TEST REPORT

Report No.:	KS2503S1056E03
FCC ID.:	2A98M-EV7000
Applicant.:	Shenzhen Doke Communication Co.,Ltd
Address.:	1301-1302，13th Floor, Block B, WeiDongLong Business Building, Meilong Road 2113, Longhua District, ShenZhen, P.R.C
Manufacturer.:	Shenzhen Doke Communication Co.,Ltd
Address.:	1301-1302，13th Floor, Block B, WeiDongLong Business Building, Meilong Road 2113, Longhua District, ShenZhen, P.R.C
Product Name.:	Wall Mounted-AC EV Charging
Model/Type reference.:	EV7000, EV7000 Pro, EV7000 Plus
Standard.:	47 CFR Part 15.225
Date of Receipt.:	March 11, 2025
Date of Test Date.:	March 11, 2025 to March 25, 2025
Date of issue.:	March 25, 2025
Test result.....:	**Pass**
Conclusion.:	The submitted sample was found to COMPLY with the standards above.

Prepared by:	Name: Chad Lin Title: Project Engineer	Chad Lin
Approved by:	Name: Sky Dong Title: EMC Supervisor	Sky dong

Testing Laboratory Name...:	**KSIGN(Guangdong) Testing Co., Ltd.**
Address.:	West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

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TABLE OF CONTENTS **Page**

Add: West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu, Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China
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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

47 CFR Part 15.225: Operation within the band 13.110–14.010 MHz

ANSI C63.10-2013: American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Date of issue	Description
01	March 25, 2025	Original

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1.3. Test Description

Test Item	Standard	Requirement	Result
Antenna requirement	47 CFR Part 15.225	47 CFR 15.203	Pass
Conducted Emission at AC power line	47 CFR Part 15.225	47 CFR 15.207(a)	Pass
20dB Bandwidth	47 CFR Part 15.225	47 CFR 15.215(c)	Pass
Frequency Tolerance	47 CFR Part 15.225	47 CFR 15.231(e)	Pass
Field Strength of The Fundamental Signal	47 CFR Part 15.225	47 CFR 15.225(a)	Pass
Emission Mask	47 CFR Part 15.225	47 CFR 15.225(b), 15.225(c)	Pass
Emissions in frequency bands (below 30MHz)	47 CFR Part 15.225	47 CFR 15.225(d)	Pass
Emissions in frequency bands (30M-1GHz)	47 CFR Part 15.225	47 CFR 15.225(d)	Pass

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1.4. Test Facility

KSIGN(Guangdong) Testing Co., Ltd .
West Side of 1/F., Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu,Shatou, Shajing, Bao'an District, Shenzhen, Guangdong, China

The test facility is recognized, certified, or accredited by the following organizations:
CNAS-Lab Code: L 13261
KSIGN(Guangdong) Testing Co., Ltd. has been assessed and proved to be in Compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.
A2LA-Lab Cert. No.: 5457.01
KSIGN(Guangdong) Testing Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.
ISED# : 25693 CAB identifier.: CN0096
KSIGN(Guangdong) Testing Co., Ltd. has been listed by Innovation, Science and Economic Development Canada to perform electromagnetic emission measurement.
FCC-Registration No.: 294912 Designation Number: CN1328
KSIGN(Guangdong) Testing Co., Ltd. EMC Laboratory has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

1.5. Measurement Uncertainty

Test Items	Measurement Uncertainty
Conducted Emission (150k-30MHz)	± 3.34dB
RSE (30-1000MHz)	± 5.7dB

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %. Otherwise required by the applicant or Product Regulations.Decision Rule in this report did not consider the uncertainty.

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2. GENERAL INFORMATION

2.1. General Description Of EUT

Test Sample Number:	KS2503S1056E-01, KS2503S1056E-02
Product Name:	Wall Mounted-AC EV Charging
Model / Type reference:	EV7000, EV7000 Pro, EV7000 Plus
Model Difference:	The only difference product models is logo of appearance. Different model names are available to meet market demands. Other power supply methods, appearance, internal structures, circuits and key components are the same, and do not affect safety and electromagnetic compatibility performance.According to the above information, all tests were performed on EV7000.
Power Supply:	Input:AC 240V/60Hz
Operation Frequency:	13.56MHz
Number of Channels:	1
Modulation Type:	ASK
Antenna Type:	PCB
Antenna Gain:	0dBi
Max TX Power:	70.33dBuV/m
Hardware Version:	7KW-39
Software Version:	V1.0

Note: Antenna gain provided by the applicant Can affect the validity of results

2.2. Accessory Equipment Information

Title	Manufacturer	Model No.	Technical Parameters	Provided by
Computer	HP	15-cd028AX	/	Laboratory

2.3. Description of Test Modes

No.	Title	Description of Mode
Test Mode1	NFC	N/A

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2.4. Operation channel list

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel
1	13.56	/	/	/

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2.5. Measurement Instruments List

Conducted Emission at AC power line				
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
LISN	R&S	ENV432	1326.6105.02	2025-12-22
EMI Test Receiver	R&S	ESR	102524	2026-01-10
Manual RF Switch	JS TOYO	/	MSW-01/002	2025-12-22
ISN CAT6	Schwarzbeck	CAT5 8158	227	2025-12-22
Color Signal Generator	Philips	PM5418	672926	2025-12-22
Power Absorbing Clamp	R&S	MDS-21	100925	2025-12-25
LISN	EVERFINE	LS-5	G657431CD1431112	2025-12-22
Current Sensor Probe	Beijin ZHINAN	ZN23101	23013	2025-12-10
PV Artificial power network	Beijing KeHuan	KH8301	830120007	2025-07-23

20dB Bandwidth Frequency Tolerance				
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
Wideband Radio Communication Tester	R&S	CMU200	115297	2025-12-22
Audio Analyzer	R&S	UPL16	100001	2025-12-22
Shielding box	Gxiong	GX-5915A	2201113	2025-12-22
High Pass Filter	COM-MW Technology Co., Ltd	ZHPF-M1.2-9G-187	09203403	2025-12-22
Band Stop Filter	COM-MW Technology Co., Ltd	ZBSF6-C820-920-188	09203401	2025-12-22
Splitter	COM-MW Technology Co., Ltd	ZPD-M1-8-2103	09203407	2025-12-22
Coaxial Cable	BEBES	A40-2.92M2.92F-4.5M	1907021	2025-12-22
Hygrothermograph	Anymetre	JB913	/	2025-12-22
Climate Chamber	Angul	AGNH80L	1903042120	2025-12-22
Spectrum Analyzer	HP	8593E	3831U02087	2025-12-22
Dual Output DC Power Supply	Agilent	E3646A	MY40009992	2025-12-29
RF Control Unit	Tonscend	JS0806-2	/	2025-12-22
Analog Signal Generator	HP	83752A	3344A00337	2025-12-22
Vector Signal Generator	Agilent	N5182A	MY50142520	2025-12-22
Wideband Radio Communication Tester	R&S	CMW500	157282	2025-12-22
Spectrum Analyzer	R&S	FSV40-N	101798	2026-02-11

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Emission Mask Emissions in frequency bands (below 30MHz) Emissions in frequency bands (30M-1GHz) Field Strength of The Fundamental Signal				
Test Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Cal. Until**
Color Signal Generator	Philips	PM5418	672926	2025-12-22
Log Periodic Antenna	Schwarzbeck	VULB 9163	1230	2026-01-13
Pre-Amplifier	Schwarzbeck	BBV 9745	9745#129	2025-12-22
Broadcast Television Signal Generator	R&S	SFE100	141038	2025-12-22
Analog Signal Generator	Agilent	8648A	3847M00445	2025-12-22
EMI Test Receiver	R&S	ESR	102525	2026-01-10
Loop Antenna	Beijin ZHINAN	ZN30900C	18050	2025-12-22
Horn Antenna	Schwarzbeck	BBHA 9120 D	2023	2025-12-25
Pre-Amplifier	EMCI	EMC051835SE	980662	2025-12-22
Spectrum Analyzer	Keysight	N9020A	MY46471971	2025-12-22

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3. Evaluation Results (Evaluation)

3.1. Antenna requirement

Test Requirement:	Refer to 47 CFR Part 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.
Conclusion:	The directional gain of the antenna less than 6dBi, please refer to the EUT internal photographs antenna photo.

4. Radio Spectrum Matter Test Results (RF)

4.1. Conducted Emission at AC power line

Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).
Test Limit:	Frequency of emission (MHz) / Conducted limit (dBμV): Quasi-peak / Average 0.15-0.5: 66 to 56* / 56 to 46* 0.5-5: 56 / 46 5-30: 60 / 50 *Decreases with the logarithm of the frequency.
Test Method:	ANSI C63.10-2013 section 6.2
Procedure:	Refer to ANSI C63.10-2013 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices

4.1.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

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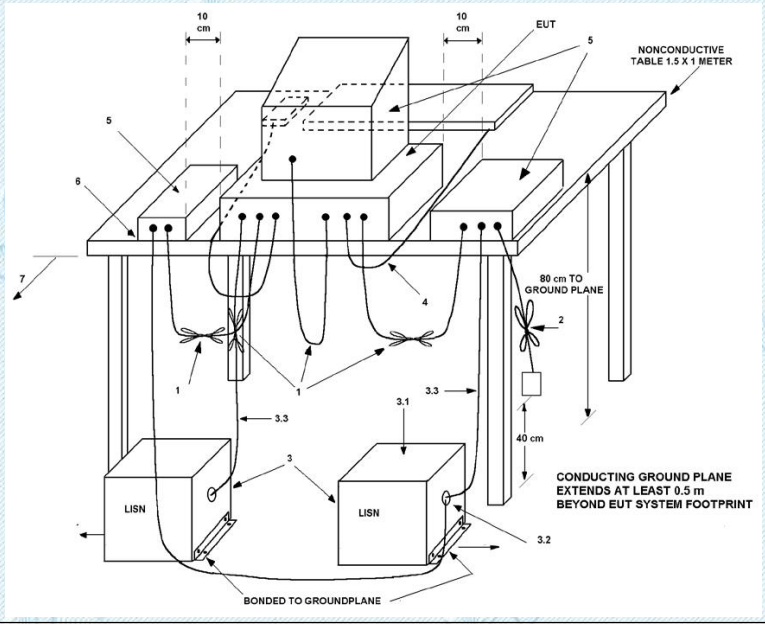
4.1.2. Test Setup Diagram:



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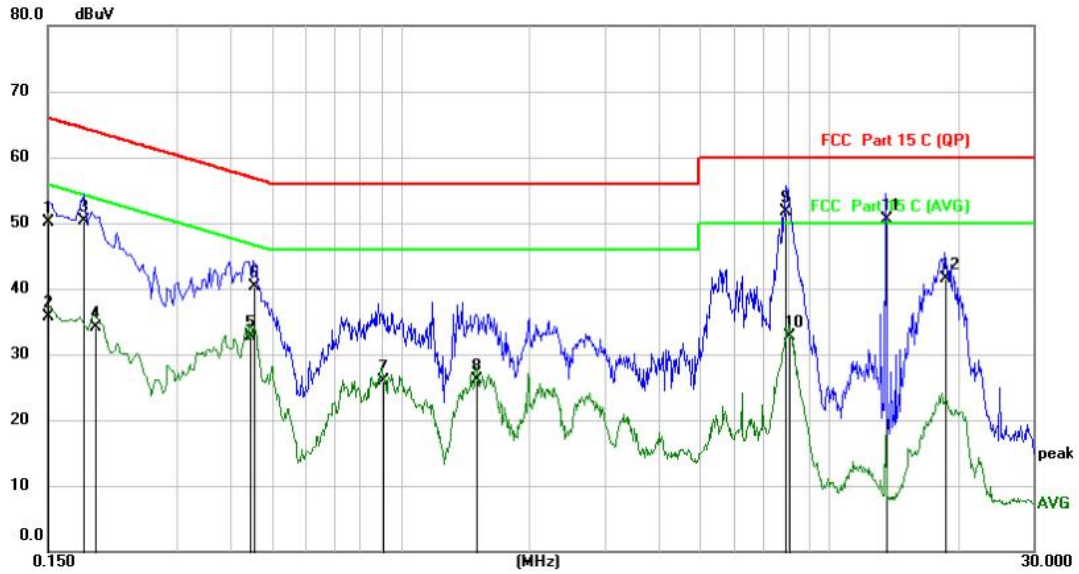
4.1.3. Test Data:

Test Mode1 / Line: Line1



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	29.46	20.70	50.16	66.00	-15.84	QP	
2		0.1500	15.07	20.70	35.77	56.00	-20.23	AVG	
3		0.1819	29.52	20.77	50.29	64.40	-14.11	QP	
4		0.1940	13.39	20.81	34.20	53.86	-19.66	AVG	
5		0.4460	11.94	20.72	32.66	46.95	-14.29	AVG	
6		0.4540	19.52	20.72	40.24	56.80	-16.56	QP	
7		0.9060	5.37	20.57	25.94	46.00	-20.06	AVG	
8		1.5020	5.49	20.58	26.07	46.00	-19.93	AVG	
9	*	7.9218	30.95	20.73	51.68	60.00	-8.32	QP	
10		8.0259	11.93	20.74	32.67	50.00	-17.33	AVG	
11		13.5778	29.55	20.93	50.48	60.00	-9.52	QP	
12		18.6938	20.65	20.93	41.58	60.00	-18.42	QP	

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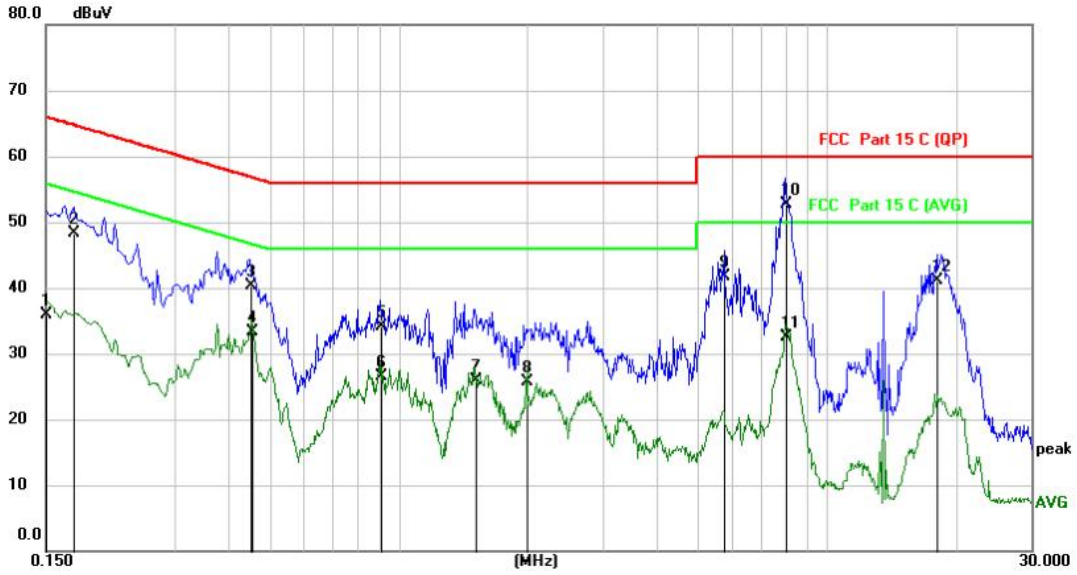
Test Mode1 / Line: Line2



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	15.27	20.70	35.97	56.00	-20.03	AVG	
2		0.1737	27.46	20.75	48.21	64.78	-16.57	QP	
3		0.4500	19.59	20.72	40.31	56.88	-16.57	QP	
4		0.4540	12.61	20.72	33.33	46.80	-13.47	AVG	
5		0.9060	13.44	20.57	34.01	56.00	-21.99	QP	
6		0.9060	5.90	20.57	26.47	46.00	-19.53	AVG	
7		1.5060	5.28	20.58	25.86	46.00	-20.14	AVG	
8		1.9939	5.06	20.60	25.66	46.00	-20.34	AVG	
9		5.7579	20.95	20.67	41.62	60.00	-18.38	QP	
10	*	8.0176	32.00	20.74	52.74	60.00	-7.26	QP	
11		8.0176	11.77	20.74	32.51	50.00	-17.49	AVG	
12		18.0977	20.24	20.92	41.16	60.00	-18.84	QP	

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4.2. 20dB Bandwidth

Test Requirement:	47 CFR 15.215(c)
Test Limit:	Refer to 47 CFR 15.215(c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
Test Method:	ANSI C63.10-2013, section 6.9.2
Procedure:	a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be approximately three times RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2. d) Steps a) through c) might require iteration to adjust within the specified tolerances. e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target “-xx dB down” requirement; that is, if the requirement calls for measuring the -20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value. f) Set detection mode to peak and trace mode to max hold. g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value). h) Determine the “-xx dB down amplitude” using [(reference value) - xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument. i) If the reference value is determined by an unmodulated carrier, then turn the EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j). j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the “íxx dB down amplitude” determined in step h). If a marker is below this “-xx dB down amplitude” value,

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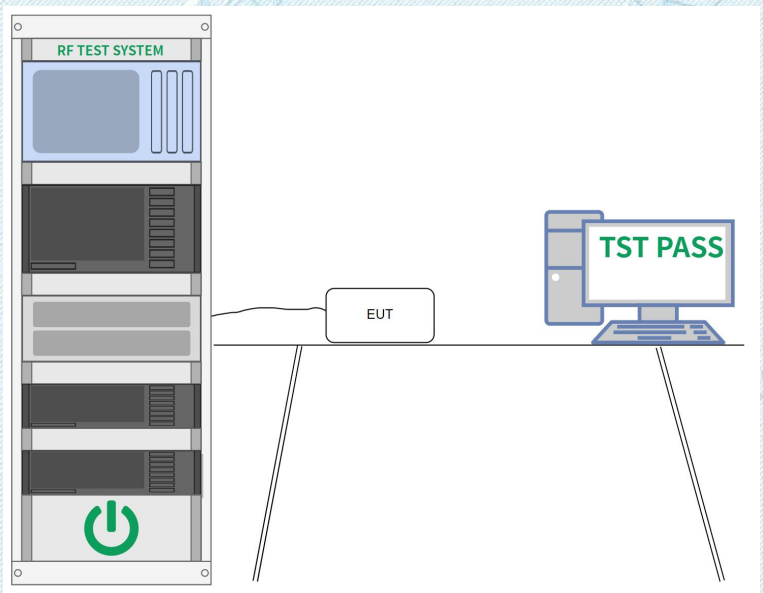
	then it shall be as close as possible to this value. The occupied bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the “íxx dB down amplitude” determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth. k) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

4.2.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

4.2.2. Test Setup Diagram:



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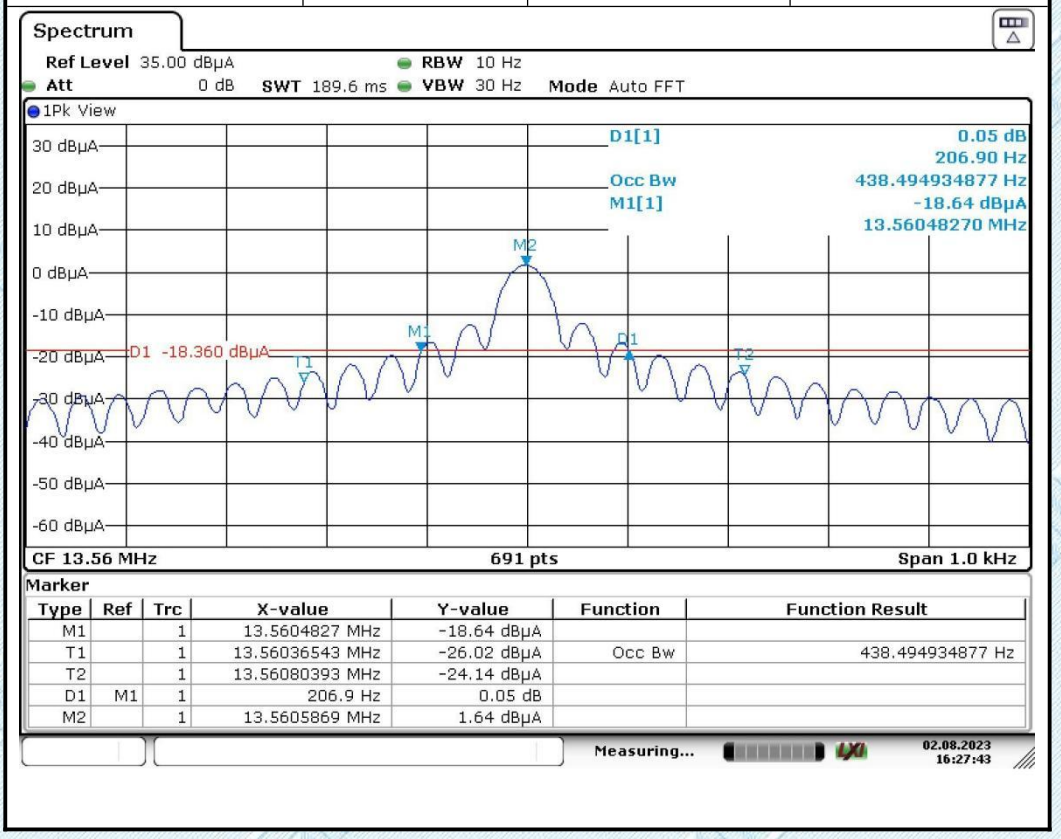
4.2.3. Test Data:

Channel frequency (MHz)	99%Bandwidth (kHz)	-20dB Bandwidth (kHz)	Criteria
13.56	0.4385	0.2069	Pass



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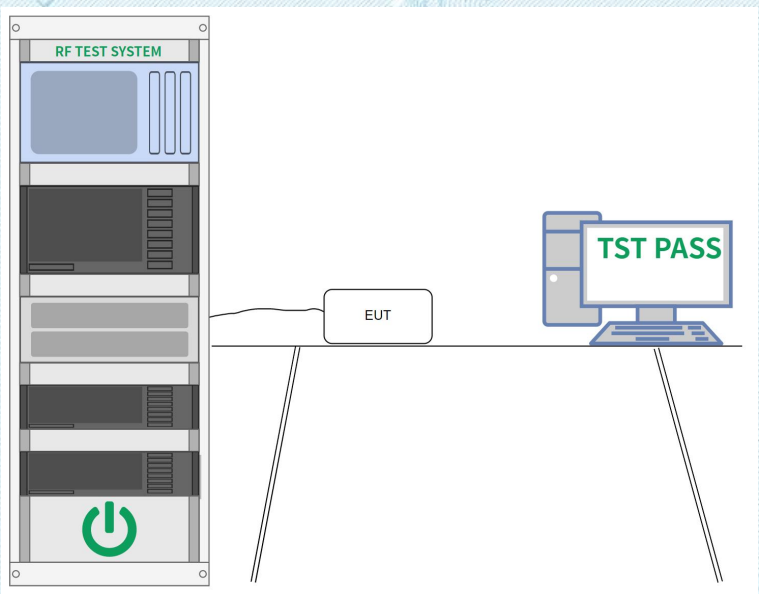
4.3. Frequency Tolerance

Test Requirement:	47 CFR 15.231(e)
Test Limit:	The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of −20 degrees to + 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.
Test Method:	ANSI C63.10-2013, Section 6.8
Procedure:	Refer to ANSI C63.10-2013, Section 6.8

4.3.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

4.3.2. Test Setup Diagram:



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4.3.3. Test Data:

Voltage vs. Frequency Stability (Test Temperature: 25℃)

Voltage(Vac)	Measurement Frequency (MHz)	Max. Deviation (MHz)	Limit(MHz)	Conclusion
240	13.56054	0.00063	0.001356	PASS
216	13.56061			
264	13.56063			

Temperature vs. Frequency Stability (Test Voltage: 240Vac)

Temperature	Measurement Frequency (MHz)	Max. Deviation (MHz)	Limit(MHz)	Conclusion
- 20℃	13.56054	0.00065	0.001356	PASS
-10℃	13.56059			
0℃	13.56064			
10℃	13.56063			
20℃	13.56058			
30℃	13.56062			
40℃	13.56065			
50℃	13.56055			

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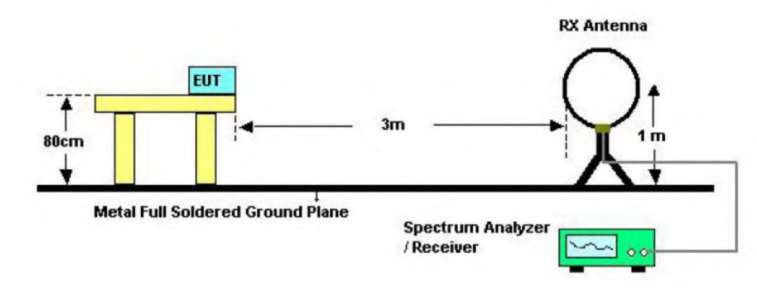
4.4. Field Strength of The Fundamental Signal

Test Requirement:	47 CFR 15.225(a)
Test Limit:	The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
Test Method:	ANSI C63.10-2013, Section 6.4
Procedure:	Refer to ANSI C63.10-2013, Section 6.4

4.4.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

4.4.2. Test Setup Diagram:



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4.4.3. Test Data:

Frequency (MHz)	Read Level (dBuV)	Correct Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dBuV/m)	Polarization	Test value
13.56	97.38	-29.04	68.34	124	55.66	Horizontal	Peak
13.56	99.37	-29.04	70.33	124	53.67	Vertical	Peak

Note:
1. Measurement = Reading level + Correct Factor
2.Correct Factor=Antenna Factor + Cable Loss - Preamplifier Factor

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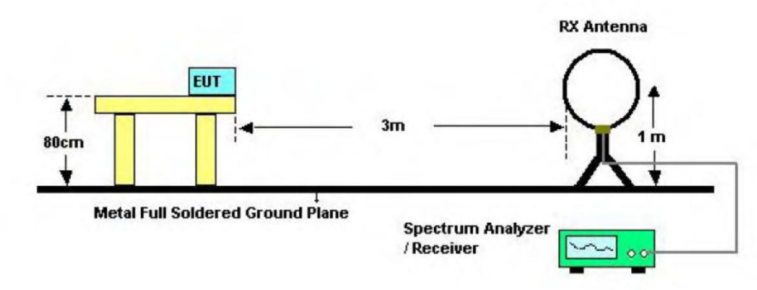
4.5. Emission Mask

Test Requirement:	47 CFR 15.225(b), 15.225(c)
Test Limit:	(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters. (c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
Test Method:	ANSI C63.10-2013, Section 6.4
Procedure:	Refer to ANSI C63.10-2013, Section 6.4

4.5.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

4.5.2. Test Setup Diagram:



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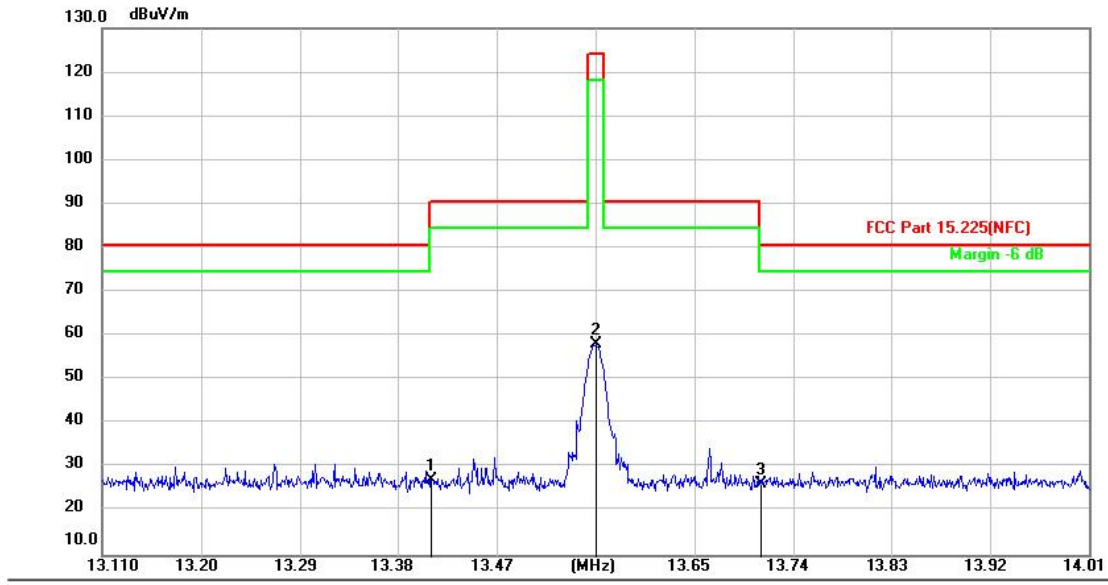
4.5.3. Test Data:

Test Mode1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1	*	13.4100	34.14	-6.91	27.23	80.50	-53.27	peak
2		13.5601	64.92	-6.89	58.03	124.00	-65.97	peak
3		13.7100	33.11	-6.87	26.24	80.50	-54.26	peak

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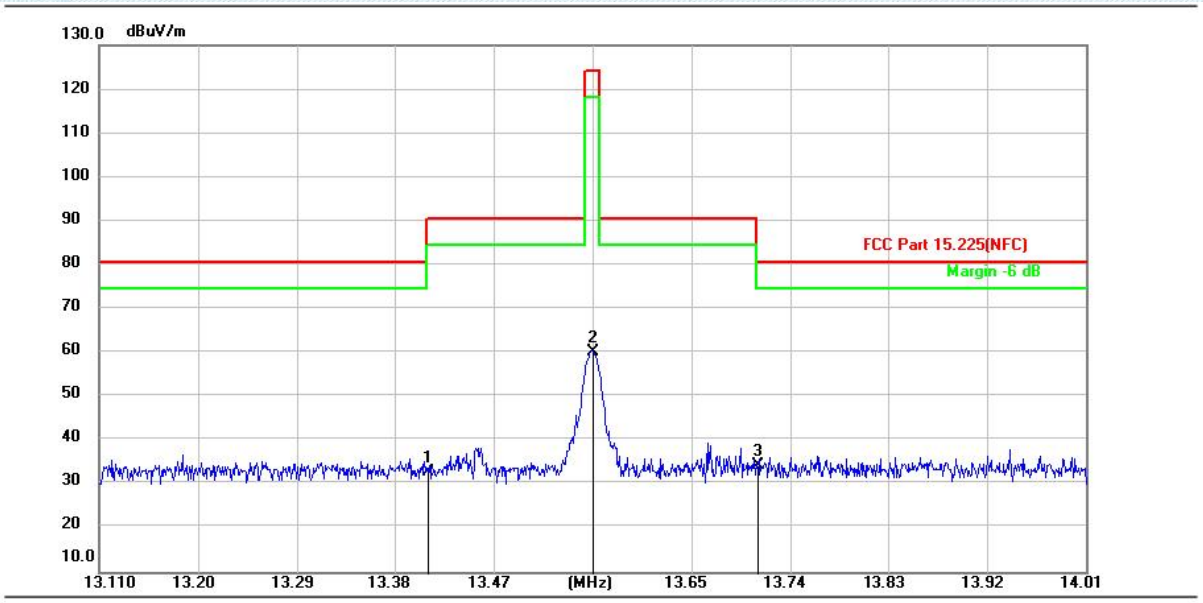
Test Mode1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1		13.4100	39.97	-6.91	33.06	80.50	-47.44	peak
2		13.5594	67.29	-6.89	60.40	124.00	-63.60	peak
3	*	13.7100	41.32	-6.87	34.45	80.50	-46.05	peak

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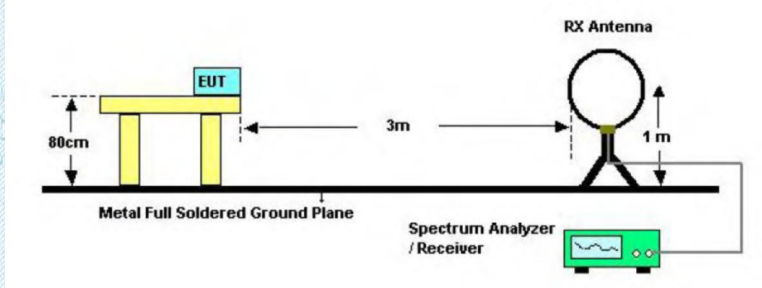
4.6. Emissions in frequency bands (below 30MHz)

<table>
<tr><td>Test Requirement:</td><td>47 CFR 15.225(d)</td></tr>
<tr><td>Test Limit:</td><td>Refer to 47 CFR Part 15.225(d), The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.
<table>
<tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a)and (b)of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b)of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10-2013, Section 6.4</td></tr>
<tr><td>Procedure:</td><td>Refer to ANSI C63.10-2013 section 6.4</td></tr>
</table>

4.6.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

4.6.2. Test Setup Diagram:



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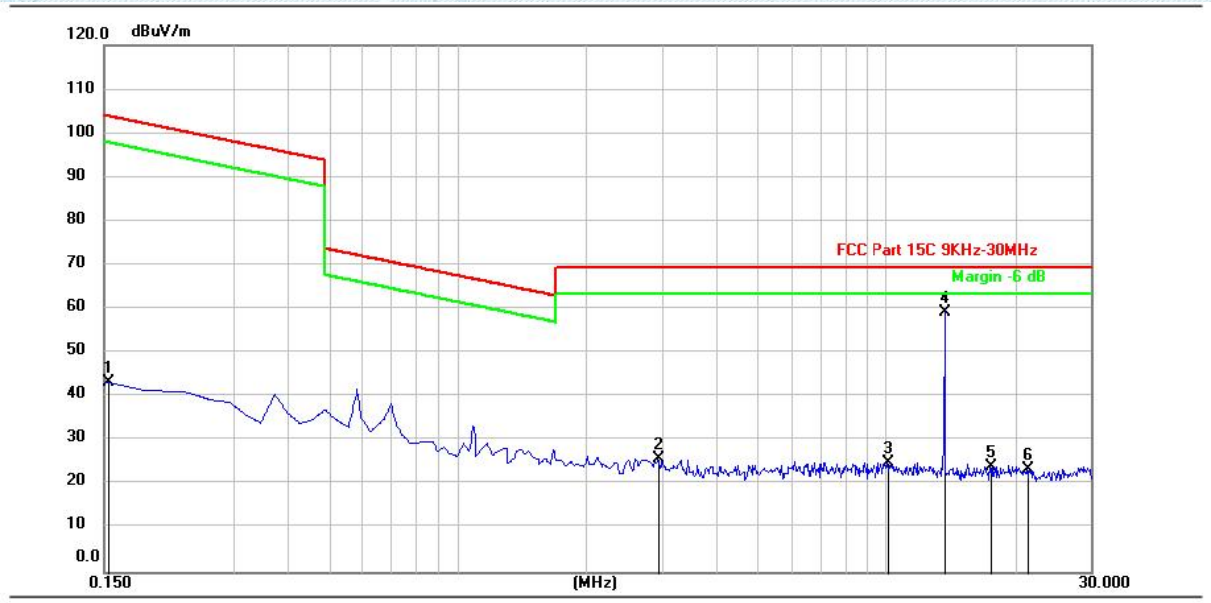
4.6.3. Test Data:

Test Mode1 / Polarization: Horizontal / BW: 1 / CH: M



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1		0.1529	72.63	-29.26	43.37	103.92	-60.55	peak
2		2.9379	56.08	-30.10	25.98	69.54	-43.56	peak
3		10.0840	54.18	-29.00	25.18	69.54	-44.36	peak
4	*	13.6600	88.16	-29.04	59.12	69.54	-10.42	peak
5		17.5197	53.32	-29.02	24.30	69.54	-45.24	peak
6		21.3226	52.62	-29.00	23.62	69.54	-45.92	peak

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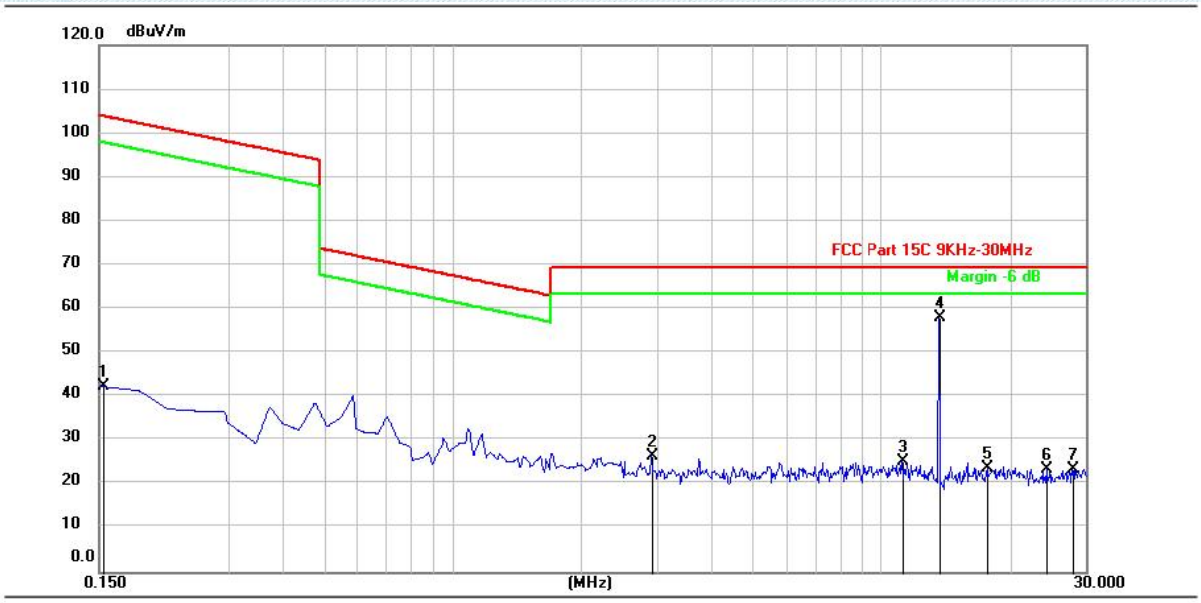
Test Mode1 / Polarization: Vertical / BW: 1 / CH: M



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1		0.1529	71.64	-29.26	42.38	103.92	-61.54	peak
2		2.9021	56.74	-30.10	26.64	69.54	-42.90	peak
3		11.2571	54.34	-29.01	25.33	69.54	-44.21	peak
4	*	13.6600	86.97	-29.04	57.93	69.54	-11.61	peak
5		17.7406	52.76	-29.03	23.73	69.54	-45.81	peak
6		24.3553	52.63	-29.00	23.63	69.54	-45.91	peak
7		27.9790	42.08	-18.50	23.58	69.54	-45.96	peak

Note:
1. Measurement = Reading level + Correct Factor
2.Correct Factor=Antenna Factor + Cable Loss - Preamplifier Factor

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4.7. Emissions in frequency bands (30M-1GHz)

<table>
<tr><td>Test Requirement:</td><td>47 CFR 15.225(d)</td></tr>
<tr><td>Test Limit:</td><td>Refer to 47 CFR Part 15.225(d), The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in § 15.209.
<table>
<tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr>
<tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr>
<tr><td>1.705-30.0</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100 **</td><td>3</td></tr>
<tr><td>88-216</td><td>150 **</td><td>3</td></tr>
<tr><td>216-960</td><td>200 **</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10-2013, Section 6.5</td></tr>
<tr><td>Procedure:</td><td>a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
h. The radiation measurements are performed in X, Y, Z axis positioning for</td></tr>
</table>

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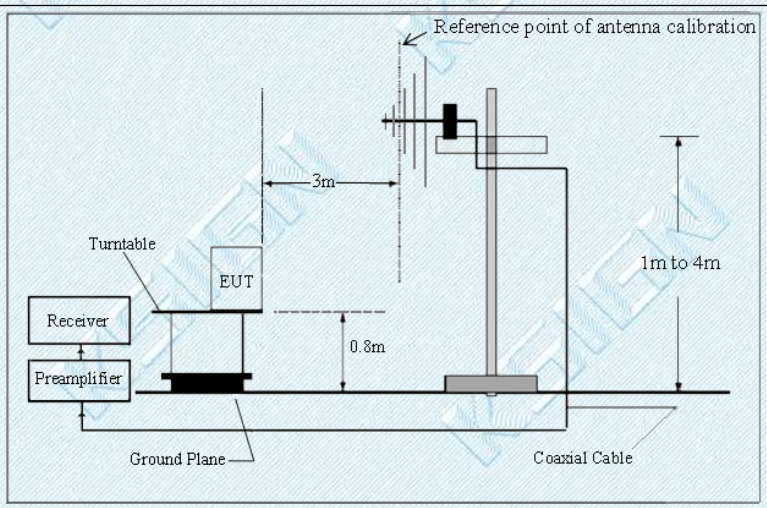
	Transmitting mode, and found the X axis positioning which it is the worst case. i. Repeat above procedures until all frequencies measured was complete. Remark: 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor 2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. 3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

4.7.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23 °C
Humidity:	49.1 %
Atmospheric Pressure:	102 kPa
Final test mode:	Test Mode1

4.7.2. Test Setup Diagram:



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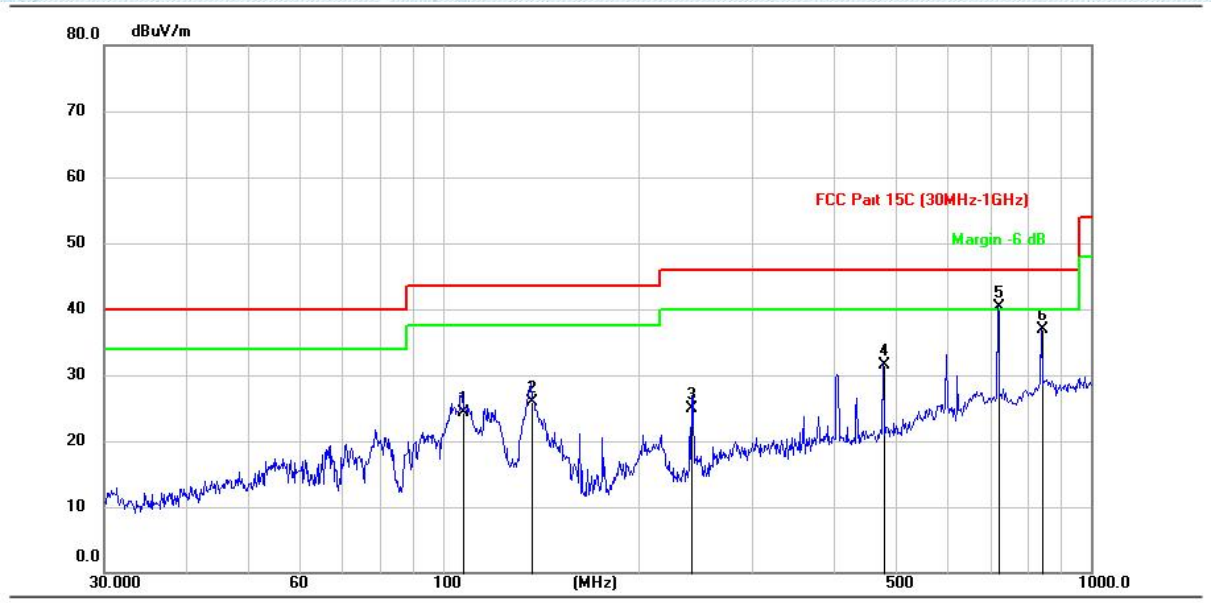
4.7.3. Test Data:

Test Mode1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1		107.2463	38.58	-14.36	24.22	43.50	-19.28	QP
2		136.9871	44.06	-18.14	25.92	43.50	-17.58	QP
3		241.6759	37.83	-12.93	24.90	46.00	-21.10	QP
4		480.0221	37.35	-5.75	31.60	46.00	-14.40	QP
5	*	720.2087	41.76	-1.43	40.33	46.00	-5.67	QP
6		840.0650	37.37	-0.41	36.96	46.00	-9.04	QP

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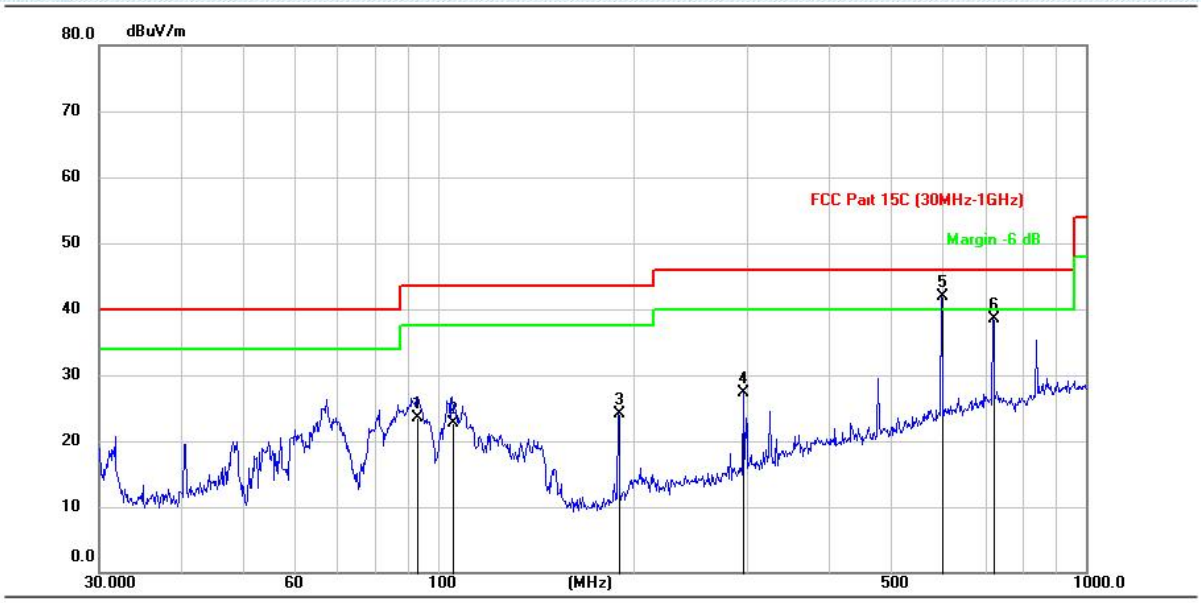
Test Mode1 / Polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1		93.1131	39.64	-16.16	23.48	43.50	-20.02	QP
2		105.3824	37.53	-14.86	22.67	43.50	-20.83	QP
3		189.8716	39.23	-15.21	24.02	43.50	-19.48	QP
4		295.6648	38.33	-11.03	27.30	46.00	-18.70	QP
5	*	600.1624	45.49	-3.60	41.89	46.00	-4.11	QP
6		720.2087	39.87	-1.43	38.44	46.00	-7.56	QP

Note:
1. Measurement = Reading level + Correct Factor
2.Correct Factor=Antenna Factor + Cable Loss - Preamplifier Factor

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5. EUT TEST PHOTOS

Conducted Emission at AC power line

Emission Mask
Emissions in frequency bands (below 30MHz)

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Emissions in frequency bands (30M-1GHz)


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6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Refer to Appendix - EUT Photos for KS2503S1056E.

--THE END--

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2. The report is invalid without the "APPROVED Seal" and the "Riding Seam Seal".
3. This report is invalid without the signature of the main inspector, reviewer, or approver.
4. The testing report cannot be partially copied without the written consent of our laboratory.
5. If the report is not stamped with the "CMA" logo, it indicates that the report does not have any social certification effect in China.
6. Product information, customer information, and sample sources are all provided by the client, and we are not responsible for their authenticity.
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10. For situations where compliance decision needs to be made based on test result, such as when there are no relevant decision rules required by the regulations, standards, or technical specifications used, or when there are no relevant customer requirements, the report issued by our laboratory refer to ILAC-G8:09-2019 and CNAS-GL015:2022 using simple acceptance decision rules.

Laboratory: **KSIGN(Guangdong) Testing Co., Ltd.**

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