



Test report No:  
2060465R-RF-US-P06V02

## FCC & ISED TEST REPORT

Product Name	Wireless Adaptor
Trademark	
Model and /or type reference	CFI-ZWD1
FCC ID	SZGCFIZWD1
IC	7702A-CFIZWD1
Applicant's name / address	Weifang Goertek Electronics Co., Ltd Gaoxin 2 Road, Free Trade Zone, Weifang, Shandong, 261205, P.R. China
Test method requested, standard	FCC CFR Title 47 Part 15 Subpart C Section 15.247 ANSI C63.10: 2013 KD558074 D01 15.247 Meas Guidance v05r02 RSS-Gen Issue 5 RSS-247 Issue 2
Verdict Summary	IN COMPLIANCE
Documented by (name / position & signature)	Kitty Li/Project Assistant 
Reviewed by (name / position & signature)	Frank He/ Technical Supervisor 
Approved by (name / position & signature)	Jack Zhang/ Supervisor 

Date of issue	2020-07-20
Report template No	Template_FCC 15.247-RF-V1.0

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## 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.

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## GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Jun. 11, 2020
Date (start test)	Jun. 13, 2020
Date (finish test)	Jun. 30, 2020

1. This report is only referred to the item that has undergone the test.
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## 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
2060465R-RF-US-P06V02	V1.0	Initial issue of report.	2020-07-13
2060465R-RF-US-P06V02	V1.1	1. Add IC EIRP 2.Add Average power	2020-07-20

## 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, RSS-Gen Issue 5, RSS-247 Issue 2.
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, unless the specification, standard or customer have special requirements.
4. The test results presented in this report relate only to the object tested.
5. The test results relate only to the samples tested.
6. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
7. This report will not be used for social proof function in China market.

## 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	2020.04.20	2021.04.19
Two-Line V-Network	R&S	ENV216	101190	2019.12.28	2020.12.27
Two-Line V-Network	R&S	ENV216	101044	2019.12.28	2020.12.27
Current Probe	R&S	EZ-17	100678	2020.03.12	2021.04.11
50ohm Termination	SHX	TF2	07081402	2019.09.02	2020.09.01
50ohm Termination	SHX	TF2	07081403	2019.09.02	2020.09.01
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	TR1-TH	2019.08.21	2020.08.20
Coaxial Cable	Suhner	RG 223	TR1-C1	2019.08.25	2020.08.24
Coaxial Cable	Suhner	RG 223	TR1-C2	2019.08.25	2020.08.24
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	2019.09.28	2020.09.27
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2020.04.17	2021.04.16
MXA Signal Analyzer	Keysight	N9020A	MY56060147	2019.08.30	2020.08.29
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2019.08.12	2020.08.11
Power Sensor	Anritsu	MA2411B	0846014	2019.08.12	2020.08.11
Coaxial Cable	Woken	SFL402	F02-150410-044	2020.01.01	2020.12.31
Dekra test software	Dekra	-	-	-	-

### Radiated Emission(30MHz-1GHz) / AC3

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2020.03.03	2021.03.02
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2019.09.23	2020.09.22
Temperature/Humidity Meter	RTS	RTS-8S	AC2-TH	2019.09.02	2020.09.01
Coaxial Cable	Huber+Suhner	RG 214	AC2-C	2020.04.13	2021.04.12
Dekra test software	Dekra	-	-	-	-



## Radiated Emission / AC5(1GHz-40GHz)

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2020.05.08	2021.05.07
Preamplifier	Miteq	NSP1800-25	1364185	2020.05.06	2021.05.05
Preamplifier	QuieTek	AP-040G	CHM-0906001	2020.05.06	2021.05.05
DRG Horn	ETS-Lindgren	3117	00123988	2020.01.22	2021.01.21
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2019.09.02	2020.09.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2020.04.13	2021.04.12
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2020.04.13	2021.04.12
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2020.04.13	2021.04.12
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: 2.80 dB 150kHz~30MHz: 2.40 dB
Peak Power Output	$\pm 1.27$ 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	$\pm 1.27$ dB
Radiated Emission Band Edge	$\pm 3.9$ dB
DTS Bandwidth	$\pm 150$ Hz
Occupied Bandwidth	$\pm 1$ kHz
Power Density	$\pm 1.27$ dB

# 1 GENERAL INFORMATION

## 1.1 General Description of the Item(s)

Product Name..... :	Wireless Adaptor
Model No. .... :	CFI-ZWD1
FCC ID ..... :	SZGCFIZWD1
IC..... :	7702A-CFIZWD1
Manufacturer..... :	Weifang Goertek Electronics Co., Ltd
Manufacturer Address..... :	Gaoxin 2 Road,Free Trade Zone,Weifang,Shandong,261205,P.R.China

Wireless specification..... :	Special 2.4GHz wireless
Operating frequency range(s)	2405.35- 2477.35 MHz
Type of Modulation..... :	Pi/4 DQPSK
Data Rate .....	1Mbps
Number of channel..... :	37

Rated power supply .....	Voltage and Frequency	
	<input type="checkbox"/>	AC: 220 – 240 V, 50/60 Hz
	<input type="checkbox"/>	AC: 100 – 240 V, 50/60 Hz
	<input checked="" type="checkbox"/>	DC: 5 Vdc
	<input type="checkbox"/>	Battery: 5.0V
Mounting position..... :	<input type="checkbox"/>	Table top equipment
	<input type="checkbox"/>	Wall/Ceiling mounted equipment
	<input type="checkbox"/>	Floor standing equipment
	<input type="checkbox"/>	Head-mounted equipment
	<input checked="" type="checkbox"/>	Other: Dongle

Note: All the information is from the client.

## 1.2 Antenna Information

Antenna model / type number .....	N/A		
Antenna serial number .....	N/A		
Antenna Delivery .....	<input checked="" type="checkbox"/>	1TX + 1RX	
	<input type="checkbox"/>	2TX + 2RX	
Antenna technology .....	<input checked="" type="checkbox"/>	SISO	
	<input type="checkbox"/>	MIMO	<input type="checkbox"/> CDD <input type="checkbox"/> Beam-forming
Antenna Type .....	<input type="checkbox"/>	External	<input type="checkbox"/> Dipole
			<input type="checkbox"/> Sectorized
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/> PIFA
			<input checked="" type="checkbox"/> PCB
			<input type="checkbox"/> Metal Monopole Antenna
		<input type="checkbox"/> Others.....	
Antenna Gain.....	-1.04 dBi		

### 1.3 Channel List

Working Frequency of Each Channel: For Special 2.4GHz Wireless							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
02	2405.35	03	2407.35	04	2409.35	05	2411.35
06	2413.35	07	2415.35	08	2417.35	09	2419.35
10	2421.35	11	2423.35	12	2425.35	13	2427.35
14	2429.35	15	2431.35	16	2433.35	17	2435.35
18	2437.35	19	2439.35	20	2441.35	21	2443.35
22	2445.35	23	2447.35	24	2449.35	25	2451.35
26	2453.35	27	2455.35	28	2457.35	29	2459.35
30	2461.35	31	2463.35	32	2465.35	33	2467.35
34	2469.35	35	2471.35	36	2473.35	37	2475.35
38	2477.35	--	--	--	--	--	--

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## 2 DESCRIPTION OF TEST SETUP

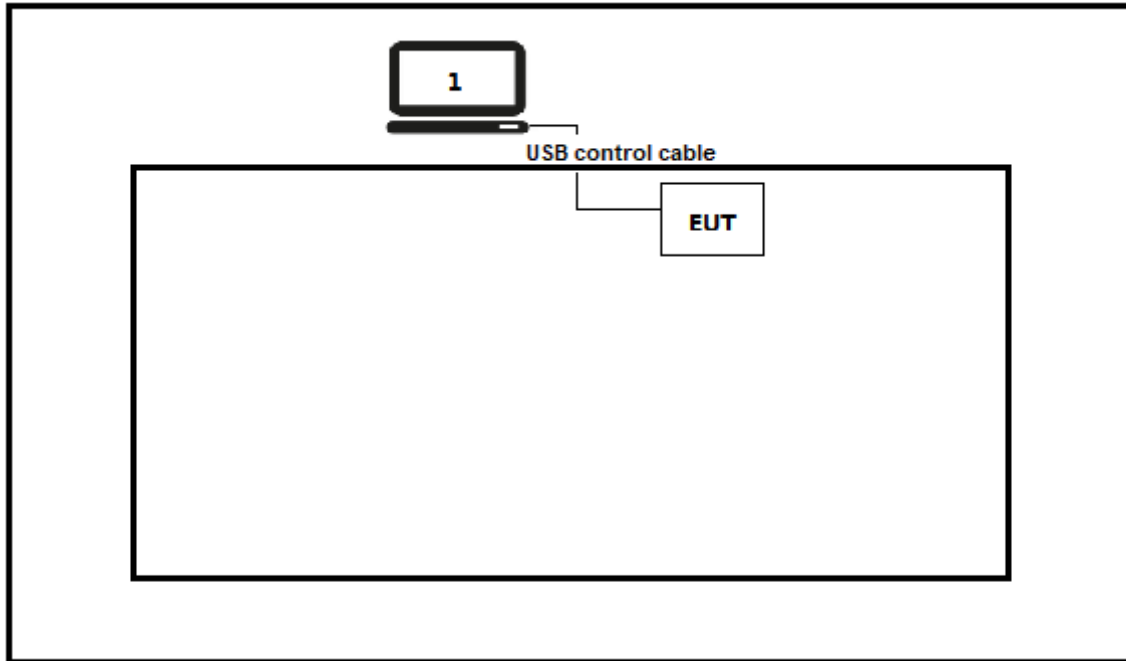
### 2.1 Operating mode(s) used for tests

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

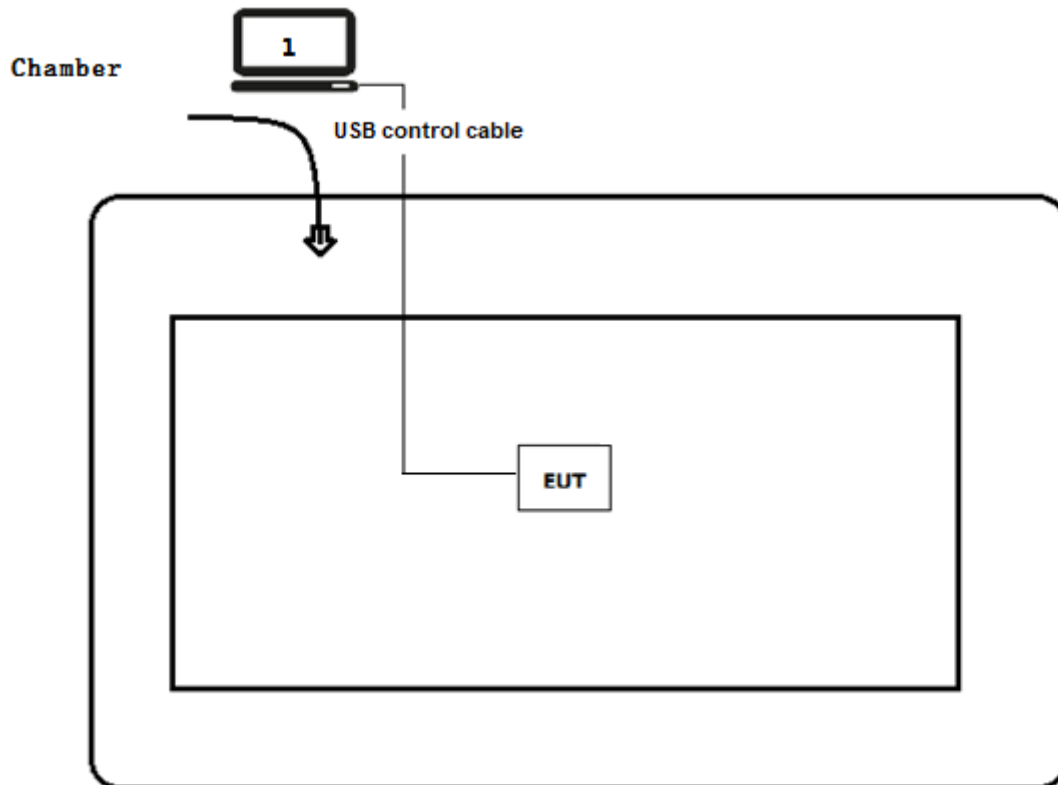
Test Mode	Mode1: Transmit by 1Mbps(Pi/4 DQPSK)
-----------	--------------------------------------

## 2.2 Test Configuration / Block diagram used for tests

Test setup Diagram- AC Line Conducted Emission Test



Test setup Diagram- Radiated Emission



### 2.3 Testing process

1	Setup the EUT as shown in Section 2.4.
2	Turn on the power of equipment.
3	Run the RF test software 【VMldebug】 .
4	Select the transmission mode and test channel, then start test.



### 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	2019	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 D01 v05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247
RSS-Gen Issue 5 Amendment 1	2019	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	---
Radiated Emission 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	---

#### For ISED

Requirement – Test case	Basic standard(s)	Verdict	Remark
AC Power Line Conducted Emission	RSS-Gen Issue 5 Section 8.8	PASS	---
Emissions in restricted frequency bands	RSS-Gen Issue 5 Section 8.9	PASS	---
Duty cycle	ANSI C63.10:2013	PASS	---
Emissions in non-restricted frequency bands	RSS-247 Issue 2 Section 5.5	PASS	---
Radiated Emission Band Edge	RSS-Gen Issue 5 Section 8.10	PASS	---
Fundamental emission output power	RSS-247 Issue 2 Section 5.4(d)	PASS	---
DTS Bandwidth	RSS-Gen Issue 5 Section 6.7	PASS	---
Power Spectral Density	RSS-247 Issue 2 Section 5.2(b)	PASS	---
Antenna Requirement	RSS-Gen Issue 5 Section 6.8	PASS	---

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### 3.4 Test Facility

**USA : FCC Designation Number: CN1199**

**CA : ISED CAB identifier: CN0040**

## 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) <sup>1)</sup>	Limit: AV [dB(μV) <sup>1)</sup>
0,15 - 0,50	66 - 56 <sup>2)</sup>	56 - 46 <sup>2)</sup>
0,50 - 5,0	56	46
5,0 - 30	60	50

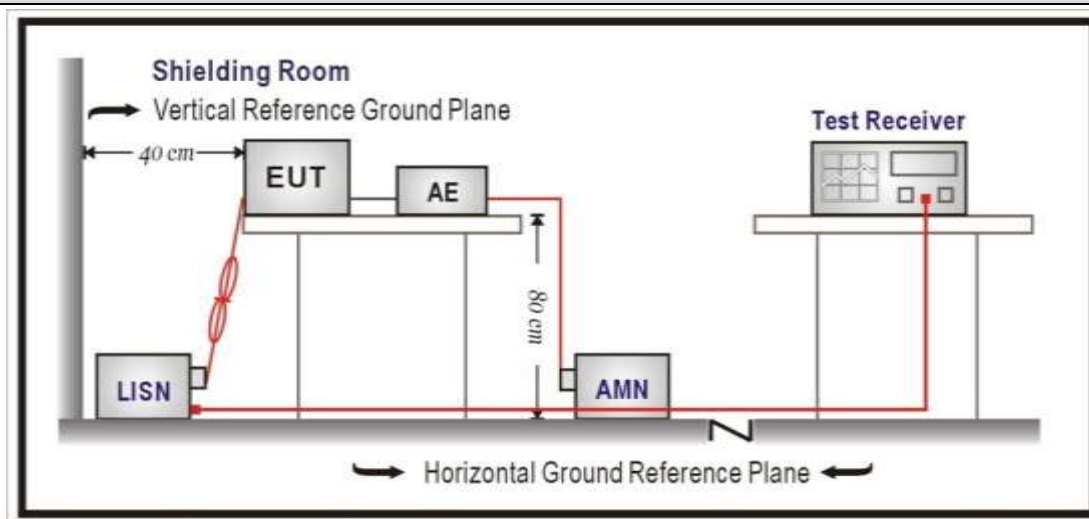
<sup>1)</sup> At the transition frequency, the lower limit applies.

<sup>2)</sup> 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

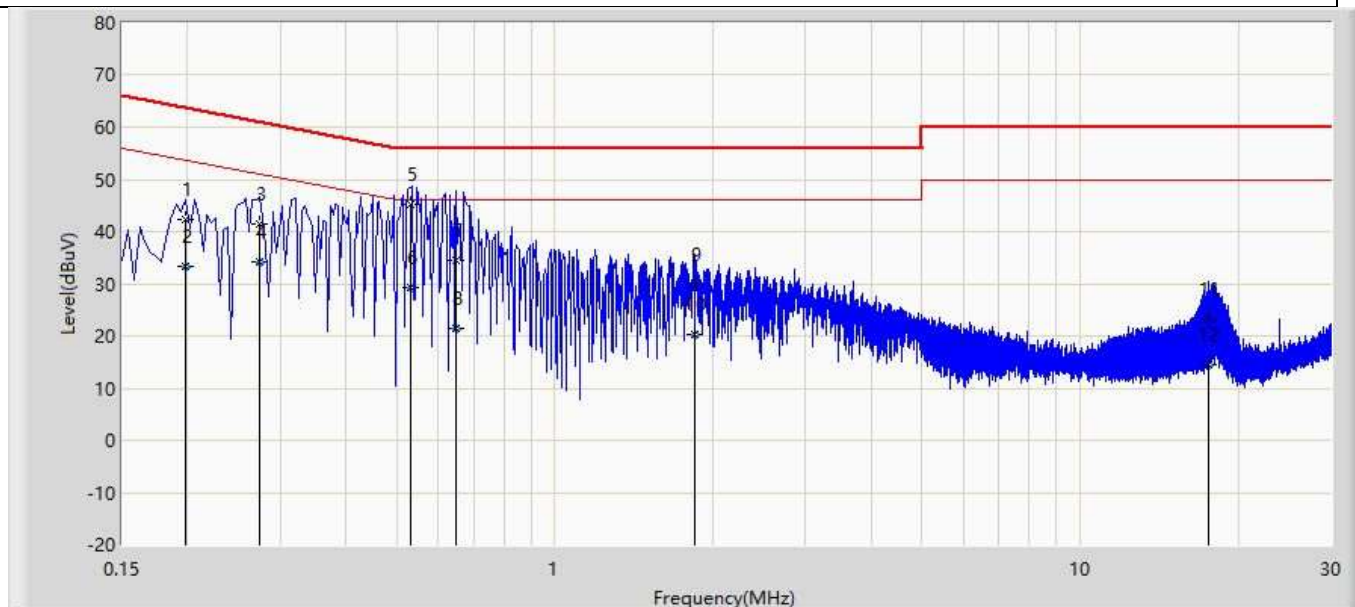


#### 4.1.3 Test Procedure

References Rule	Chapter	Item
<input checked="" type="checkbox"/> 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: 2060465R	Page No.: 1
Engineer: pawn	
Site: TR1	Time: 2020/07/01 - 01:15
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Line
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1	

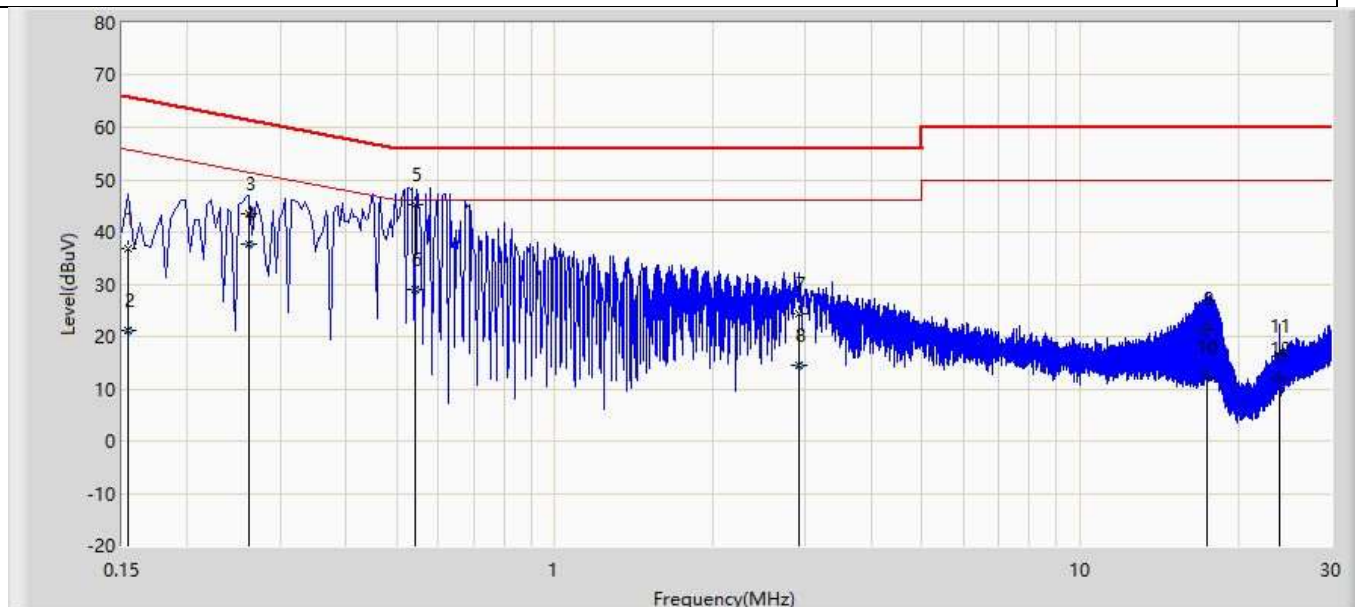


No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.198	42.213	32.597	-21.481	63.694	9.588	0.029	0.000	QP
2		0.198	33.219	23.603	-20.475	53.694	9.588	0.029	0.000	AV
3		0.274	41.404	31.776	-19.592	60.996	9.595	0.033	0.000	QP
4		0.274	34.225	24.597	-16.771	50.996	9.595	0.033	0.000	AV
5	*	0.533	45.103	35.447	-10.897	56.000	9.611	0.044	0.000	QP
6		0.533	29.203	19.548	-16.797	46.000	9.611	0.044	0.000	AV
7		0.650	34.463	24.797	-21.537	56.000	9.617	0.048	0.000	QP
8		0.650	21.404	11.739	-24.596	46.000	9.617	0.048	0.000	AV
9		1.850	29.919	20.206	-26.081	56.000	9.630	0.083	0.000	QP
10		1.850	20.215	10.502	-25.785	46.000	9.630	0.083	0.000	AV
11		17.546	23.125	12.864	-36.875	60.000	9.991	0.270	0.000	QP
12		17.546	14.380	4.119	-35.620	50.000	9.991	0.270	0.000	AV

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: 2060465R	Page No.: 2
Engineer: pawn	
Site: TR1	Time: 2020/07/01 - 01:33
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101190(0.009-30MHz)	Polarity: Neutral
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Probe (dB)	Cable (dB)	Amp (dB)	Type
1		0.154	36.773	27.173	-29.008	65.781	9.572	0.029	0.000	QP
2		0.154	21.260	11.659	-34.522	55.781	9.572	0.029	0.000	AV
3		0.262	43.337	33.711	-18.031	61.368	9.594	0.032	0.000	QP
4		0.262	37.710	28.084	-13.658	51.368	9.594	0.032	0.000	AV
5	*	0.542	45.300	35.644	-10.700	56.000	9.612	0.044	0.000	QP
6		0.542	29.003	19.347	-16.997	46.000	9.612	0.044	0.000	AV
7		2.918	24.386	14.625	-31.614	56.000	9.654	0.107	0.000	QP
8		2.918	14.547	4.786	-31.453	46.000	9.654	0.107	0.000	AV
9		17.422	21.516	11.259	-38.484	60.000	9.989	0.268	0.000	QP
10		17.422	12.047	1.790	-37.953	50.000	9.989	0.268	0.000	AV
11		23.910	16.138	5.611	-43.862	60.000	10.210	0.317	0.000	QP
12		23.910	12.027	1.500	-37.973	50.000	10.210	0.317	0.000	AV

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).

<b>4.2 Emissions in restricted frequency bands</b>	<b>VERDICT: PASS</b>
----------------------------------------------------	----------------------

<b>4.2.1 Limit</b>			
<b>Standard</b>		FCC Part 15 Subpart C Paragraph 15.209	
Restricted Bands of operation			
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 Bands of operation for IC			
0.090 - 0.110	13.36 - 13.41	960 - 1427	9.0 - 9.2
0.495 - 0.505	16.42 - 16.423	1435 - 1626.5	9.3 - 9.5
2.1735 - 2.1905	16.69475 - 16.69525	1645.5 - 1646.5	10.6 - 12.7
3.020 - 3.026	16.80425 - 16.80475	1660 - 1710	13.25 - 13.4
4.125 - 4.128	25.5 - 25.67	1718.8 - 1722.2	14.47 - 14.5
4.17725 - 4.17775	37.5 - 38.25	2200 - 2300	15.35 - 16.2
4.20725 - 4.20775	73 - 74.6	2310 - 2390	17.7 - 21.4
5.677 - 5.683	74.8 - 75.2	2483.5 - 2500	22.01 - 23.12
6.215 - 6.218	108 - 138	2655 - 2900	23.6 - 24.0
6.26775 - 6.26825	149.9 - 150.05	3260 - 3267	31.2 - 31.8
6.31175 - 6.31225	156.52475 - 156.52525	3332 - 3339	36.43 - 36.5
8.291 - 8.294	156.7 - 156.9	3345.8 - 3358	Above 38.6
8.362 - 8.366	162.0125 - 167.17	3500 - 4400	
8.37625 - 8.38675	167.72 - 173.2	4500 - 5150	
8.41425 - 8.41475	240 - 285	5350 - 5460	
12.29 - 12.293	322 - 335.4	7250 - 7750	
12.51975 - 12.52025	399.9 - 410	8025 - 8500	
12.57675 - 12.57725	608 - 614	--	

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 <sub>(Note 1)</sub>
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 <sub>(Note 1)</sub>
1.705 - 30	30	29.5	30 <sub>(Note 1)</sub>
30 - 88	100	40	3 <sub>(Note 2)</sub>
88 - 216	150	43.5	3 <sub>(Note 2)</sub>
216 - 960	200	46	3 <sub>(Note 2)</sub>
Above 960	500	54	3 <sub>(Note 2)</sub>

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).

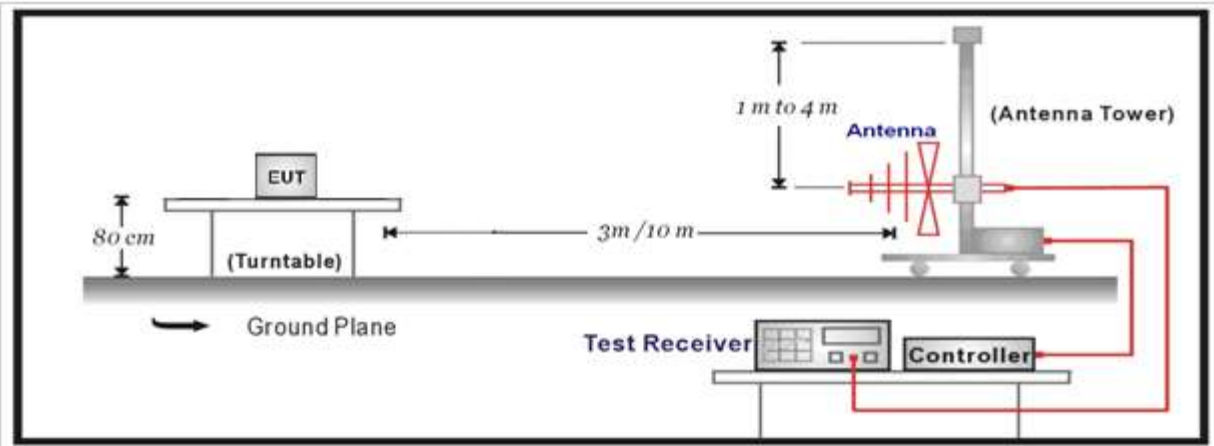
Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated 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).

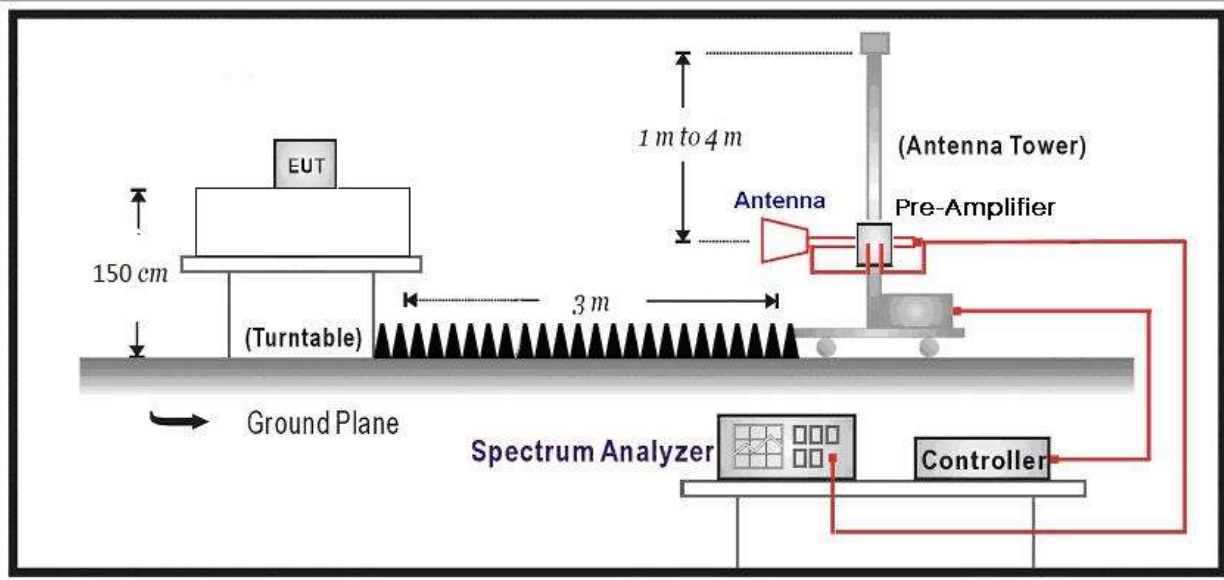


### 4.2.2 Test Setup

30MHz-1GHz Test Setup:



Above 1GHz Test Setup:

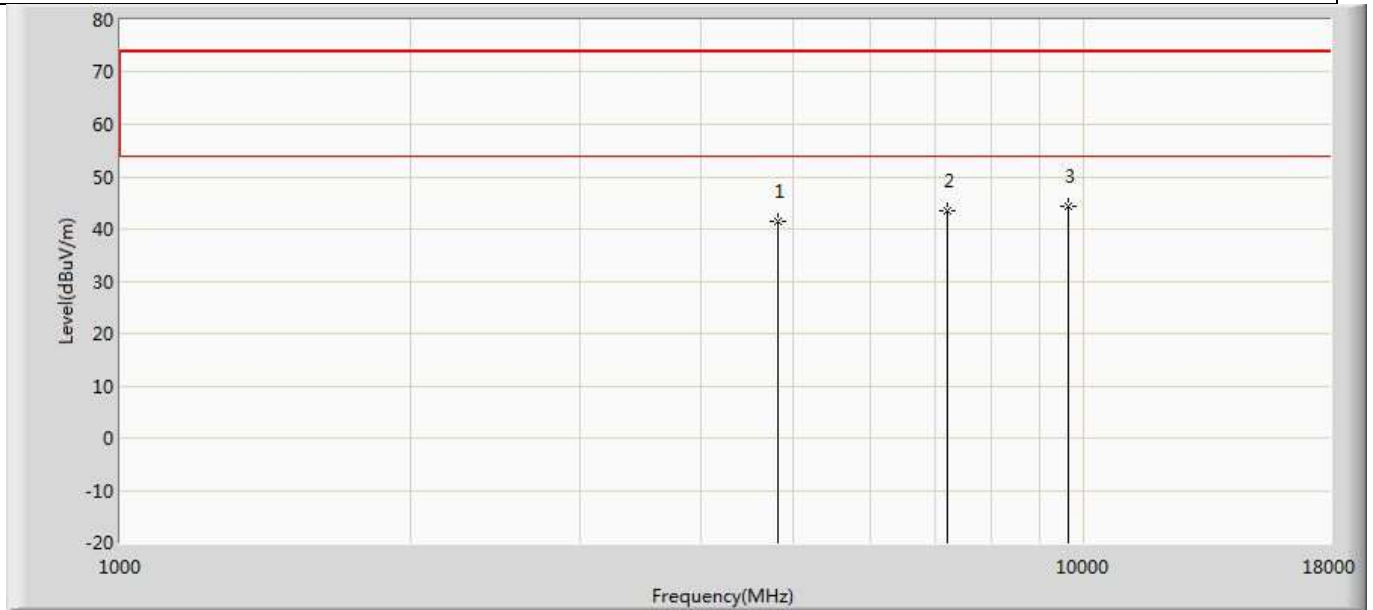


### 4.2.3 Test Procedure

References Rule	Chapter	Description
<input checked="" type="checkbox"/> ANSI C63.10	11.12	Emissions in restricted frequency bands
<input checked="" type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements
<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test
<input checked="" type="checkbox"/> ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
<input checked="" type="checkbox"/> ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
<input checked="" type="checkbox"/> ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

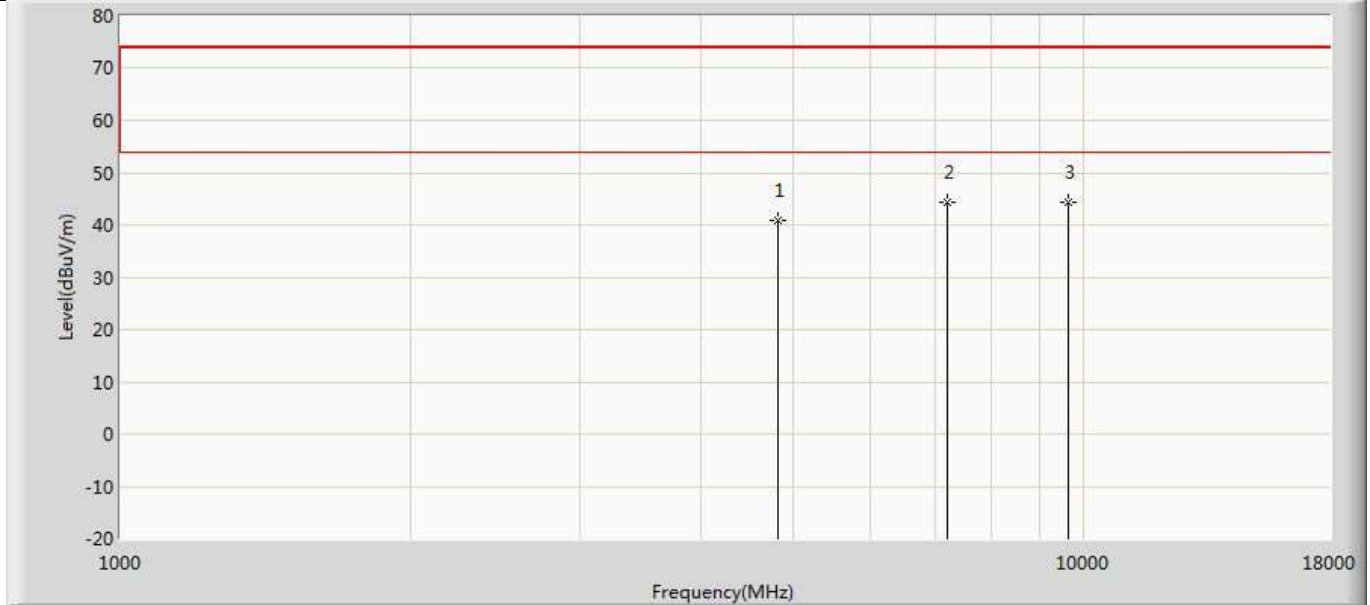
**4.2.4 Test Data**

Profile: 2060465R	Page No.: 15
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2405.35MHz	



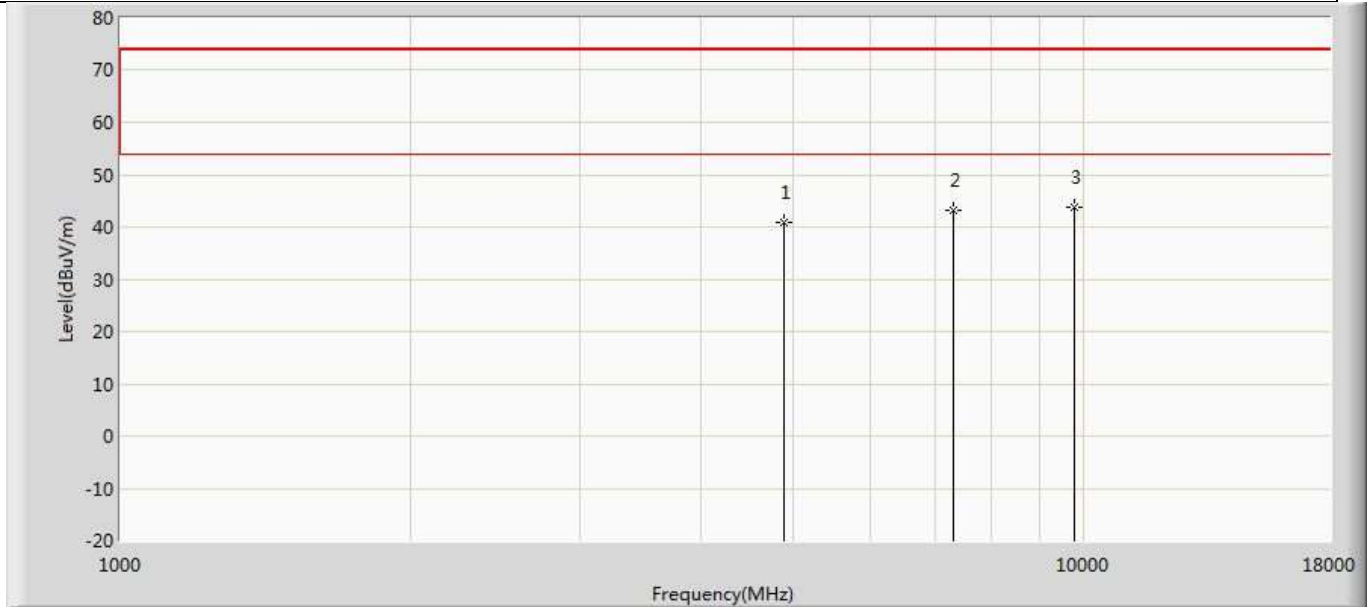
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4810.700	41.522	37.873	-32.478	74.000	3.649	PK
2		7216.050	43.587	36.908	-30.413	74.000	6.679	PK
3	*	9621.400	44.211	35.798	-29.789	74.000	8.413	PK

Profile: 2060465R	Page No.: 16
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2405.35MHz	



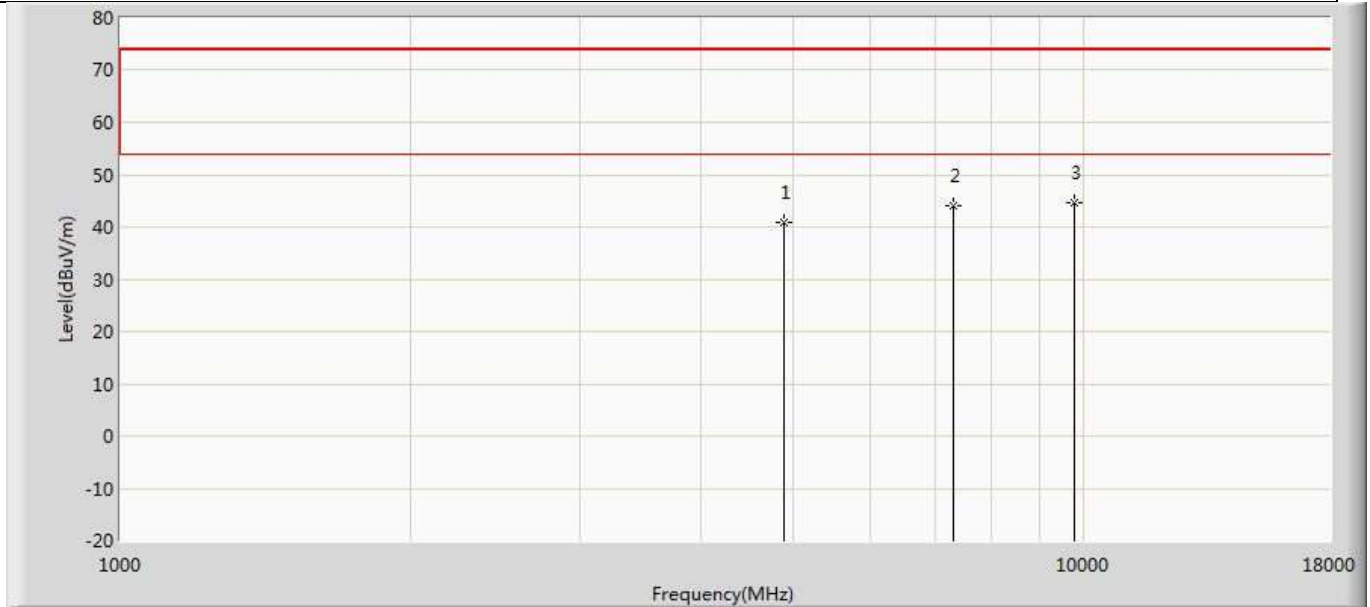
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4810.700	41.013	37.364	-32.987	74.000	3.649	PK
2	*	7216.050	44.422	37.743	-29.578	74.000	6.679	PK
3		9621.400	44.405	35.992	-29.595	74.000	8.413	PK

Profile: 2060465R	Page No.: 17
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2441.35MHz	



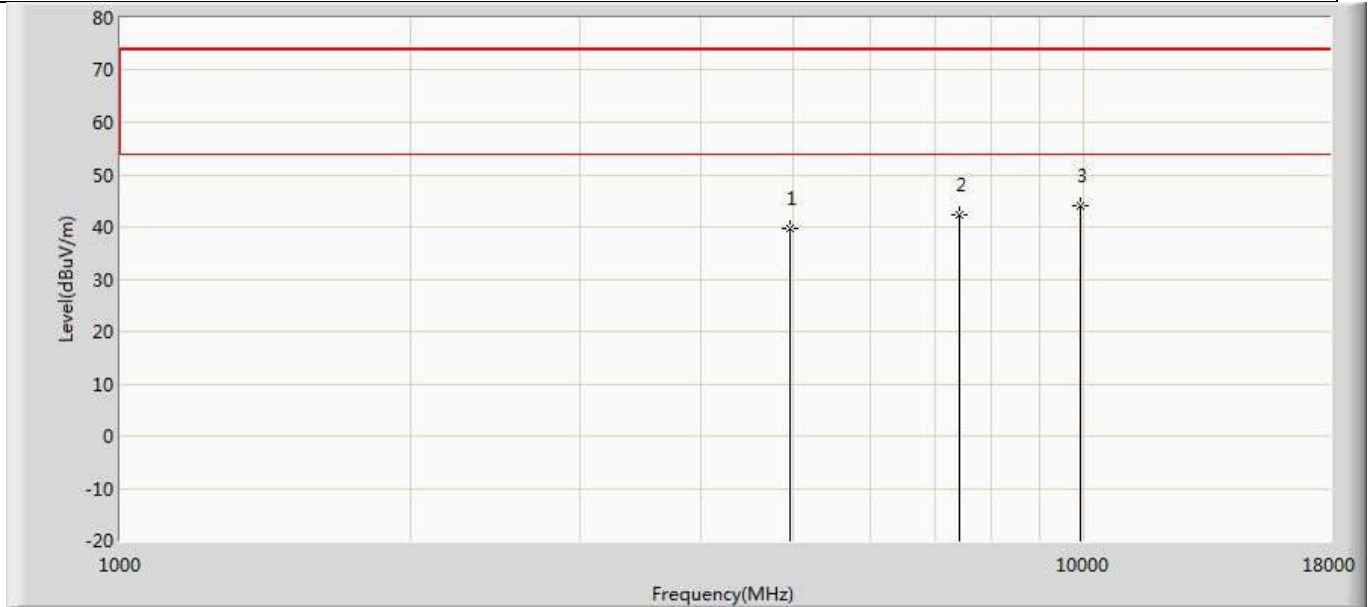
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4882.700	40.919	37.308	-33.081	74.000	3.611	PK
2		7324.050	43.258	36.550	-30.742	74.000	6.708	PK
3	*	9765.400	43.834	35.044	-30.166	74.000	8.789	PK

Profile: 2060465R	Page No.: 18
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2441.35MHz	



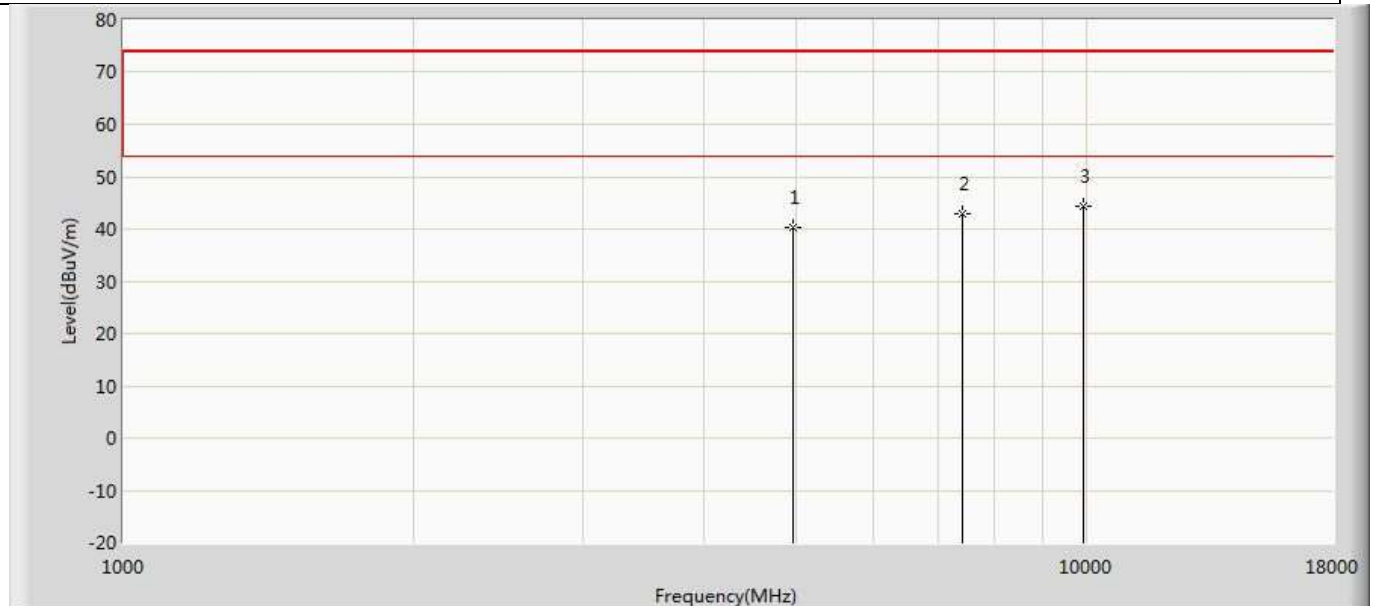
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4882.700	40.868	37.257	-33.132	74.000	3.611	PK
2		7324.050	44.038	37.330	-29.962	74.000	6.708	PK
3	*	9765.400	44.510	35.720	-29.490	74.000	8.789	PK

Profile: 2060465R	Page No.: 19
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2477.35MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4954.700	39.720	36.108	-34.280	74.000	3.613	PK
2		7432.050	42.354	35.813	-31.646	74.000	6.542	PK
3	*	9909.400	44.076	35.465	-29.924	74.000	8.612	PK

Profile: 2060465R	Page No.: 20
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 17:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2477.35MHz	



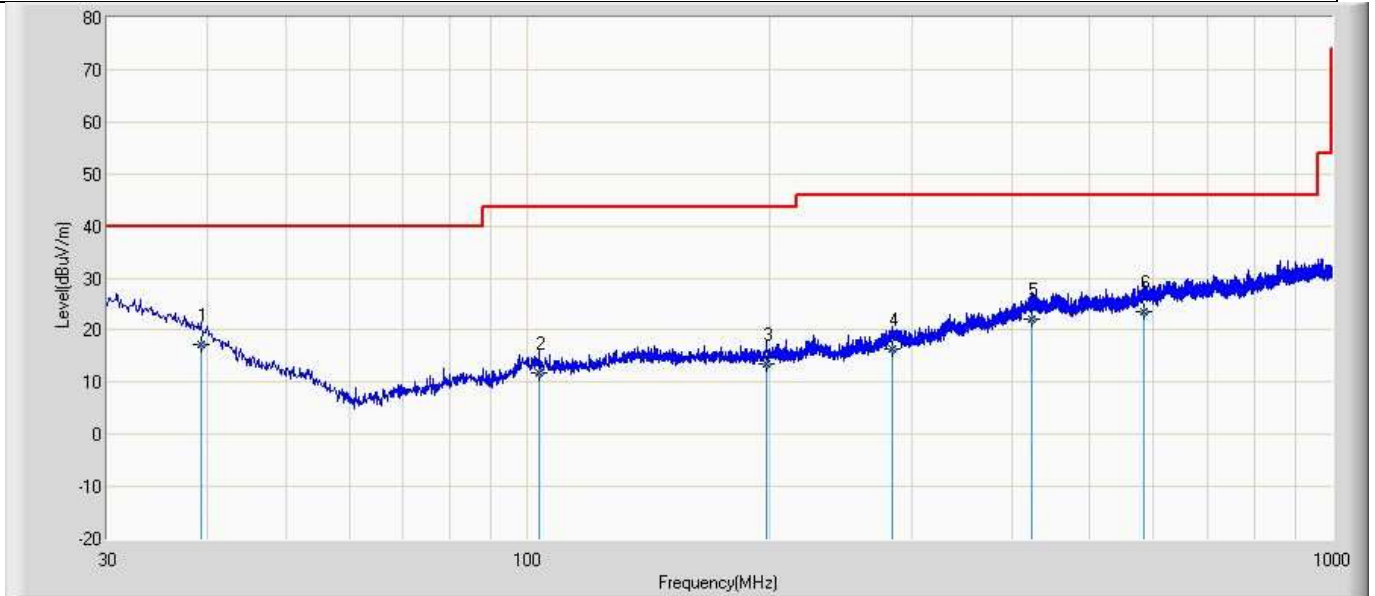
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		4954.700	40.167	36.555	-33.833	74.000	3.613	PK
2		7432.050	43.011	36.470	-30.989	74.000	6.542	PK
3	*	9909.400	44.273	35.662	-29.727	74.000	8.612	PK

Note:

1. Measured Level = Reading Level + Factor.
2. The test frequency range, 9kHz~30MHz, 18GHz~26GHz, both of the worst case are at least 20dB below the limits, therefore no data appear in the report.
3. 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.
4. As the radiated emission was performed, so conducted emission was not tested.

**The worst case of Radiated Emission below 1GHz:**

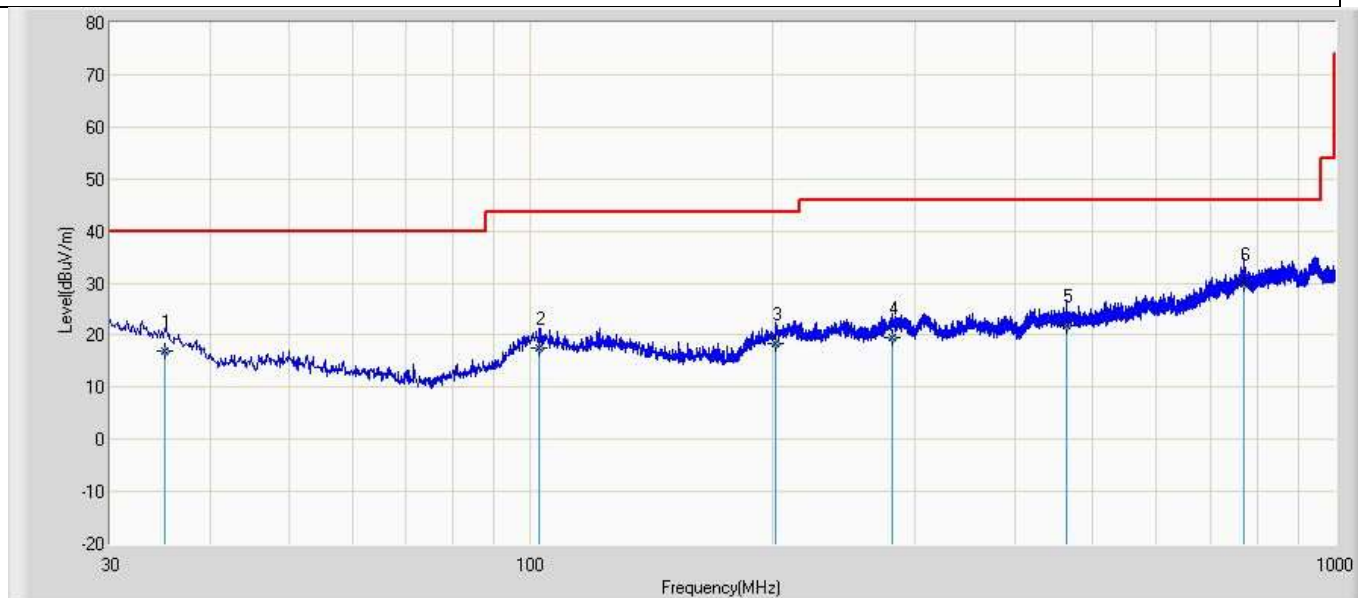
Profile: 2060465R	Page No.: 9
Engineer: Pawn	
Site: AC3	Time: 2020/06/21 - 19:52
Limit: FCC_Part15.209_RE(3m)_ClassB	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		39.215	17.285	-5.583	-22.715	40.000	22.868	QP
2		103.356	11.751	-4.675	-31.749	43.500	16.426	QP
3		198.538	13.408	-4.304	-30.092	43.500	17.712	QP
4		284.383	16.315	-4.751	-29.685	46.000	21.065	QP
5		424.062	22.237	-5.148	-23.763	46.000	27.384	QP
6	*	583.749	23.685	-4.559	-22.315	46.000	28.244	QP



Profile: 2060465R	Page No.: 10
Engineer: Pawn	
Site: AC3	Time: 2020/06/21 - 19:55
Limit: FCC_Part15.209_RE(3m)_ClassB	Margin: 0
Probe: AC3_3m (30-1000MHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		35.092	16.990	-5.442	-23.010	40.000	22.432	QP
2		102.629	17.407	-4.673	-26.093	43.500	22.079	QP
3		201.811	18.294	-4.389	-25.206	43.500	22.683	QP
4		281.715	19.660	-5.048	-26.340	46.000	24.708	QP
5		464.439	21.897	-3.615	-24.103	46.000	25.512	QP
6	*	771.201	29.926	-2.424	-16.074	46.000	32.350	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).

**4.3 Emissions in non-restricted frequency band**

**VERDICT: PASS**

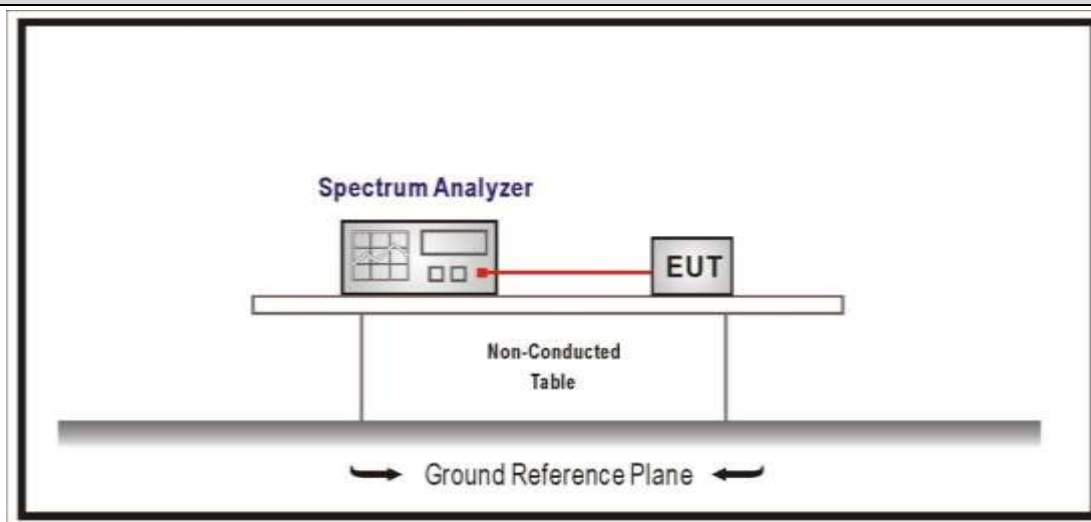
**4.3.1 Limit**

<b>Standard</b>	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**

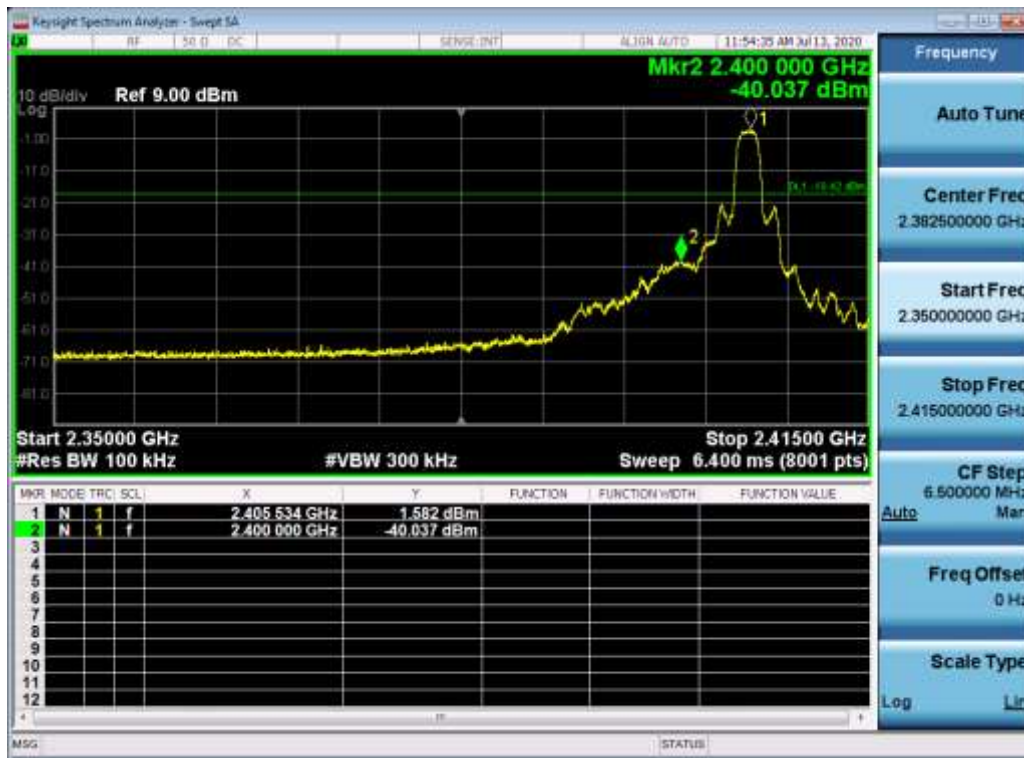
References Rule	Chapter	Description
<input checked="" type="checkbox"/> ANSI C63.10	11.11	Emissions in non-restricted frequency bands
<input checked="" type="checkbox"/> ANSI C63.10	11.11.1	General
<input checked="" type="checkbox"/> ANSI C63.10	11.11.2	Reference level measurement
<input checked="" type="checkbox"/> 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	02	2405.35	1.582	2500	-40.037	41.619	>20	Pass
	38	2477.35	1.341	2500	-65.230	66.571	>20	Pass

Note 1: The worst data plot as below:

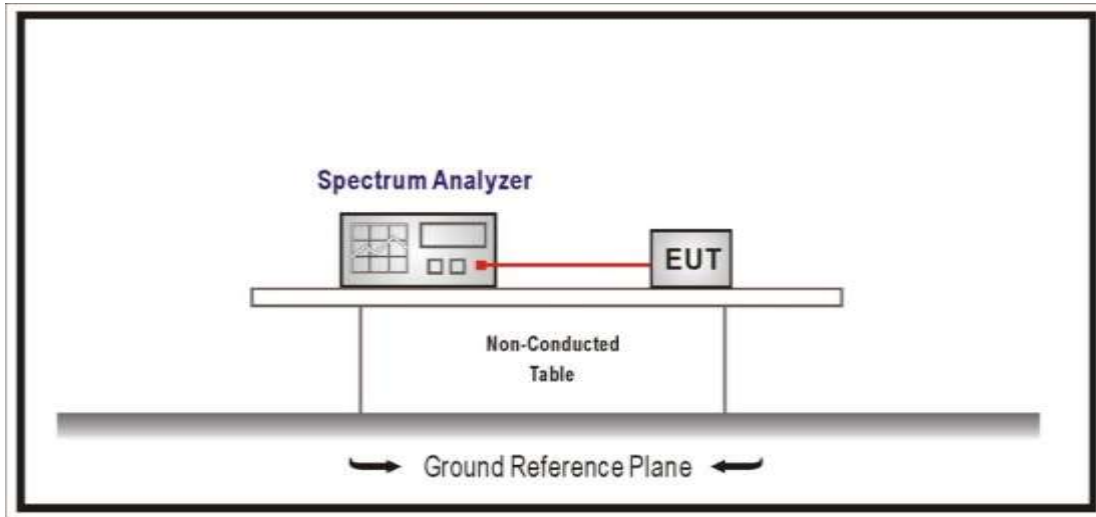
Mode1/CH02/2405.35MHz



<b>4.4 Duty cycle</b>	<b>VERDICT: PASS</b>
-----------------------	----------------------

<b>4.4.1 Limit</b>
N/A

<b>4.4.2 Test Setup</b>
-------------------------



<b>4.4.3 Test Procedure</b>
-----------------------------

	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.6	Duty cycle (D), transmission duration (T), and maximum power control level

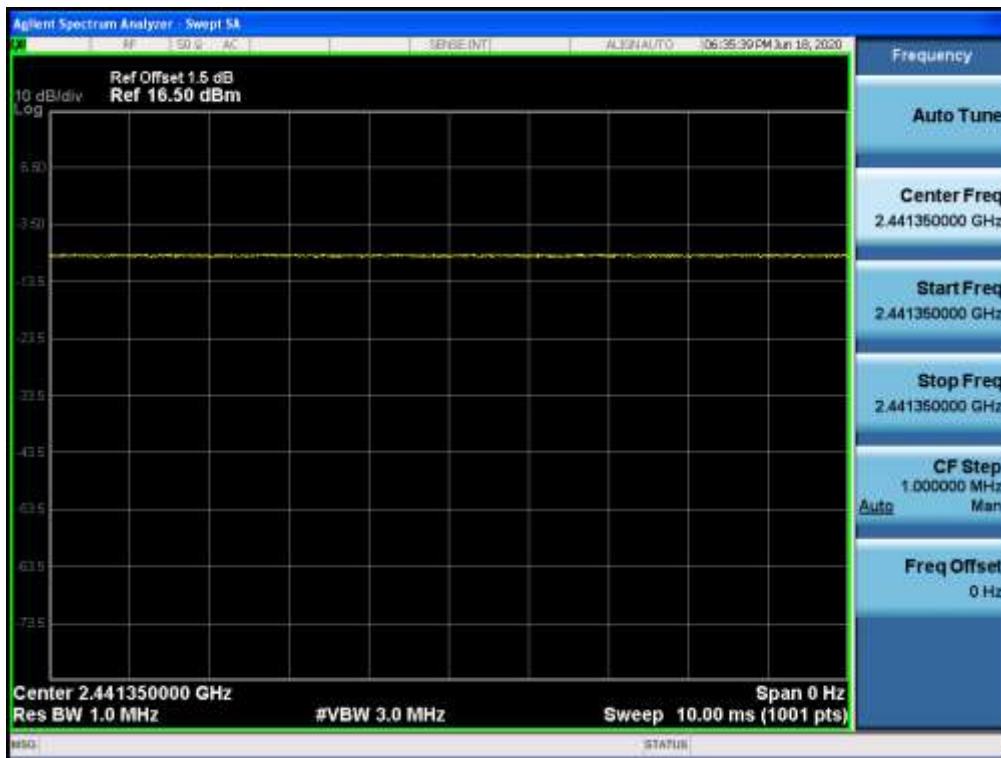
**4.4.4 Test Data**

Test Mode	Tx On (us)	Tx Off (us)	VBW (kHz)	Tx On + Tx Off (us)	Duty Cycle (%)
Mode 1	--	--	--	--	100

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

Note 2: According to 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 CH20 2441.35MHz



**4.5 Radiated Emission Band Edge**

**VERDICT: PASS**

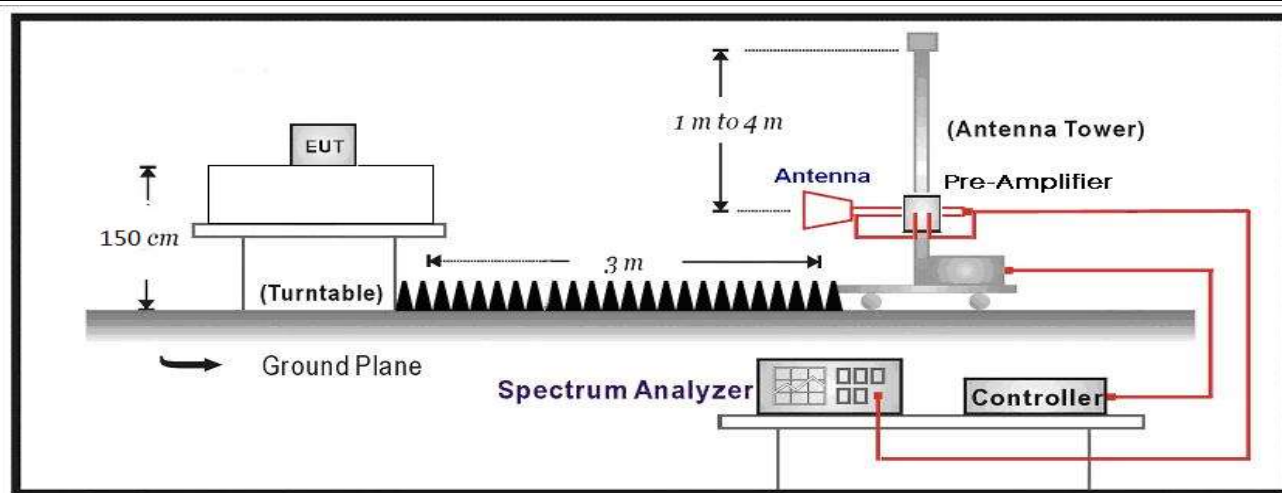
**4.5.1 Limit**

<b>Standard</b>		FCC Part 15 Subpart C Paragraph 15.247(d) , 15.209		
Frequency bands (MHz)	Detector	Limit (dBµV/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**

Above 1GHz Test Setup:

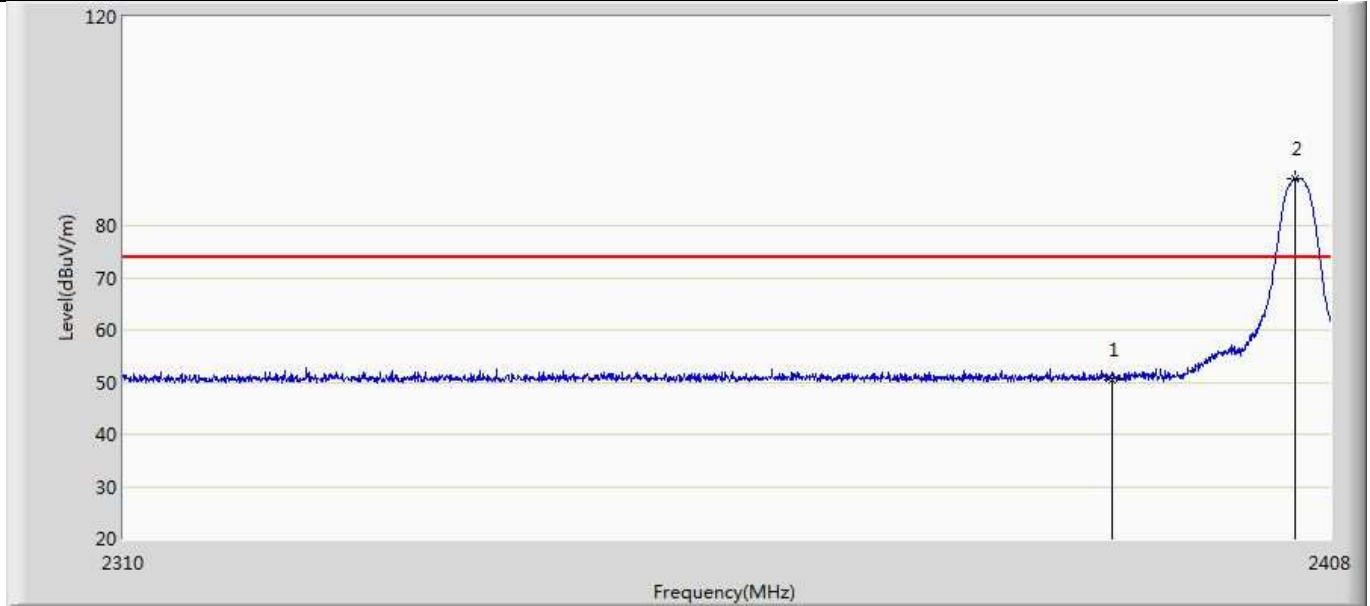


**4.5.3 Test Procedure**

	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	6.10	Band-edge testing
	<input checked="" type="checkbox"/> ANSI C63.10	6.10.5	Restricted-band band-edge measurements
	<input type="checkbox"/> ANSI C63.10	6.10.6	Marker-delta method
<input checked="" type="checkbox"/>	ANSI C63.10	11.12	Emissions in restricted frequency bands
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.1	Radiated emission measurements
	<input checked="" type="checkbox"/> ANSI C63.10	11.12.2.7	Radiated spurious emission test
<input type="checkbox"/>	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
<input type="checkbox"/>	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
<input checked="" type="checkbox"/>	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

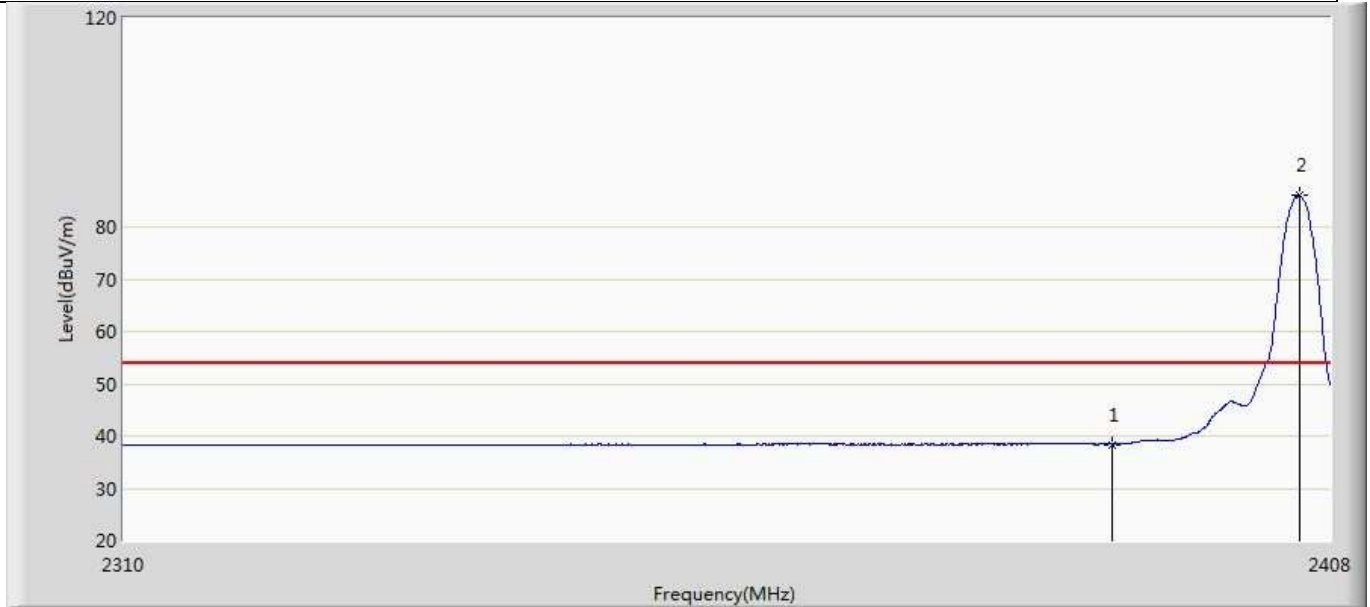
**4.5.4 Test Data**

Profile: 2060465R	Page No.: 1
Engineer: Tongben	
Site: AC5	Time: 2020/03/12 - 00:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2405.35MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.507	15.192	-23.493	74.000	35.315	PK
2	*	2405.109	89.120	53.809	N/A	N/A	35.311	PK

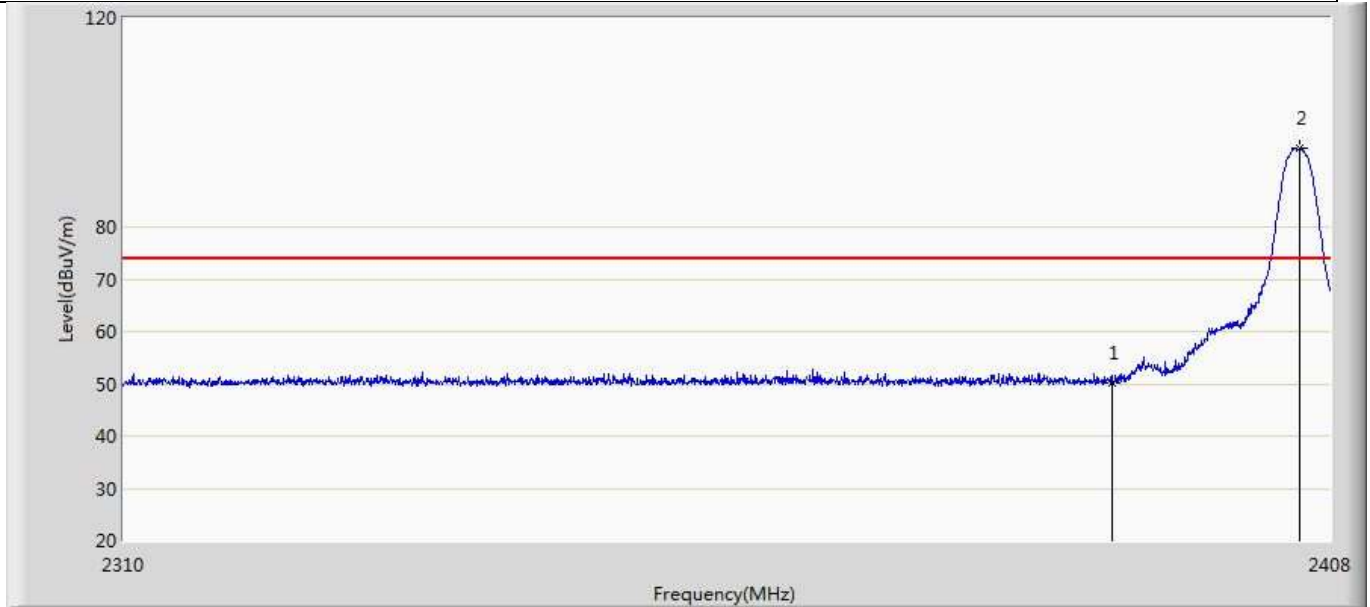
Profile: 2060465R	Page No.: 2
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2405.35MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.400	3.085	-15.600	54.000	35.315	AV
2	*	2405.452	86.027	50.716	N/A	N/A	35.311	AV

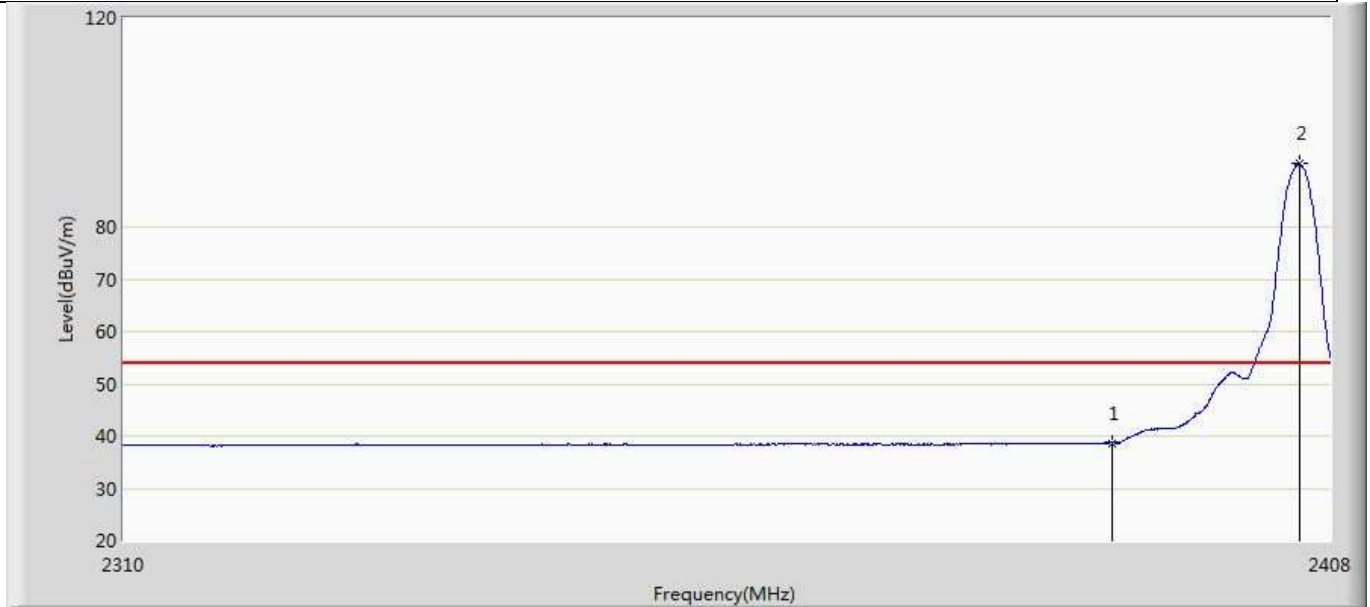


Profile: 2060465R	Page No.: 3
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2405.35MHz	



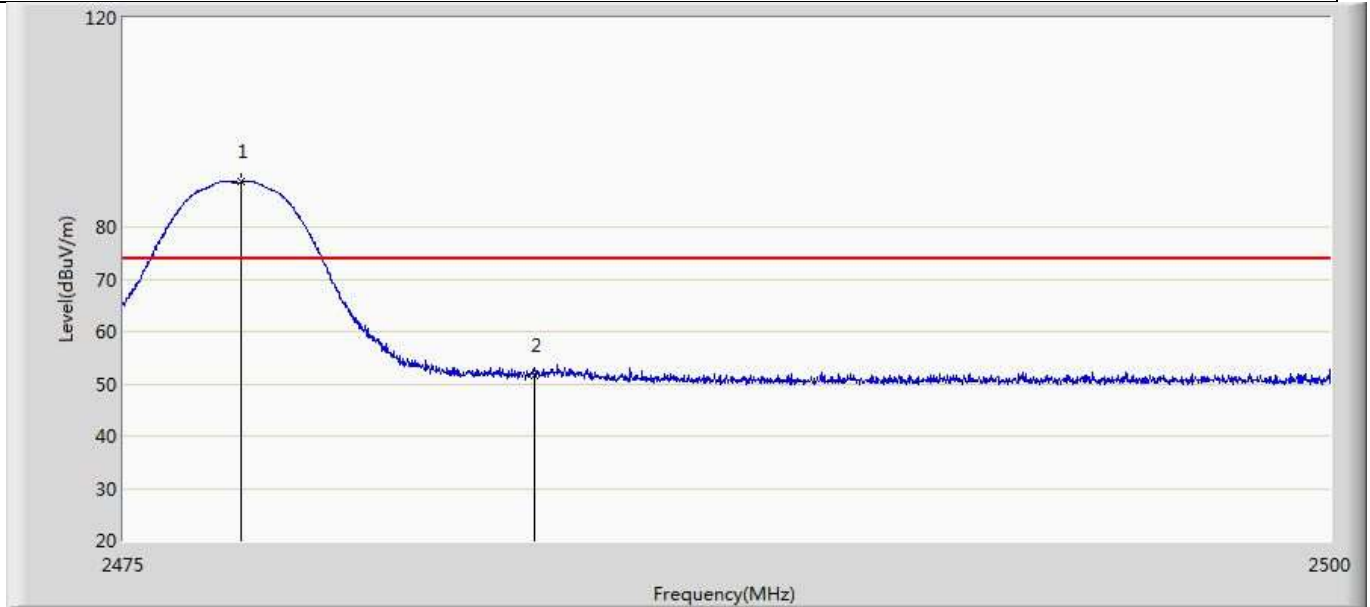
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	50.164	14.849	-23.836	74.000	35.315	PK
2	*	2405.452	95.012	59.701	N/A	N/A	35.311	PK

Profile: 2060465R	Page No.: 4
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2405.35MHz	



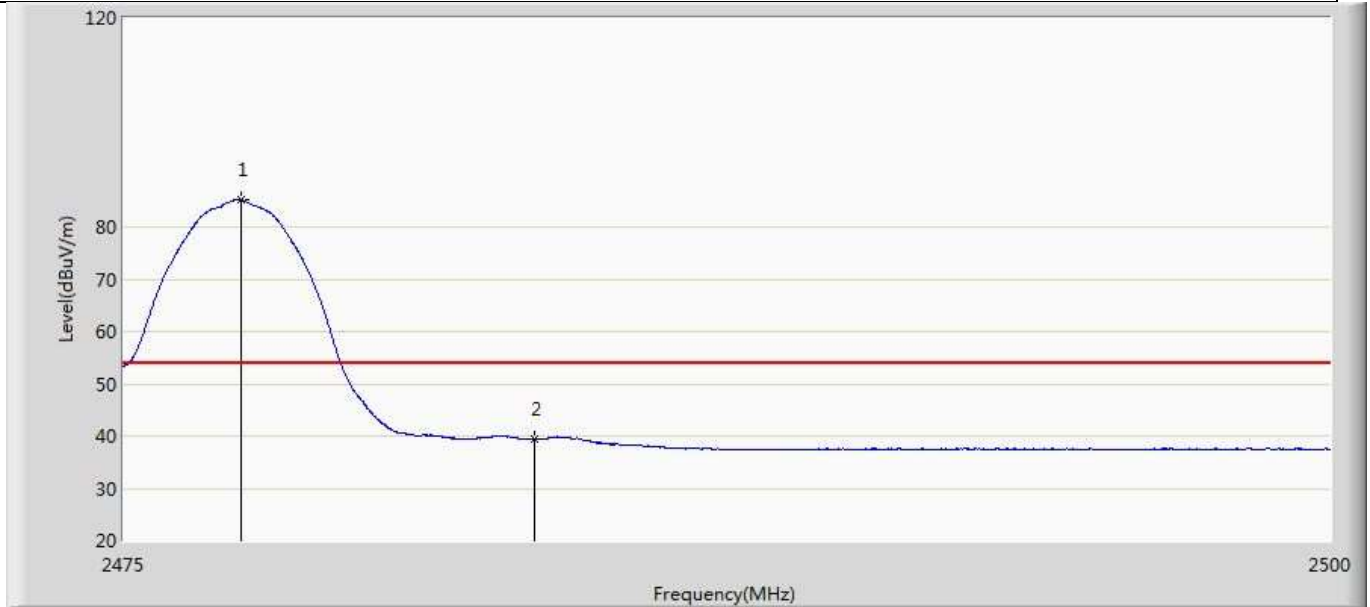
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.684	3.369	-15.316	54.000	35.315	AV
2	*	2405.452	92.066	56.755	N/A	N/A	35.311	AV

Profile: 2060465R	Page No.: 5
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2477.35MHz	



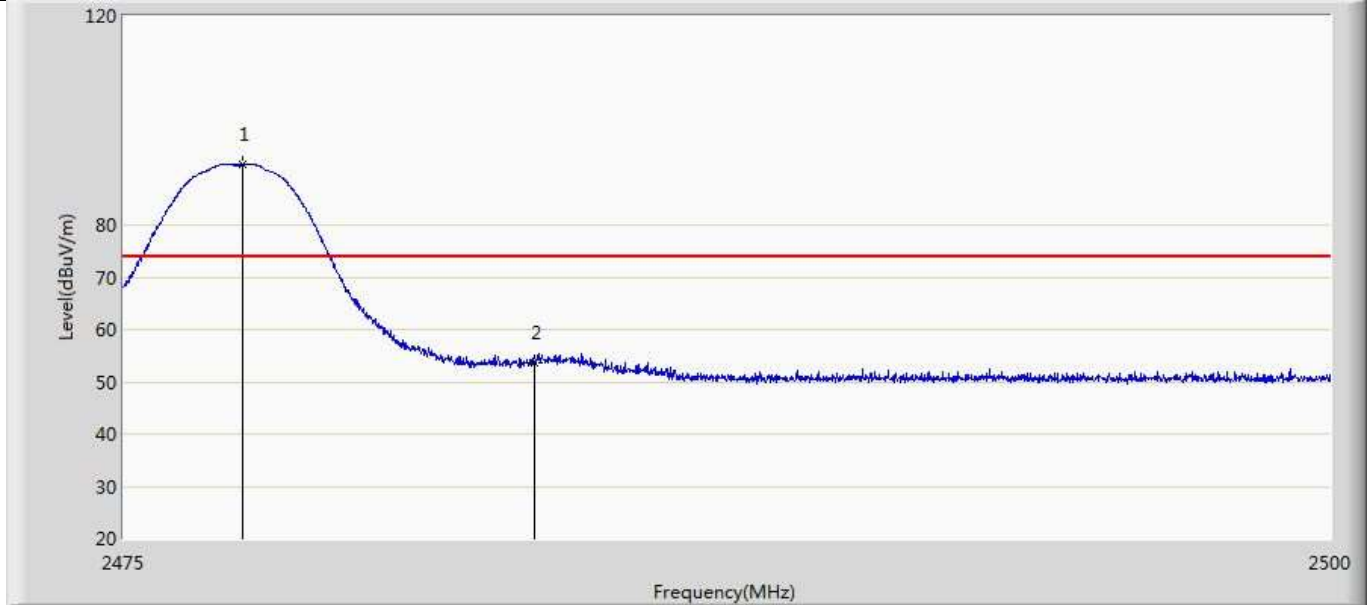
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2477.437	88.605	53.305	N/A	N/A	35.300	PK
2		2483.500	51.593	16.295	-22.407	74.000	35.297	PK

Profile: 2060465R	Page No.: 6
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Vertical
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2477.35MHz	



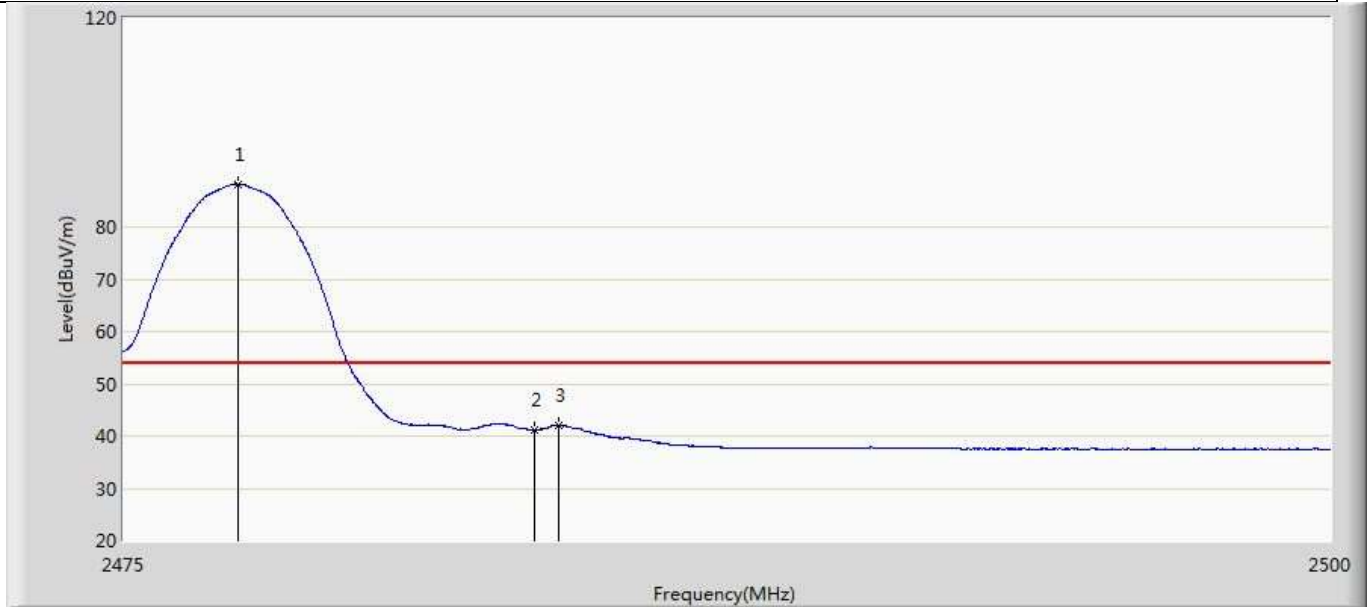
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2477.437	85.107	49.807	N/A	N/A	35.300	AV
2		2483.500	39.394	4.096	-14.606	54.000	35.297	AV

Profile: 2060465R	Page No.: 7
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2477.35MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2477.450	91.592	56.292	N/A	N/A	35.300	PK
2		2483.500	53.569	18.271	-20.431	74.000	35.297	PK

Profile: 2060465R	Page No.: 8
Engineer: Tongben	
Site: AC5	Time: 2020/06/21 - 15:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_00167055(1-18GHz)	Polarity: Horizontal
EUT: Wireless Adaptor	Power: AC 120V/60Hz
Note: Mode 1:Transmit at 2477.35MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2477.363	88.243	52.943	N/A	N/A	35.300	AV
2		2483.500	41.222	5.924	-12.778	54.000	35.297	AV
3		2484.000	41.914	6.617	-12.086	54.000	35.297	AV

**4.6 DTS Bandwidth**

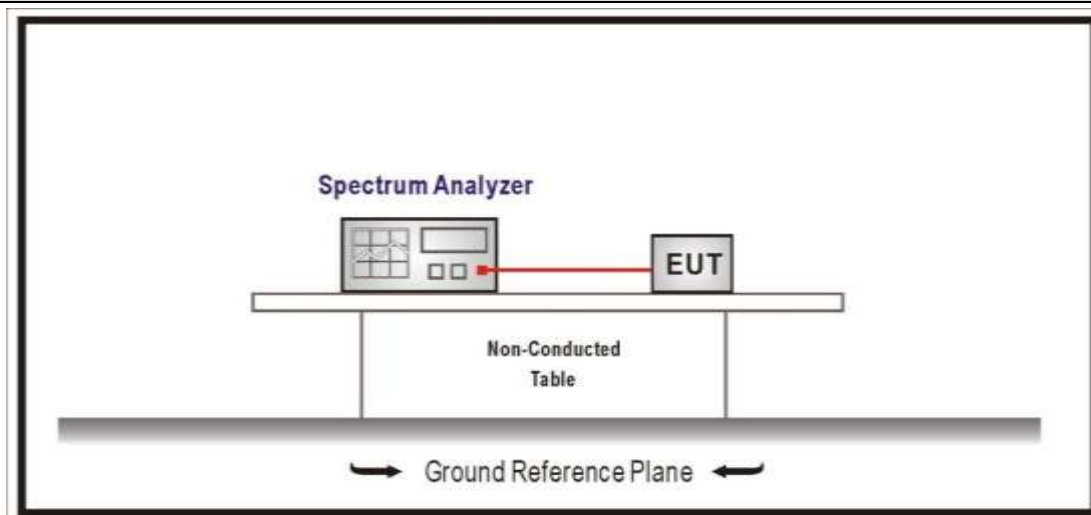
**VERDICT: PASS**

**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**

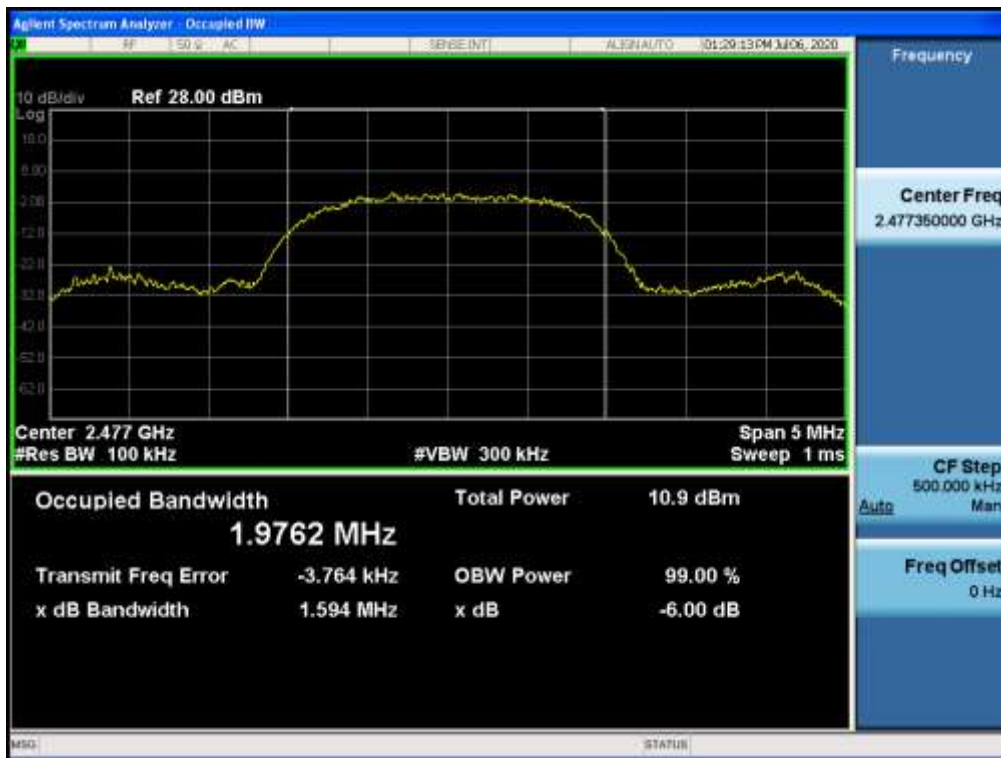
	Reference Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.8	DTS bandwidth
<input type="checkbox"/>	ANSI C63.10	11.8.1	Option 1
<input checked="" type="checkbox"/>	ANSI C63.10	11.8.2	Option 2

**4.6.4 Test Data**

Mode	CH.	Test Freq. (MHz)	99% Occupied Bandwidth (kHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result
1	02	2405.35	2008.3	1665	>500	Pass
	20	2441.35	1977.9	1640	>500	Pass
	38	2477.35	1976.2	1594	>500	Pass

Note : The worst case of Occupied Bandwidth as below:

Mode 1 CH38 (2477.35MHz)





<b>4.7 Fundamental emission output power</b>	<b>VERDICT: PASS</b>
----------------------------------------------	----------------------

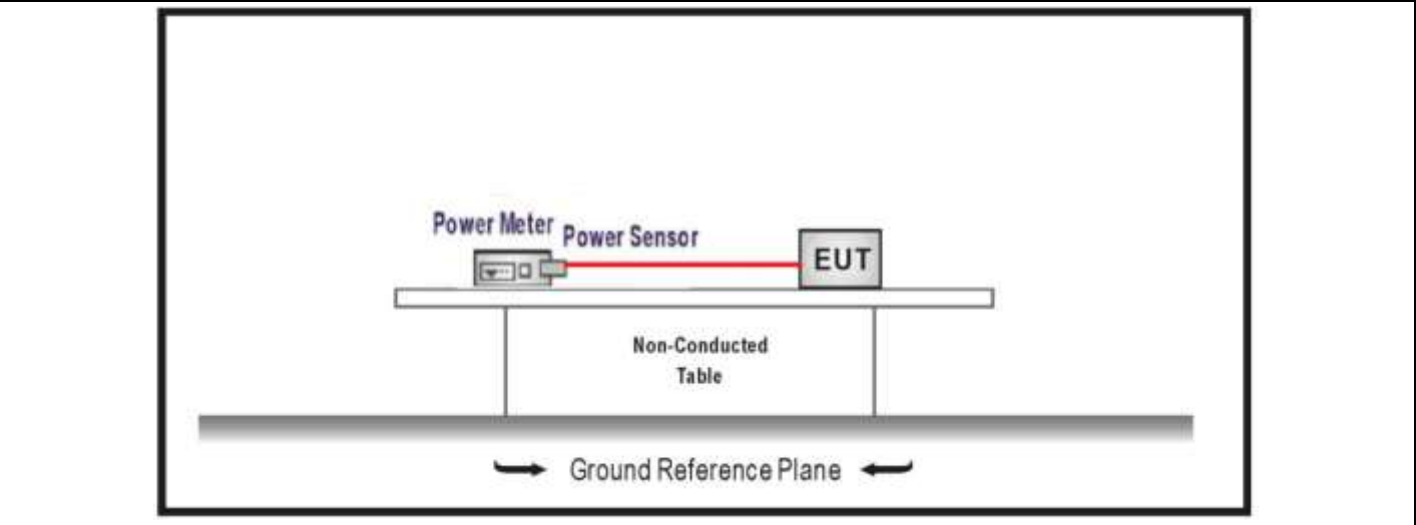
**4.7.1 Limit**

Standard	FCC Part 15 Subpart C Paragraph 15.247 (b)(3)	
<input checked="" type="checkbox"/> GTX < 6dBi	Pout ≤ 30dBm	
<input type="checkbox"/> GTX > 6dBi		
<input type="checkbox"/> Non-Fix point-point	Pout ≤ 30 - (GTX - 6)	
<input type="checkbox"/> Fix point-point	Pout ≤ 30 - [(GTX - 6)]/3	
<input type="checkbox"/> Point-to-multipoint	Pout ≤ 30 - (GTX - 6)	
<input type="checkbox"/> Overlap Beams	Pout ≤ 30 - [(GTX - 6)]/3	
<input type="checkbox"/> Aggregate power transmitted simultaneously on all beams	Pout ≤ 30 - [(GTX - 6)]/3	
<input type="checkbox"/> 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 .

**4.7.2 Test Setup**



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

**4.7.4 Test Data**

**FCC**

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	Limit (dBm)	Result
Mode 1	02	2405.35	3.29	≤30	Pass
	20	2441.35	3.66	≤30	Pass
	38	2477.35	3.79	≤30	Pass

**IC**

Mode	Channel	Test Frequency (MHz)	Power Output (dBm)	EIRP (dBm)	Limit (dBm)	Result
Mode 1	02	2405.35	3.29	2.25	≤30	Pass
	20	2441.35	3.66	2.62	≤30	Pass
	38	2477.35	3.79	2.75	≤30	Pass

Mode	Channel	Test Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
Mode 1	02	2405.35	2.13	≤30	Pass
	20	2441.35	2.19	≤30	Pass
	38	2477.35	2.27	≤30	Pass

**4.8 Power Density**

**VERDICT: PASS**

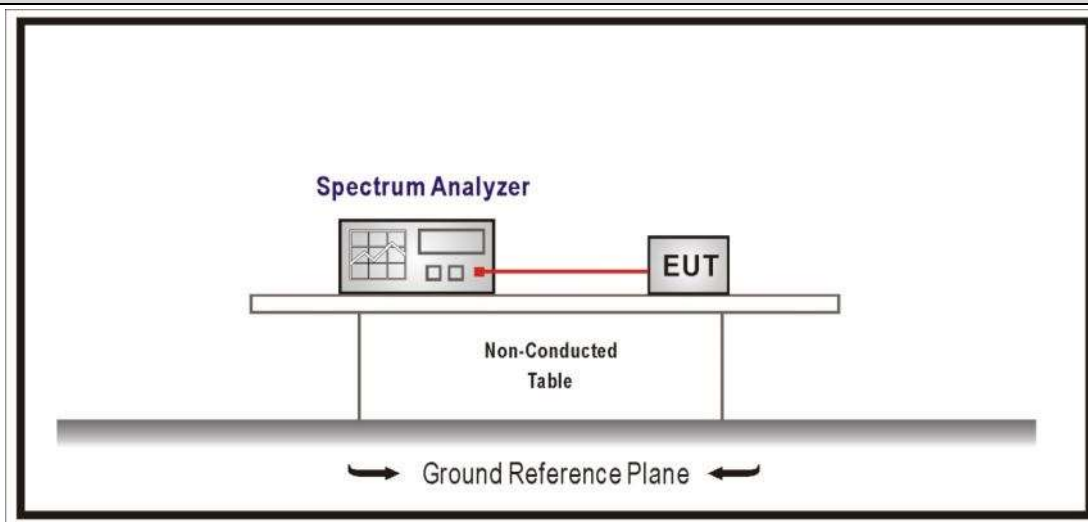
**4.8.1 Limit:**

**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**



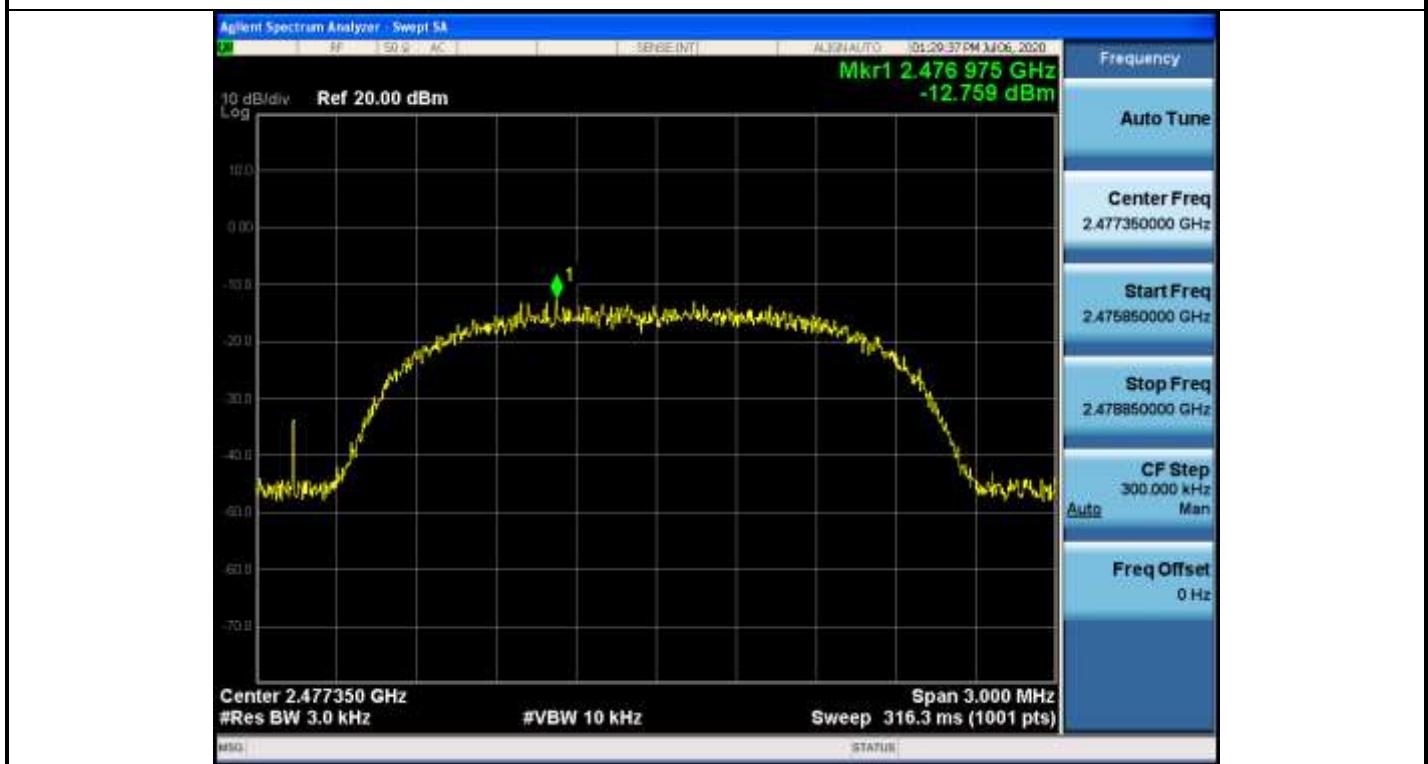
**4.8.3 Test Procedure**

	References Rule	Chapter	Description
<input checked="" type="checkbox"/>	ANSI C63.10	11.10	Maximum power spectral density level in the fundamental emission
<input checked="" type="checkbox"/>	ANSI C63.10	11.10.2	Method PKPSD (peak PSD)
<input type="checkbox"/>	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle $\geq 98\%$ )
<input type="checkbox"/>	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq 98\%$ )
<input type="checkbox"/>	ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle $< 98\%$ )
<input type="checkbox"/>	ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle $< 98\%$ )
<input type="checkbox"/>	ANSI C63.10	11.10.7	Method AVGPSD-3
<input type="checkbox"/>	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	02	2405.35	-13.160	≤8	Pass
	20	2441.35	-13.080	≤8	Pass
	38	2477.35	-12.759	≤8	Pass

Note : The worst case of PSD as below:



<b>4.9 Antenna Requirement</b>	<b>VERDICT: PASS</b>
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<b>4.9.1 Limit:</b>	
<b>Standard</b>	FCC Part 15 Subpart C Paragraph 15.203
<p>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.</p>	

<b>4.9.2 Antenna Connector Construction:</b>	
<input checked="" type="checkbox"/>	The use of a permanently attached antenna
<input type="checkbox"/>	The antenna use of a unique coupling to the intentional radiator
<input type="checkbox"/>	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document "Internal Photograph" to show the antenna connector.	

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## 5 TEST SETUP PHOTO AND EUT PHOTO

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

\_\_\_\_\_ The End \_\_\_\_\_