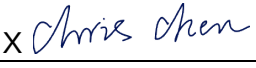
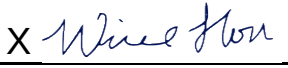


Prüfbericht-Nr.: Test report no.:	CN21SN7Q 002	Auftrags-Nr.: Order no.:	168310254	Seite 1 von 23 Page 1 of 23
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2020-12-22	
Auftraggeber: Client:	Foshan COXO Medical Instrument Co., Ltd BLDG 4, Dist. A Guangdong New Light Source IND. Base, South of Luocun Ave. Nanhai Dist., Foshan, 528226 Guangdong, China			
Prüfgegenstand: Test item:	Endo Motors			
Bezeichnung / Typ-Nr.: Identification / Type no.:	C-SMART-I PILOT (Trademark: COXO)			
Auftrags-Inhalt: Order content:	Test Report			
Prüfgrundlage: Test specification:	CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209			
Wareneingangsdatum: Date of sample receipt:	2021-04-02	Please refer to Photo Document		
Prüfmuster-Nr.: Test sample no.:	A003006478-001,004			
Prüfzeitraum: Testing period:	2021-04-02 – 2021-06-16			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:	 Recoverable Signature 	genehmigt von: authorized by:		
Datum: Date:	2021-06-24 Signed by: chenchriss@asia.tuv.com	Ausstellungsdatum: Issue date:	2021-06-24 Signed by: Winnie Hou	
Stellung / Position:	Senior Project Manager	Stellung / Position:	Technical Certifier	
Sonstiges / Other:	FCC ID: 2A2C6-002			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.3 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Registration No.: 694916

ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Unwanted Emission Testing (TS9975)				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	2021-08-11
Signal Analyzer	R&S	FSV 40	101439	2021-08-10
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	2021-08-10
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	2021-08-10
Amplifier	R&S	SCU-18F	180070	2021-08-10
Amplifier	R&S	SCU40A	100475	2021-09-10
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	2022-08-08
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	2022-08-08
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	2022-08-08
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	2022-09-13
Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18313	2021-09-02
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	2021-07-06

Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102428	2021-08-16
Artificial Mains Network	R&S	ENV216	102333	2021-08-16
EMC32 test software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty
Radiated Emission of Transmitter, valid up to 26.5 GHz	±6 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	±6 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	±3.70 dB / ±3.30 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were showed in this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a Control Unit which part of **Endo Motors** and supports Bluetooth low energy(version 4.0), Wireless charging(WPT) technologies.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment:	Endo Motors
Type Designation:	C-SMART-I PILOT
Trademark:	COXO
FCC ID:	2A2C6-002
Operating Voltage:	AC 100-240V, 50/60Hz Via adapter or DC 7.4V(2600mAh Li-ion battery) charging by Apdater
Power Adapter	Model: GM16-100150-1A Input: AC 100-240V, 50/60Hz, 1A Output: DC 10V, 1.5A
Technical Specification of WPT	
Frequency Range:	112~205KHz
Type of Modulation:	FSK/ASK
Type of antenna:	Induction Coil
Antenna Gain:	0 dBi

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Charging by Qi
- B. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- ID Label and Location Info

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

4.3 Special Accessories and Auxiliary Equipment

N/A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

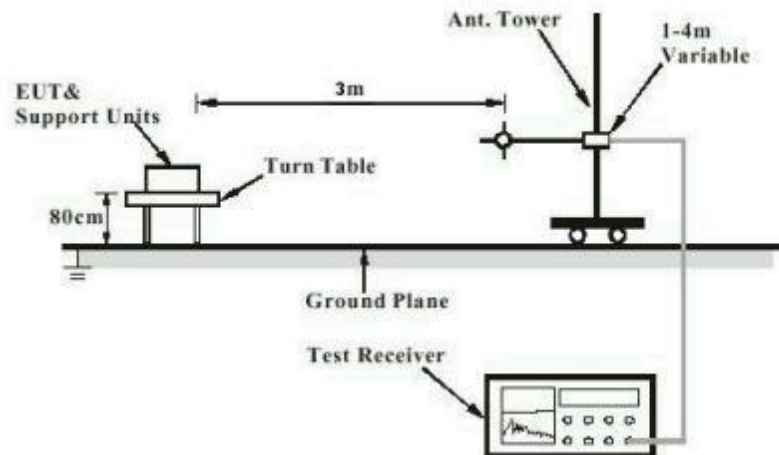
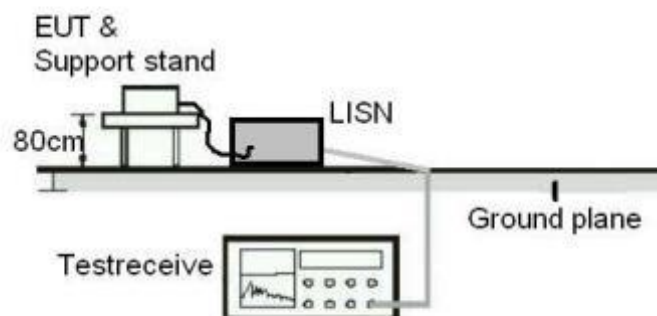


Diagram of Measurement Configuration for Mains Conduction Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.203

According to the manufacturer declared, the EUT has an internal antenna, and the antenna is permanent attachment and no consideration of replacement.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

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5.1.2 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.209 & 15.205
Basic standard	: ANSI C63.10: 2013
Limits	: Refer to 15.209(a)
Kind of test site	: 3m Semi-anechoic Chamber

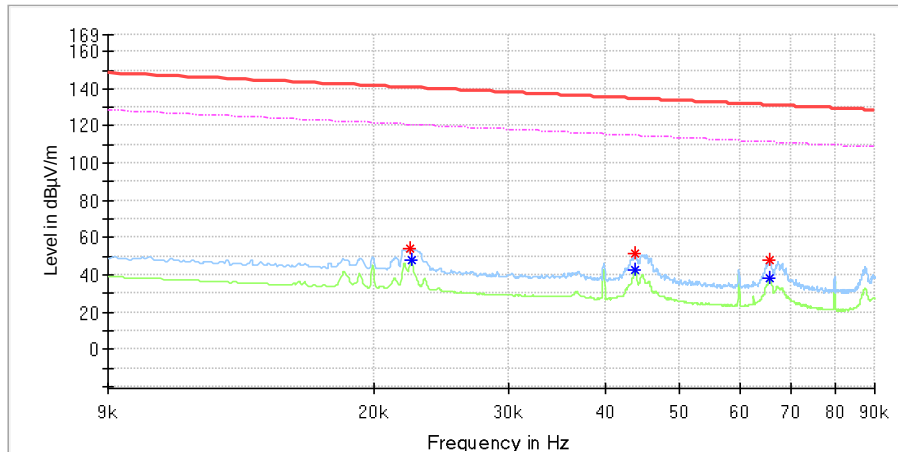
Test Setup

Date of testing	: 2021-06-15
Input voltage	: wireless charger operated (120Vac, 60Hz)
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 23 °C
Relative humidity	: 45 %
Atmospheric pressure	: 101 kPa

For details refer to following test result.

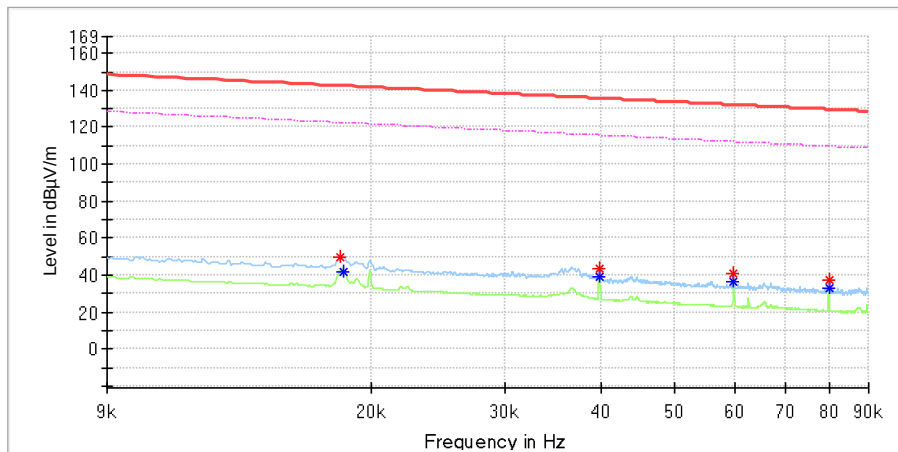
9KHz – 90KHz

X axis


Critical Freqs

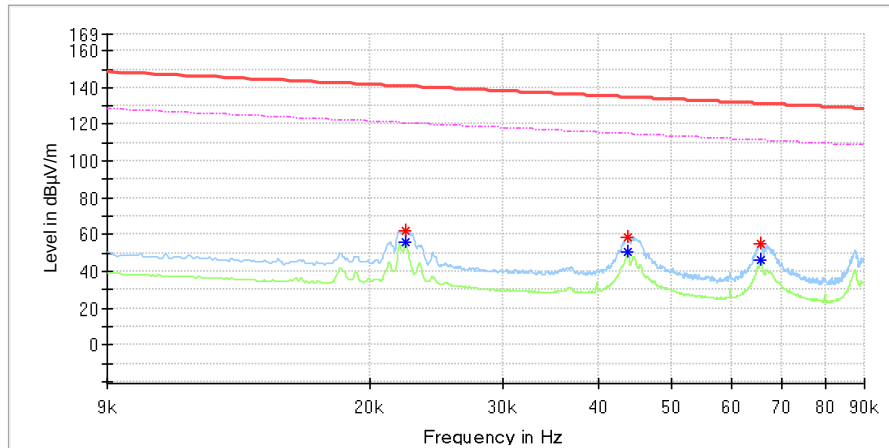
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.022307	54.11	---	140.62	86.51	100.0	V	251.0	20.0
0.022365	---	47.77	120.60	72.83	100.0	V	251.0	20.0
0.043772	---	42.39	114.77	72.37	100.0	V	276.0	20.0
0.043830	51.38	---	134.76	83.38	100.0	V	276.0	20.0
0.065642	47.94	---	131.25	83.31	100.0	V	276.0	20.0
0.065700	---	38.10	111.24	73.14	100.0	V	276.0	20.0

Y axis


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.018257	49.57	---	142.36	92.79	100.0	V	0.0	20.0
0.018373	---	41.82	122.31	80.48	100.0	V	353.0	20.0
0.039896	---	39.22	115.57	76.36	100.0	V	304.0	20.0
0.039896	43.21	---	135.57	92.36	100.0	V	304.0	20.0
0.059856	40.45	---	132.05	91.60	100.0	V	304.0	20.0
0.059856	---	36.57	112.05	75.48	100.0	V	304.0	20.0
0.079817	36.98	---	129.55	92.57	100.0	V	304.0	20.0
0.079817	---	32.72	109.55	76.84	100.0	V	304.0	20.0

Z axis

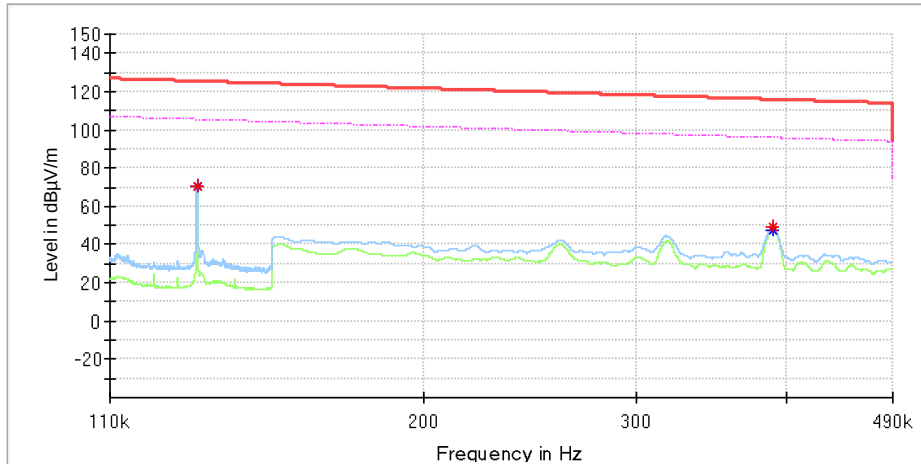


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.022249	62.10	---	140.64	78.54	100.0	V	309.0	20.0
0.022307	---	55.59	120.62	65.03	100.0	V	259.0	20.0
0.043830	---	50.30	114.76	64.46	100.0	V	285.0	20.0
0.043830	58.64	---	134.76	76.12	100.0	V	285.0	20.0
0.065526	55.22	---	131.27	76.05	100.0	V	285.0	20.0
0.065642	---	46.33	111.25	64.92	100.0	V	285.0	20.0

110KHz – 490KHz

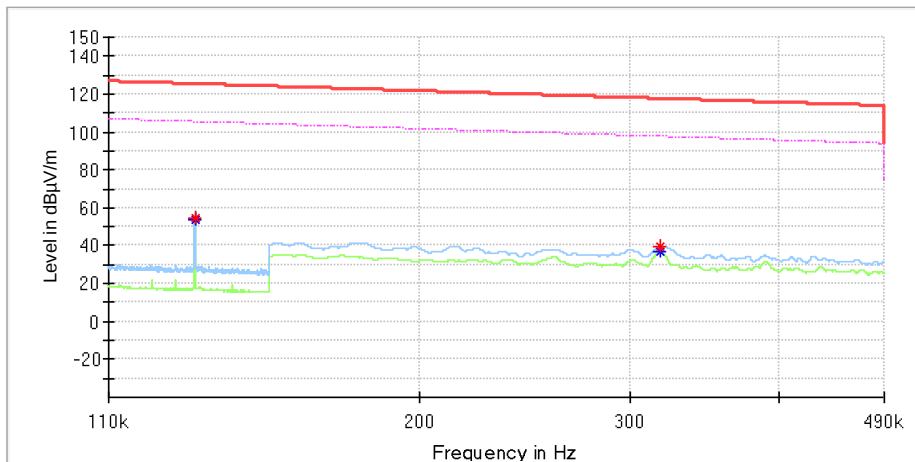
X axis



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.129857	---	70.02	105.33	35.30	100.0	V	229.0	20.0
0.129886	70.29	---	125.33	55.03	100.0	V	229.0	20.0
0.389500	48.96	---	115.79	66.84	100.0	V	276.0	20.0
0.389600	---	47.93	95.79	47.86	100.0	V	276.0	20.0

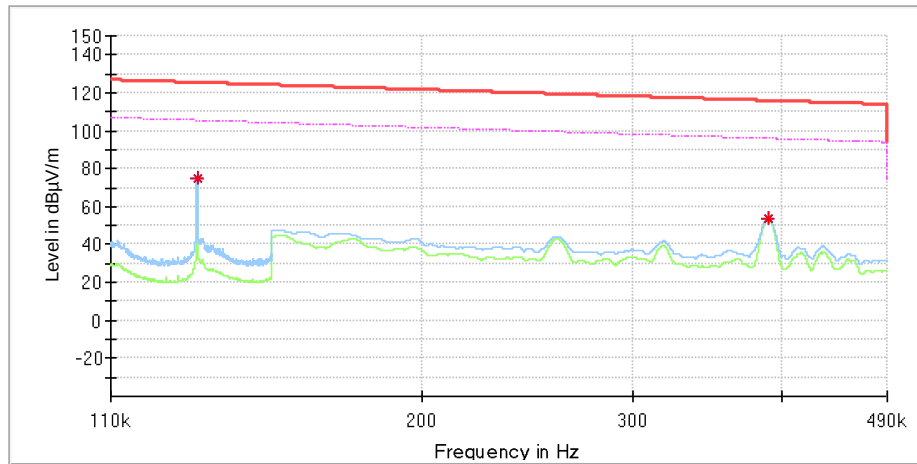
Y axis



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.129886	54.30	---	125.33	71.03	100.0	V	130.0	20.0
0.129886	---	53.85	105.33	51.48	100.0	V	130.0	20.0
0.317900	39.31	---	117.56	78.24	100.0	V	201.0	20.0
0.318100	---	36.91	97.55	60.65	100.0	V	201.0	20.0

Z axis

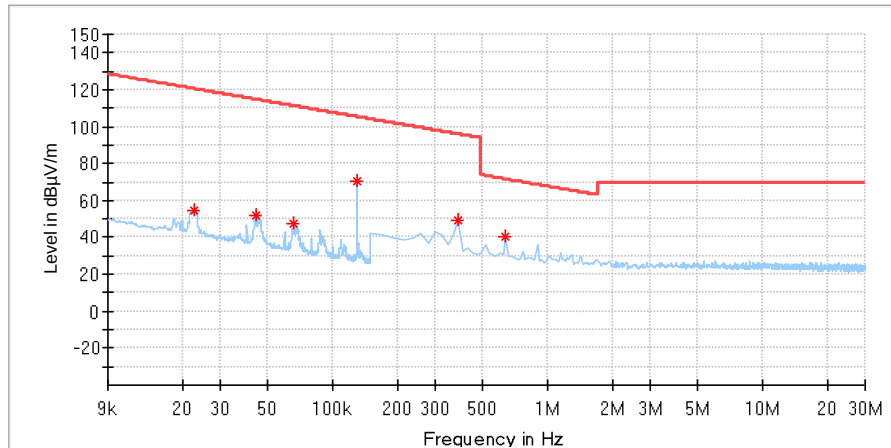


Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.129857	75.23	---	125.33	50.10	100.0	V	251.0	20.0
0.129857	---	75.04	105.33	30.29	100.0	V	251.0	20.0
0.389550	---	53.24	95.79	42.55	100.0	V	259.0	20.0
0.389750	53.79	---	115.79	62.00	100.0	V	266.0	20.0

9KHz – 30MHz

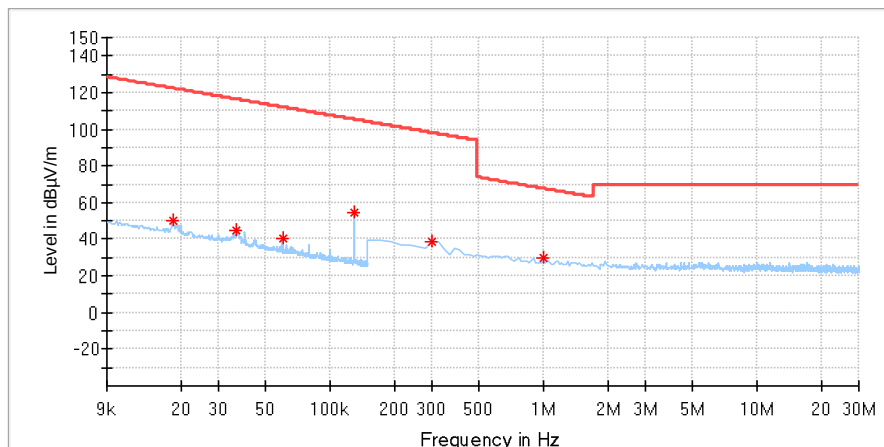
X axis



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.022496	54.27	120.55	66.28	100.0	V	285.0	20.1
0.043746	51.97	114.77	62.80	100.0	V	261.0	20.1
0.065400	47.70	111.28	63.58	100.0	V	261.0	20.1
0.129857	70.31	105.33	35.02	100.0	V	235.0	20.1
0.384536	48.94	95.90	46.96	100.0	V	233.0	20.1
0.640393	40.64	71.48	30.84	100.0	V	257.0	20.1

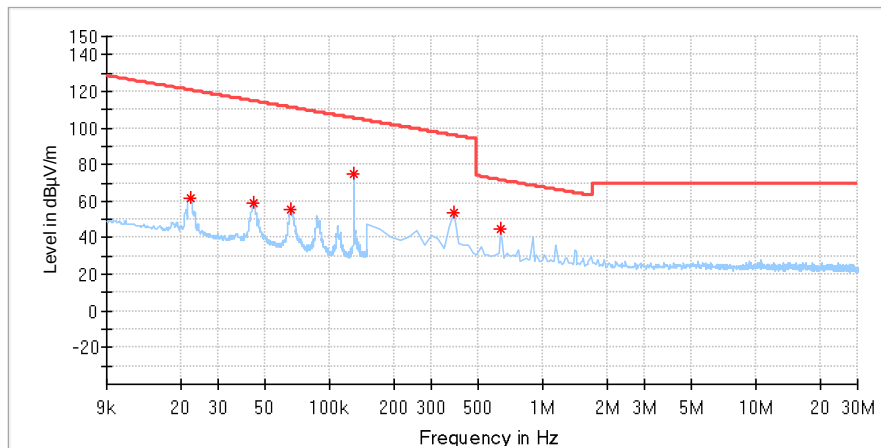
Y axis



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.018266	49.89	122.36	72.46	100.0	V	0.0	20.1
0.036495	44.56	116.35	71.79	100.0	V	132.0	20.1
0.059760	40.56	112.07	71.51	100.0	V	304.0	20.1
0.129857	54.33	105.33	50.99	100.0	V	156.0	20.1
0.299250	39.05	98.08	59.03	100.0	V	33.0	20.1
1.002857	29.72	67.60	37.88	100.0	V	57.0	20.1

Z axis

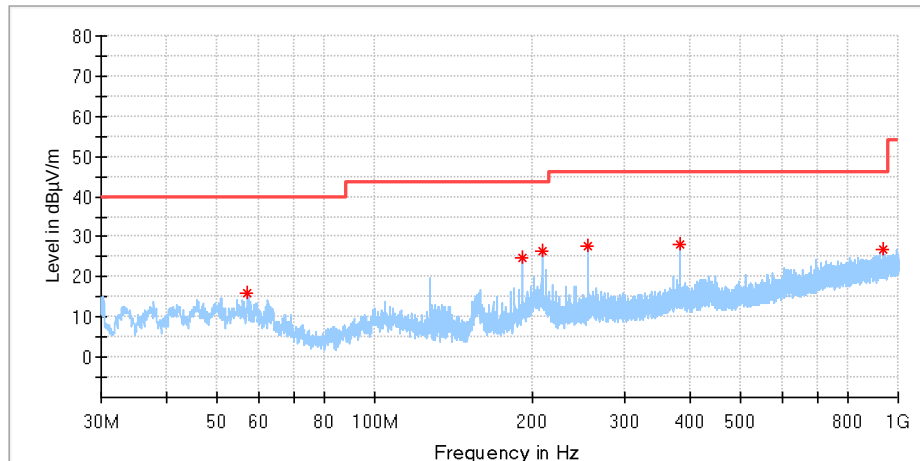


Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
0.022395	61.93	120.59	58.66	100.0	V	289.0	20.1
0.044351	59.04	114.65	55.61	100.0	V	289.0	20.1
0.065601	55.88	111.26	55.37	100.0	V	289.0	20.1
0.129857	75.24	105.33	30.09	100.0	V	261.0	20.1
0.384536	53.53	95.90	42.37	100.0	V	236.0	20.1
0.640393	44.52	71.48	26.96	100.0	V	333.0	20.1

30MHz - 1GHz

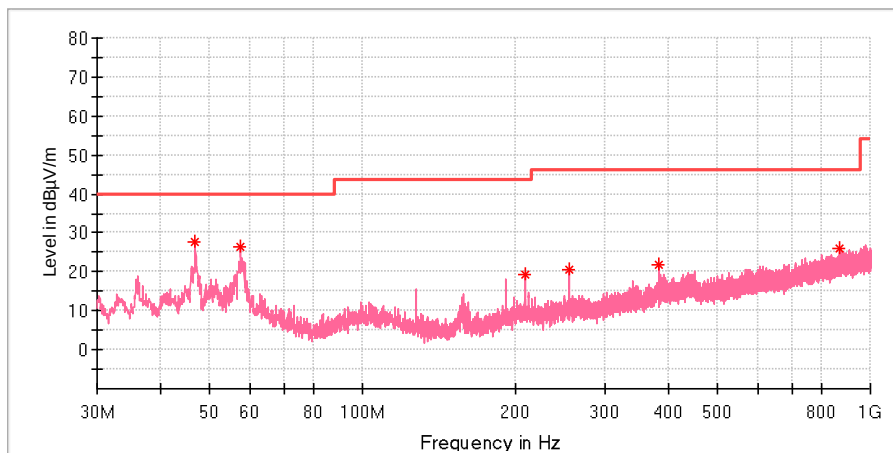
Horizontal



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
57.208500	15.81	40.00	24.19	100.0	H	9.0	-18.7
191.650500	24.63	43.50	18.87	100.0	H	15.0	-19.4
208.528500	26.22	43.50	17.28	100.0	H	3.0	-18.9
255.670500	27.83	46.00	18.17	100.0	H	15.0	-17.2
383.759000	28.28	46.00	17.72	100.0	H	353.0	-14.1
938.502000	26.70	46.00	19.30	100.0	H	245.0	-4.6

Vertical



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
46.781000	27.67	40.00	12.33	100.0	V	149.0	-18.5
57.451000	26.60	40.00	13.40	100.0	V	285.0	-18.7
208.528500	19.37	43.50	24.13	100.0	V	121.0	-18.9
255.670500	20.69	46.00	25.31	100.0	V	285.0	-17.2
383.516500	21.66	46.00	24.34	100.0	V	149.0	-14.1
871.281000	26.17	46.00	19.84	100.0	V	58.0	-5.2

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5.1.3 Conducted Emission on AC Mains

RESULT:**Pass****Test Specification**

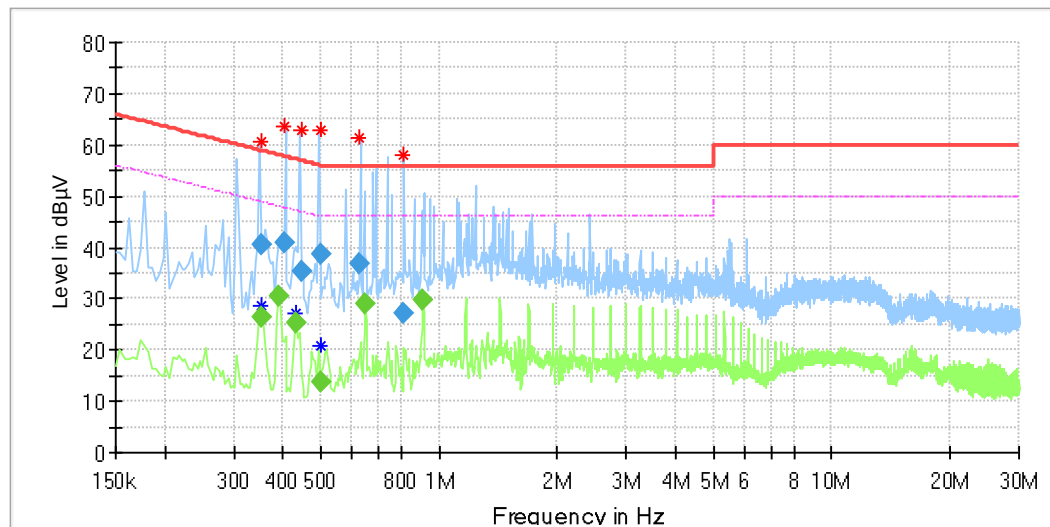
Test standard	: FCC Part 15.207
Basic standard	: ANSI C63.10: 2013
Frequency range	: 150KHz - 30MHz
Limits	: FCC Part 15.207(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2021-05-10
Input voltage	: wireless charger operated (120Vac, 60Hz)
Operation mode	: A
Earthing	: Not connected
Ambient temperature	: 23.1 °C
Relative humidity	: 52 %
Atmospheric pressure	: 101 kPa

For details refer to following test result.

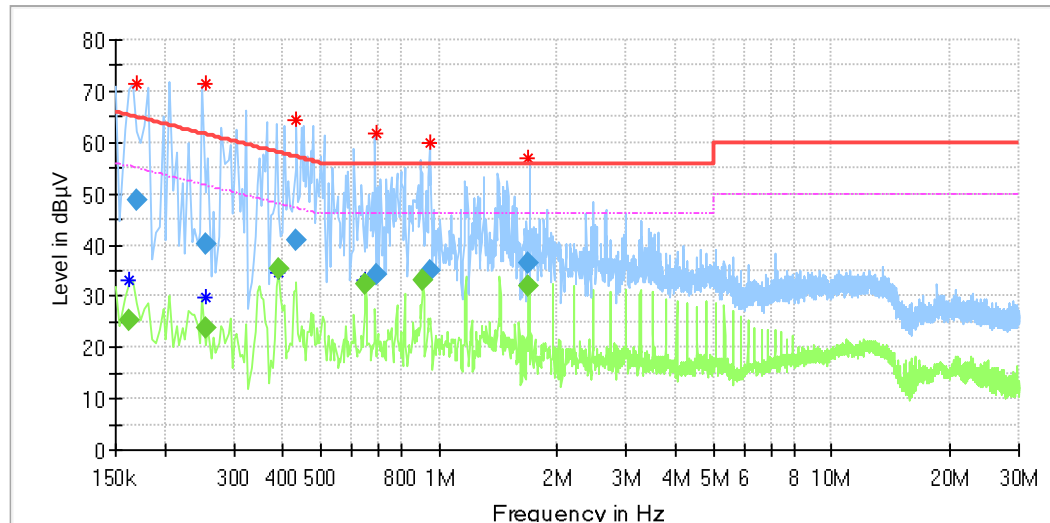
L Line



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.353500	---	26.42	48.88	22.46	200.0	9.000	L1	9.9
0.354500	40.37	---	58.86	18.48	200.0	9.000	L1	9.9
0.389500	---	30.54	48.07	17.54	200.0	9.000	L1	9.9
0.401500	41.06	---	57.82	16.77	200.0	9.000	L1	9.9
0.429500	---	25.46	47.26	21.80	200.0	9.000	L1	9.9
0.446500	35.20	---	56.94	21.74	200.0	9.000	L1	9.9
0.498500	38.75	---	56.03	17.28	200.0	9.000	L1	10.0
0.498500	---	13.73	46.03	32.30	200.0	9.000	L1	10.0
0.625500	36.98	---	56.00	19.02	200.0	9.000	L1	10.0
0.649500	---	28.86	46.00	17.14	200.0	9.000	L1	10.0
0.809500	27.16	---	56.00	28.84	200.0	9.000	L1	10.0
0.909500	---	29.87	46.00	16.13	200.0	9.000	L1	10.0

N Line



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)
0.161500	---	25.32	55.39	30.07	200.0	9.000	N	9.8
0.169500	48.71	---	64.99	16.28	200.0	9.000	N	9.8
0.253500	---	23.83	51.64	27.81	200.0	9.000	N	9.8
0.253500	40.14	---	61.64	21.50	200.0	9.000	N	9.8
0.389500	---	35.23	48.07	12.84	200.0	9.000	N	9.8
0.433500	41.03	---	57.19	16.15	200.0	9.000	N	9.8
0.649500	---	32.52	46.00	13.48	200.0	9.000	N	9.8
0.690500	34.36	---	56.00	21.64	200.0	9.000	N	9.8
0.909500	---	33.06	46.00	12.94	200.0	9.000	N	9.8
0.949500	34.80	---	56.00	21.20	200.0	9.000	N	9.8
1.689500	---	31.92	46.00	14.08	200.0	9.000	N	9.8
1.693500	36.48	---	56.00	19.52	200.0	9.000	N	9.8

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6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.