



## Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

Telephone: +86-755-26648640  
Fax: +86-755-26648637  
Website: [www.cqa-cert.com](http://www.cqa-cert.com)

Report Template Version: V05  
Report Template Revision Date: 2021-11-03

# Test Report

**Report No.:** CQASZ20221001757E-01  
**Applicant:** Shenzhen WOKE Fast Charge Technology Co.,Ltd.  
**Address of Applicant:** A304, Building 4 Tianyanxuan, No.1 Lane 14 Bantian East Village, Bantian street, Longgang District, Shenzhen  
**Equipment Under Test (EUT):**  
**Product:** Aluminum alloy bracket wireless charging  
**Model No.:** WK005  
**Test Model No.:** WK005  
**Brand Name:** N/A  
**FCC ID:** 2A84N-WK005  
**Standards:** 47 CFR Part 15, Subpart C  
**Date of Receipt:** 2022-10-17  
**Date of Test:** 2022-10-17 to 2022-11-8  
**Date of Issue:** 2022-11-25  
**Test Result:** **PASS\***

\*In the configuration tested, the EUT complied with the standards specified above

**Tested By:**

( Joe Wang )

**Reviewed By:**

( Timo Lei )

**Approved By:**

( Jack Ai )



## 1 Version

### Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20221001757E-01	Rev.01	Initial report	2022-11-25

## 2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203	ANSI C63.10 2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10 2013	PASS
20dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.215	ANSI C63.10 2013	PASS
Radiated Emission , Radiated Spurious Emissions	47 CFR Part 15, Subpart C Section 15.209	ANSI C63.10 2013	PASS

### 3 Contents

	Page
<b>1 VERSION</b> .....	<b>2</b>
<b>2 TEST SUMMARY</b> .....	<b>3</b>
<b>3 CONTENTS</b> .....	<b>4</b>
<b>4 GENERAL INFORMATION</b> .....	<b>5</b>
4.1 CLIENT INFORMATION .....	5
4.2 GENERAL DESCRIPTION OF EUT .....	5
4.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD .....	5
4.4 TEST ENVIRONMENT .....	6
4.5 DESCRIPTION OF SUPPORT UNITS .....	6
4.6 STATEMENT OF THE MEASUREMENT UNCERTAINTY .....	7
4.7 TEST LOCATION .....	7
4.8 TEST FACILITY .....	7
4.9 DEVIATION FROM STANDARDS .....	7
4.10 OTHER INFORMATION REQUESTED BY THE CUSTOMER .....	7
4.11 EQUIPMENT LIST .....	8
<b>5 TEST RESULTS AND MEASUREMENT DATA</b> .....	<b>9</b>
5.1 ANTENNA REQUIREMENT .....	9
5.2 CONDUCTED EMISSIONS .....	10
5.3 20dB OCCUPY BANDWIDTH .....	13
5.4 RADIATED SPURIOUS EMISSION & RESTRICTED BANDS .....	15
5.4.1 <i>Spurious Emissions</i> .....	15
<b>6 PHOTOGRAPHS - EUT TEST SETUP</b> .....	<b>20</b>
6.1 RADIATED EMISSION .....	20
6.2 CONDUCTED EMISSION .....	21
<b>7 PHOTOGRAPHS - EUT CONSTRUCTIONAL DETAILS</b> .....	<b>22</b>

## 4 General Information

### 4.1 Client Information

Applicant:	Shenzhen WOKE Fast Charge Technology Co.,Ltd.
Address of Applicant:	A304, Building 4 Tianyanxuan, No.1 Lane 14 Bantian East Village, Bantian street, Longgang District, Shenzhen
Manufacturer:	Shenzhen WOKE Fast Charge Technology Co.,Ltd.
Address of Manufacturer:	A304, Building 4 Tianyanxuan, No.1 Lane 14 Bantian East Village, Bantian street, Longgang District, Shenzhen
Factory:	Shenzhen WOKE Fast Charge Technology Co.,Ltd.
Address of Factory:	A304, Building 4 Tianyanxuan, No.1 Lane 14 Bantian East Village, Bantian street, Longgang District, Shenzhen

### 4.2 General Description of EUT

Product Name:	Aluminum alloy bracket wireless charging
Model No.:	WK005
Test Model No.:	WK005
Brand Name:	N/A
Software Version:	CS1F88
Hardware Version:	V1.0
Power Supply:	INPUT: 5.0V/2.0A;9.0V/2.0A;12V/2.0A OUTPUT: 5.0V/1.0A;9.0V/1.1A;12V/1.25A

### 4.3 Product Specification subjective to this standard

Equipment Category:	Non-ISM frequency
Operation Frequency range:	110kHz~205kHz
Modulation Type:	Induction
Antenna Type:	Induction coil
Antenna Gain:	0dBi
Power:	Output: 15W(Max)

Note:

1. In section 15.31(m), regards to the operating frequency range less 1 MHz.

#### 4.4 Test Environment

<b>Operating Environment:</b>	
<b>Radiated Emissions:</b>	
Temperature:	25.5 °C
Humidity:	53 % RH
Atmospheric Pressure:	1009 mbar
<b>Conducted Emissions:</b>	
Temperature:	26.3 °C
Humidity:	40 % RH
Atmospheric Pressure:	1009 mbar
<b>Radio conducted item test (RF Conducted test room):</b>	
Temperature:	27.1 °C
Humidity:	56 % RH
Atmospheric Pressure:	1009 mbar
<b>Test Mode:</b>	
Mode a:	Wireless output Mode at 15W (Max)

#### 4.5 Description of Support Units

The EUT has been tested with associated equipment below.

1) Support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
Adapter	/	LPL-C010050200Z	/	CQA
Wireless charge load	/	/	/	CQA

2) Cable

Cable No.	Description	Manufacturer	Cable Type/Length	Supplied by
/	/	/	/	/

## 4.6 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate.

The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities.

The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the **Shenzhen Huaxia Testing Technology Co., Ltd.** quality system acc. to DIN EN ISO/IEC 17025.

Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CQA laboratory is reported:

No.	Item	Uncertainty	Notes
1	Radiated Emission (Below 1GHz)	5.12dB	(1)
2	Radiated Emission (Above 1GHz)	4.60dB	(1)
3	Occupied Bandwidth	1.1%	(1)
4	Temperature test	0.8°C	(1)
5	Humidity test	2.0%	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

## 4.7 Test Location

Shenzhen Huaxia Testing Technology Co., Ltd.

1F., Block A of Tongsheng Technology Building, Huahui Road, Dalang Street, Longhua District, Shenzhen, China

## 4.8 Test Facility

• **A2LA (Certificate No. 4742.01)**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4742.01.

• **FCC Registration No.: 522263**

Shenzhen Huaxia Testing Technology Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.:522263

## 4.9 Deviation from Standards

None.

## 4.10 Other Information Requested by the Customer

None.

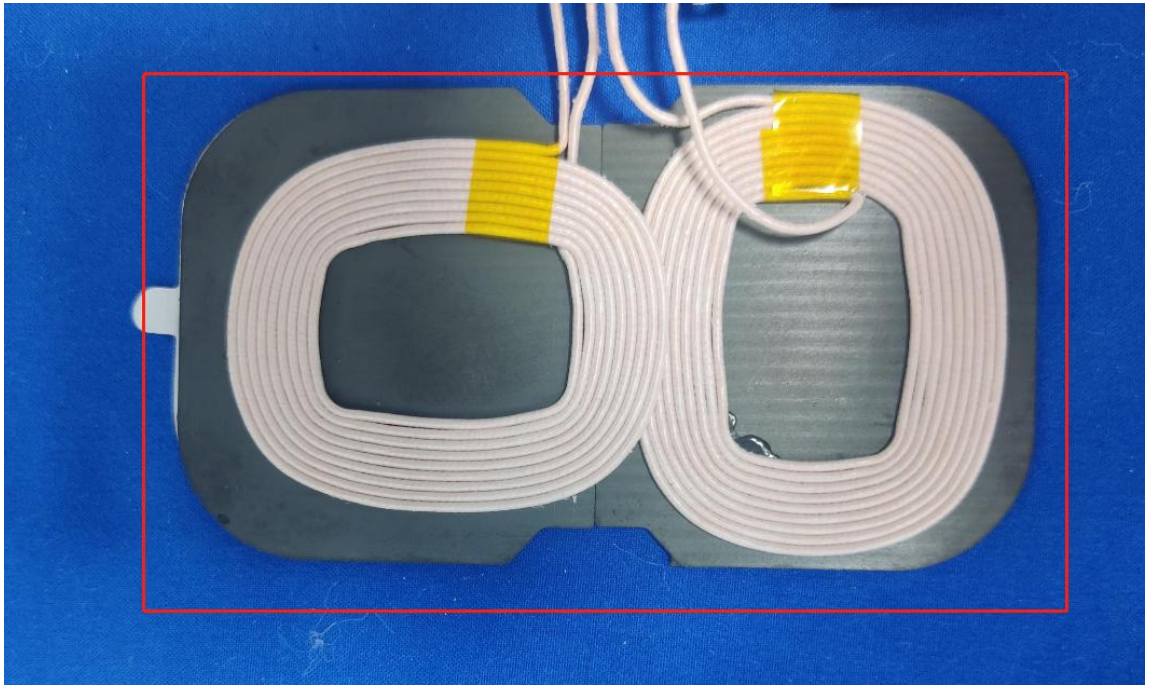
## 4.11 Equipment List

Test Equipment	Manufacturer	Model No.	Instrument No.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR7	CQA-005	2022/9/9	2023/9/8
Spectrum analyzer	R&S	FSU26	CQA-038	2022/9/9	2023/9/8
Preamplifier	MITEQ	AMF-6D-02001800-29-20P	CQA-036	2022/9/9	2023/9/8
Loop antenna	Schwarzbeck	FMZB1516	CQA-060	2021/9/16	2024/9/15
Bilog Antenna	R&S	HL562	CQA-011	2021/9/16	2024/9/15
Horn Antenna	R&S	HF906	CQA-012	2021/9/16	2024/9/15
Horn Antenna	Schwarzbeck	BBHA 9170	CQA-088	2021/9/16	2024/9/15
Coaxial Cable (Above 1GHz)	CQA	N/A	C007	2022/9/9	2023/9/8
Coaxial Cable (Below 1GHz)	CQA	N/A	C013	2022/9/9	2023/9/8
Antenna Connector	CQA	RFC-01	CQA-080	2022/9/9	2023/9/8
RF cable(9KHz~40GHz)	CQA	RF-01	CQA-079	2022/9/9	2023/9/8
Power divider	MIDWEST	PWD-2533-02-SMA-79	CQA-067	2022/9/9	2023/9/8
EMI Test Receiver	R&S	ESR7	CQA-005	2022/9/9	2023/9/8
LISN	R&S	ENV216	CQA-003	2022/9/9	2023/9/8
Coaxial cable	CQA	N/A	CQA-C009	2022/9/9	2023/9/8
DC power	KEYSIGHT	E3631A	CQA-028	2022/9/9	2023/9/8

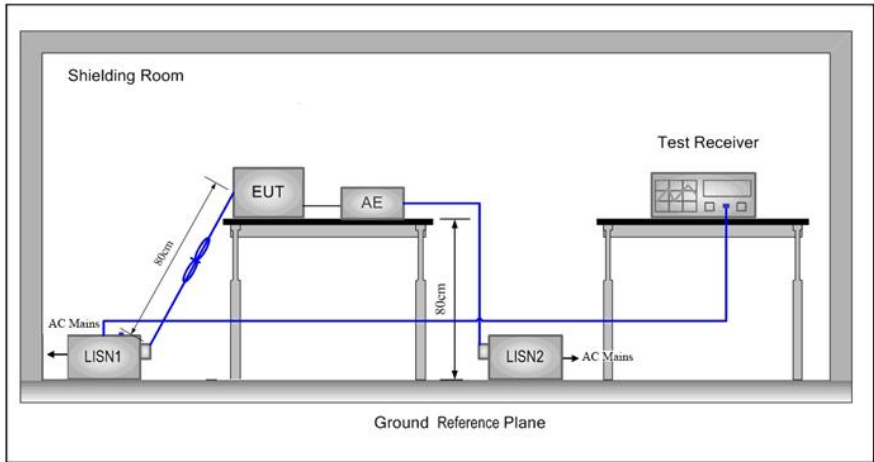


## 5 Test results and Measurement Data

### 5.1 Antenna Requirement

<b>Standard requirement:</b>	47 CFR Part 15C Section 15.203
<p>15.203 requirement:          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, 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.</p> <p>15.247(b) (4) requirement:          The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p>	
<b>EUT Antenna:</b>	
<p>The antenna is Induction coil. The best case gain of the antenna is 0dBi.</p>	

## 5.2 Conducted Emissions

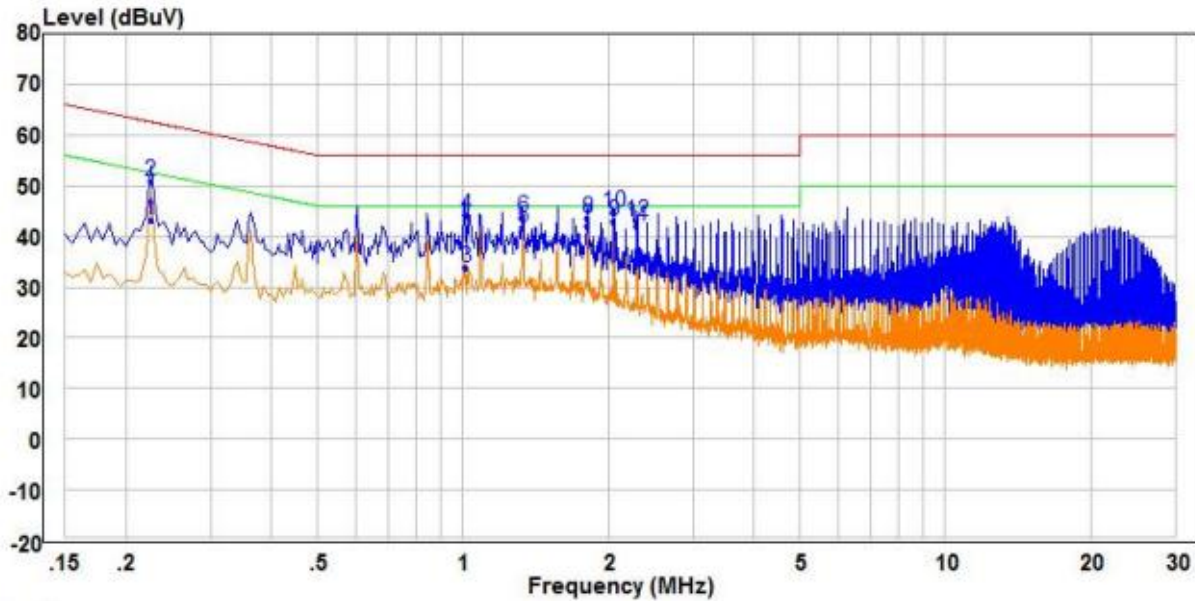
Test Requirement:	47 CFR Part 15C Section 15.207														
Test Method:	ANSI C63.10: 2013														
Test Frequency Range:	150kHz to 30MHz														
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> <p>* Decreases with the logarithm of the frequency.</p>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Procedure:	<ol style="list-style-type: none"> <li>1) The mains terminal disturbance voltage test was conducted in a shielded room.</li> <li>2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a <math>50\Omega/50\mu\text{H} + 5\Omega</math> linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.</li> <li>3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.</li> <li>4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.</li> <li>5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</li> </ol>														
Test Setup:															
Test Results:	Pass														

**Measurement Data**

The worst case:

Mode a:

Live line:



	Freq.	Read Level	Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase
	dBuV	dBuV	dBuV	dBuV	dBuV	dBuV		
1	0.23	33.74	9.48	43.32	52.63	-9.31	Average	Line
2	0.23	41.34	9.48	50.92	62.63	-11.71	QP	Line
3	1.02	24.16	9.64	33.90	46.00	-12.10	Average	Line
4	1.02	34.31	9.64	44.05	56.00	-11.95	QP	Line
5	1.33	31.33	10.38	41.83	46.00	-4.17	Average	Line
6	1.33	33.46	10.38	43.96	56.00	-12.04	QP	Line
7	1.82	30.63	11.23	42.00	46.00	-4.00	Average	Line
8	1.82	32.31	11.23	43.68	56.00	-12.32	QP	Line
9	2.06	31.36	11.44	42.95	46.00	-3.05	Average	Line
10	2.06	33.08	11.44	44.67	56.00	-11.33	QP	Line
11	2.30	30.54	11.19	41.89	46.00	-4.11	Average	Line
12	2.30	31.62	11.19	42.97	56.00	-13.03	QP	Line

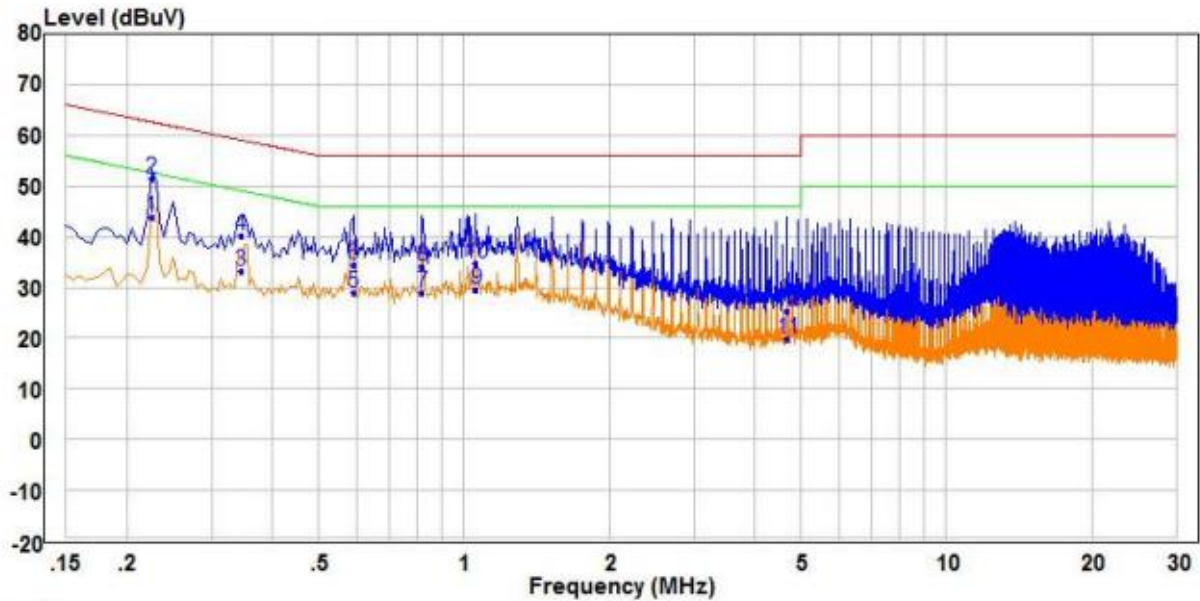
Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

The worst case:

Mode a:

Neutral line:

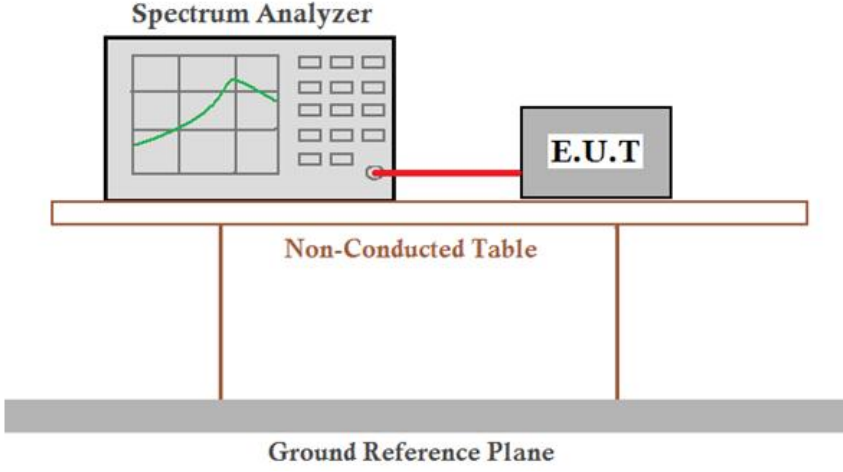


	Freq.	Read	Factor	Limit	Over	Remark	Pol/Phase	
	dBuV	dBuV	dBuV	dBuV	dBuV	dBuV		
1	0.23	34.22	9.47	43.79	52.63	-8.84	Average	Neutral
2	0.23	41.92	9.47	51.49	62.63	-11.14	QP	Neutral
3	0.35	23.70	9.44	33.24	49.08	-15.84	Average	Neutral
4	0.35	30.79	9.44	40.33	59.08	-18.75	QP	Neutral
5	0.59	19.27	9.60	29.06	46.00	-16.94	Average	Neutral
6	0.59	24.53	9.60	34.32	56.00	-21.68	QP	Neutral
7	0.82	19.03	9.60	28.85	46.00	-17.15	Average	Neutral
8	0.82	24.37	9.60	34.19	56.00	-21.81	QP	Neutral
9	1.06	19.75	9.60	29.45	46.00	-16.55	Average	Neutral
10	1.06	24.93	9.60	34.63	56.00	-21.37	QP	Neutral
11	4.69	9.89	9.53	19.70	46.00	-26.30	Average	Neutral
12	4.69	15.57	9.53	25.38	56.00	-30.62	QP	Neutral

Remark:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.
3. If the Peak value under Average limit, the Average value is not recorded in the report.

### 5.3 20dB Occupy Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.215
Test Method:	ANSI C63.10 2013
Test Setup:	 <p style="text-align: center;"><i>Remark: Offset=Cable loss+ attenuation factor.</i></p>
Test Results:	Pass

#### Measurement Data

Mode a		
Test Frequency (kHz)	20dB Occupy Bandwidth (Hz)	Result
126.6	3068	Pass