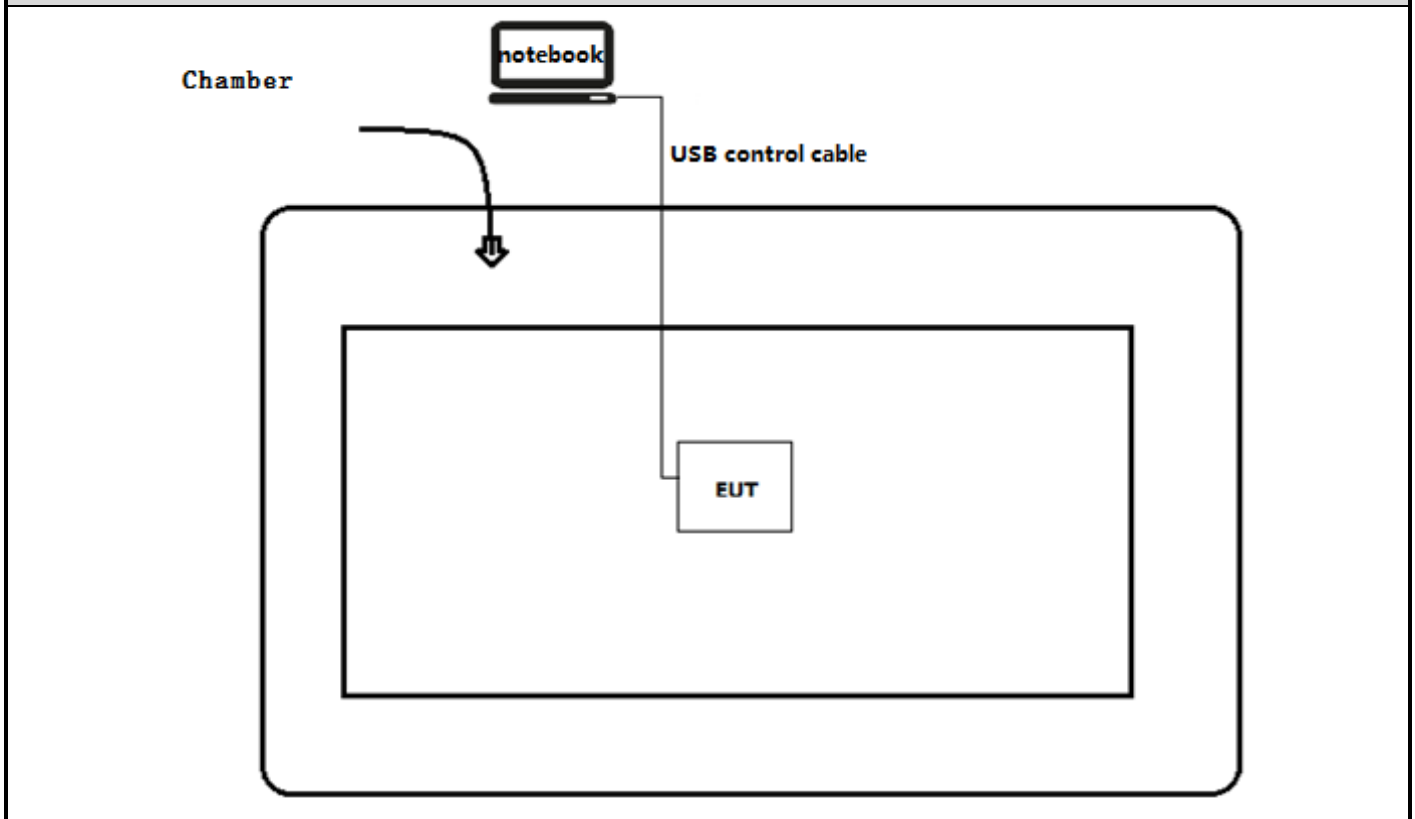
Auxiliary equipment	Type / Version	Manufacturer	Supplied by
Notebook	2526	Think Pad	N/A
Software	Type / Version	Manufacturer	Supplied by
MobaXterm	N/A	N/A	N/A

2.4 Test Configuration / Block diagram used for tests

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



2.5 Testing process

1	Setup the EUT as shown in Section 2.4.
2	Run the software “MobaXterm” on the notebook computer.
3	Open the serial port and enter the corresponding commands to configure the test mode, test channel, test power and 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
KDB558074 D01 v05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247
RSS-Gen Issue 5 Amendment 2	2021	General Requirements for Compliance of Radio Apparatus
RSS-247 Issue 2	2017	Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

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

For FCC

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(b)(3)	PASS	---
Duty cycle	ANSI C63.10:2013	PASS	---
Emissions in non-restricted frequency bands	FCC 15.247(d), FCC 15.209	PASS	---
Band Edge	FCC 15.247(d)	PASS	---
Fundamental emission output power	FCC 15.247(d), FCC 15.209	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: PASS

4.1.1 Limit

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

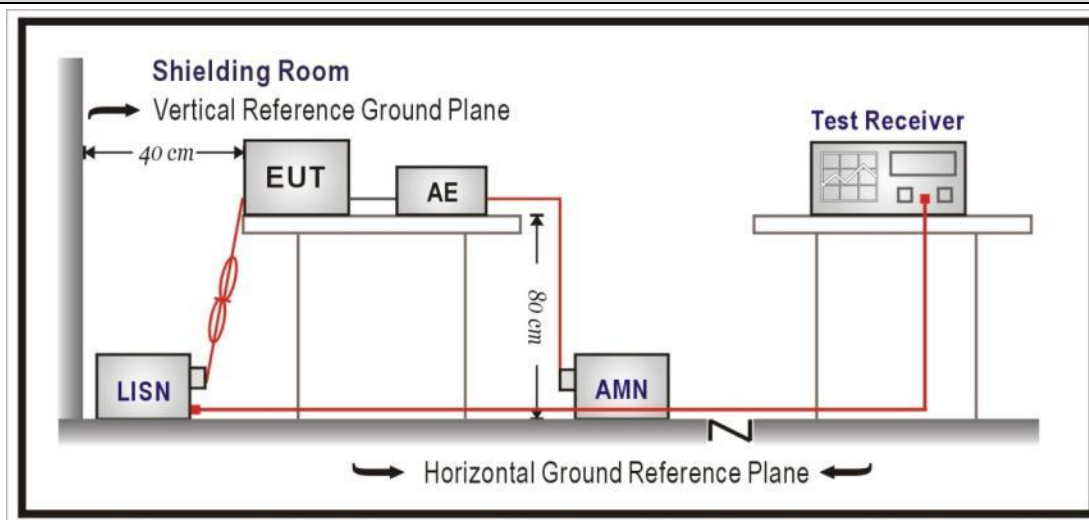
¹⁾ At the transition frequency, the lower limit applies.

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

NOTE 1: The exclusion band for transmitters shall be considered for transmitters operating at frequencies below 30 MHz.

NOTE 2: Where the AC output port is directly connected (or via a circuit breaker) to the AC power input port of the EUT the AC power output port need not to be tested.

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

Profile:2190372R

Page No.: 19

Engineer: Tim Cao

Site: TR1

Time: 2021/12/15 - 00:05

Limit: FCC_Part15.107_CE_AC Power

Margin: 0

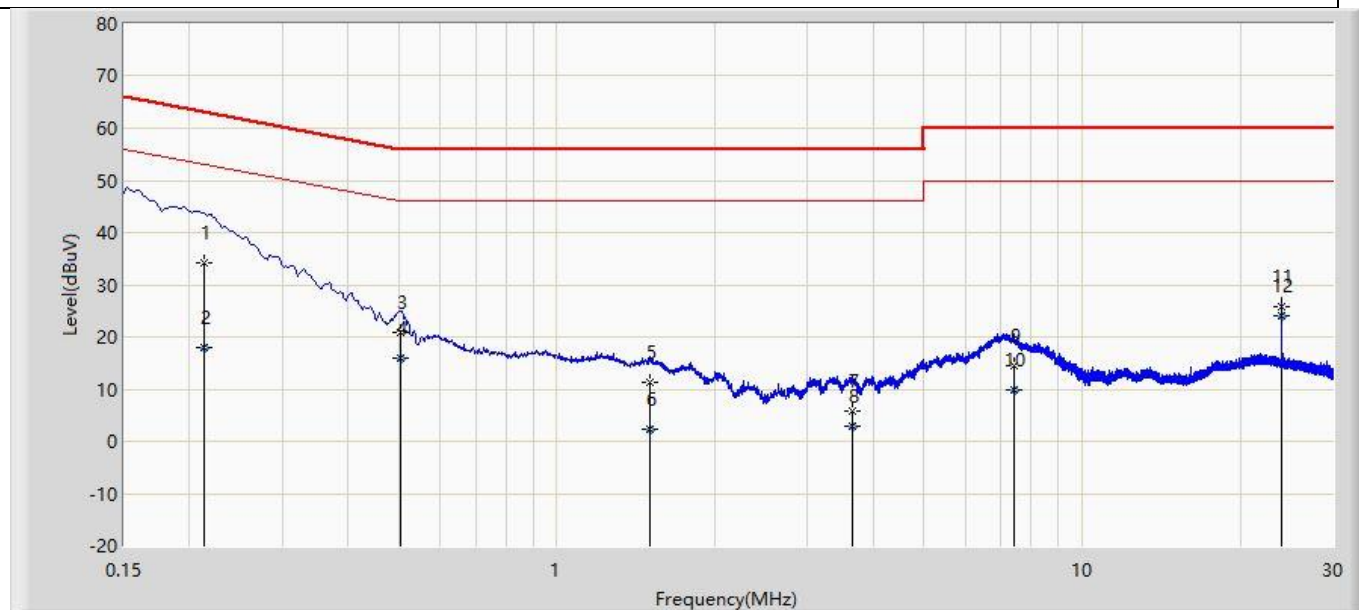
Probe: ENV216_101190(0.009-30MHz)

Polarity: Line

EUT: M8 DESKPHONE

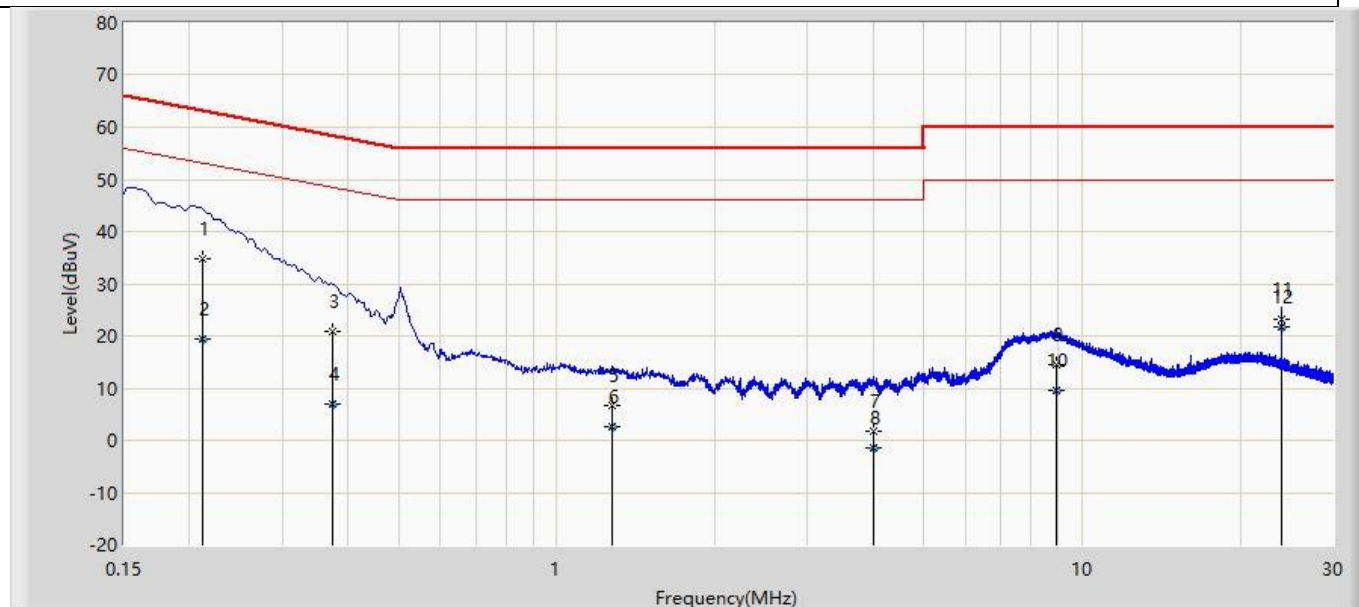
Power: AC 120V/60Hz

Note: Mode: 1



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.213	34.091	24.396	-28.997	63.088	9.695	QP
2		0.213	17.838	8.144	-35.249	53.088	9.695	AV
3		0.505	20.976	11.143	-35.024	56.000	9.833	QP
4		0.505	15.987	6.154	-30.013	46.000	9.833	AV
5		1.502	11.166	1.163	-44.834	56.000	10.003	QP
6		1.502	2.402	-7.601	-43.598	46.000	10.003	AV
7		3.640	5.745	-4.355	-50.255	56.000	10.099	QP
8		3.640	2.769	-7.330	-43.231	46.000	10.099	AV
9		7.406	14.459	4.212	-45.541	60.000	10.247	QP
10		7.406	9.849	-0.398	-40.151	50.000	10.247	AV
11		24.000	25.699	15.036	-34.301	60.000	10.663	QP
12	*	24.000	23.992	13.329	-26.008	50.000	10.663	AV

Profile: 2190372R	Page No.: 20
Engineer: Tim Cao	
Site: TR1	Time: 2021/12/15 - 00:07
Limit: FCC_Part15.107_CE_AC Power	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode: 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.211	34.805	25.112	-28.370	63.176	9.694	QP
2		0.211	19.287	9.594	-33.889	53.176	9.694	AV
3		0.373	20.861	11.089	-37.579	58.439	9.772	QP
4		0.373	6.916	-2.856	-41.523	48.439	9.772	AV
5		1.273	6.770	-3.217	-49.230	56.000	9.987	QP
6		1.273	2.604	-7.383	-43.396	46.000	9.987	AV
7		4.000	1.686	-8.426	-54.314	56.000	10.112	QP
8		4.000	-1.492	-11.604	-47.492	46.000	10.112	AV
9		8.938	14.486	4.178	-45.514	60.000	10.308	QP
10		8.938	9.541	-0.767	-40.459	50.000	10.308	AV
11		24.000	23.300	12.637	-36.700	60.000	10.663	QP
12	*	24.000	21.830	11.167	-28.170	50.000	10.663	AV

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

Standard	FCC Part 15 Subpart C Paragraph 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	
13.36 – 13.41			

Restricted Band Emissions Limit

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	Field strength (dB $\mu\text{V/m}$)	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)

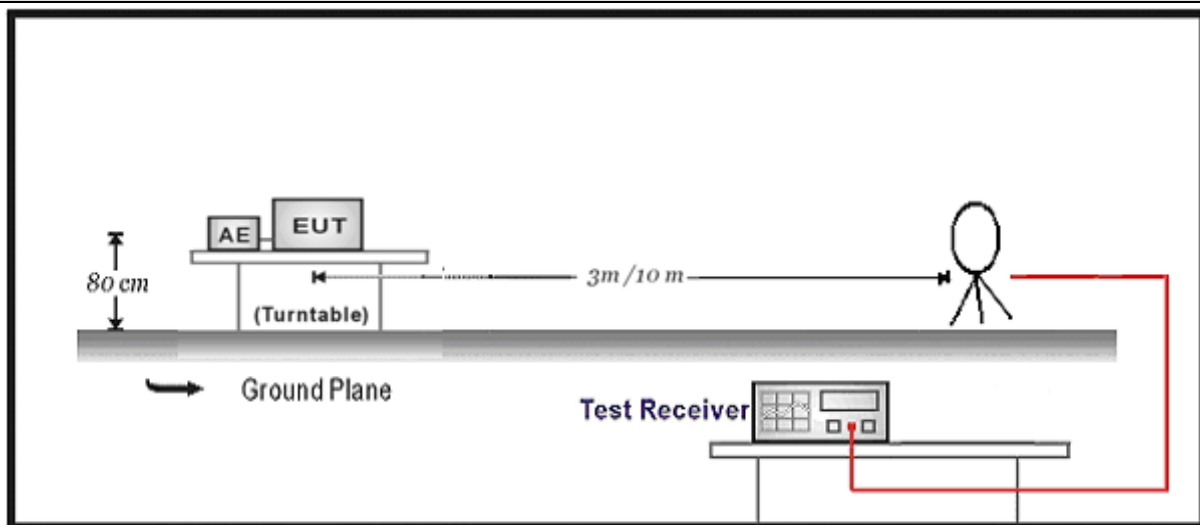
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed 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.

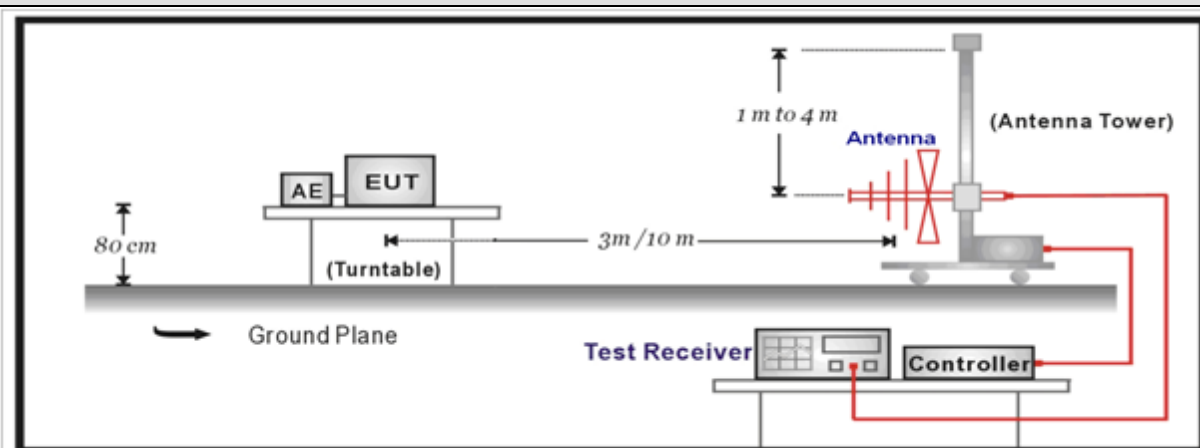
Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified 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

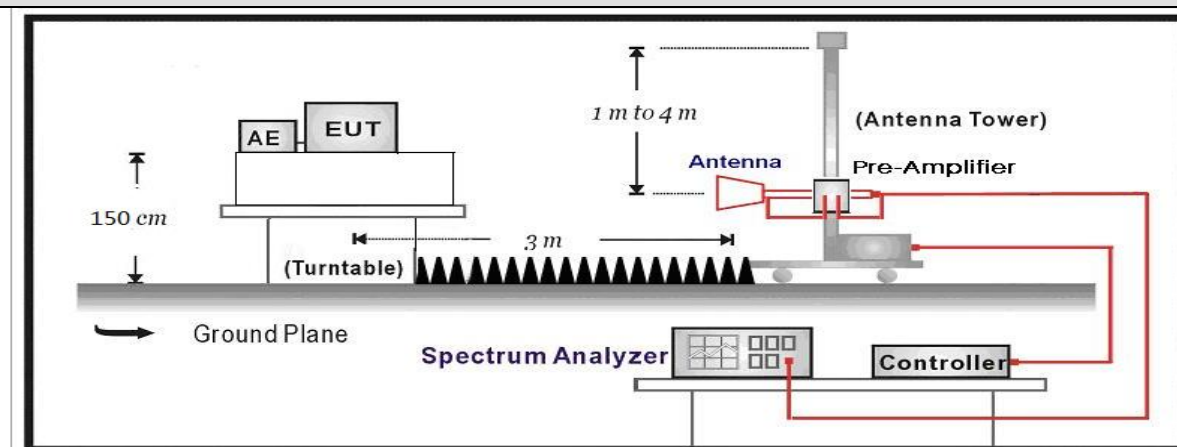
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:

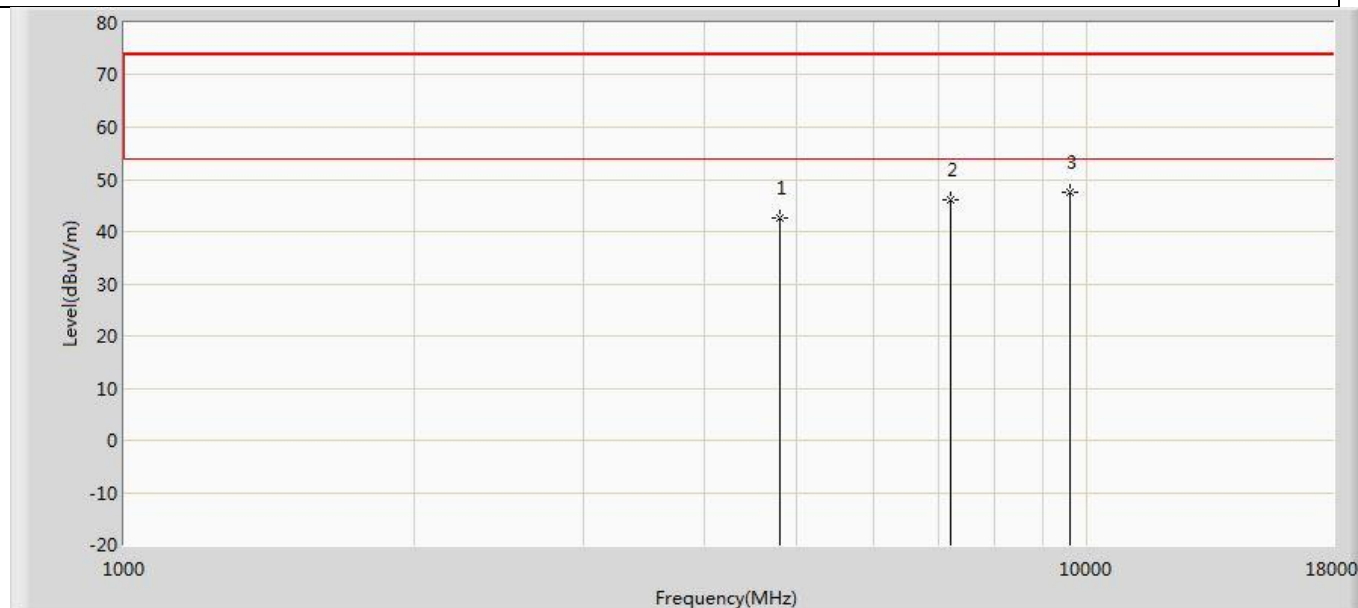


4.2.3 Test Procedure

	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	11.12.2.7	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

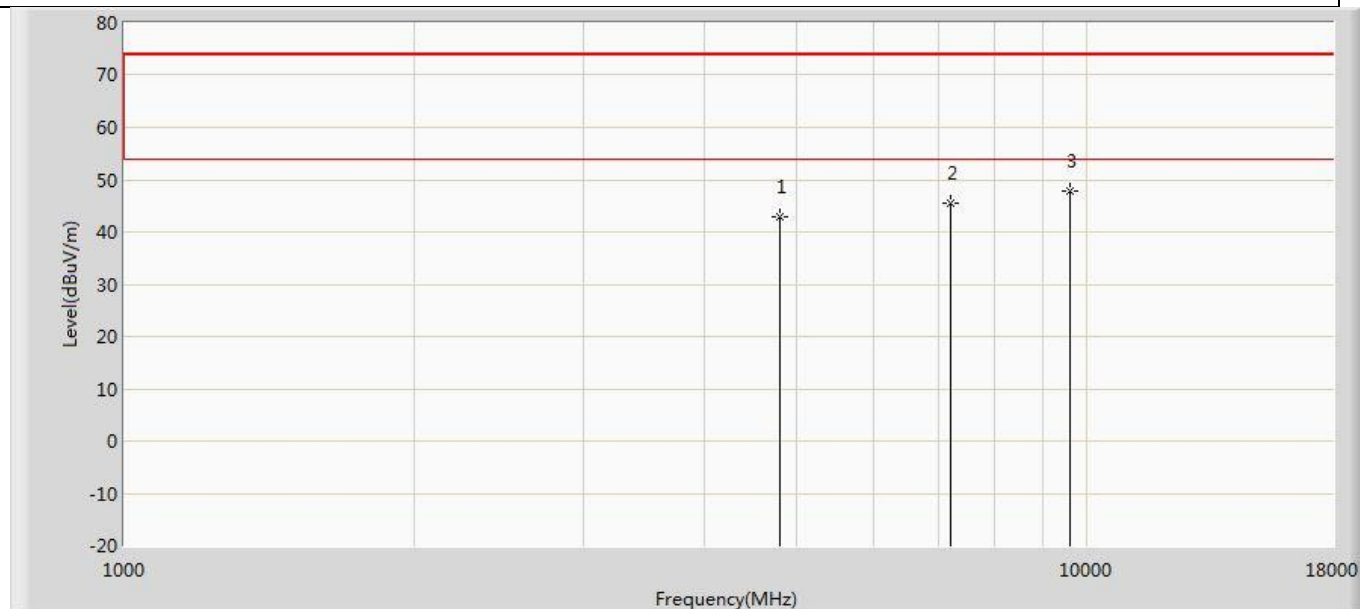
4.2.4 Test Data

Profile: 2190372R	Page No.: 43
Engineer: Carlos shen	
Site: AC5	Time: 2021/12/17 - 04:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



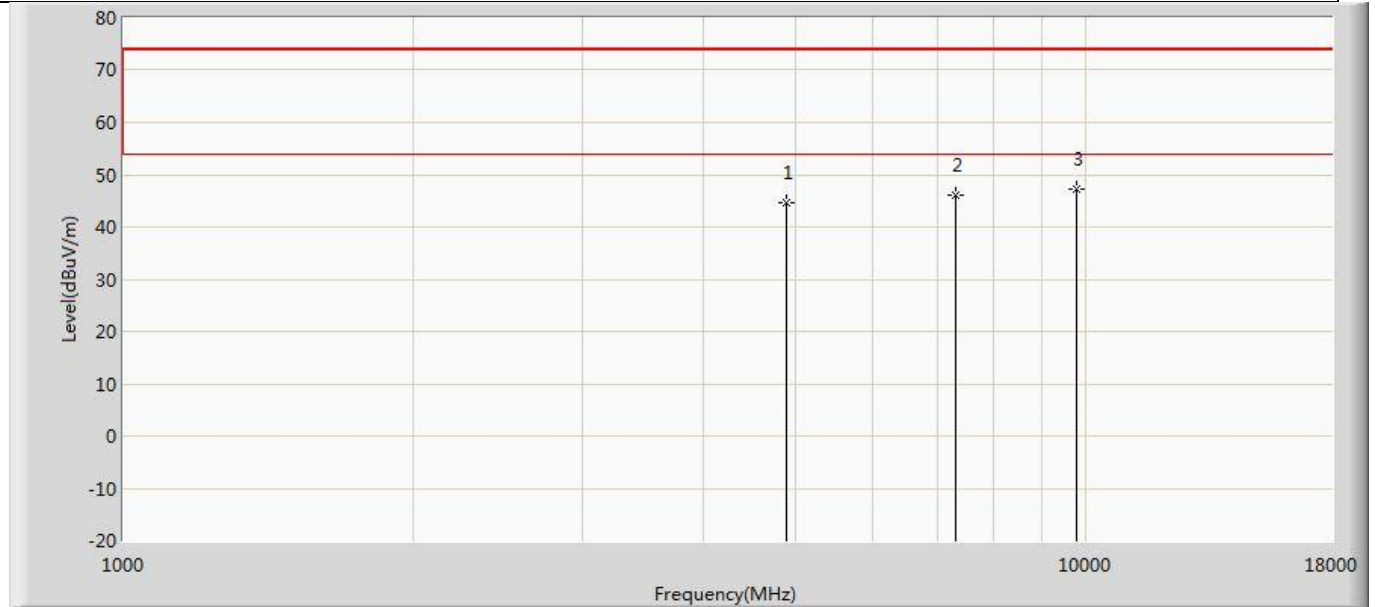
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.704	52.390	-31.296	74.000	-9.686	PK
2		7206.000	45.944	52.012	-28.056	74.000	-6.068	PK
3	*	9608.000	47.424	51.351	-26.576	74.000	-3.927	PK

Profile: 2190372R	Page No.: 44
Engineer: Carlos shen	
Site: AC5	Time: 2021/12/17 - 04:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



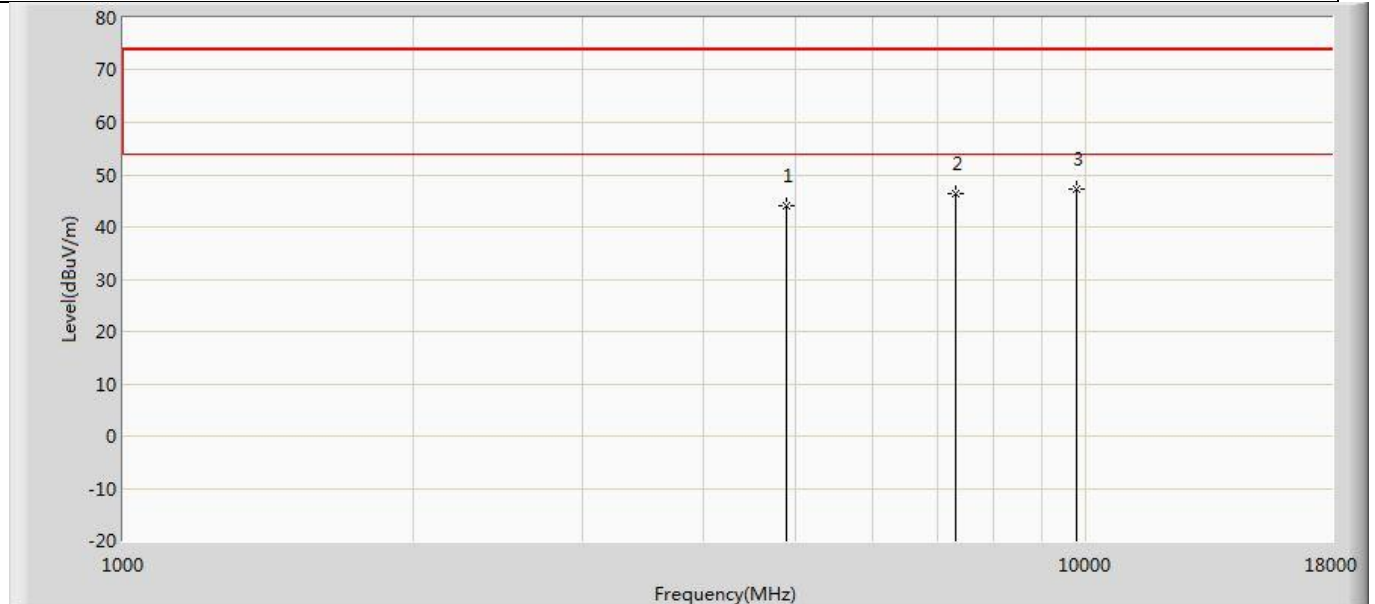
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	42.775	52.461	-31.225	74.000	-9.686	PK
2		7206.000	45.627	51.695	-28.373	74.000	-6.068	PK
3	*	9608.000	47.734	51.661	-26.266	74.000	-3.927	PK

Profile: 2190372R	Page No.: 45
Engineer: Carlos shen	
Site: AC5	Time: 2021/12/17 - 04:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



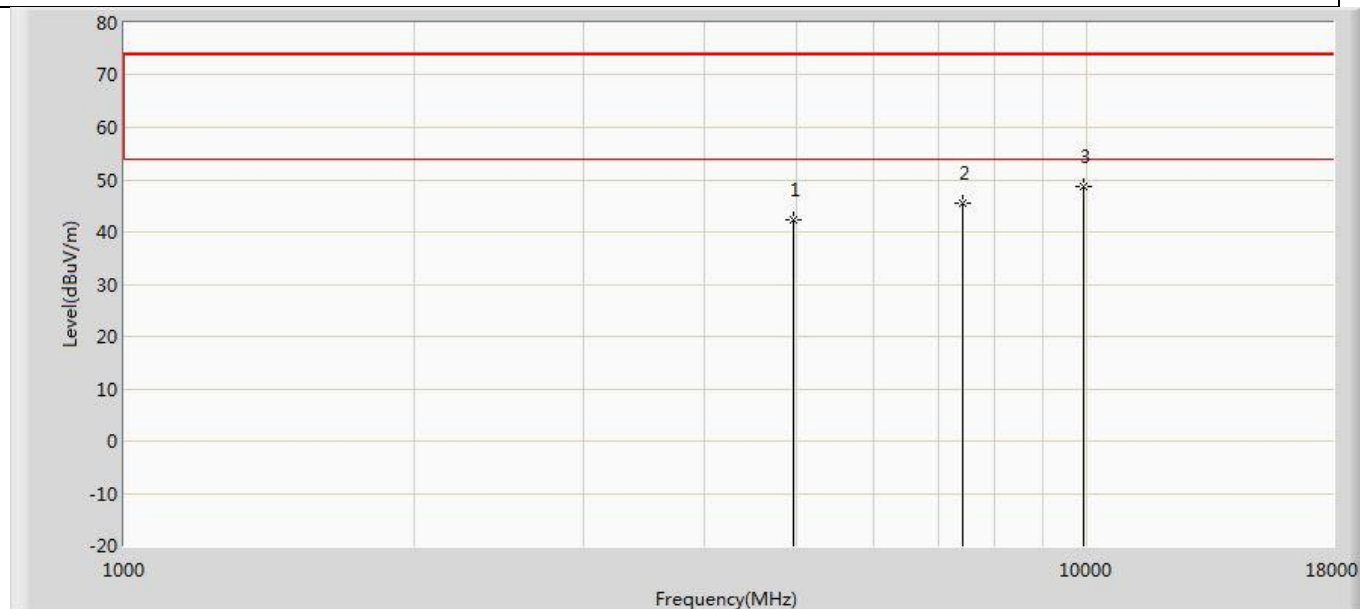
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	44.707	54.026	-29.293	74.000	-9.320	PK
2		7320.000	46.120	51.918	-27.880	74.000	-5.798	PK
3	*	9760.000	47.239	50.865	-26.761	74.000	-3.626	PK

Profile: 2190372R	Page No.: 46
Engineer: Carlos shen	
Site: AC5	Time: 2021/12/17 - 04:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2440MHz by LE_1Mbps	



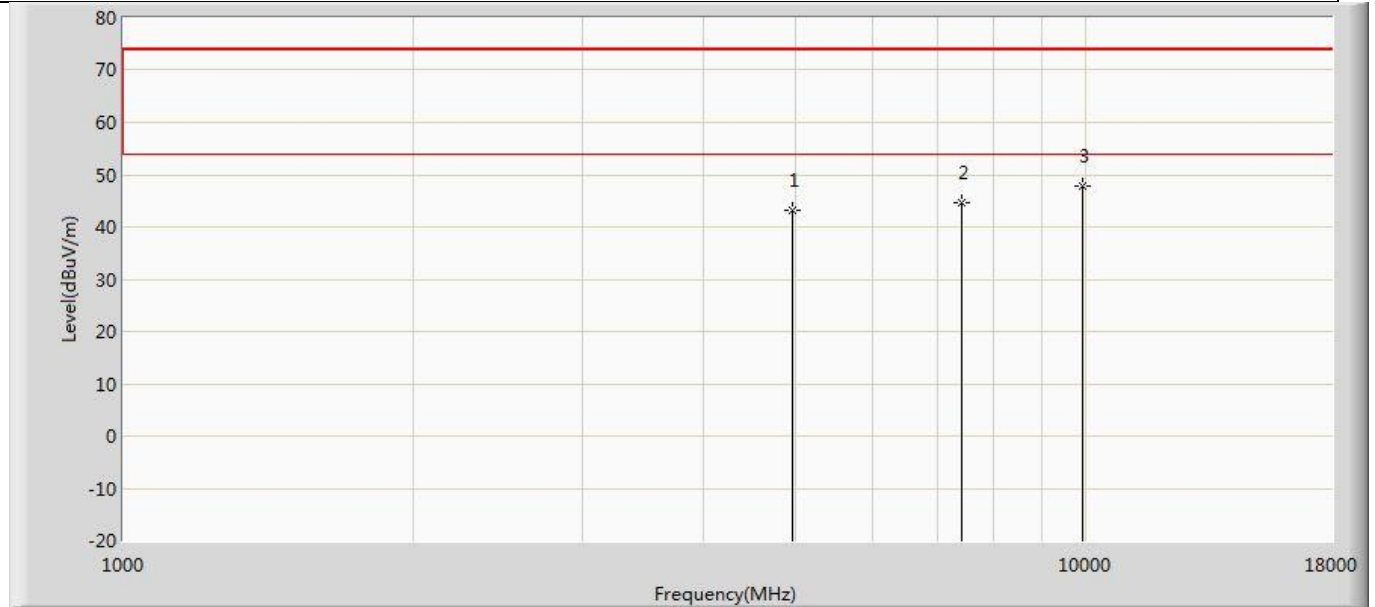
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	44.117	53.436	-29.883	74.000	-9.320	PK
2		7320.000	46.496	52.294	-27.504	74.000	-5.798	PK
3	*	9760.000	47.299	50.925	-26.701	74.000	-3.626	PK

Profile: 2190372R	Page No.: 47
Engineer: Carlos shen	
Site: AC5	Time: 2021/12/17 - 04:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



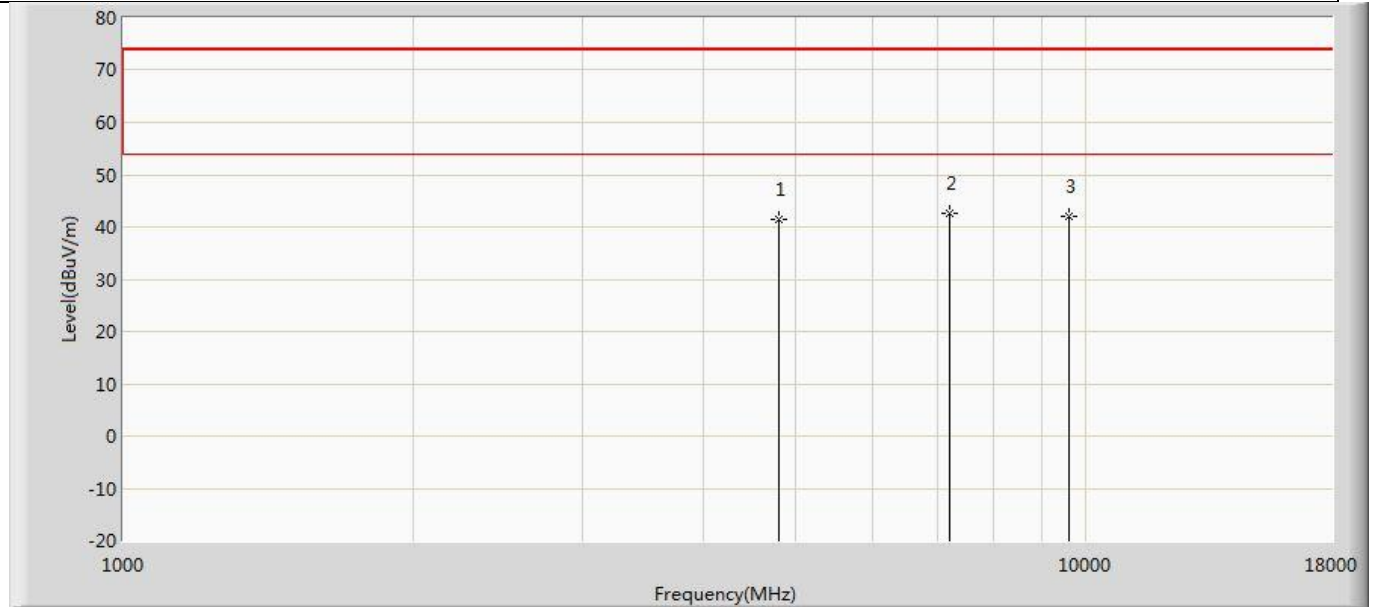
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	42.343	52.195	-31.657	74.000	-9.851	PK
2		7440.000	45.621	51.749	-28.379	74.000	-6.128	PK
3	*	9920.000	48.676	51.414	-25.324	74.000	-2.739	PK

Profile: 2190372R	Page No.: 48
Engineer: Carlos shen	
Site: AC5	Time: 2021/12/17 - 04:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



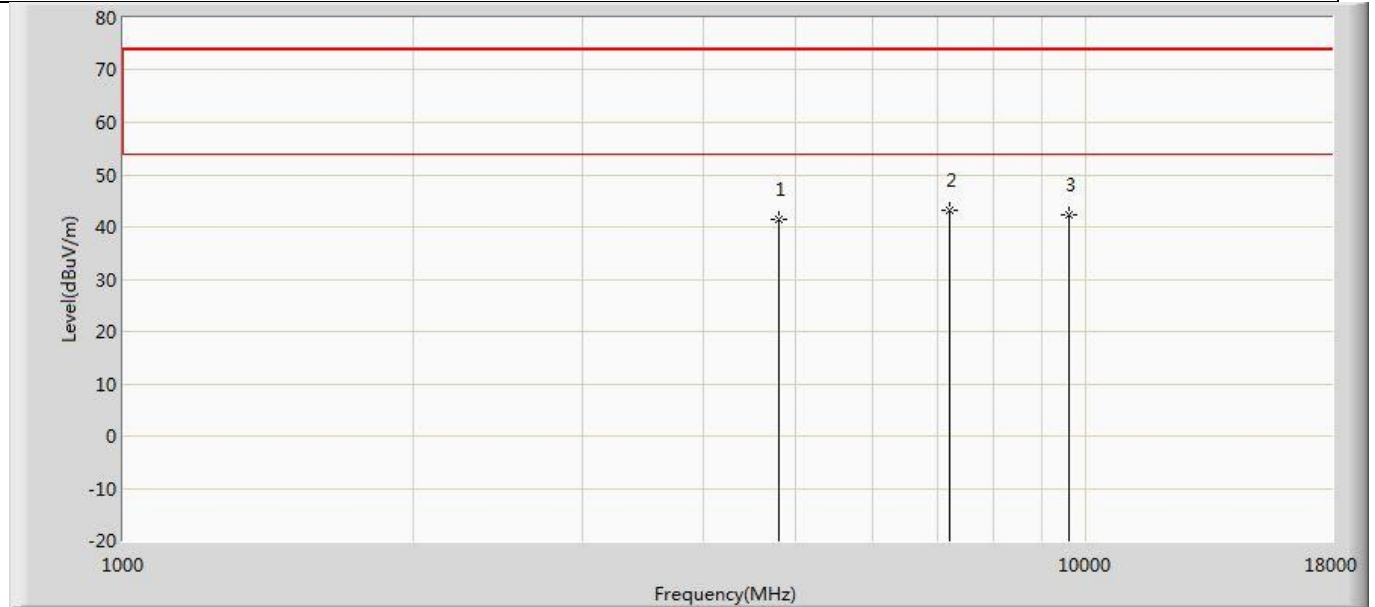
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	43.083	52.935	-30.917	74.000	-9.851	PK
2		7440.000	44.748	50.876	-29.252	74.000	-6.128	PK
3	*	9920.000	47.914	50.652	-26.086	74.000	-2.739	PK

Profile: 2190372R	Page No.: 61
Engineer: Tongben	
Site: AC5	Time: 2022/02/22 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



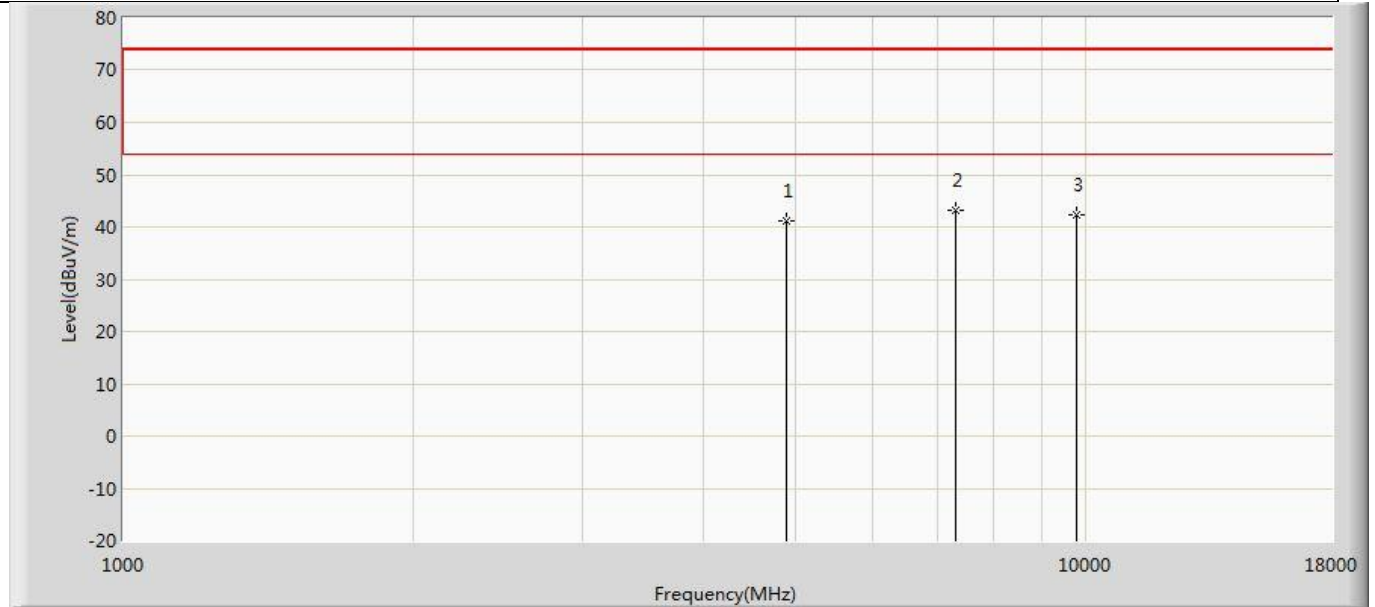
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.443	37.187	-32.557	74.000	4.256	PK
2	*	7206.000	42.688	34.973	-31.312	74.000	7.715	PK
3		9608.000	41.910	32.861	-32.090	74.000	9.050	PK

Profile: 2190372R	Page No.: 62
Engineer: Tongben	
Site: AC5	Time: 2022/02/22 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



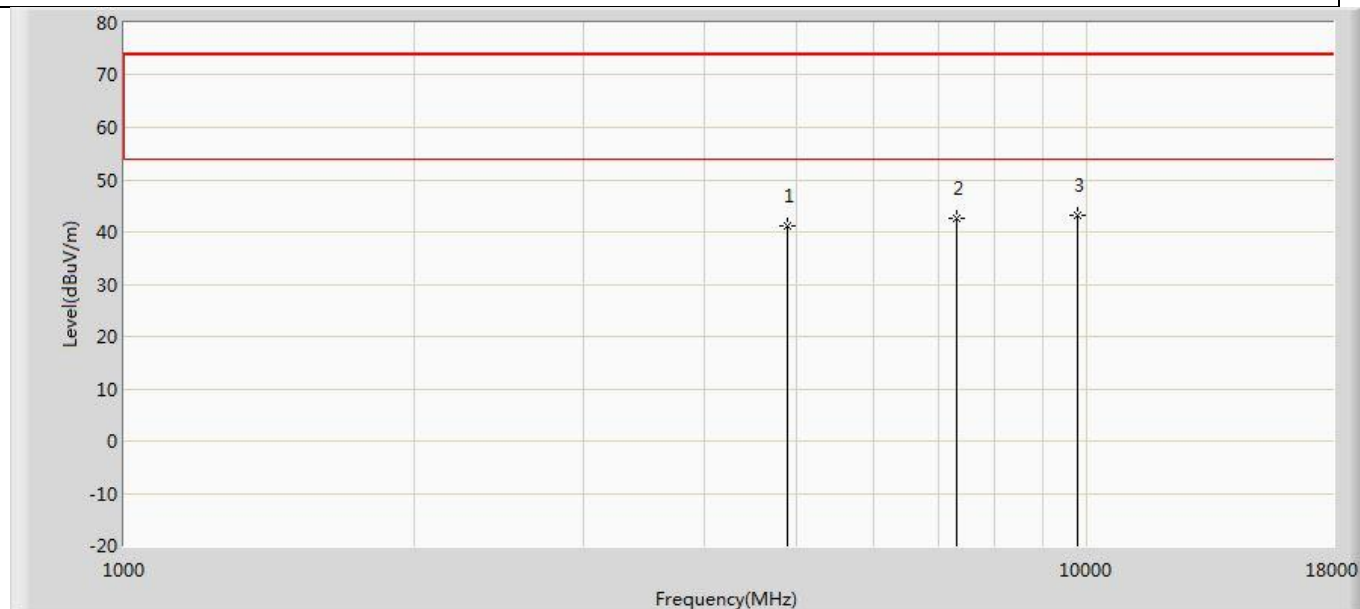
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	41.364	37.108	-32.636	74.000	4.256	PK
2	*	7206.000	43.175	35.460	-30.825	74.000	7.715	PK
3		9608.000	42.302	33.253	-31.698	74.000	9.050	PK

Profile: 2190372R	Page No.: 63
Engineer: Tongben	
Site: AC5	Time: 2022/02/22 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps	



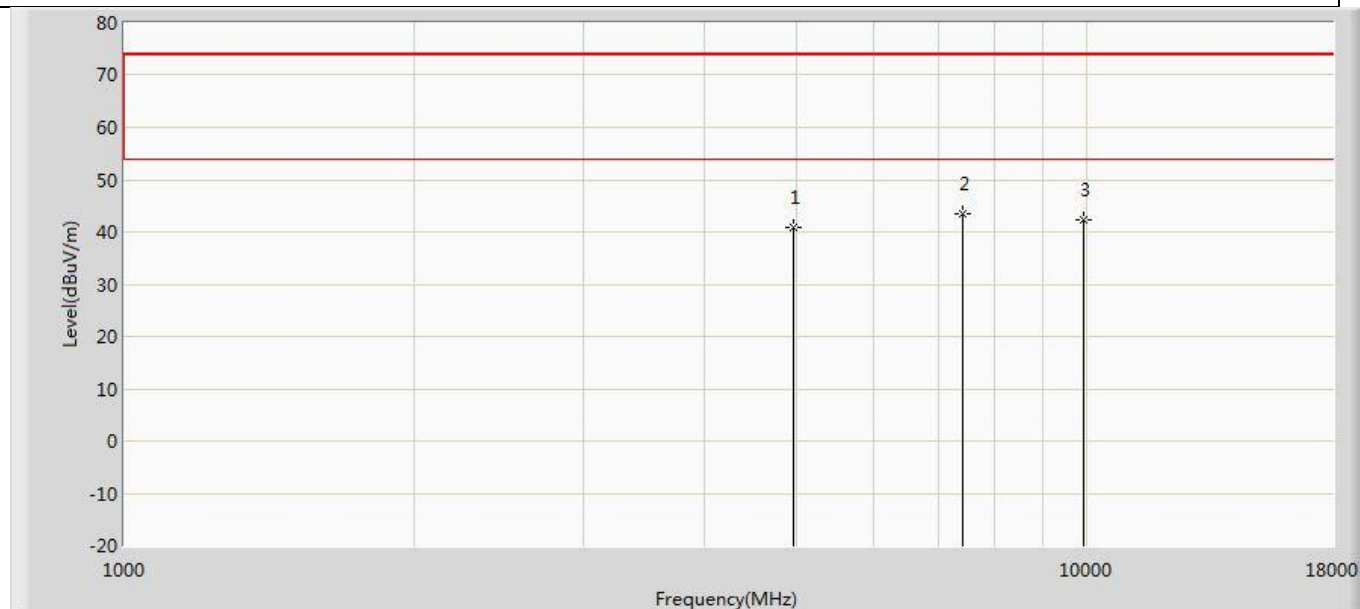
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.251	36.826	-32.749	74.000	4.425	PK
2	*	7320.000	43.221	35.405	-30.779	74.000	7.817	PK
3		9760.000	42.399	33.108	-31.601	74.000	9.291	PK

Profile: 2190372R	Page No.: 64
Engineer: Tongben	
Site: AC5	Time: 2022/02/22 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2440MHz by LE_2Mbps	



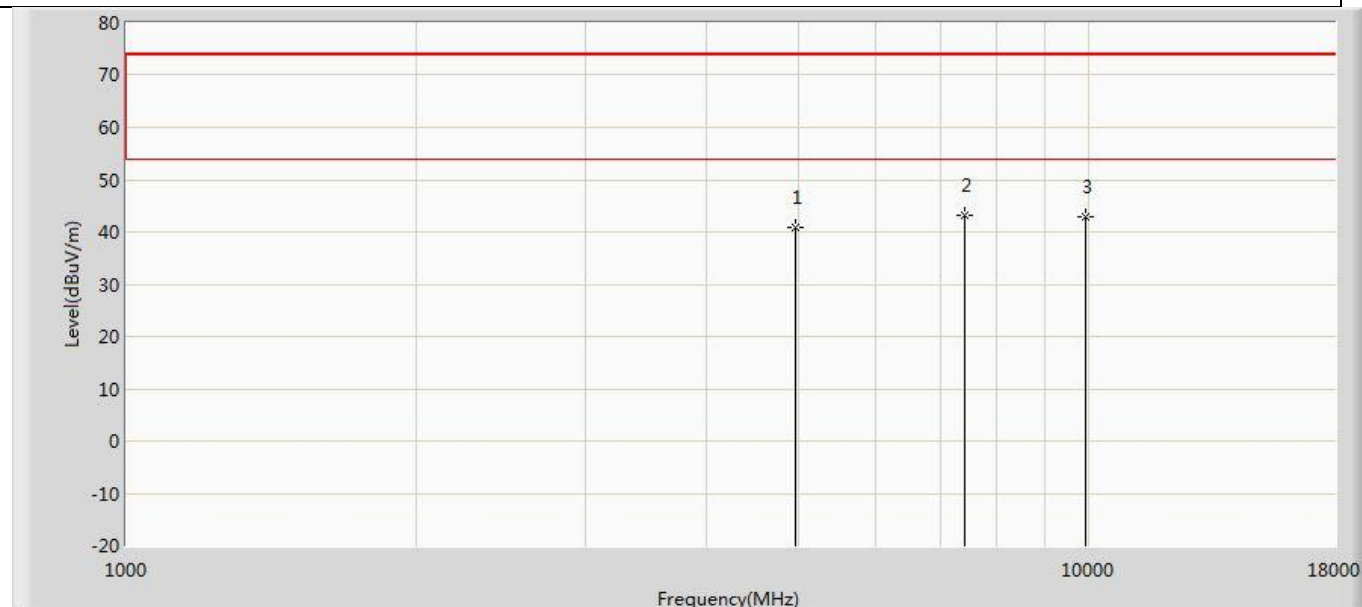
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4880.000	41.215	36.790	-32.785	74.000	4.425	PK
2		7320.000	42.585	34.769	-31.415	74.000	7.817	PK
3	*	9760.000	43.322	34.031	-30.678	74.000	9.291	PK

Profile: 2190372R	Page No.: 65
Engineer: Tongben	
Site: AC5	Time: 2022/02/22 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.834	36.437	-33.166	74.000	4.397	PK
2	*	7440.000	43.373	35.456	-30.627	74.000	7.917	PK
3		9920.000	42.407	33.052	-31.593	74.000	9.354	PK

Profile: 2190372R	Page No.: 66
Engineer: Tongben	
Site: AC5	Time: 2022/02/22 - 21:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



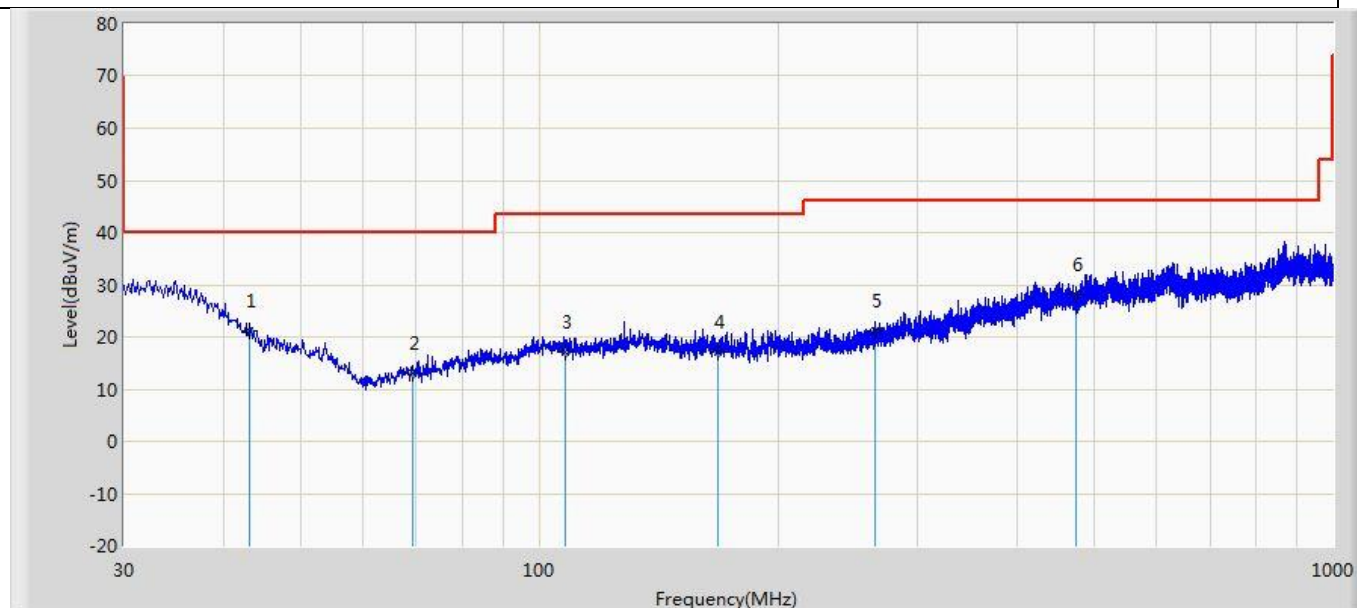
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4960.000	40.929	36.532	-33.071	74.000	4.397	PK
2	*	7440.000	43.238	35.321	-30.762	74.000	7.917	PK
3		9920.000	42.784	33.429	-31.216	74.000	9.354	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, worst case are at least 20dB below the limits, therefore no data appear in the report.
3. The test frequency range, 18GHz~26GHz test result on peak is lower than average limit, all is the noise base, therefore no data appear in the report.
4. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.
5. As the radiated emission was performed, so conducted emission was not tested.

The worst case of Radiated Emission below 1GHz:

Profile: 2190372R	Page No.: 21
Engineer: Carlos shen	
Site: AC2	Time: 2021/12/17 - 06:15
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode1	

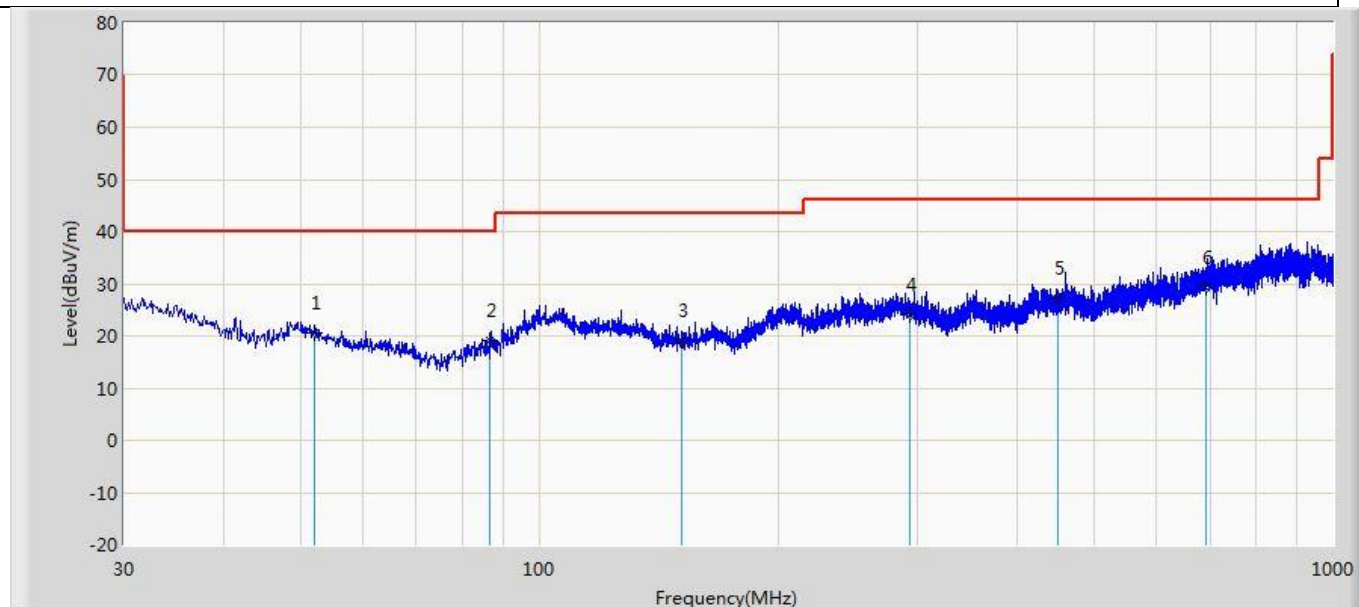


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		43.216	21.035	2.326	-18.965	40.000	18.709	QP
2		69.406	13.021	1.709	-26.979	40.000	11.312	QP
3		108.085	17.011	0.491	-26.489	43.500	16.520	QP
4		168.225	17.036	-0.198	-26.464	43.500	17.233	QP
5		265.346	21.036	2.262	-24.964	46.000	18.774	QP
6	*	475.594	28.011	1.795	-17.989	46.000	26.216	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)

Profile: 2190372R	Page No.: 22
Engineer: Carlos shen	
Site: AC2	Time: 2021/12/17 - 06:17
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: AC2_3M(30-1000M)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode1	



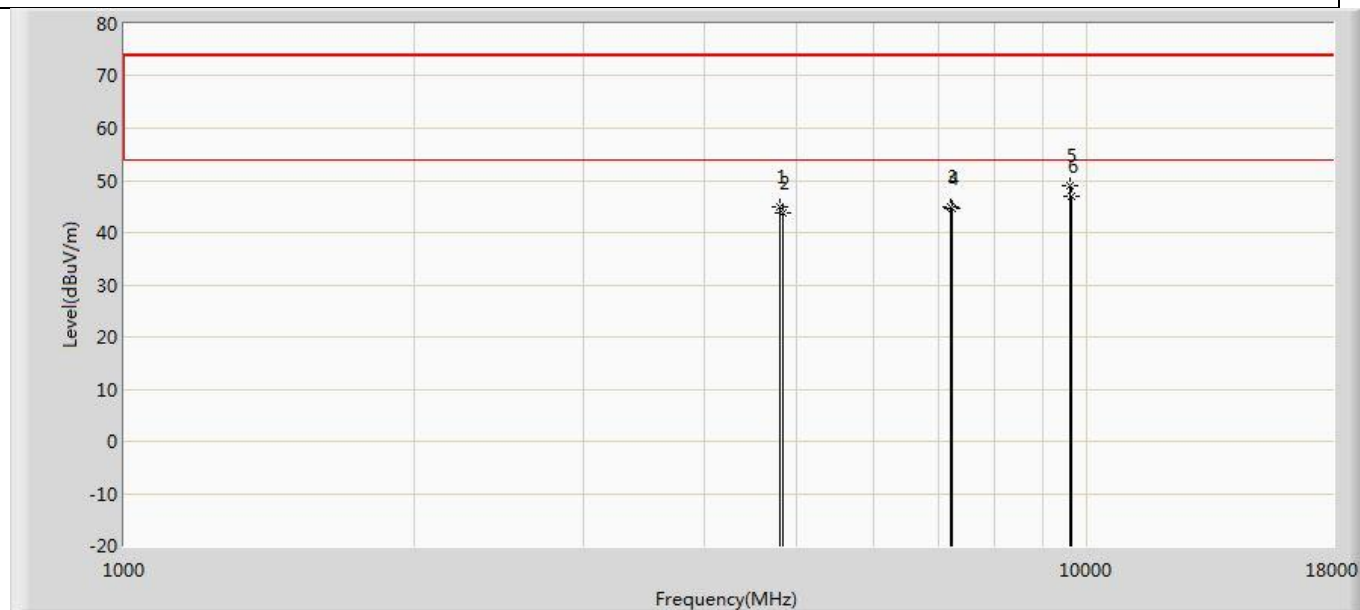
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		52.189	20.546	1.923	-19.454	40.000	18.624	QP
2		86.624	19.032	2.500	-20.968	40.000	16.532	QP
3		151.129	19.206	1.282	-24.294	43.500	17.924	QP
4		293.355	24.122	-0.064	-21.878	46.000	24.186	QP
5		450.010	27.334	1.294	-18.666	46.000	26.040	QP
6	*	692.025	29.301	-0.923	-16.699	46.000	30.223	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)

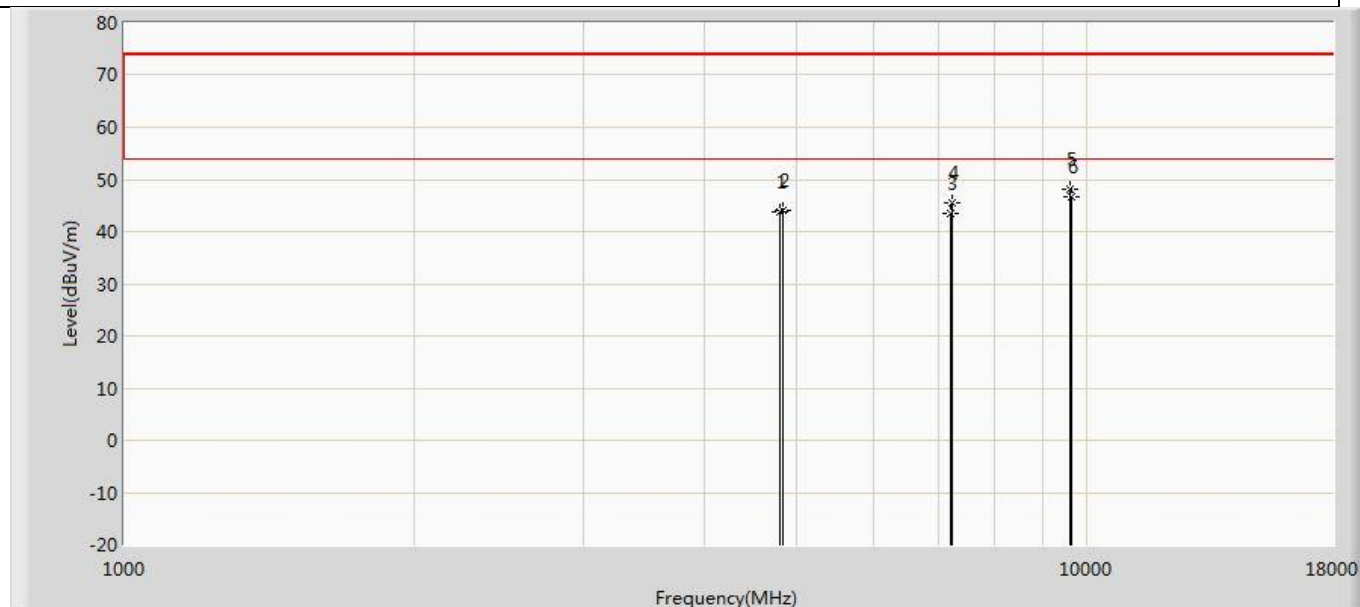
The worst case of Simultaneous Radiated Emission:

Profile: 2190372R	Page No.: 125
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/05 - 14:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DeskPhone	Power: AC 120V/60Hz
Note: Mode 1: Simultaneous transmission with BT (2402MHz) +2.4G WIFI 11b (2412MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	44.808	50.950	-29.192	74.000	-6.143	PK
2		4824.000	43.884	49.924	-30.116	74.000	-6.039	PK
3		7206.000	44.843	47.165	-29.157	74.000	-2.322	PK
4		7236.000	44.539	46.773	-29.461	74.000	-2.233	PK
5	*	9608.000	48.885	46.434	-25.115	74.000	2.451	PK
6		9648.000	46.824	45.289	-27.176	74.000	1.535	PK

Profile: 2190372R	Page No.: 126
Engineer: Carlos shen	
Site: AC5	Time: 2022/01/05 - 14:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DeskPhone	Power: AC 120V/60Hz
Note: Mode 1: Simultaneous transmission with BT (2402MHz) +2.4G WIFI 11b (2412MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4804.000	43.805	49.947	-30.195	74.000	-6.143	PK
2		4824.000	44.105	50.145	-29.895	74.000	-6.039	PK
3		7206.000	43.557	45.879	-30.443	74.000	-2.322	PK
4		7236.000	45.575	47.809	-28.425	74.000	-2.233	PK
5	*	9608.000	48.054	45.603	-25.946	74.000	2.451	PK
6		9648.000	46.575	45.040	-27.425	74.000	1.535	PK

4.3 Emissions in non-restricted frequency band

VERDICT: PASS

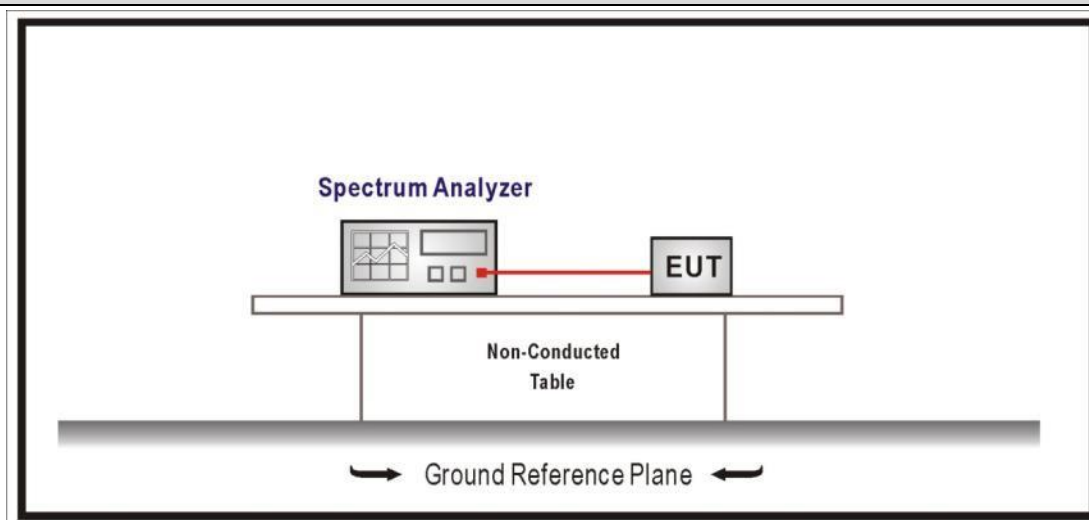
4.3.1 Limit

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

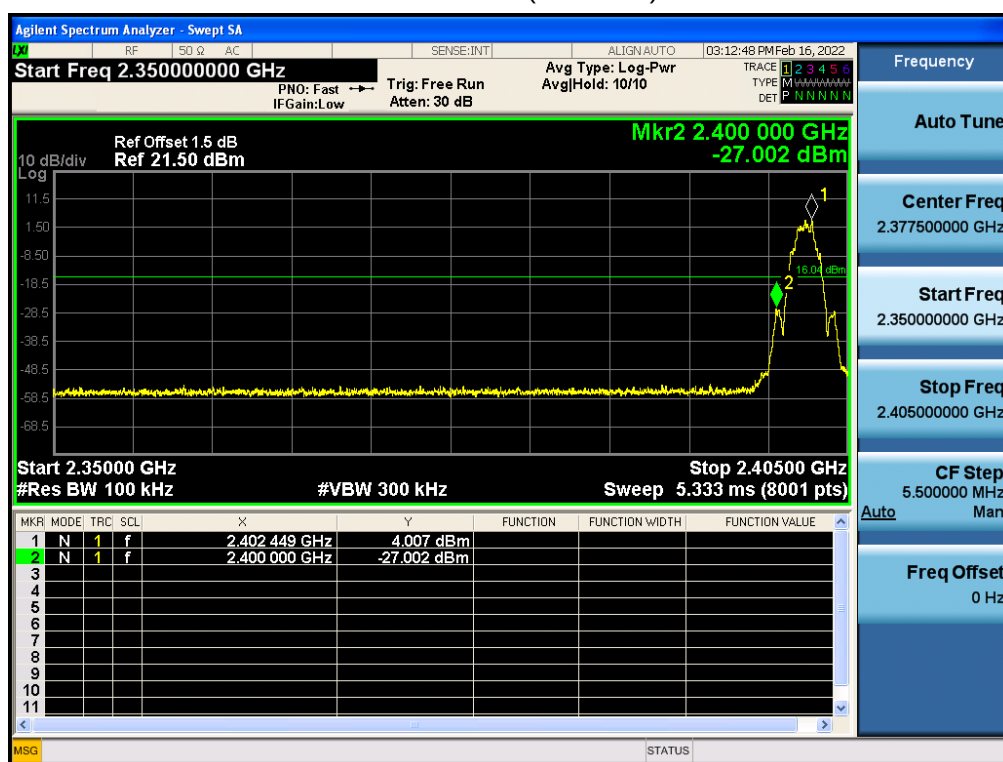
References Rule	Chapter	Description
☒ ANSI C63.10	11.11	Emissions in non-restricted frequency bands
☒ ANSI C63.10	11.11.1	General
☒ ANSI C63.10	11.11.2	Reference level measurement
☒ ANSI C63.10	11.11.3	Emission level measurement

4.3.4 Test Data

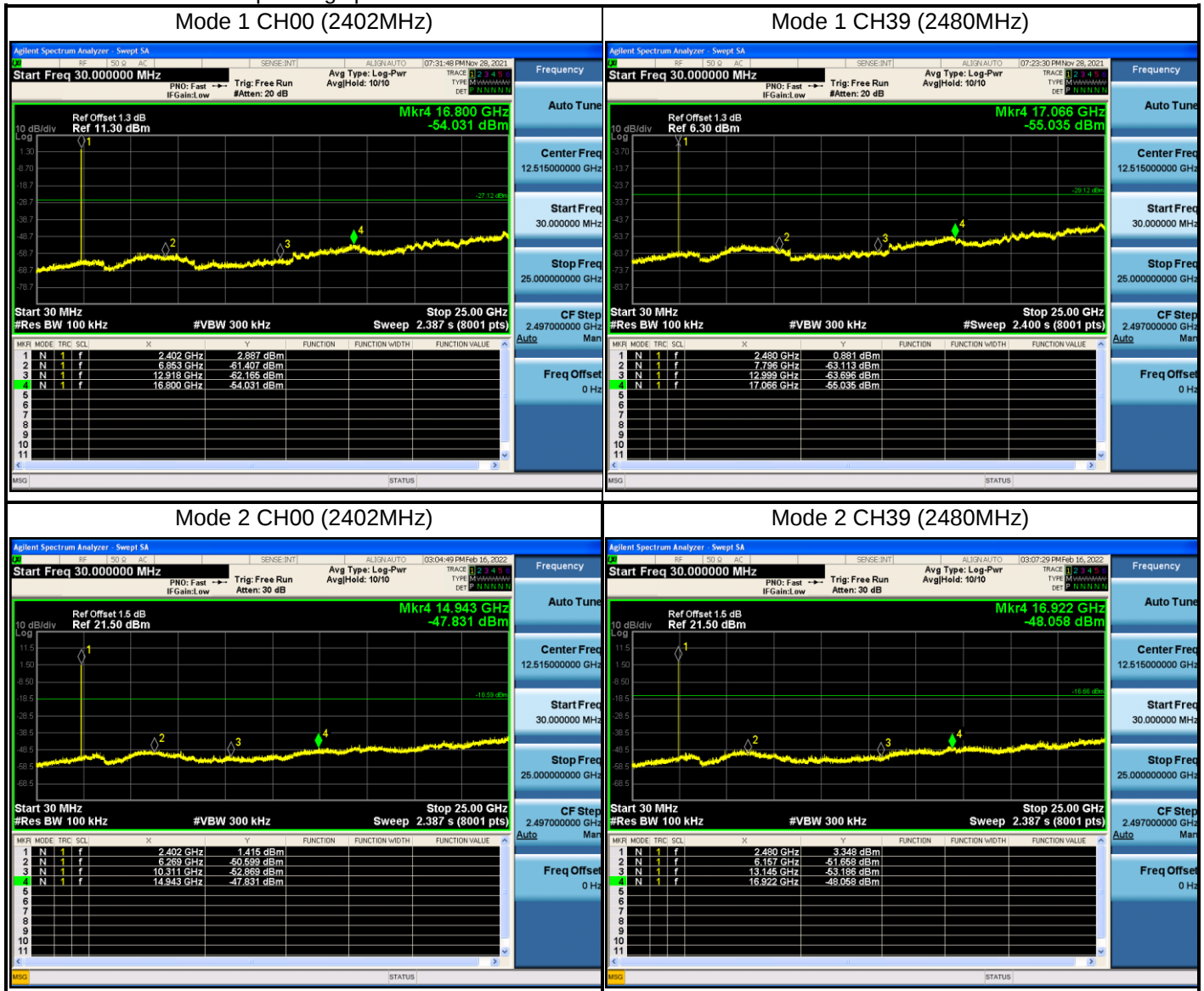
Mode	Channel	Test Frequency (MHz)	Maximum In-Band PSD[a] (dBm/100kHz)	Frequency (MHz)	Out-Band PSD[b] (dBm/100kHz)	[a]-[b] (dB)	Limit (dB)	Result
1	00	2402	3.976	2400	-51.569	55.545	≥30	Pass
	39	2480	3.401	2517.453	-63.315	66.716	≥30	Pass
2	00	2402	4.007	2400	-27.002	31.009	≥30	Pass
	39	2480	3.387	2500	-55.955	59.342	≥30	Pass

Note: The worst case of emissions in non-restricted frequency bands as below:

Mode 2 CH00(2402MHz)



The data of entire corresponding spectrum:



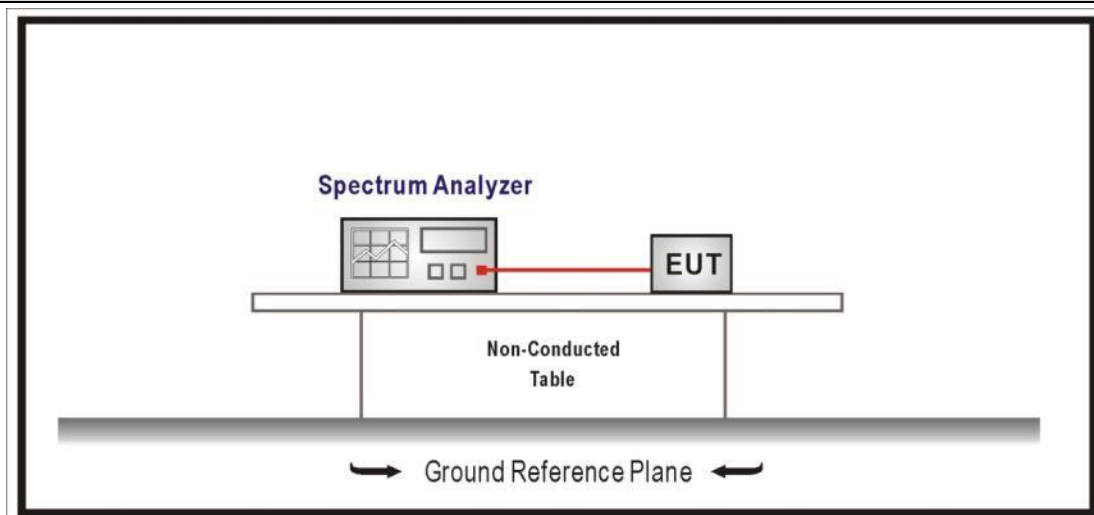
4.4 Duty cycle

VERDICT: PASS

4.4.1 Limit

N/A

4.4.2 Test Setup



4.4.3 Test Procedure

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

4.4.4 Test Data

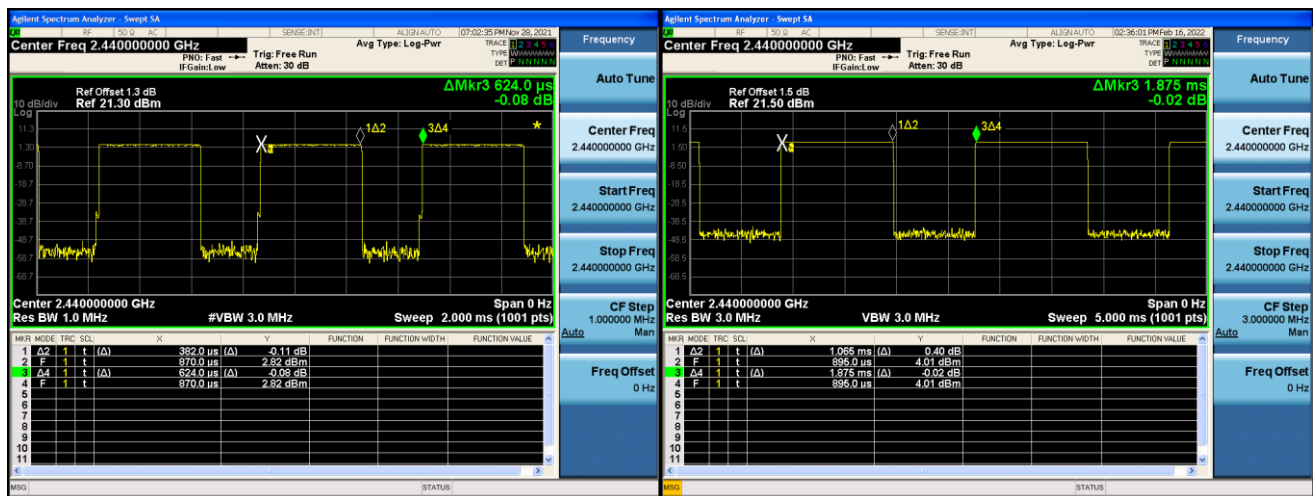
Test Mode	Tx On (us)	Tx Off (us)	VBW (kHz)	Tx On + Tx Off (us)	Duty Cycle (%)
Mode 1	382	242	2.7	624	61.22
Mode 2	1065	810	1	1875	56.80

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 CH19 2440MHz

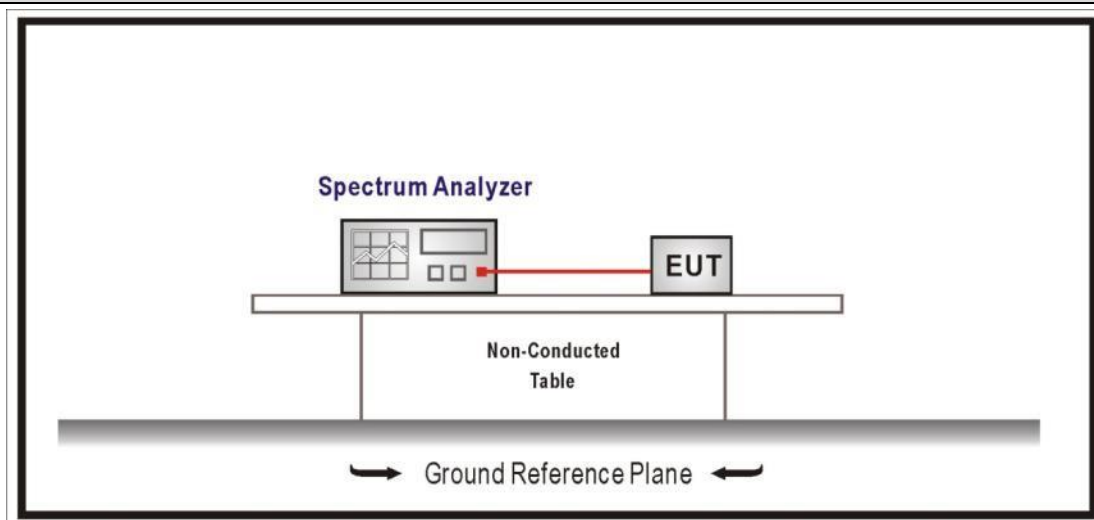
Mode 2 CH19 2440MHz



4.5 Band Edge**VERDICT: PASS****4.5.1 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

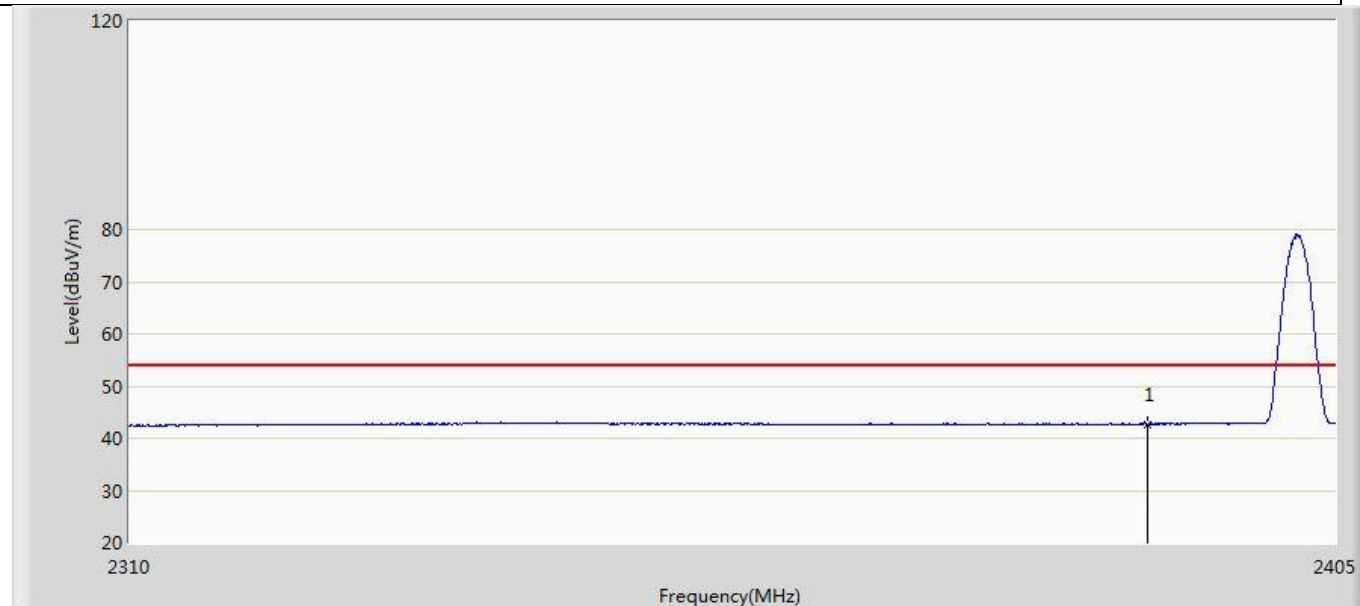
Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

4.5.2 Test Setup**4.5.3 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	11.12.2	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

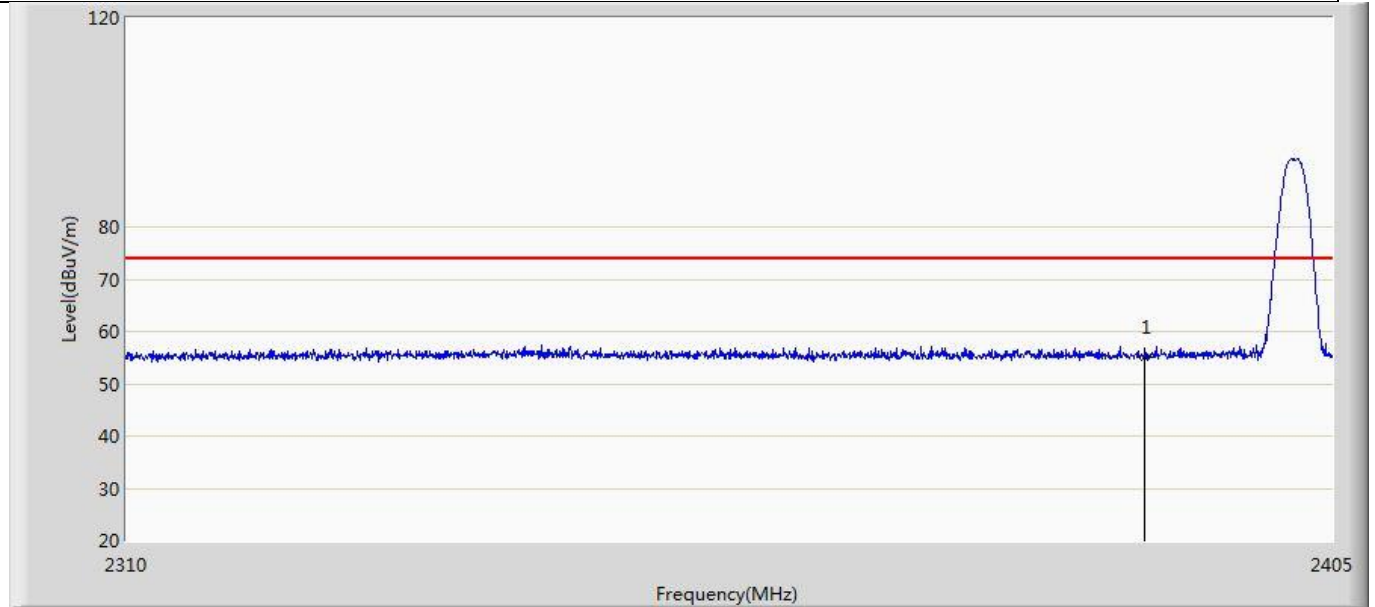
4.5.4 Test Data

Profile: 2190372R	Page No.: 25
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 22:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



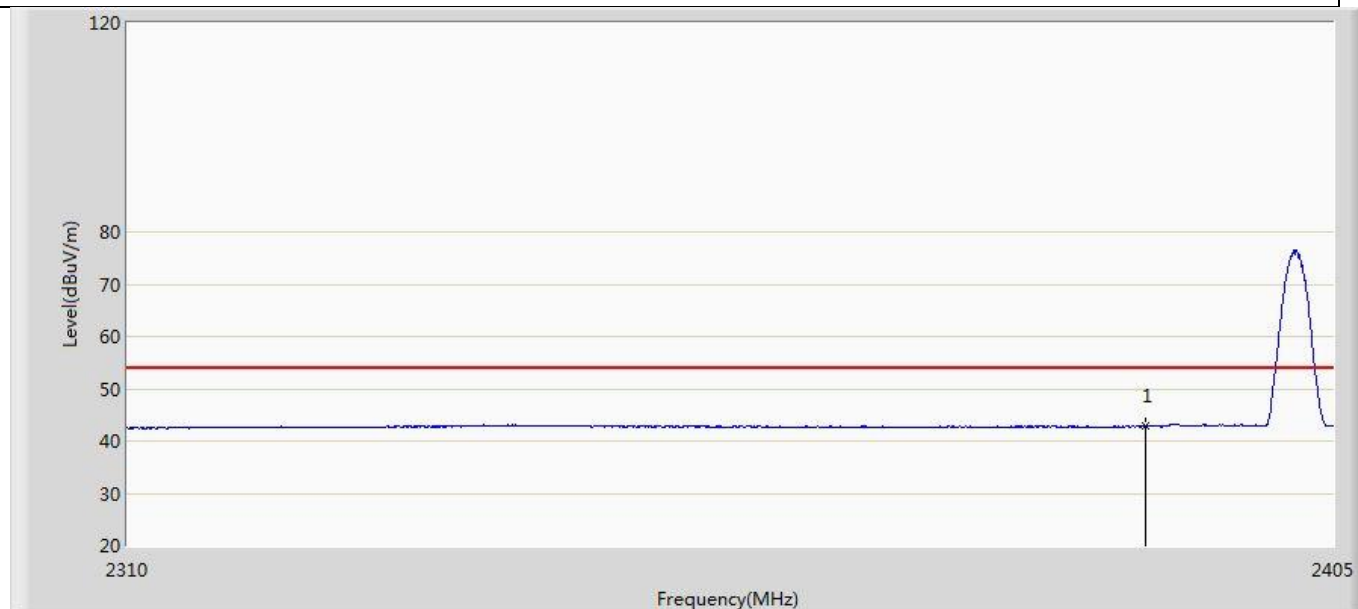
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.677	4.300	-11.323	54.000	38.377	AV

Profile: 2190372R	Page No.: 26
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 23:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



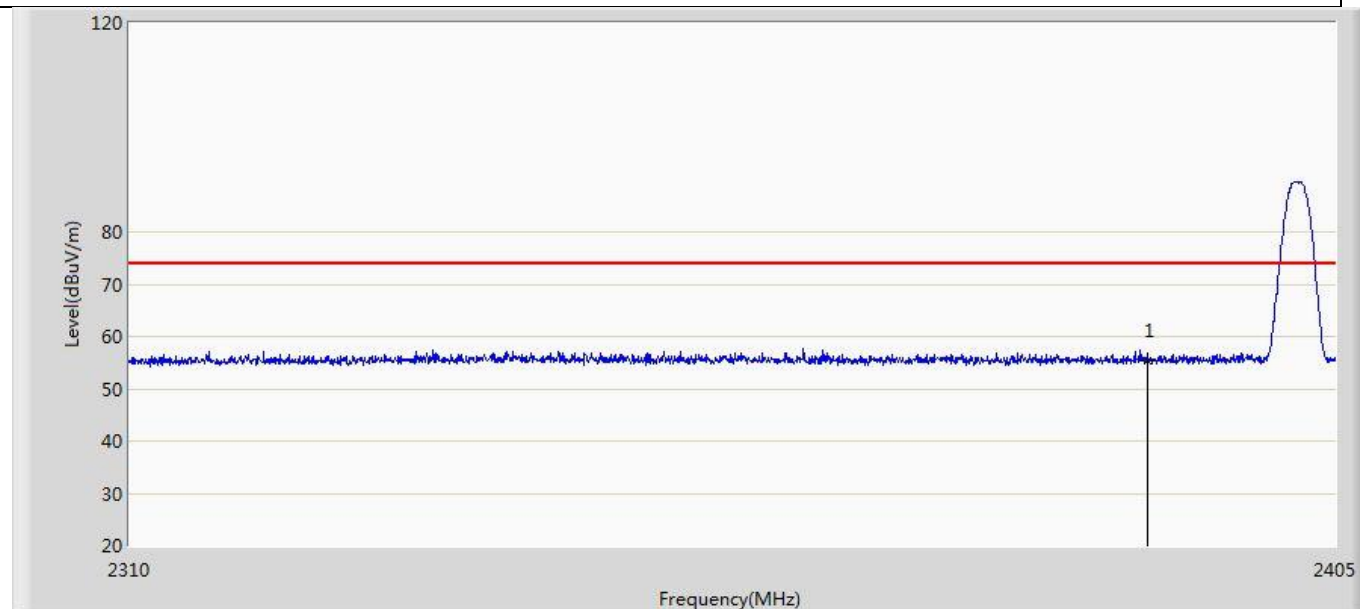
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	55.131	16.754	-18.869	74.000	38.377	PK

Profile: 2190372R	Page No.: 27
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 23:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



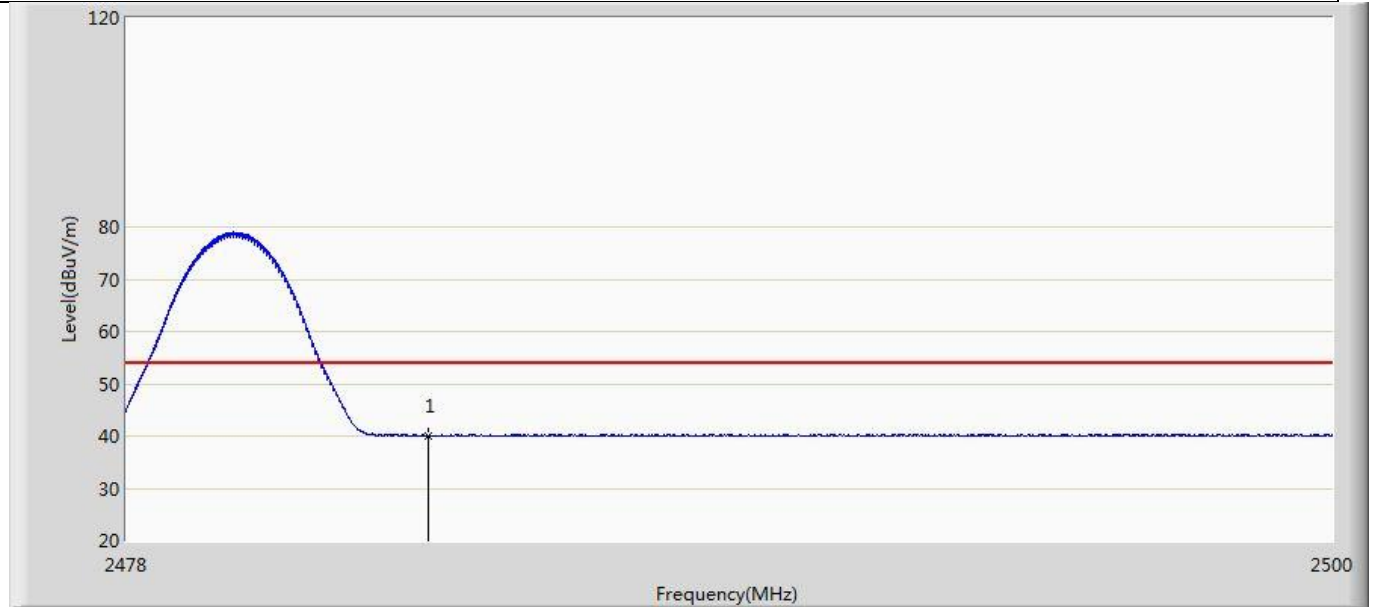
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	42.881	4.504	-11.119	54.000	38.377	AV

Profile: 2190372R	Page No.: 28
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 23:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2402MHz by LE_1Mbps	



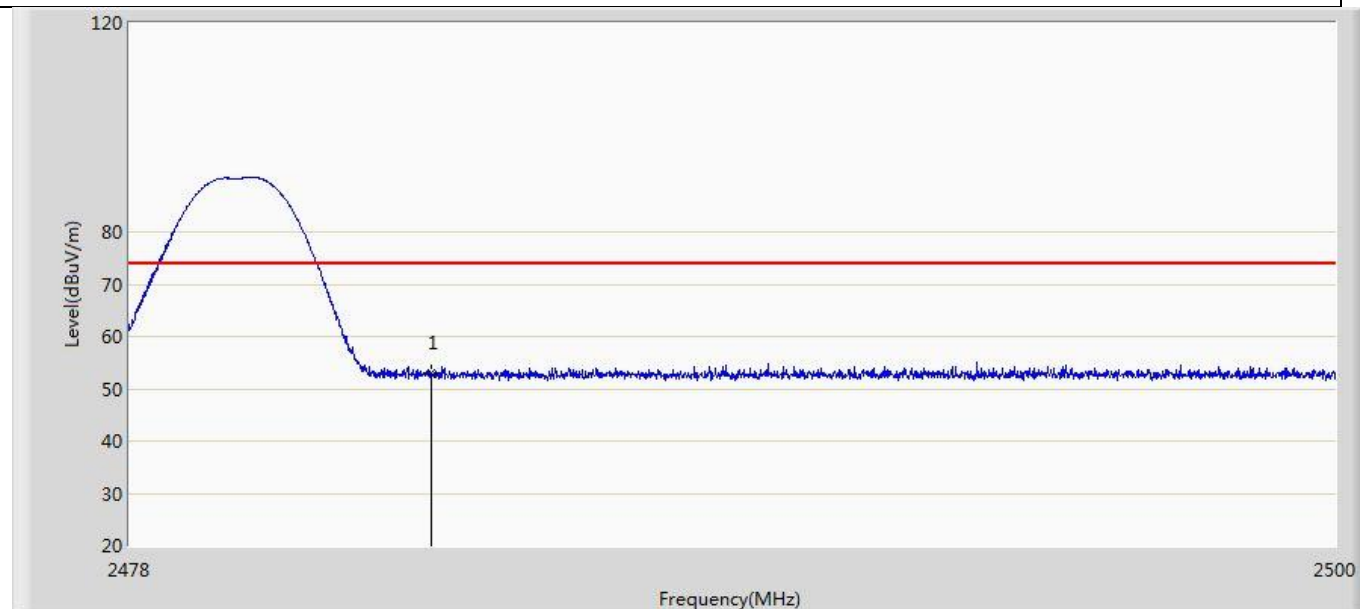
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	55.288	16.911	-18.712	74.000	38.377	PK

Profile: 2190372R	Page No.: 29
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 20:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



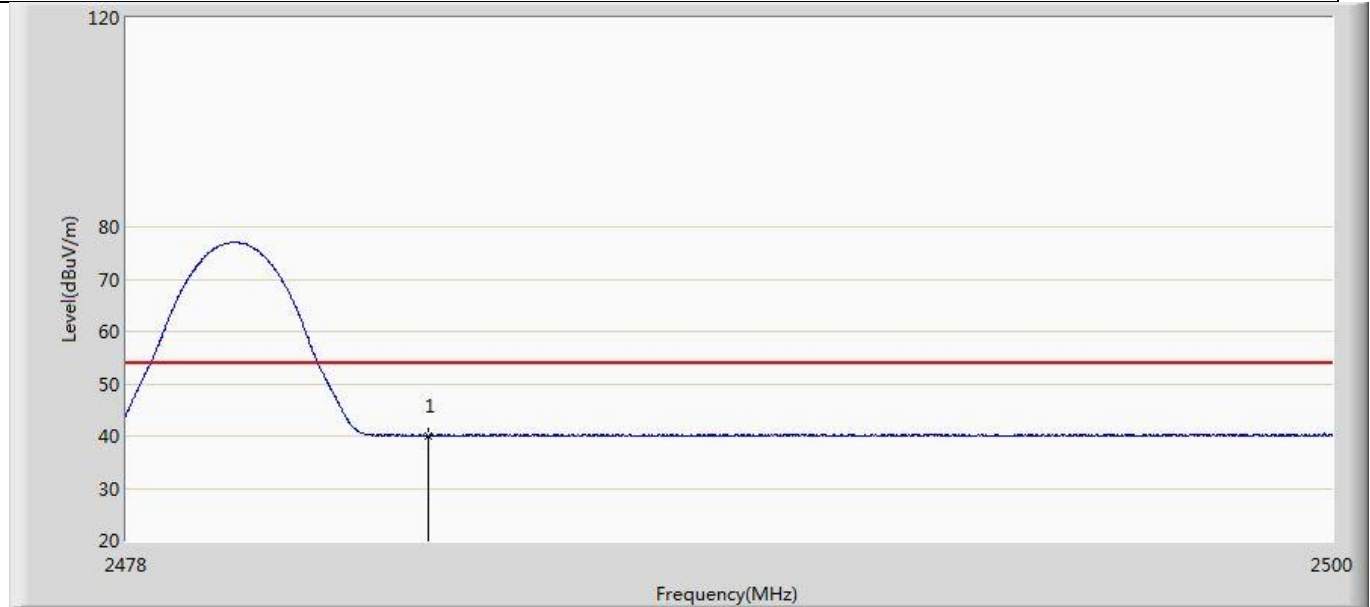
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	40.038	4.363	-13.962	54.000	35.675	AV

Profile: 2190372R	Page No.: 30
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 20:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



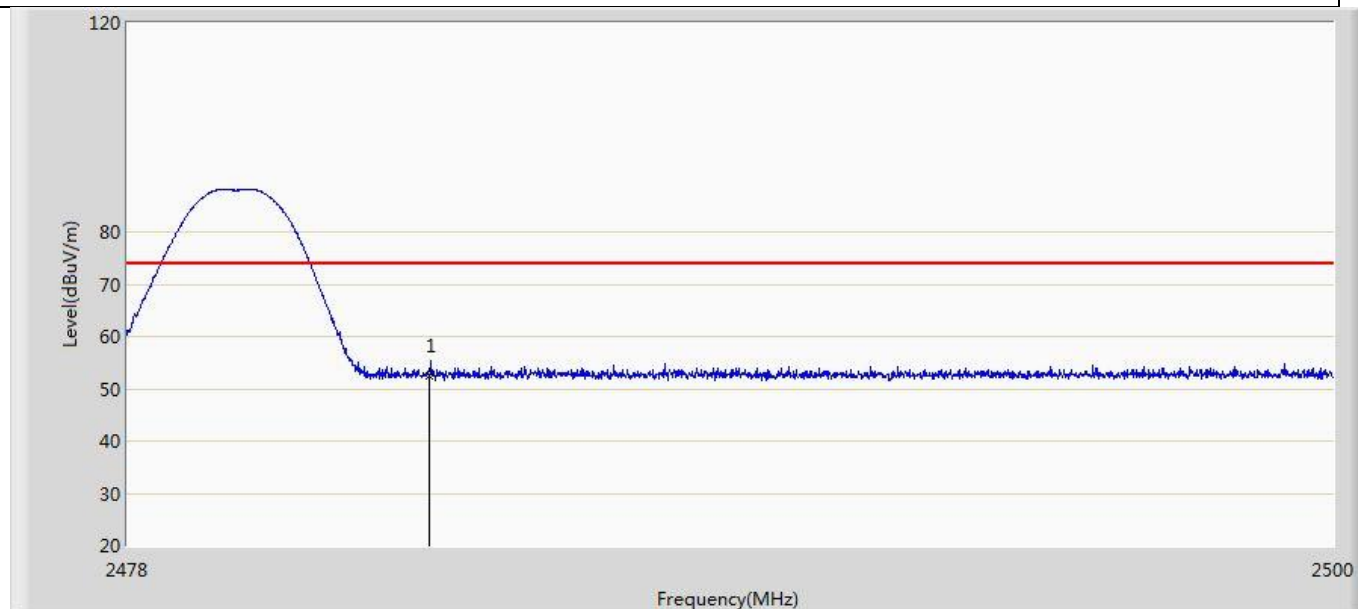
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	52.937	17.262	-21.063	74.000	35.675	PK

Profile: 2190372R	Page No.: 31
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 20:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



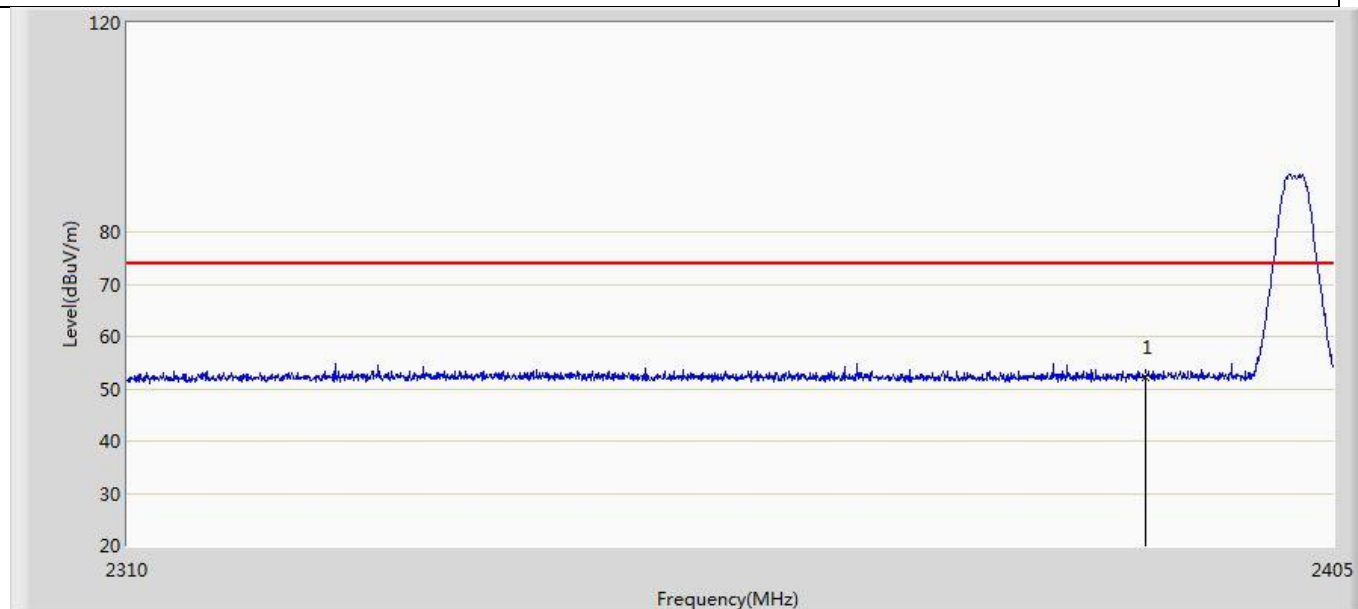
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	40.141	4.466	-13.859	54.000	35.675	AV

Profile: 2190372R	Page No.: 32
Engineer: Carlosshen	
Site: AC5	Time: 2021/12/14 - 20:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00123988_(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2480MHz by LE_1Mbps	



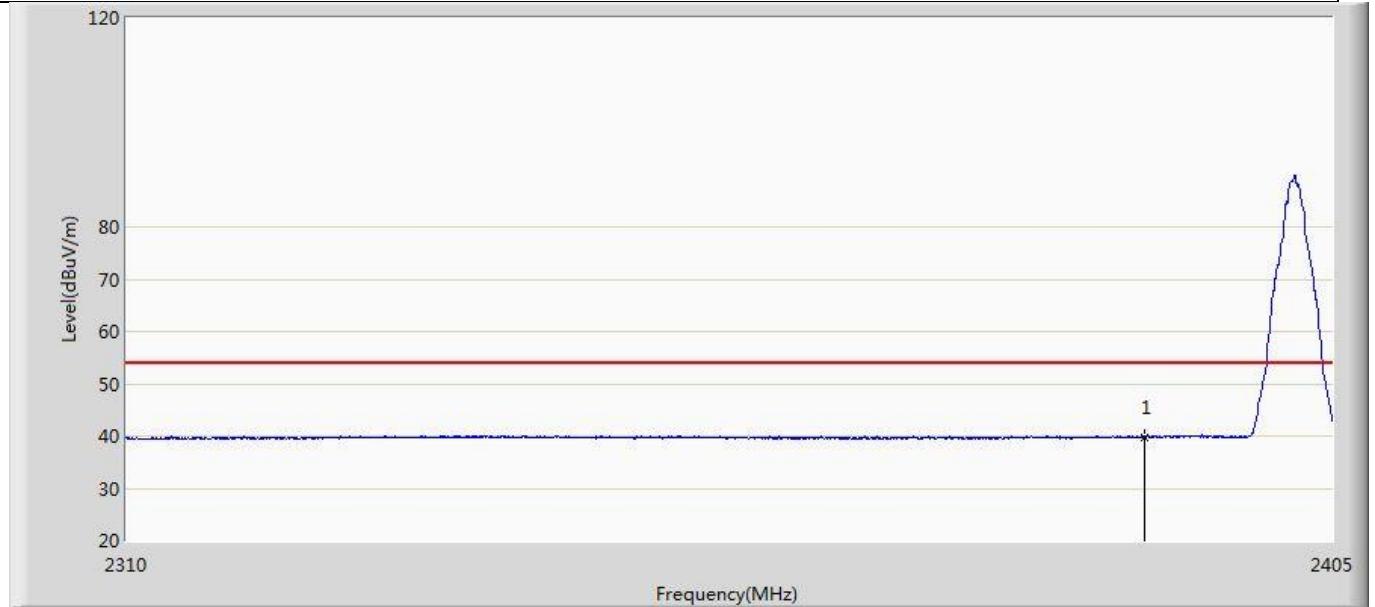
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	52.467	16.792	-21.533	74.000	35.675	PK

Profile: 2190372R	Page No.: 1
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



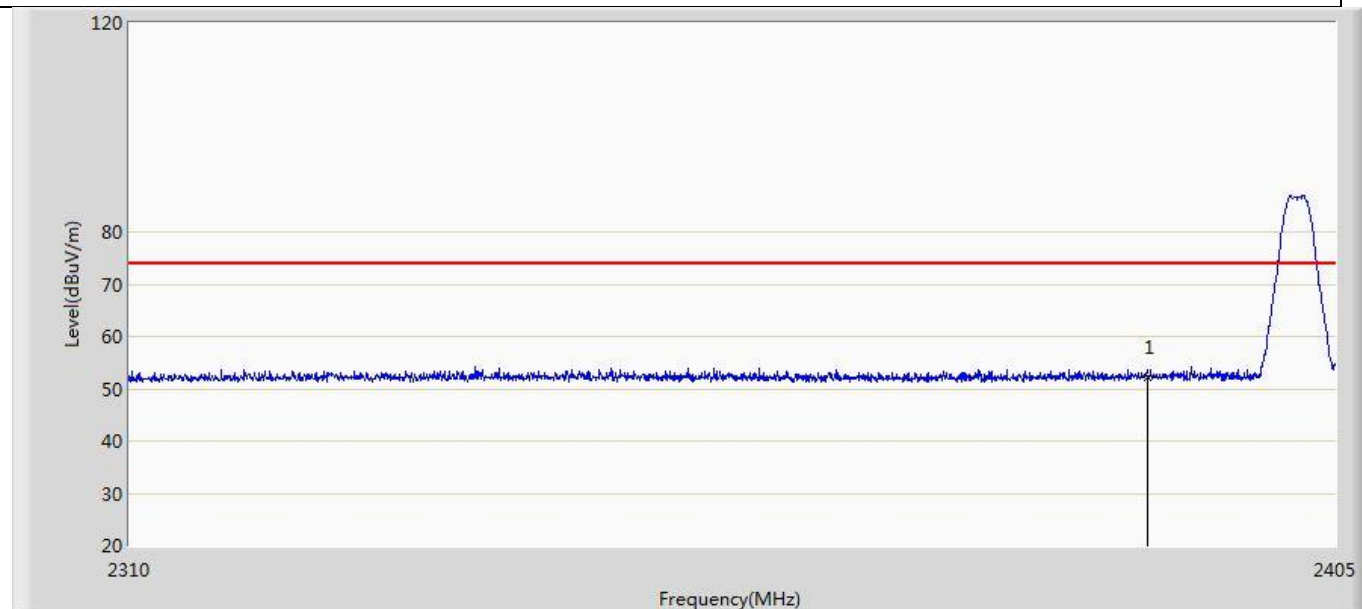
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	52.222	15.090	-21.778	74.000	37.133	PK

Profile: 2190372R	Page No.: 2
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



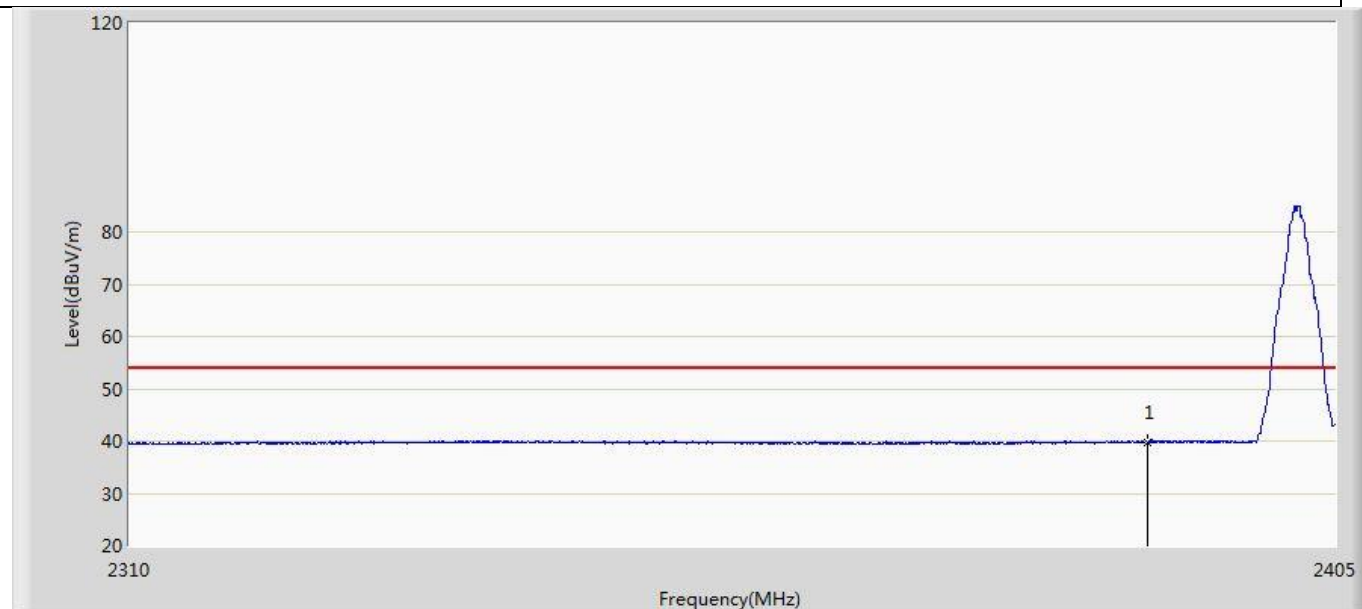
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	39.818	2.686	-14.182	54.000	37.133	AV

Profile: 2190372R	Page No.: 3
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



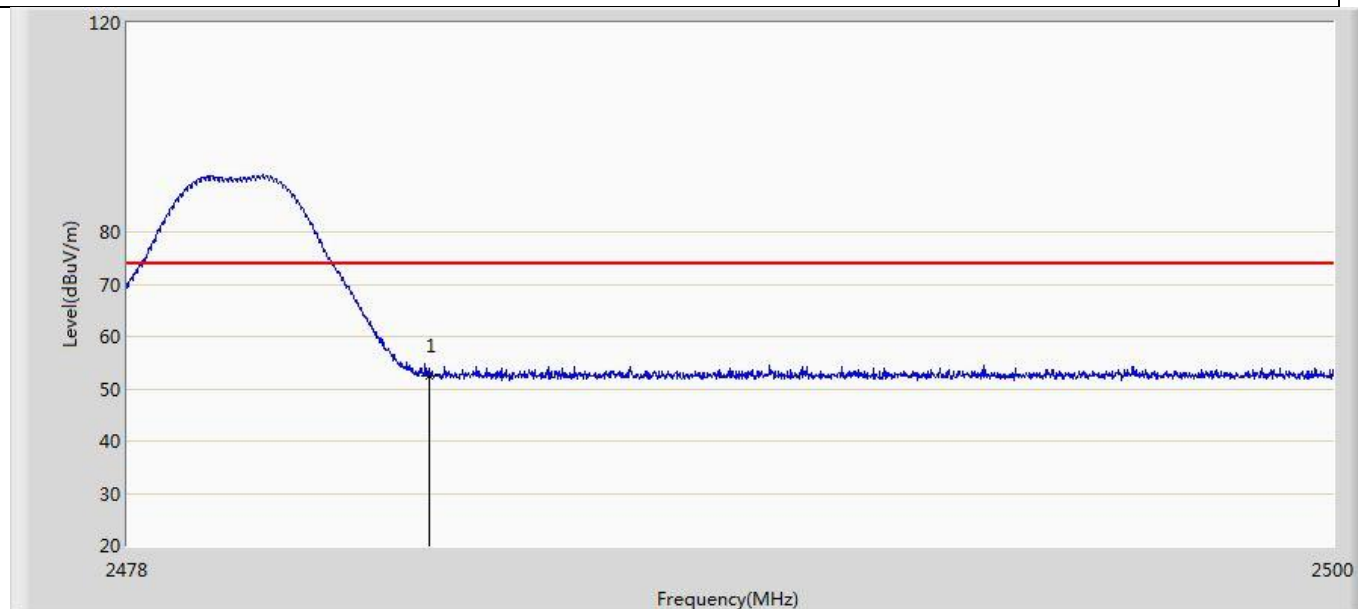
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	52.206	15.074	-21.794	74.000	37.133	PK

Profile: 2190372R	Page No.: 4
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2402MHz by LE_2Mbps	



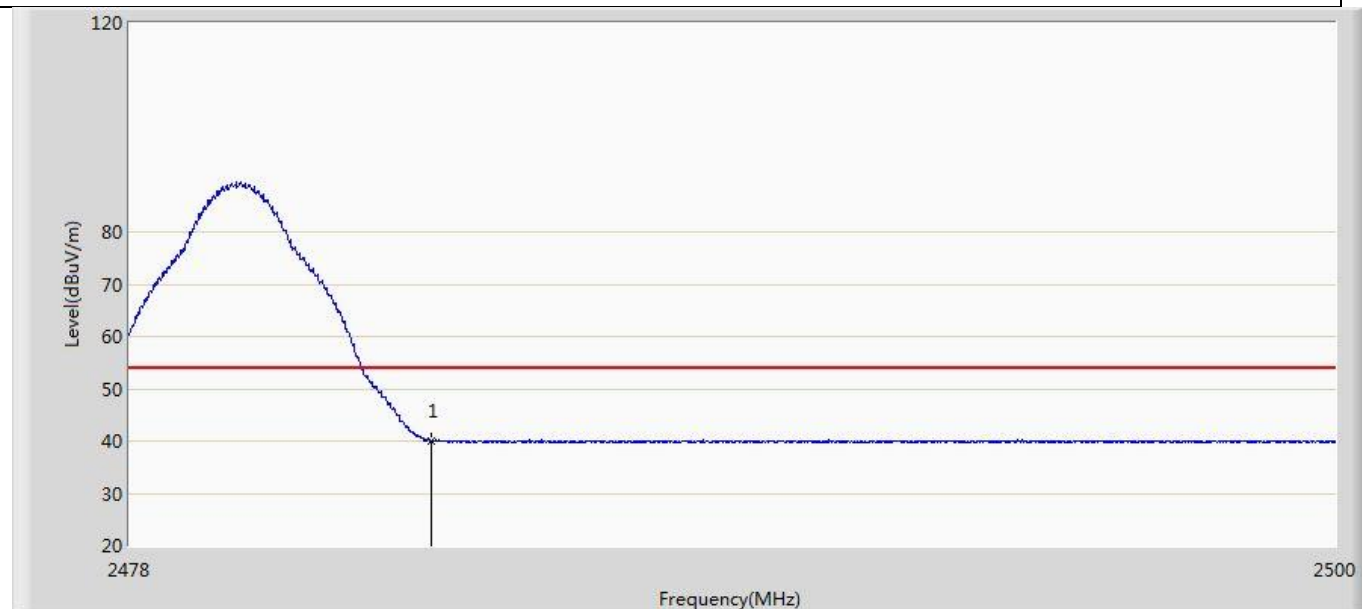
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2390.000	39.800	2.668	-14.200	54.000	37.133	AV

Profile: 2190372R	Page No.: 5
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



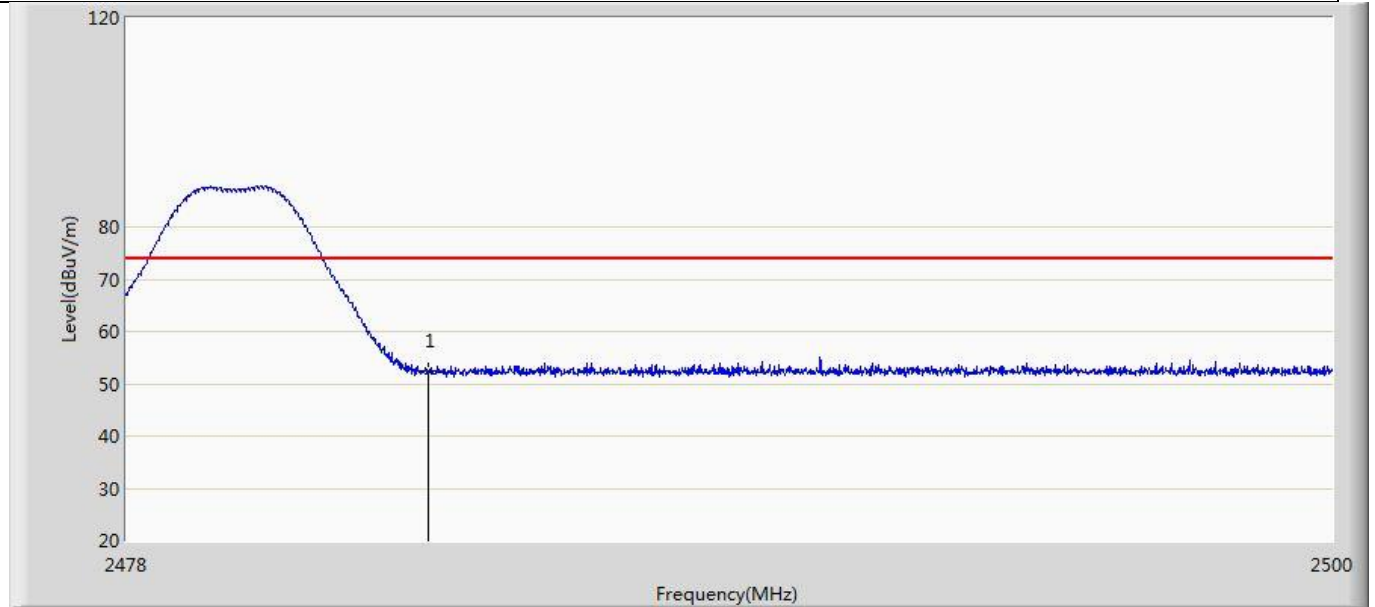
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	52.576	15.469	-21.424	74.000	37.106	PK

Profile: 2190372R	Page No.: 6
Engineer: YULIU	
Site: AC5	Time: 2022/02/51 - 00:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



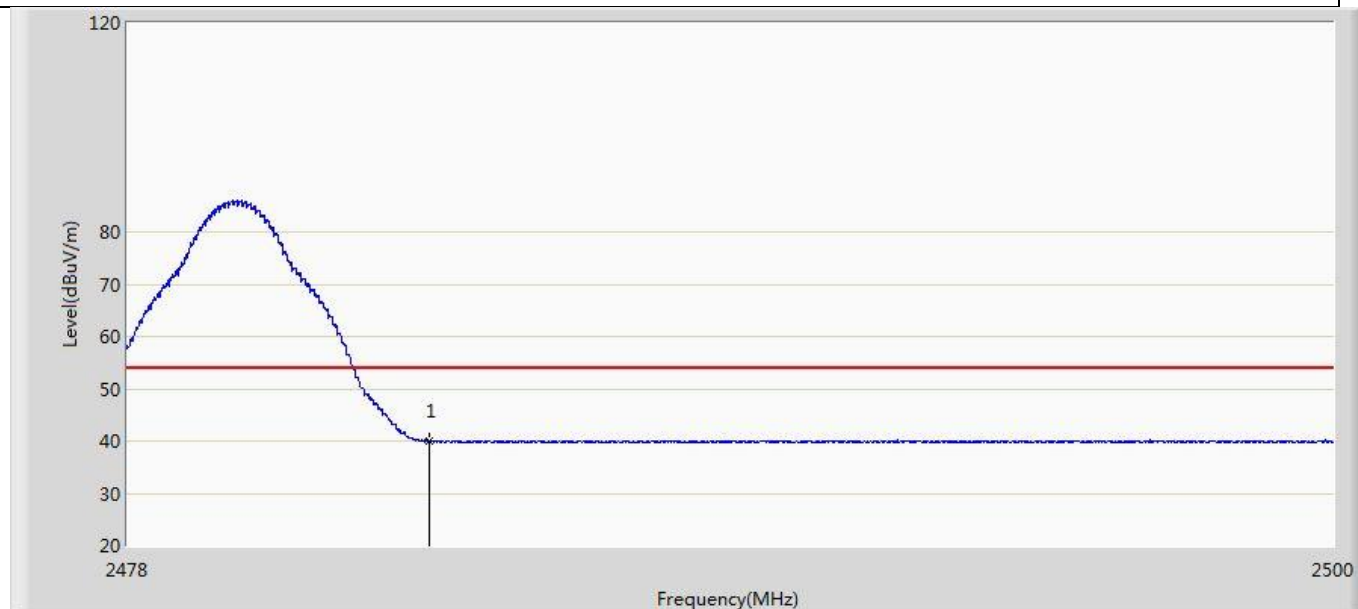
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	39.949	2.842	-14.051	54.000	37.106	AV

Profile: 2190372R	Page No.: 7
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	52.439	15.332	-21.561	74.000	37.106	PK

Profile: 2190372R	Page No.: 8
Engineer: YULIU	
Site: AC5	Time: 2022/02/22 - 00:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: M8 DESKPHONE	Power: AC 120V/60Hz
Note: Mode 2:Transmit at 2480MHz by LE_2Mbps	

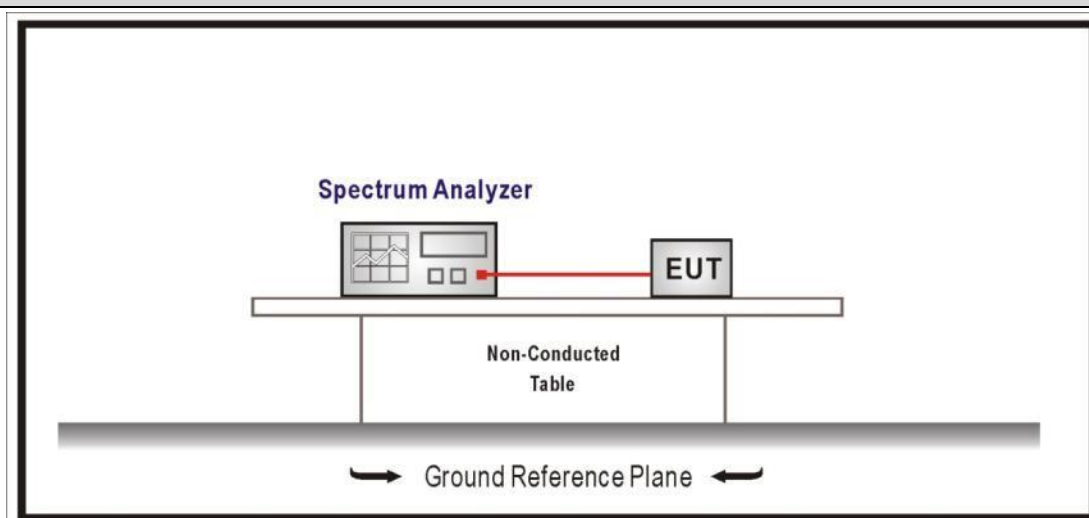


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2483.500	39.948	2.841	-14.052	54.000	37.106	AV

4.6 DTS Bandwidth**VERDICT: PASS****4.6.1 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

4.6.2 Test Setup**4.6.3 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

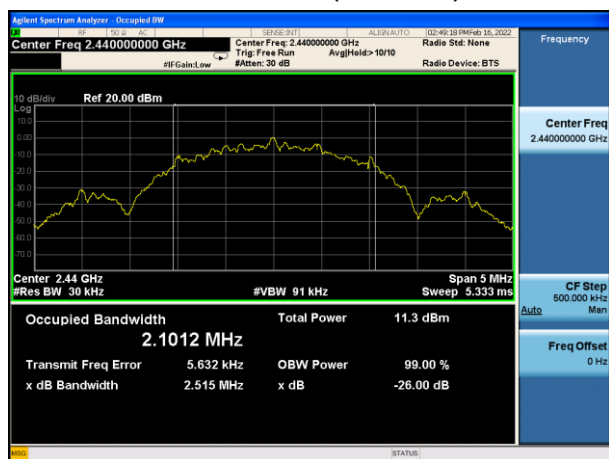
4.6.4 Test Data

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	00	2402	1.0656	715.3	>500	Pass
	19	2440	1.0670	708.9	>500	Pass
	39	2480	1.0667	710.4	>500	Pass
2	00	2402	2.1012	1127	>500	Pass
	19	2440	2.1012	1121	>500	Pass
	39	2480	2.1012	1118	>500	Pass

Note : The worst case of Occupied Bandwidth as below:

99% Occupied Bandwidth

Mode 2 CH19 (2440MHz)



6dB Occupied Bandwidth

Mode 1 CH19(2440MHz)



4.7 Fundamental emission output power

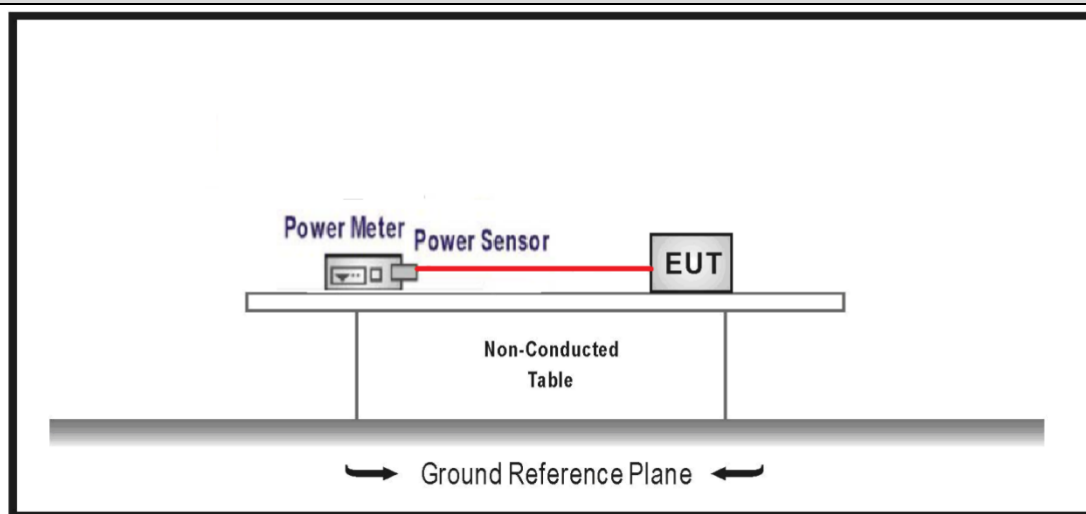
VERDICT: PASS

4.7.1 Limit

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

Note 1 : GTX directional gain of transmitting antennas.
Note 2 : Pout is maximum peak conducted output power .

4.7.2 Test Setup



4.7.3 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

4.7.4 Test Data

Mode	Channel	Test Frequency (MHz)	Conducted Power (dBm)	Conducted Power Limit (dBm)	Result
Mode 1	00	2402	5.49	≤ 30	Pass
	19	2440	5.77	≤ 30	Pass
	39	2480	5.12	≤ 30	Pass
Mode 2	00	2402	4.93	≤ 30	Pass
	19	2440	4.59	≤ 30	Pass
	39	2480	4.26	≤ 30	Pass

4.8 Power Density

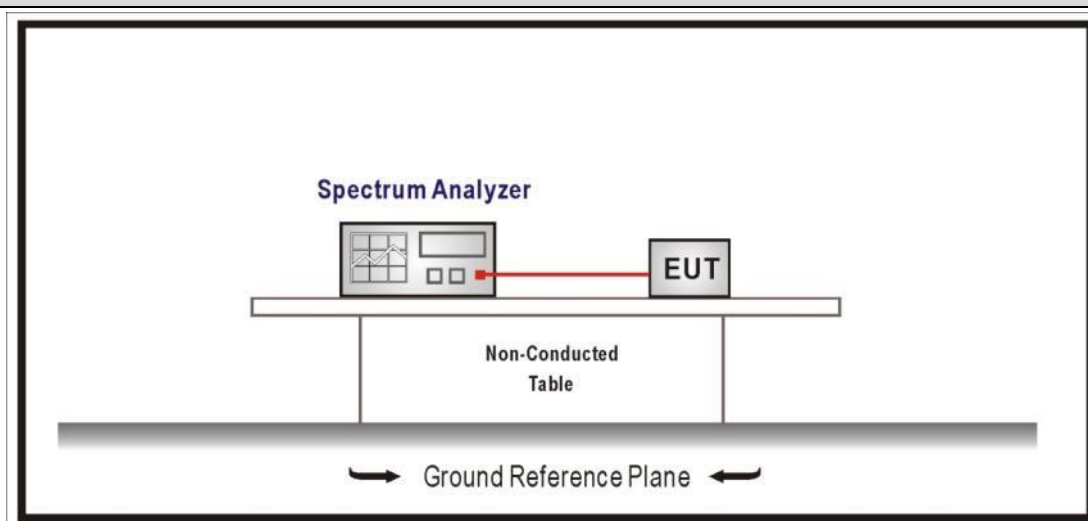
VERDICT: PASS

4.8.1 Limit:

Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)
-----------------	---

Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$

4.8.2 Test Setup



4.8.3 Test Procedure

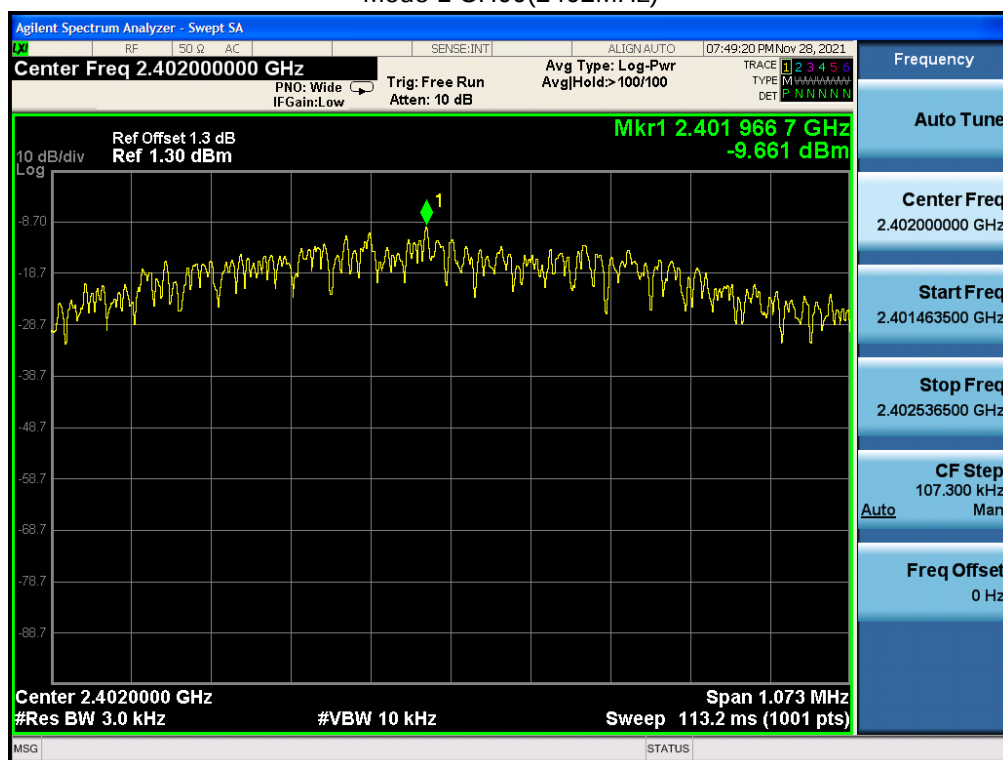
	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
	☐	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
	☐	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle $\geq 98\%$)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq 98\%$)
	☒	ANSI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

4.8.4 Test Data

Mode	Channel	Test Frequency (MHz)	Measurement PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
Mode 1	00	2402	-9.661	≤8	Pass
	19	2440	-10.044	≤8	Pass
	39	2480	-10.199	≤8	Pass
Mode 2	00	2402	-11.674	≤8	Pass
	19	2440	-11.979	≤8	Pass
	39	2480	-12.354	≤8	Pass

Note : The worst case of PSD as below:

Mode 1 CH00(2402MHz)



4.9 Antenna Requirement**VERDICT: PASS****4.9.1 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.

4.9.2 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 _____