

# Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

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Date of issue	Apr. 28, 2025
Testing Laboratory Name:	Shenzhen CTA Testing Technology Co., Ltd.
Address	Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Baoʻan District, Shenzhen, China
Applicant's name:	Shenzhen Sinco Technology Co., Limited.
Address:	Room 201, 2F, Building C, HuiXin Industrial Park, HePing
Autress	Community, FuHai Street, Bao'an District, Shenzhen City, China
Test specification:	Community, FuHai Street, Bao'an District, Shenzhen City, China
Test specification  :    Standard  :	FCC Rules and Regulations Part 15 Subpart C (Section 15.209), ANSI C63.10: 2013
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Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China Tel:+86-755 2322 5875 E-mail:cta@cta-test.cn Web:http://www.cta-test.cn

	TEST REP	ORT
Equipment under Test	: wireless charger	
	CIT CIT	CTA TESTING
Model /Type	: 506C	
Listed Models	: N/A	
Applicant	: Shenzhen Sinco Technolog	
Applicant	. Shenzhen Sinco Technolog	gy Co., Linned.
Address 🧼 🔨	Room 201, 2F, Building C, H	luiXin Industrial Park, HePing
	Community, FuHai Street, Ba	ao'an District, Shenzhen City, China
		FESTIN
Manufacturer	: Shenzhen Sinco Technolog	gy Co., Limited.
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Address	_	luiXin Industrial Park, HePing ao'an District, Shenzhen City, China
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Test	Result	PASS
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## TEST STANDARDS 1

The tests were performed according to following standards:

FCC Rules and Regulations Part 15 Subpart C (Section 15.207): Conducted limits. FCC Rules and Regulations Part 15 Subpart C (Section 15.209): Radiated emission limits; general requirements. ANSI C63.10: 2013: American National Standard for Testing Unlicensed Wireless Devices

### SUMMARY 2

# 2.1 General Remarks

2.1 General Remarks	TATESTING
Date of receipt of test sample	: Apr. 23, 2025
Testing commenced on	: Apr. 23, 2025
Testing concluded on	: Apr. 28, 2025

# 2.2 Product Description

Product Name:	wireless charger	
Model/Type reference:	506C	
Electric toothbrush(Supplied by manufacturer):	Model: 506	
Hardware version:	V1.0	TEST
Software version:	V1.0	CTP -
Test samples ID:	CTA250423007-1# (Engineer sample) CTA250423007-2# (Normal sample)	
Power supply:	Input: DC 5V 1.0A Wireless output: 0.5W	
Operation frequency:	110KHz - 205KHz	
Modulation type:	ASK	STING
Antenna type:	Loop coil antenna	
ANT Gain:	0dBi	

### Description of the test mode 2.3

Equipment under test was operated during the measurement under the following conditions: Charging and communication mode

			2114		
Test Mod	les:				
Mode 1	Wireless Charging	CTA	Recorded		
Mode 2	Standby	5	Pre-tested		
Note: All	test modes were pre-tested, but we only record	ded the worst case in this re	port.	(ETA )	
24 5	nocial Accessories			and the second second	

### 2.4 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the laboratory is listed as follow:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
Adapter		/	Input: AC 100-240V 50/60Hz Output: DC 5V 1A	/	STING
/	/	/			A
/	/	/	/	GP	/

### Modifications 2.5

.eria. No modifications were implemented to meet testing criteria.

### 3 TEST ENVIRONMENT

### Address of the test laboratory 3.1

## Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

# 3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations: FCC-Registration No.: 517856 Designation Number: CN1318

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

# A2LA-Lab Cert. No.: 6534.01

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

# 3.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges: Radiated Emission

24 ° C
TAT
45 %
950-1050mbar

## AC Power Conducted Emission:

	Temperature:	25 ° C
1	IN ON	
	Humidity:	46 %
	-INI	2
	Atmospheric pressure:	950-1050mbar

Atmospheric pressure:	950-1050mbar
Conducted testing:	ESTING
Temperature:	25 ° C
	G
Humidity:	44 %
	and a second sec
Atmospheric pressure:	950-1050mbar

### 3.4 Summary of measurement results

Description of test	Result
Conducted emissions test	Compliant
Radiated emission test	Compliant
The 20dB bandwidth measurement	Compliant
Antenna requirement	Compliant
	110

### Statement of the measurement uncertainty 3.5

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 TR-100028-01" Electromagnetic compatibility and Radio spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2 " and is documented in the Shenzhen CTA 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 Shenzhen CTA Testing Technology Co., Ltd. :

Test	Range	Measurement Uncertainty	Notes
Radiated Emission	9KHz~30MHz	3.02 dB	(1)
Radiated Emission	30~1000MHz	4.06 dB	(1)
Radiated Emission	1~18GHz	5.14 dB	(1)
Radiated Emission	18-40GHz	5.38 dB	(1)
Conducted Disturbance	0.15~30MHz	2.14 dB	(1)
Output Peak power	30MHz~18GHz	0.55 dB	(1)
Power spectral density	/	0.57 dB	(1)
Spectrum bandwidth	/	1.1%	(1)
Radiated spurious emission (30MHz-1GHz)	30~1000MHz	4.10 dB	(1)
Radiated spurious emission (1GHz-18GHz)	1~18GHz	4.32 dB	(1)
Radiated spurious emission (18GHz-40GHz)	18-40GHz	5.54 dB	(1)

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

# 3.6 Equipments Used during the Test

		C N					
Test Equipment	Manufacturer	Model No.	Equipment No.	Calibration Date	Calibration Due Date		
LISN	R&S	ENV216	CTA-308	2024/08/03	2025/08/02		
LISN	R&S	ENV216	CTA-314	2024/08/03	2025/08/02		
EMI Test Receiver	R&S	ESPI	CTA-307	2024/08/03	2025/08/02		
EMI Test Receiver	R&S	ESCI	CTA-306	2024/08/03	2025/08/02		
Spectrum Analyzer	Agilent	N9020A	CTA-301	2024/08/03	2025/08/02		
Spectrum Analyzer	R&S	FSU	CTA-337	2024/08/03	2025/08/02		
Vector Signal generator	Agilent	N5182A	CTA-305	2024/08/03	2025/08/02		
Analog Signal Generator	R&S	SML03	CTA-304	2024/08/03	2025/08/02		
WIDEBAND RADIO COMMUNICATION	CMW500	R&S	CTA-302	2024/08/03	2025/08/02		

TATE

TESTER	G				
Temperature and humidity meter	Chigo	ZG-7020	CTA-326	2024/08/03	2025/08/02
Ultra-Broadband Antenna	Schwarzbeck	VULB9163	CTA-310	2023/10/17	2026/10/16
Horn Antenna	Schwarzbeck	BBHA 9120D	CTA-309	2023/10/13	2026/10/12
Loop Antenna	Zhinan	ZN30900C	CTA-311	2023/10/17	2026/10/16
Broadband Horn Antenna	A-INFOMW	LB-180500H-2.4F	CTA-336	2023/09/13	2026/09/12
Amplifier	Schwarzbeck	BBV 9745	CTA-312	2024/08/03	2025/08/02
Amplifier	Taiwan chengyi	EMC051845B	CTA-313	2024/08/03	2025/08/02
Directional coupler	NARDA	4226-10	CTA-303	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA18	CTA-402	2024/08/03	2025/08/02
High-Pass Filter	XingBo	XBLBQ-GTA27	CTA-403	2024/08/03	2025/08/02
Automated filter bank	Tonscend	JS0806-F	CTA-404	2024/08/03	2025/08/02
Power Sensor	Agilent	U2021XA	CTA-405	2024/08/03	2025/08/02
Amplifier	Schwarzbeck	BBV9719	CTA-406	2024/08/03	2025/08/02
	·			C	
			N/!	O PL C	• • · · · · · · · · ·

Test Equipment	Manufacturer	Model No.	Version number	Calibration Date	Calibration Due Date
EMI Test Software	G Tonscend	TS®JS32-RE	5.0.0.2	N/A	N/A
EMI Test Software	Tonscend	TS®JS32-CE	5.0.0.1	N/A	N/A
RF Test Software	Tonscend	TS®JS1120-3	3.1.65	N/A	N/A
RF Test Software	Tonscend	TS®JS1120	3.1.46	N/A	N/A
	CAN C		GT CTP	TESTING	

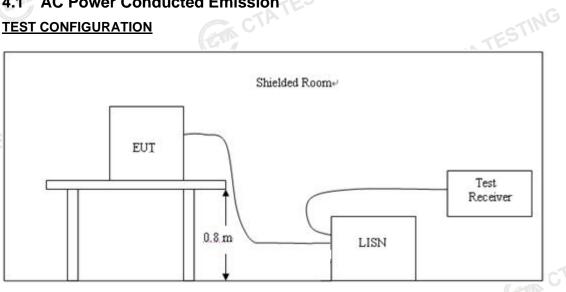
Shenzhen CTA Testing Technology Co., Ltd. Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China Tel:+86-755 2322 5875 E-mail:cta@cta-test.cn Web:http://www.cta-test.cn

CTATE

### TEST CONDITIONS AND RESULTS 4

### AC Power Conducted Emission 4.1

# **TEST CONFIGURATION**



# **TEST PROCEDURE**

- 1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
- 2, Support equipment, if needed, was placed as per ANSI C63.10.
- 3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5, All support equipments received AC power from a second LISN, if any.
- 6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

# AC Power Conducted Emission Limit

For intentional device, according to § 15.207(a) AC Power Conducted Emission Limits is as following :

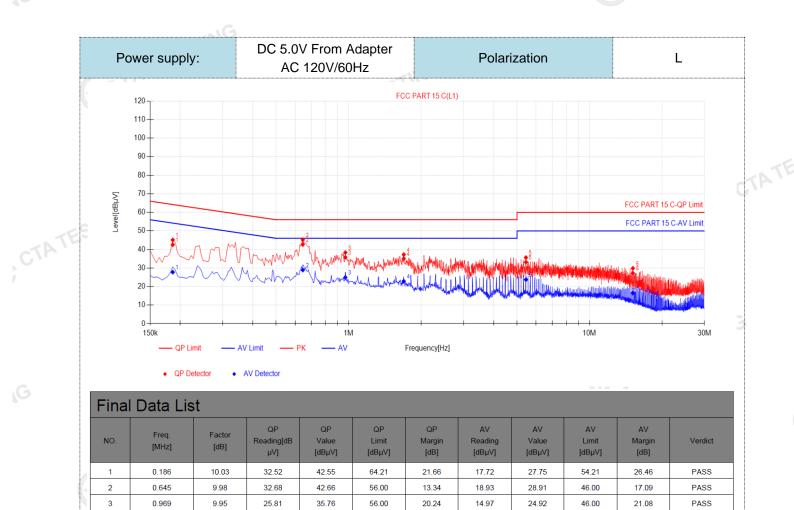
Frequency range (MHz)	Limit (	dBuV)
Frequency range (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

Decreases with the logarithm of the frequency.

# **TEST RESULTS**

Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:

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6 15.135 10.31 16.92 27.23 60.00 32.77 6.16 Note:1).QP Value (dBµV)= QP Reading (dBµV)+ Factor (dB)

25.14

23.09

35.05

33.15

56.00

60.00

20.95

26.85

12.94

13.67

22.85

23.73

16.47

46.00

50.00

50.00

23.15

26.27

33.53

PASS

PASS

PASS

CTATE

2). Factor (dB)=insertion loss of LISN (dB) + Cable loss (dB)

3). QPMargin(dB) = QP Limit (dB $\mu$ V) - QP Value (dB $\mu$ V)

4

5

1.6935

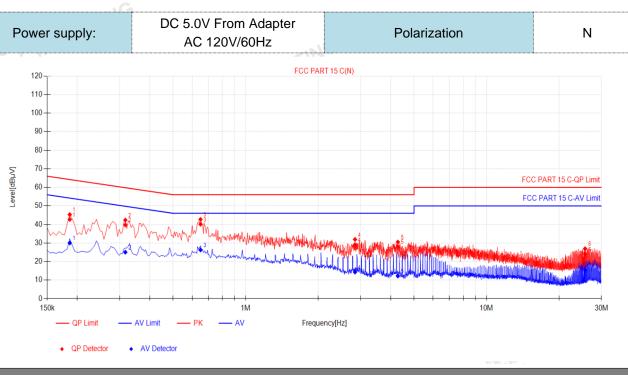
5.4465

9.91

10.06

4). AVMargin(dB) = AV Limit (dB $\mu$ V) - AV Value (dB $\mu$ V)

### Report No.: CTA25042300701



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CTATE

			1.1	- <b>1</b>
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4). AVMargin(dB) = AV Limit (dB $\mu$ V) - AV Value (dB $\mu$ V) GTATESTIN

Shenzhen CTA Testing Technology Co., Ltd. Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China Tel:+86-755 2322 5875 E-mail:cta@cta-test.cn Web:http://www.cta-test.cn

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### 4.2 **Radiated Emission**

# Limit

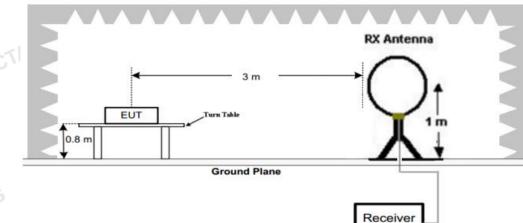
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

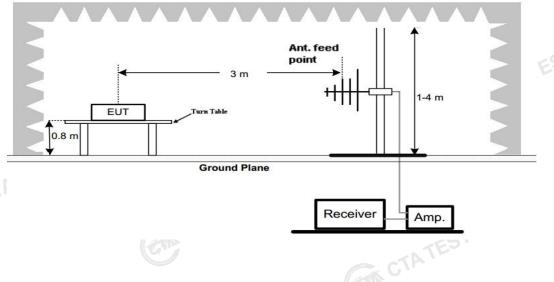
		Rad	diated emission limits	
	Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
	0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
TATE	0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
CTAV	1.705-30	3	20log(30)+ 40log(30/3)	30
1	30-88	3	40.0	100
	88-216	3	43.5	150
	216-960	3	46.0	200
	Above 960	3	54.0	500
			C C	CTAT
	TEST CONFIGURATI	ON		

# **TEST CONFIGURATION**





# 2. Radiated Emission Test Set-Up, Frequency below 1000MHz



## Report No.: CTA25042300701

- 1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane.
- 2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Repeat above procedures until all frequency measurements have been completed. 4.
- 5. Radiated emission test frequency band from 9KHz to 1000MHz.
- The distance between test antenna and EUT as following table states: 6.

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3
	<b>6</b> H - 1 - 1 - 1 - 1	

CTATEST Setting test receiver/spectrum as following table states:

	Test Frequency range	Test Receiver/Spectrum Setting	Detector
	9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
	150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
	30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
		CTATES	
R	ESULTS		

## **TEST RESULTS**

# For 9 KHz-30MHz

EST RESUL	LTS				K CTATE			
or 9 KHz-30	OMHz	WORS	ST-CASE R		EMISSION	BELOW 30 MHz	GAN C	
Frequency	Reading	Polar	Antenna Factor	Cable Loss	Emission Levels	Limits at 3m	Margin	Detector Mode
(MHz)	(dBµV/m)	Loop	(dB/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	
0.1198500(F)	75.77	Loop	23.63	0.02	99.42	106.03	6.61	PK
0.1198500(F)	55.50	Loop	23.63	0.02	79.15	86.03	6.88	AV
0.110	54.69	Loop	23.51	0.02	78.22	106.78	28.56	PK
0.110	47.85	Loop	23.51	0.02	71.38	86.78	15.40	AV
0.288	45.81	Loop	23.82	-0.17	69.46	98.42	28.96	QP
0.471	42.66	Loop	24.21	-0.28	66.59	94.14	27.55	QP
0.549	36.24	Loop	24.32	-0.3	60.26	72.81	12.55	QP

Remark:

Data of measurement within this frequency range shown "-- in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits and not recorded. 1.

- 2. The test limit distance is 3m limit.
- PK means Peak Value, QP means Quasi Peak Value, AV means Average Value. 3.
- F means Fundamental Frequency. 4.
- CTA TESTING Emission level (dBuV/m) = Reading + Antenna Factor + Cable Loss. 5.
- Margin value = Limit value- Emission level. 6.

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312

360

100

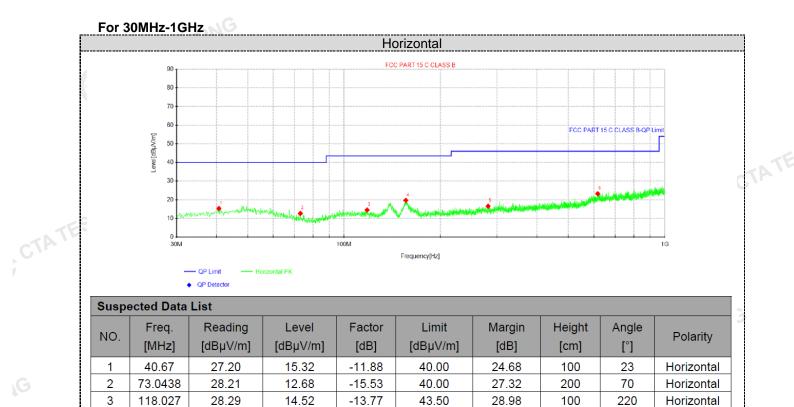
200

100

Horizontal

Horizontal

Horizontal



43.50

46.00

46.00

23.78

29.48

22.75

Note:1).Level (dBµV/m)= Reading (dBµV)+ Factor (dB/m)

19.72

16.52

23.25

35.44

27.92

28.96

4

5

6

155.857

281.715

617.335

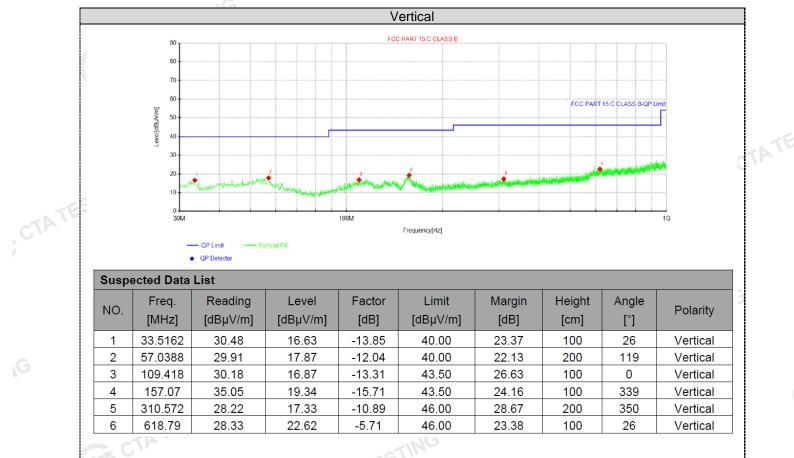
2). Factor(dB/m)=Antenna Factor (dB/m) + Cable loss (dB) - Pre Amplifier gain (dB)

-15.72

-11.40

-5.71

3). Margin(dB) = Limit (dB $\mu$ V/m) - Level (dB $\mu$ V/m)



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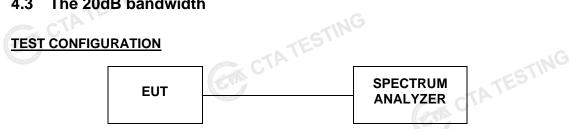
GIA CTATE

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 (dB $\mu$ V/m) - Level (dB $\mu$ V/m)

4.3 The 20dB bandwidth



# **TEST PROCEDURE**

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 20dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equip compliance with the 20dB attenuation specification may base on measurement at the intentional radiator's antenna output terminal unless the intentional radiator uses a permanently attached antenna, in which case compliance shall be deomonstrated by measuring the radiated emissions.

## LIMIT

The 20dB bandwidth shall be less than 80% of the permitted frequency band.

# **TEST RESULTS**

Mode	Freq (KHz)	20dB Bandwidth (KHz)	Conclusion
Tx Mode	119.850	3.282	PASS
Comments of the second s	CTA		STING



### Antenna Requirement 4.4

# Standard Applicable

## Standard Applicable

CTATESTING For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to GTA CTATE ensure that no antenna other than that furnished by the responsible party shall be used with the device.

## Antenna Information

The antenna used in this product is a Coil Antenna, The directional gains of antenna used for transmitting is GTA TES 0.dBi.

### 5 Test Setup Photos of the EUT

Please refer to separated files for Test Setup Photos of the EUT.

### PHOTOS OF THE EUT 6

Please refer to separated files for External Photos & Internal Photos of the EUT.