TEST REPORT

Report No..... :	KS2505S2280E03
FCC ID..... :	2A98M-POWERMAX1800
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
Trademark..... :	OSCAL, Blackview
Product Name..... :	Portable Power Station
Model/Type reference..... :	PowerMax1800, PowerMax 1800 Pro, PowerMax 1800 Plus, PM1800, PowerMax 1800 SE
Standard..... :	47 CFR Part 15C
Date of Receipt..... :	May 14, 2025
Date of Test Date..... :	May 14, 2025 to July 21, 2025
Date of issue..... :	July 21, 2025
Test result.....:	**Pass**
Conclusion..... :	The submitted sample was found to COMPLY with the standards above.

Prepared by:	Name: Tom Chen Title: Project Engineer	Tom Chen
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

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

TABLE OF CONTENTS Page

1. TEST SUMMARY 3

1.1. Test Standards 3
1.2. Report Version 3
1.3. Test Description 4
1.4. Test Facility 5
1.5. Measurement Uncertainty 5

2. GENERAL INFORMATION 6

2.1. General Description Of EUT 6
2.2. Accessory Equipment Information 6
2.3. Description of Test Modes 7
2.4. Operation channel list 8
2.5. Measurement Instruments List 9

3. Evaluation Results (Evaluation) 11

3.1. Antenna requirement 11

4. Radio Spectrum Matter Test Results (RF) 11

4.1. Conducted Emission at AC power line 11
4.2. 20dB Occupied Bandwidth 15
4.3. Emissions in frequency bands (below 30MHz) 17
4.4. Emissions in frequency bands (30MHz - 1GHz) 21

5. EUT TEST PHOTOS 25
6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL 27

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

47 CFR Part 15C: Radiated emission limits; general requirements

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	July 21, 2025	Original

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

1.3. Test Description

Test Item	Standard	Requirement	Result
Antenna requirement	47 CFR Part 15C	47 CFR Part 15.203	Pass
Conducted Emission at AC power line	47 CFR Part 15C	47 CFR Part 15.207(a)	Pass
20dB Occupied Bandwidth	47 CFR Part 15C	47 CFR Part 15.215(c)	Pass
Emissions in frequency bands (below 30MHz)	47 CFR Part 15C	47 CFR Part 15.209	Pass
Emissions in frequency bands (30MHz - 1GHz)	47 CFR Part 15C	47 CFR Part 15.209	Pass

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

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.

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

2. GENERAL INFORMATION

2.1. General Description Of EUT

Test Sample Number:	KS2505S2280E-01, KS2505S2280E-02
Trademark:	OSCAL, Blackview
Product Name:	Portable Power Station
Model / Type reference:	PowerMax1800, PowerMax 1800 Pro, PowerMax 1800 Plus, PM1800, PowerMax 1800 SE
Model Difference:	The only difference product models is models name. 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 PowerMax1800.
Power Supply:	Input: AC 100-120V, 50/60Hz Battery: DC 25.6V Wrieless charging: 5W/7.5W/10W/15W
Operation Frequency:	115KHz-205KHz
Number of Channels:	1
Modulation Type:	ASK
Antenna Type:	Coil
Antenna Gain:	0dBi
Hardware Version:	V1.1
Software Version:	V1.1

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

2.2. Accessory Equipment Information

The EUT was tested as an independent device.

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

2.3. Description of Test Modes

No.	Title	Description of Mode
Test Mode1	AC Charging+Wireless charge output 99% powe(15W)	N/A
Test Mode2	AC Charging+Wireless charge output 50% powe(15W)	N/A
Test Mode3	AC Charging+Wireless charge output 1% powe(15W)	N/A
Test Mode4	AC Charging+Wireless charge output 99% powe(10W)	N/A
Test Mode5	AC Charging+Wireless charge output 50% powe(10W)	N/A
Test Mode6	AC Charging+Wireless charge output 1% powe(10W)	N/A
Test Mode7	AC Charging+Wireless charge output 99% powe(7.5W)	N/A
Test Mode8	AC Charging+Wireless charge output 50% powe(7.5W)	N/A
Test Mode9	AC Charging+Wireless charge output 1% powe(7.5W)	N/A
Test Mode10	AC Charging+Wireless charge output 99% powe(5W)	N/A
Test Mode11	AC Charging+Wireless charge output 50% powe(5W)	N/A
Test Mode12	AC Charging+Wireless charge output 1% powe(5W)	N/A
Test Mode13	Wireless charge output 99% powe(15W)	N/A
Test Mode14	Wireless charge output 50% powe(15W)	N/A
Test Mode15	Wireless charge output 1% powe(15W)	N/A
Test Mode16	Wireless charge output 99% powe(10W)	N/A
Test Mode17	Wireless charge output 50% powe(10W)	N/A
Test Mode18	Wireless charge output 1% powe(10W)	N/A
Test Mode19	Wireless charge output 99% powe(7.5W)	N/A
Test Mode20	Wireless charge output 50% powe(7.5W)	N/A
Test Mode21	Wireless charge output 1% powe(7.5W)	N/A
Test Mode22	Wireless charge output 99% powe(5W)	N/A
Test Mode23	Wireless charge output 50% powe(5W)	N/A
Test Mode24	Wireless charge output 1% powe(5W)	N/A
Note: All test modes were pre-tested, The Mode 1 was the worst case and only the data of the worst case record in this report.		

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

2.4. Operation channel list

Channel	Frequency (MHz)
1	0.146

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

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	G657431CD14311 12	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 Occupied Bandwidth				
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-1 87	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

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

Emissions in frequency bands (below 30MHz) Emissions in frequency bands (30MHz - 1GHz)				
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

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

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 EUT uses a Coil antenna, the max antenna gain is less than 6dBi, which is deemed to comply with the antenna requirement.

4. Radio Spectrum Matter Test Results (RF)

4.1. Conducted Emission at AC power line

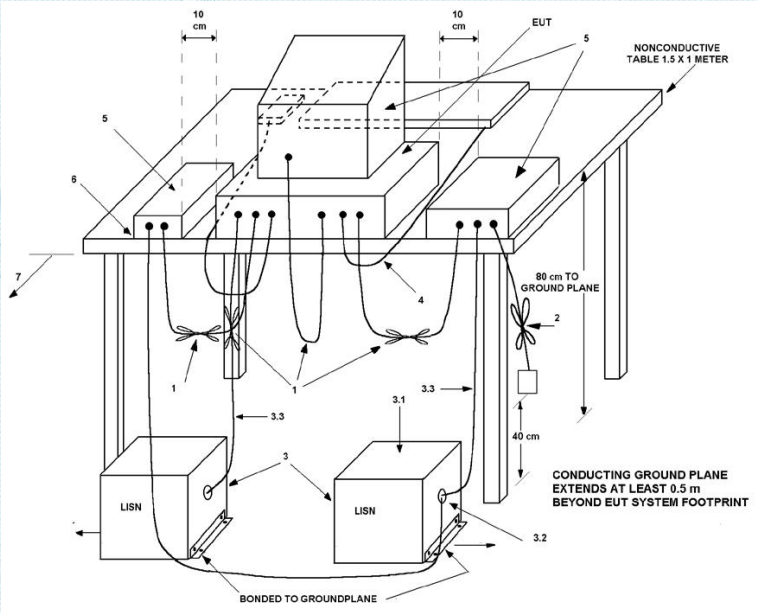
Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 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:	23.9 °C
Humidity:	54.8 %
Atmospheric Pressure:	101 kPa
Final test mode:	Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

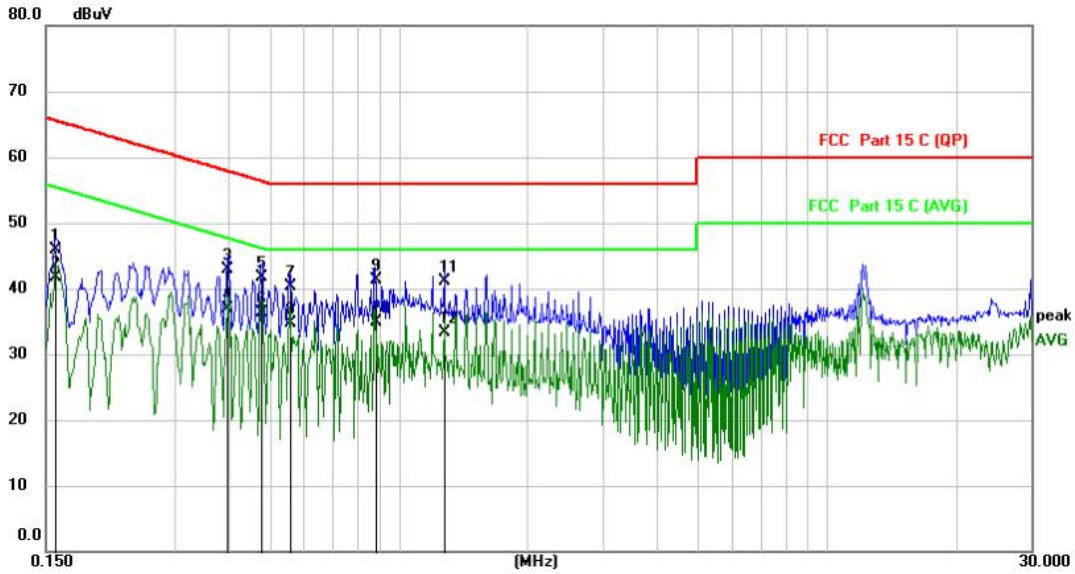
4.1.2. Test Setup Diagram:



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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.1.3. Test Data:

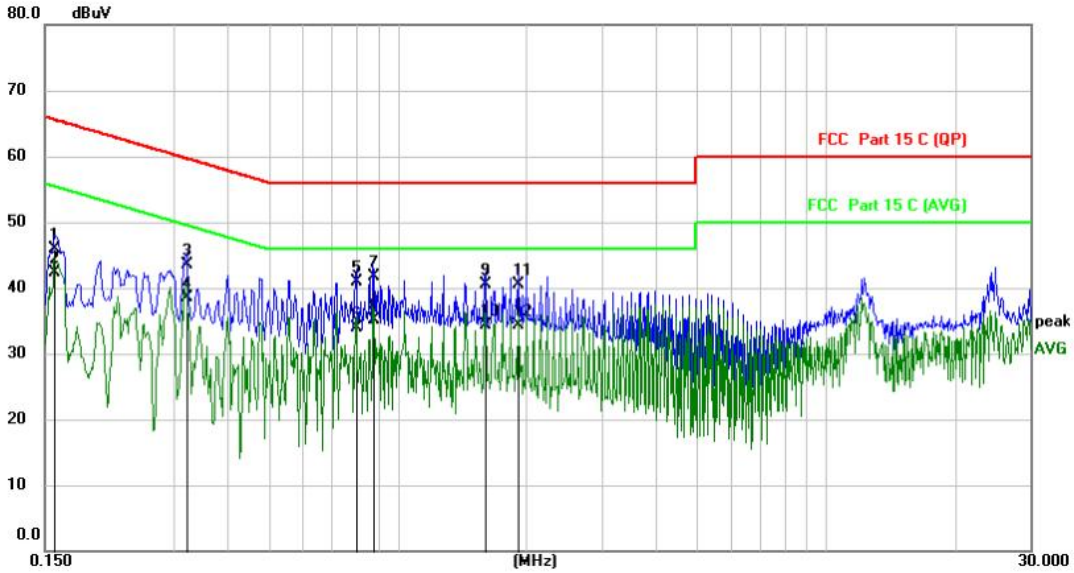
Test Mode1 / Line: Line



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	25.75	20.20	45.95	65.57	-19.62	QP	
2		0.1580	21.57	20.20	41.77	55.57	-13.80	AVG	
3		0.3996	22.63	20.36	42.99	57.86	-14.87	QP	
4		0.3996	16.49	20.36	36.85	47.86	-11.01	AVG	
5		0.4778	21.30	20.41	41.71	56.38	-14.67	QP	
6	*	0.4778	15.80	20.41	36.21	46.38	-10.17	AVG	
7		0.5580	19.79	20.42	40.21	56.00	-15.79	QP	
8		0.5580	14.24	20.42	34.66	46.00	-11.34	AVG	
9		0.8820	20.99	20.27	41.26	56.00	-14.74	QP	
10		0.8820	14.73	20.27	35.00	46.00	-11.00	AVG	
11		1.2780	20.92	20.16	41.08	56.00	-14.92	QP	
12		1.2780	13.21	20.16	33.37	46.00	-12.63	AVG	

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

Test Mode1 / Line: Neutral



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	25.69	20.24	45.93	65.57	-19.64	QP	
2		0.1580	21.99	20.24	42.23	55.57	-13.34	AVG	
3		0.3220	23.24	20.33	43.57	59.66	-16.09	QP	
4		0.3220	18.18	20.33	38.51	49.66	-11.15	AVG	
5		0.8020	20.81	20.08	40.89	56.00	-15.11	QP	
6		0.8020	13.75	20.08	33.83	46.00	-12.17	AVG	
7		0.8780	21.56	20.13	41.69	56.00	-14.31	QP	
8	*	0.8780	14.95	20.13	35.08	46.00	-10.92	AVG	
9		1.6019	20.13	20.28	40.41	56.00	-15.59	QP	
10		1.6019	14.08	20.28	34.36	46.00	-11.64	AVG	
11		1.9173	20.20	20.31	40.51	56.00	-15.49	QP	
12		1.9173	13.96	20.31	34.27	46.00	-11.73	AVG	

Note:
1). QP Value (dBμV)= QP Reading (dBμV)+ Factor (dB)
2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)
3). QPMargin(dB) = QP Limit (dBμV) - QP Value (dBμV)
4). AVMargin(dB) = AV Limit (dBμV) - AV Value (dBμV)

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.2. 20dB Occupied Bandwidth

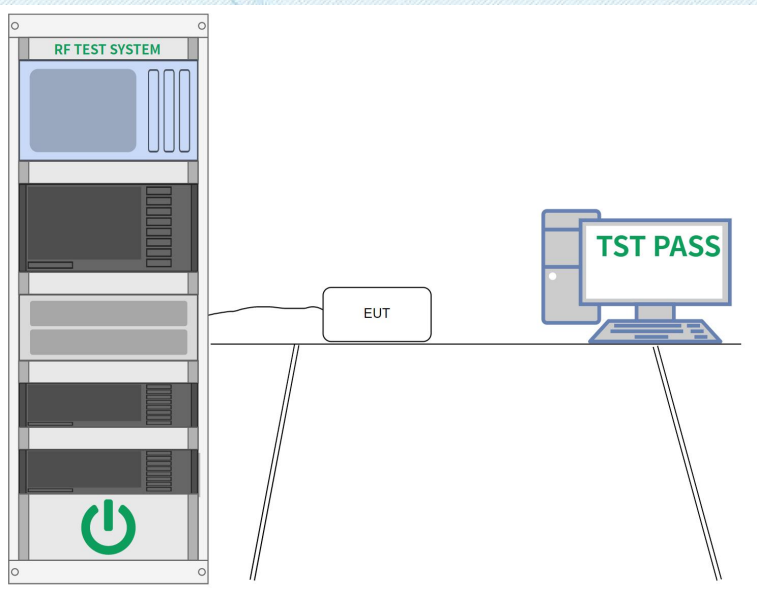
Test Requirement:	47 CFR Part 15.215(c)
Test Limit:	Refer to 47 CFR 15.215(c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of 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 "-xx dB down amplitude" determined in step h). If a marker is below this "−xx dB down amplitude" value, 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 "-xx 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).

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.2.1. E.U.T. Operation:

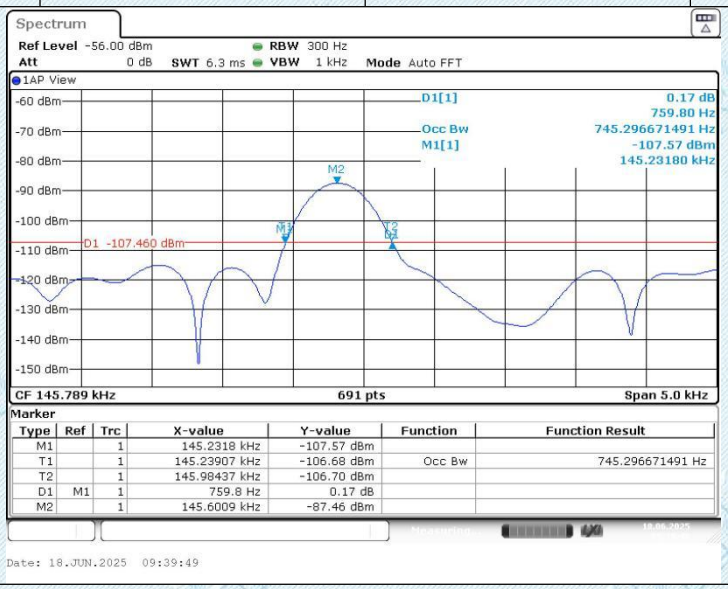
Operating Environment:	
Temperature:	23.9 °C
Humidity:	54.8 %
Atmospheric Pressure:	101 kPa
Final test mode:	Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24

4.2.2. Test Setup Diagram:



4.2.3. Test Data:

Frequency (KHz)	99% Bandwidth(Hz)	-20dB Bandwidth(Hz)	Verdict
145.79	745.3	759.8	PASS



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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

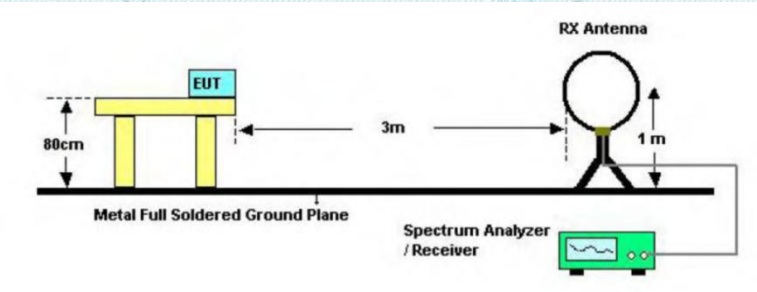
4.3. Emissions in frequency bands (below 30MHz)

Test Requirement:	47 CFR Part 15.209
Test Limit:	Frequency (MHz) / Field strength (microvolts/meter) / Measurement distance (meters) 0.009-0.490 / 2400/F(kHz) / 300 0.490-1.705 / 24000/F(kHz) / 30 1.705-30.0 / 30 / 30 30-88 / 100 ** / 3 88-216 / 150 ** / 3 216-960 / 200 ** / 3 Above 960 / 500 / 3 ** 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.
Test Method:	ANSI C63.10-2013 section 6.4
Procedure:	ANSI C63.10-2013 section 6.4

4.3.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23.9 °C
Humidity:	54.8 %
Atmospheric Pressure:	101 kPa
Final test mode:	Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24

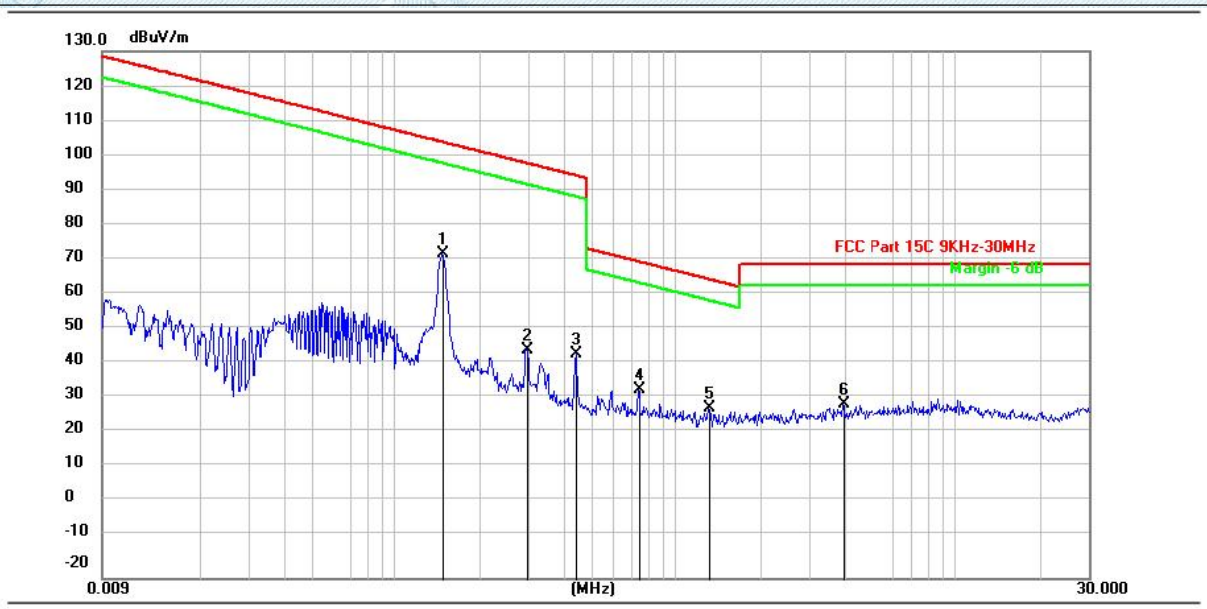
4.3.2. Test Setup Diagram:



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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.3.3. Test Data:

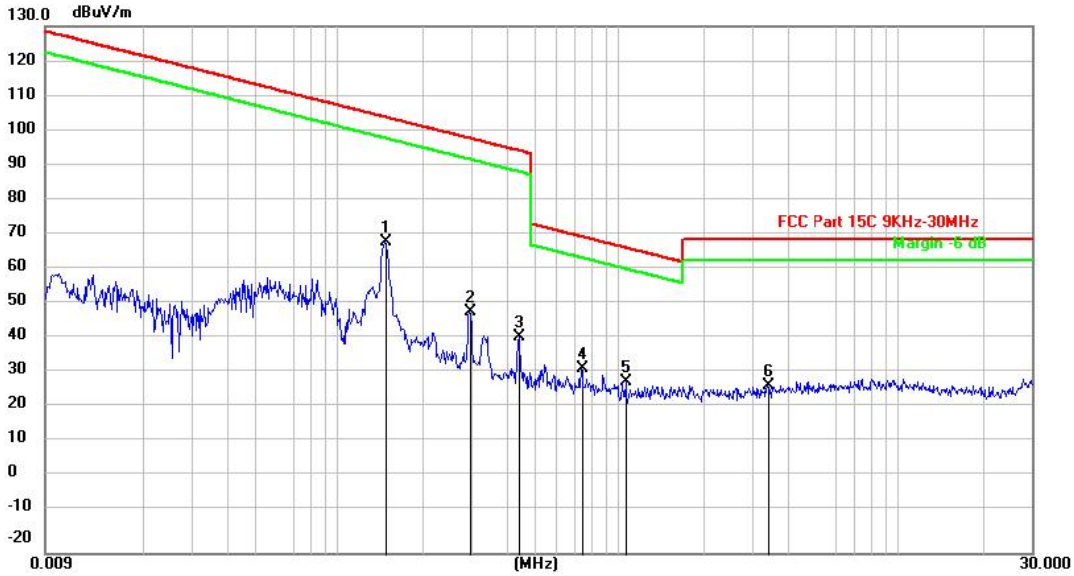
Test Mode1 / Axis: X



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1	*	0.1461	76.81	-4.33	72.48	104.19	-31.71	peak
2		0.2965	49.33	-4.23	45.10	98.16	-53.06	peak
3		0.4432	48.03	-4.15	43.88	94.67	-50.79	peak
4		0.7400	37.62	-3.98	33.64	70.22	-36.58	peak
5		1.3137	32.49	-3.88	28.61	65.23	-36.62	peak
6		3.9514	33.39	-3.69	29.70	69.54	-39.84	peak

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

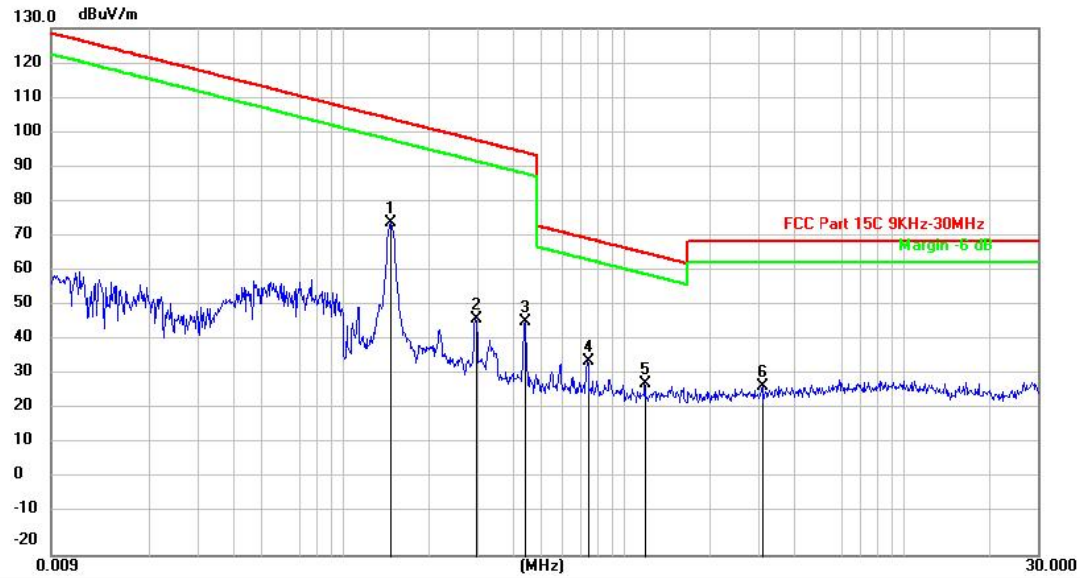
Test Mode1 / Axis: Y



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1	*	0.1460	73.02	-4.33	68.69	104.20	-35.51	peak
2		0.2953	52.94	-4.23	48.71	98.20	-49.49	peak
3		0.4421	45.71	-4.16	41.55	94.69	-53.14	peak
4		0.7388	36.68	-3.98	32.70	70.23	-37.53	peak
5		1.0661	32.69	-3.82	28.87	67.05	-38.18	peak
6		3.3994	31.63	-3.69	27.94	69.54	-41.60	peak

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

Test Mode1 / Axis: Z



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1	*	0.1464	78.99	-4.34	74.65	104.23	-29.58	peak
2		0.2960	51.47	-4.23	47.24	98.18	-50.94	peak
3		0.4430	50.78	-4.15	46.63	94.68	-48.05	peak
4		0.7400	39.44	-3.98	35.46	70.22	-34.76	peak
5		1.1861	32.87	-3.85	29.02	66.12	-37.10	peak
6		3.1180	31.94	-3.69	28.25	69.54	-41.29	peak

Note:
Correct Factor=Antenna Factor + Cable Loss -Preamplifier Factor

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.4. Emissions in frequency bands (30MHz - 1GHz)

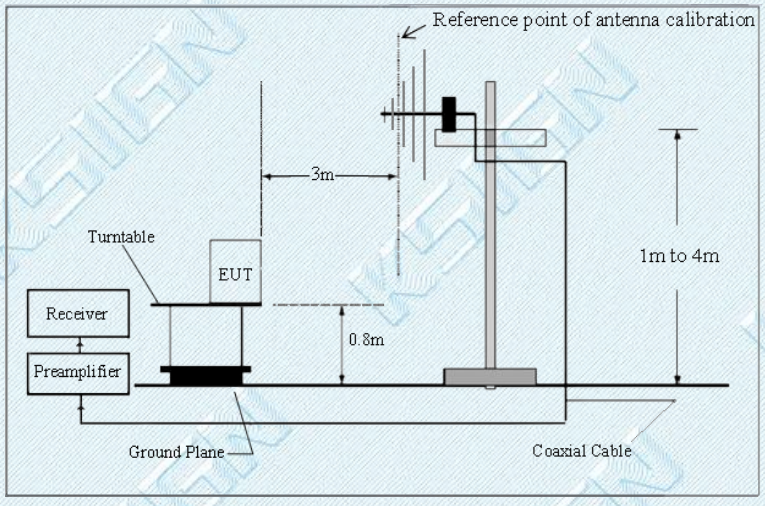
Test Requirement:	47 CFR Part 15.209
Test Limit:	Frequency (MHz) / Field strength (microvolts/meter) / Measurement distance (meters) 0.009-0.490 / 2400/F(kHz) / 300 0.490-1.705 / 24000/F(kHz) / 30 1.705-30.0 / 30 / 30 30-88 / 100 ** / 3 88-216 / 150 ** / 3 216-960 / 200 ** / 3 Above 960 / 500 / 3 ** 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.
Test Method:	ANSI C63.10-2013 section 6.5
Procedure:	ANSI C63.10-2013 section 6.5

4.4.1. E.U.T. Operation:

Operating Environment:	
Temperature:	23.9 °C
Humidity:	54.8 %
Atmospheric Pressure:	101 kPa
Final test mode:	Test Mode1, Test Mode2, Test Mode3, Test Mode4, Test Mode5, Test Mode6, Test Mode7, Test Mode8, Test Mode9, Test Mode10, Test Mode11, Test Mode12, Test Mode13, Test Mode14, Test Mode15, Test Mode16, Test Mode17, Test Mode18, Test Mode19, Test Mode20, Test Mode21, Test Mode22, Test Mode23, Test Mode24

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

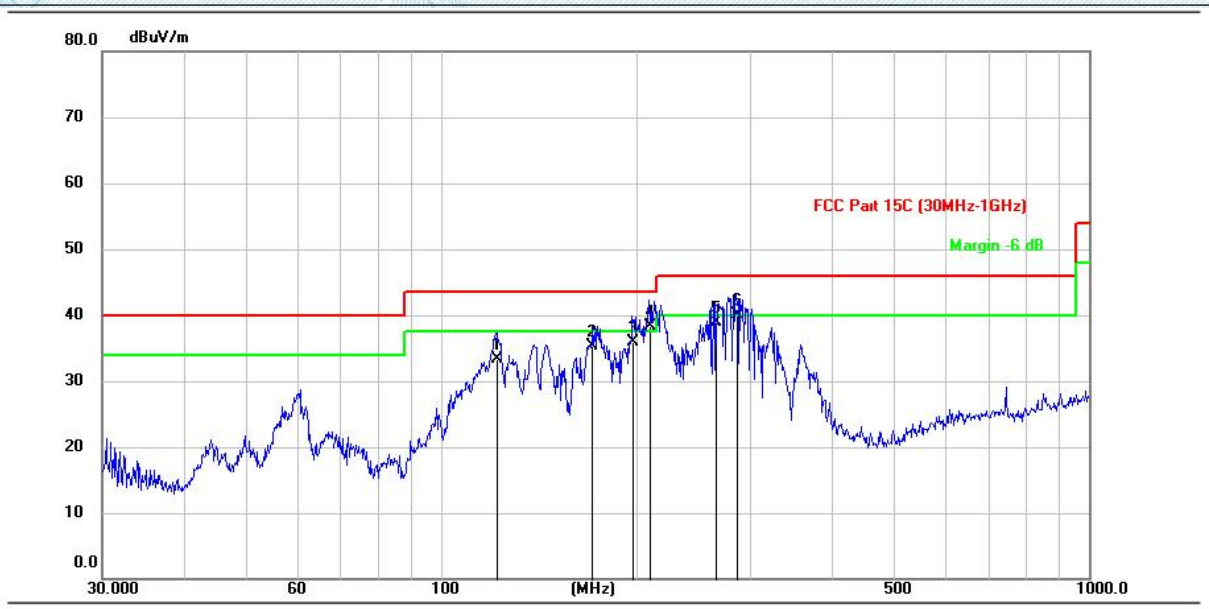
4.4.2. Test Setup Diagram:



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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

4.4.3. Test Data:

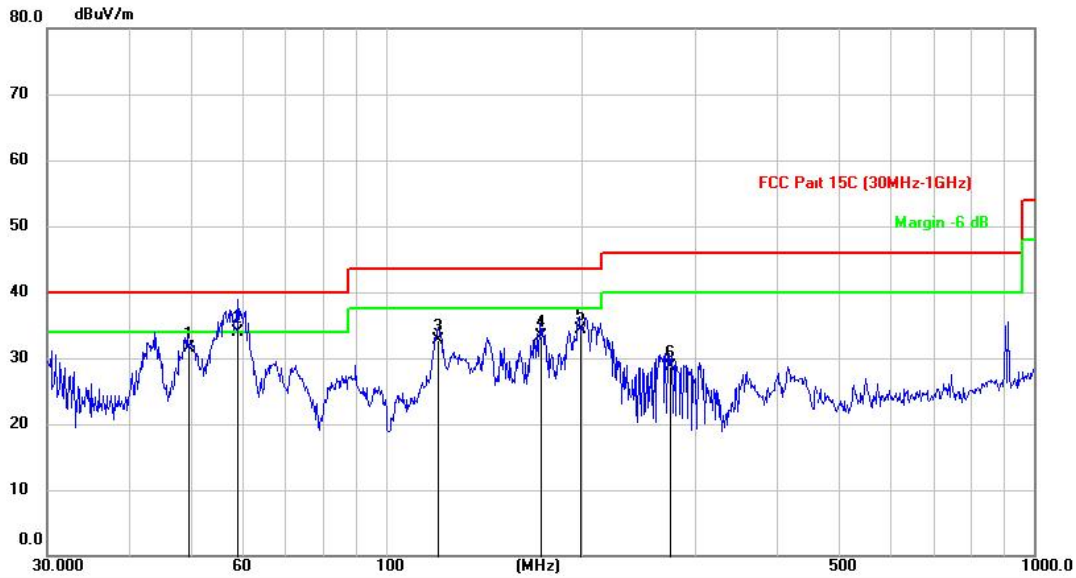
Test Mode1 / Polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	Detector
1		122.0824	47.34	-13.97	33.37	43.50	-10.13	QP
2		171.3925	49.62	-14.23	35.39	43.50	-8.11	QP
3		197.4766	48.84	-12.93	35.91	43.50	-7.59	QP
4	*	209.7170	50.26	-11.91	38.35	43.50	-5.15	QP
5		265.0708	50.04	-11.11	38.93	46.00	-7.07	QP
6	!	285.8272	50.40	-10.31	40.09	46.00	-5.91	QP

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

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		49.5154	41.15	-9.62	31.53	40.00	-8.47	QP
2	*	58.8701	44.52	-10.62	33.90	40.00	-6.10	QP
3		120.5511	46.68	-13.94	32.74	43.50	-10.76	QP
4		173.0533	47.50	-14.10	33.40	43.50	-10.10	QP
5		199.0760	46.68	-12.45	34.23	43.50	-9.27	QP
6		273.3299	39.04	-10.31	28.73	46.00	-17.27	QP

Note:
1). Level (dBμV/m)= Reading (dBμV)+ Factor (dB/m)
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)
3). Margin(dB) = Limit (dBμV/m) - Level (dBμV/m)

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

5. EUT TEST PHOTOS

Conducted Emission at AC power line

Emissions in frequency bands (below 30MHz)

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

Emissions in frequency bands (30MHz - 1GHz)

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

6. PHOTOGRAPHS OF EUT CONSTRUCTIONAL

Refer to Appendix - EUT Photos for KS2505S2280E.

--THE END--

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
Tel: +(86) 0755-2985 2678 Fax: +(86) 0755-2985 2397 E-mail: info@gdksign.cn Web: www.gdksign.com

Important Notice

1. The results are valid only for the samples submitted.
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.
7. The inspection basis or inspection items marked with "★" are not within the scope of CNAS,CMA and A2LA accreditation in this laboratory.
8. Reports that are transferred, copied, stolen, impersonated, altered, or tampered with in any media form without authorization are invalid.
9. If you have any objections to this report, you can appeal to our unit within 15 days after receiving the report. Failure to do so will not be accepted.
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.**
Address: **First Floor West Side, Building C, Zone A, Fuyuan New Factory, Jiujiu Industrial Park, Minzhu Village, Shatou Community, Shajing Street, Bao'an District, Shenzhen City, Guangdong Province, P. R. China. 518104**
Tel.: **+(86) 0755-29852678**
Fax.: **+(86) 0755-29852397**
E-mail: **info@gdksign.cn**
Web: **www.gdksign.com**