TEST REPORT

Applicant	:	Suzhou Secote Precision Electronic Co.,Ltd.
Address of Applicant	:	No. 585, Songjia Road, Guoxiang Street, Suzhou, Jiangsu, China
Product Name	:	EDS Fixture
Brand Name	:	/
Model No.	:	EDS UNIVERSAL BASE V1.0
FCC ID	:	2A72V-EDS
IC	:	28856-EDS
HVIN	:	EDS UNIVERSAL BASE V1.0
Standards	:	FCC CFR47 Part 15, Subpart C RSS-Gen(Issue 5, Feb. 2021) RSS-210(Issue 11, Jun. 2024)
Date of Receipt	:	2024-05-22
Date of Test	:	2024-06-15~2024-07-25
Date of Issue	:	2024-07-25

Remark:

This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

Prepared by: Oliver Xiang (Oliver Xiang) Reviewed by: Chris Chen (Chris Chen) Approved by: Echo Mu (Authorized signatory: Echo Mu)

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1 General Information

1.1 Testing Laboratory Information

Company Name	ICAS Testing Technology Service (Shanghai) Co., Ltd
Address	No.1298, Pingan Road, Minhang District, Shanghai, China
Telephone	0086 21-51682999
Fax	0086 21-54711112
Homepage	www.icasiso.com

1.2 Applicant Information

Applicant Company Name	Suzhou Secote Precision Electronic Co.,Ltd.
Address	No. 585, Songjia Road, Guoxiang Street, Suzhou, Jiangsu, China
Manufacturer	Suzhou Secote Precision Electronic Co.,Ltd.
Manufacturer Address	No. 585, Songjia Road, Guoxiang Street, Suzhou, Jiangsu, China

1.3 EUT Description

Product Name	EDS Fixture
Under Test Model Name	EDS UNIVERSAL BASE V1.0
Operating Frequency	13.56MHz
Operating Voltage Range	AC100~240V,50/60Hz
Modulation Type	ASK
Antenna Type	PCB Antenna

2 Summary of Test Result

2.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C (10-1-16 Edition)	Miscellaneous Wireless Communications Services
2	RSS-Gen (Issue 5, Feb. 2021)	General Requirements for Compliance of Radio Apparatus
3	RSS-210 (Issue 11, Jun. 2024)	Licence-Exempt Radio Apparatus: Category I Equipment
4	ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
5	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

Remark: All test items were verified and recorded according to the standards and without any addition/deviation/exclusion during the test.

2.2 Test Result

No.	Description	FCC Rule	IC Rule	Test Result	Verdict
1	Antenna Requirement	15.203	RSS-Gen 6.8	Clause 4.1.1	PASS
2	Frequency Tolerance of carrier signal	15.225 (e)	RSS-210 B.6 (b)	Clause 4.1.2	PASS
3	Emissions Bandwidth	15.215	RSS-Gen 6.7	Clause 4.1.3	PASS
4	Emission within band	15.225 (a), (b), (c)	RSS-210 B.6 (a) (i) (ii) (iii)	Clause 4.1.4	PASS
5	Spurious Emission outside band	15.225 (d) 15.209	RSS-210 B.6 (a) (iv)	Clause 4.1.5	PASS
6	Conducted Emissions	15.207	RSS-Gen 8.8	Clause 4.1.6	PASS

3 General Test Configurations

3.1 Test Environments

During the measurement, the environmental conditions complied with the range listed as below.

Relative Humidity	30% to 60%	
Atmospheric Pressure	100kPa to102kPa	
Temperature	NT (Normal Temperature)	20°C to 25°C
Working Voltage of the EUT	NV (Normal Voltage)	AC120V, 60Hz

3.2 Test Equipment List

Instrument	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
V-Network	SCHWARZBECK	NSLK 8127	8127-902	2024-06-05	2025-06-04
Attenuator	SCHWARZBECK	VTSD 9561-F N	00306	2024-06-05	2025-06-04
EMI Test Receiver	ROHDE&SCHWARZ	ESPI3	100173	2024-06-05	2025-06-04
Loop Antenna	SCHWARZBECK	FMZB 1513	N/A	2023-06-18	2025-06-17
Broadband Antenna	SCHWARZBECK	VULB9163	9163-1037	2023-03-22	2025-03-21
EMI Test Receiver	ROHDE&SCHWARZ	ESR 7	101911	2024-06-04	2025-06-03
Spectrum Analyzer	ROHDE&SCHWARZ	FSV40N	101450	2024-06-04	2025-06-03
Temperature Boxe	ESPEC	ECT-2	055239A	2023-11-09	2024-11-08
EMC Chamber 9*6*6（L*W*H)	CHANGNING	966	N/A	2023-06-09	2025-06-08
Shielded Enclosure 8*4*3（L*W*H)	YIHENG	843	N/A	2023-06-09	2025-06-08
Test Software	BL	BL410_E	N/A	N/A	N/A

3.3 Measurement Uncertainty

Measurement	Frequency	Uncertainty
Antenna Port Conducted Emission	< 1GHz	± 1.5dB
	> 1GHz	± 1.5dB
Radiated Emission	9kHz - 30MHz	± 4.54dB
	30MHz - 1GHz	± 5.01dB
	> 1GHz	± 5.21dB
Conducted Emission on AC Mains	9kHz to 30MHz	± 3.09dB

4 Test Set-up and Operation Modes

4.1 Independent Operation Modes

The basic operation modes are:

A. RFID mode(13.56MHz)

B. Off

4.2 Independent Operation Modes

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.

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.

4.3 Special Accessories and Auxiliary Equipment

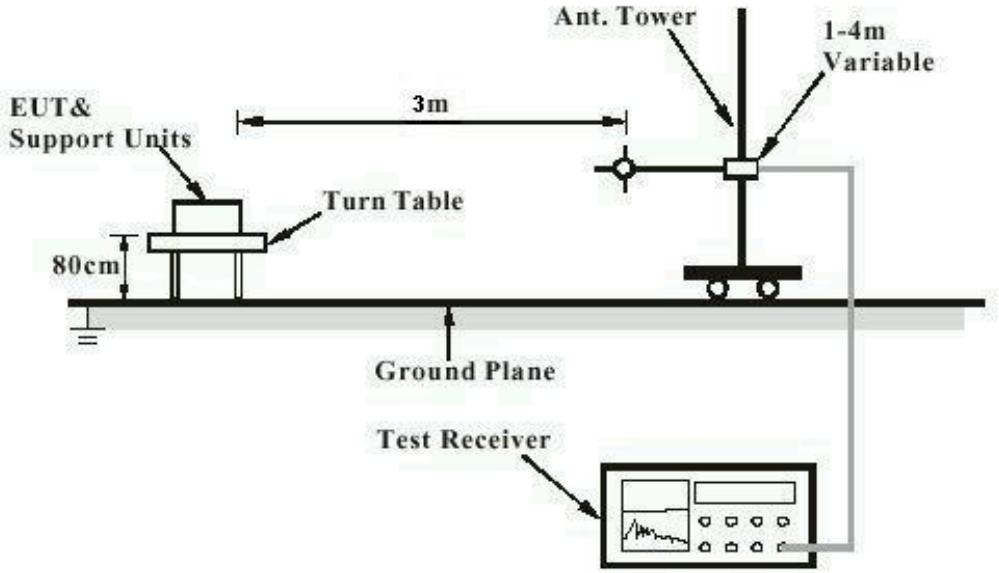
Description	Manufacturer	Model No.	Serial No.
/	/	/	/

4.4 Support Software

Description	Manufacturer	Software Name
/	/	/

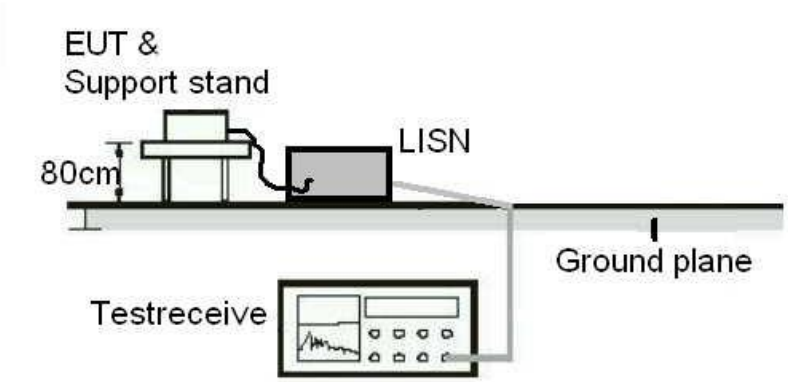
4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test



Note: Measurements above 30MHz are done with a table height of 0.8m.

Diagram of Measurement Equipment Configuration for 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 RSS-Gen 6.8
Limit	:	the use of antennas with directional gains that do not exceed 6dBi

According to the manufacturer declared, the EUT has one PCB antenna, the directional gain of antenna is 2dBi, and the antenna connector is designed with permanent attachment and non consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Frequency tolerance of carrier signal

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.225 (e) RSS-210 B6 (b)
Basic standard	:	ANSI C63.10: 2013
Limit	:	±0.01%
Kind of test site	:	EMC chamber

Test Setup

Date of testing	:	2024-06-15
Input voltage	:	AC120V, 60Hz
Operation mode	:	A
Ambient temperature	:	20°C
Relative humidity	:	50%
Atmospheric pressure	:	102kPa

Refer to following test plots for details of test result

Table 1: Test result of Frequency tolerance of carrier signal

Temperature(°C)	Voltage (V_{AC})	Test result (MHz)	Deviation Frequency (kHz)	Test result (ppm)	Limit(ppm)
-20	120	13.5589588	1.0412	76.78466077	100
-10		13.5589596	1.0404	76.72566372	
0		13.5589593	1.0407	76.74778761	
+10		13.5589588	1.0412	76.78466077	
+20		13.5589600	1.0400	76.69616519	
+30		13.5589595	1.0405	76.73303835	
+40		13.5589597	1.0403	76.71828909	
+50		13.5589595	1.0405	76.73303835	
+20	102	13.5589597	1.0403	76.71828909	
+20	138	13.5589598	1.0402	76.71091445	

5.1.3 Emissions Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.215 RSS-Gen 6.7
Basic standard	:	ANSI C63.10: 2013
Kind of test site	:	EMC chamber

Test Setup

Date of testing	:	2024-07-04
Input voltage	:	AC120V, 60Hz
Operation mode	:	A
Ambient temperature	:	20°C
Relative humidity	:	50%
Atmospheric pressure	:	102kPa

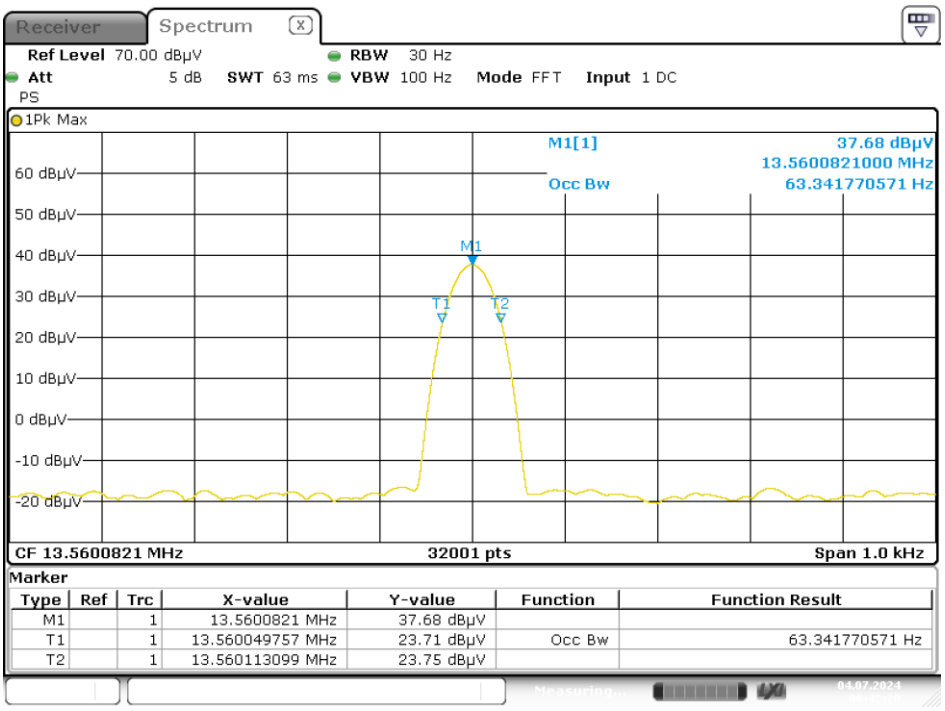
Refer to following test plots for details of test result

Table 2: Test result of Emissions Bandwidth

Test Channel (MHz)	99% Bandwidth (Hz)	20dB Bandwidth (Hz)
13.56	63.342	74.685

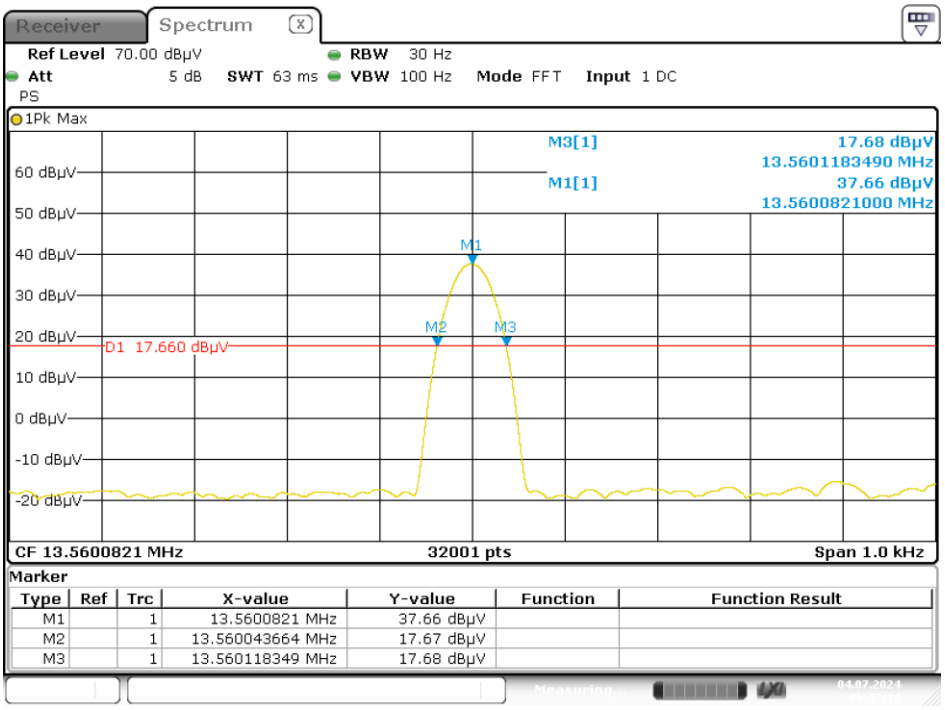
Remark: Because the measured signal is CW adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

99% Bandwidth



Date: 4.JUL.2024 06:42:20

20dB Bandwidth



Date: 4.JUL.2024 06:47:14

5.1.4 Emission within band

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.225 (a), (b), (c) RSS-210 B.6 (a) (i) (ii) (iii)
Basic standard	:	ANSI C63.10: 2013
Limit	:	FCC part 15.225 (a), (b), (c)
Kind of test site	:	EMC chamber

Test Setup

Date of testing	:	2024-06-15
Input voltage	:	AC120V, 60Hz
Operation mode	:	A
Ambient temperature	:	20°C
Relative humidity	:	50%
Atmospheric pressure	:	102kPa

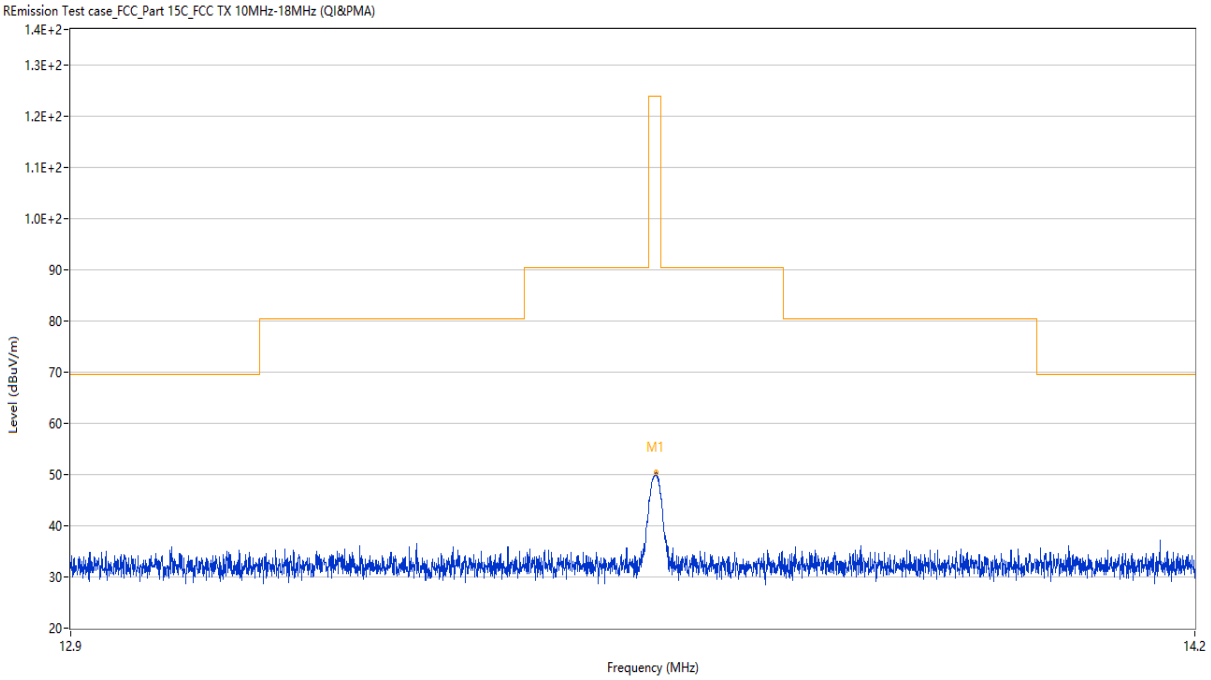
Refer to following test plots for details of test result

Table 3: Test result of Emission within band

Test Channel (MHz)	Test Polarization	Field Strength (dBuV/m)	Limit @3m (dBuV/m)	Margin (dB)
13.56	X	50.46	124.0	-73.54

Note: The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Frequency Range:	12.9-14.2MHz	Polarization:	X



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	13.561	50.47	20.86	124.0	73.53	Peak	138.40	100	X	Pass
1*	13.561	50.46	20.86	124.0	73.54	QP	138.40	100	X	Pass

5.1.5 Spurious Emission outside band

RESULT: **Pass**

Test Specification

Test standard	:	FCC part 15.225 (d) RSS-210 B.6 (a) (iv)
Basic standard	:	ANSI C63.10: 2013
Limit	:	FCC part 15.209 (a)
Kind of test site	:	EMC chamber

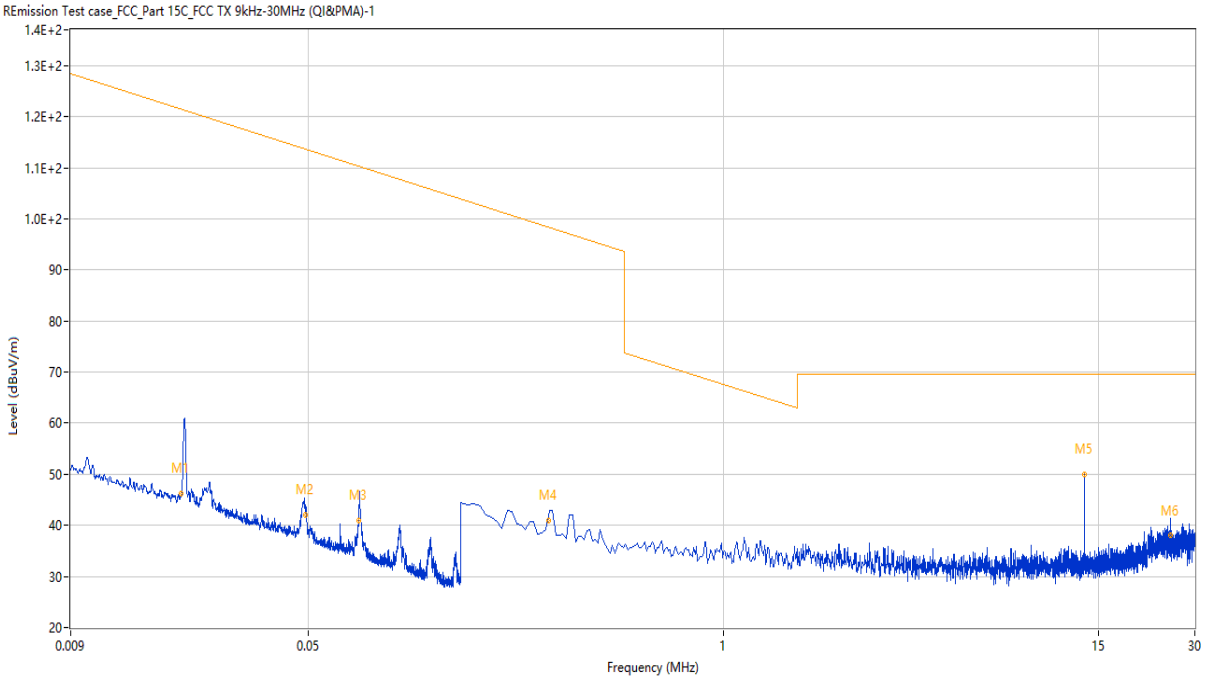
Test Setup

Date of testing	:	2024-07-04
Input voltage	:	AC120V, 60Hz
Operation mode	:	A
Ambient temperature	:	20°C
Relative humidity	:	50%
Atmospheric pressure	:	102kPa

Refer to following test plots for details of test result

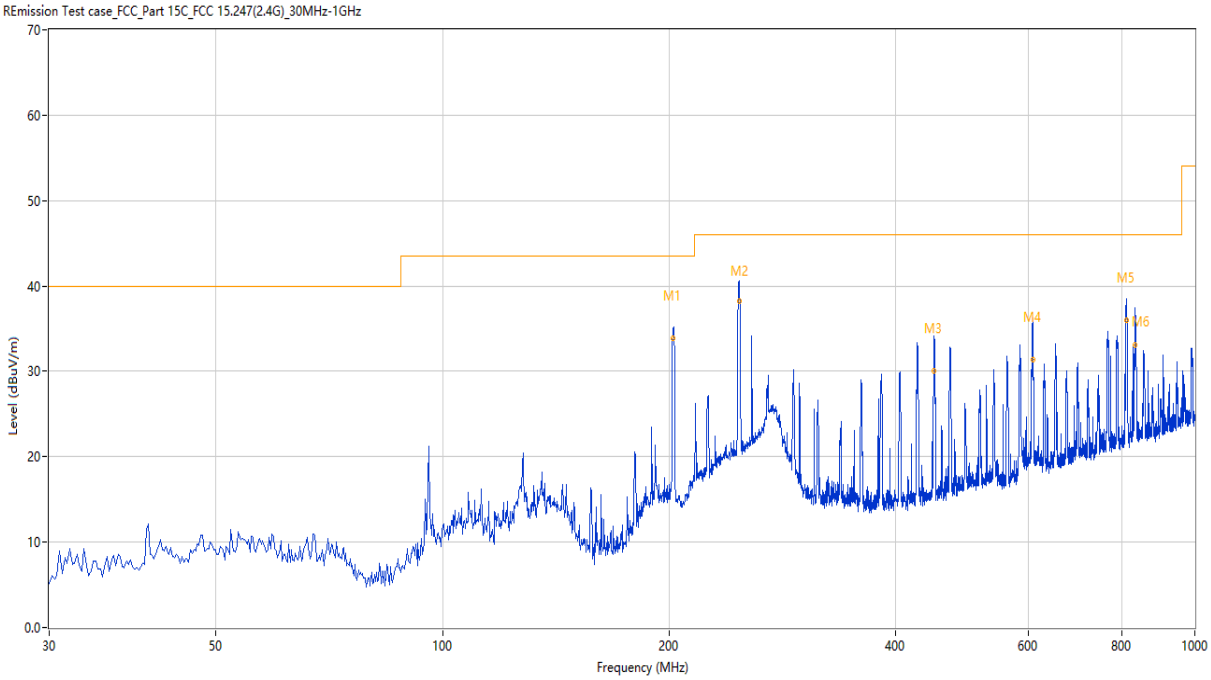
Note: The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Frequency Range:	9k-30MHz	Polarization:	X



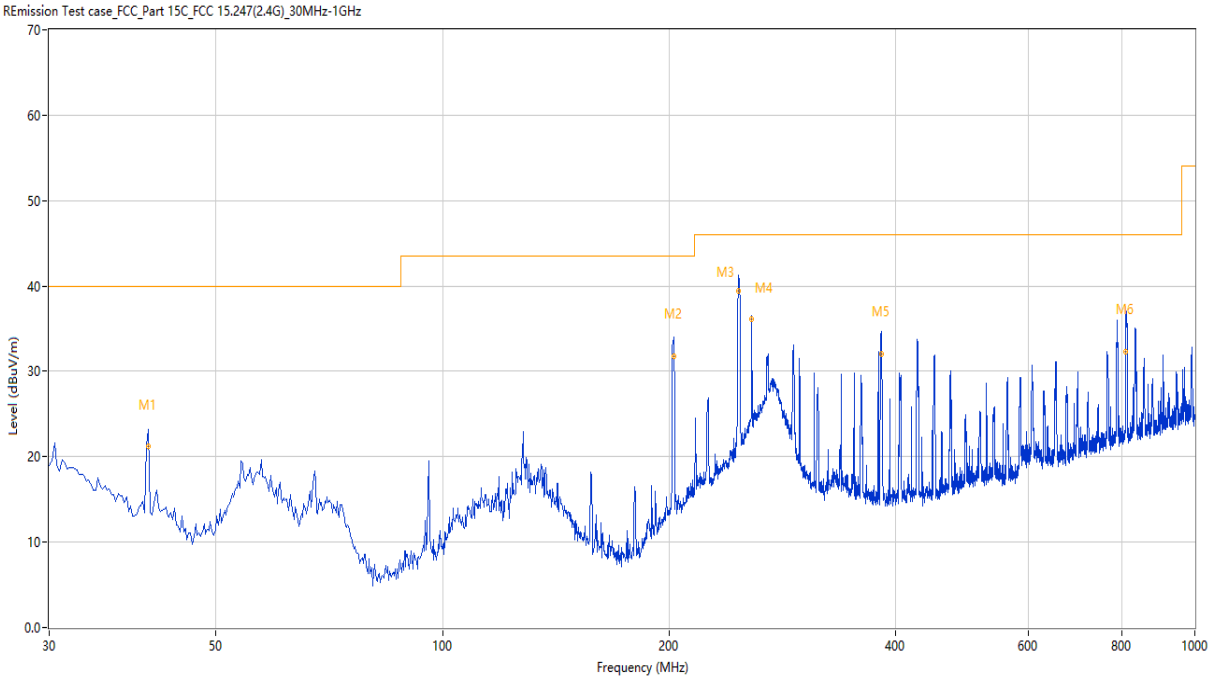
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.020	61.09	20.20	121.4	60.31	Peak	159.70	100	Vertical	Pass
1*	0.020	46.16	20.20	121.4	75.24	QP	159.70	100	Vertical	Pass
2	0.049	45.25	20.49	113.8	68.55	Peak	21.00	100	Vertical	Pass
2*	0.049	42.14	20.49	113.8	71.66	QP	21.00	100	Vertical	Pass
3	0.072	46.68	20.49	110.3	63.62	Peak	181.60	100	Vertical	Pass
3*	0.072	40.94	20.49	110.3	69.36	QP	181.60	100	Vertical	Pass
4	0.284	42.97	20.37	98.4	55.43	Peak	213.40	100	Vertical	Pass
4*	0.284	40.83	20.37	98.4	57.57	QP	213.40	100	Vertical	Pass
5	13.560	49.91	20.86	69.5	19.59	Peak	179.70	100	Vertical	Pass
5*	13.560	49.90	20.86	69.5	19.60	QP	179.70	100	Vertical	Pass
6	25.179	41.31	21.38	69.5	28.19	Peak	67.90	100	Vertical	Pass
6*	25.179	38.03	21.38	69.5	31.47	QP	67.90	100	Vertical	Pass

Frequency Range:	30M-1GHz	Polarization:	Horizontal



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	202.592	35.79	-25.37	43.5	7.71	Peak	360.00	130	Horizontal	Pass
1*	202.592	33.85	-25.37	43.5	9.65	QP	360.00	130	Horizontal	Pass
2	248.143	41.04	-23.61	46.0	4.96	Peak	343.90	100	Horizontal	Pass
2*	248.143	38.21	-23.61	46.0	7.79	QP	343.90	100	Horizontal	Pass
3	450.226	34.13	-18.89	46.0	11.87	Peak	206.30	191	Horizontal	Pass
3*	450.226	30.05	-18.89	46.0	15.95	QP	206.30	191	Horizontal	Pass
4	608.933	37.34	-13.48	46.0	8.66	Peak	360.00	142	Horizontal	Pass
4*	608.933	31.40	-13.48	46.0	14.60	QP	360.00	142	Horizontal	Pass
5	810.796	40.48	-10.87	46.0	5.52	Peak	282.30	204	Horizontal	Pass
5*	810.796	36.04	-10.87	46.0	9.96	QP	282.30	204	Horizontal	Pass
6	833.286	37.83	-10.05	46.0	8.17	Peak	14.50	197	Horizontal	Pass
6*	833.286	33.10	-10.05	46.0	12.90	QP	14.50	197	Horizontal	Pass

Frequency Range:	30M-1GHz	Polarization:	Vertical



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	40.680	23.32	-25.16	40.0	16.68	Peak	0.00	104	Vertical	Pass
1*	40.680	21.23	-25.16	40.0	18.77	QP	0.00	104	Vertical	Pass
2	202.753	33.69	-25.39	43.5	9.81	Peak	360.00	171	Vertical	Pass
2*	202.753	31.73	-25.39	43.5	11.77	QP	360.00	171	Vertical	Pass
3	247.584	41.84	-23.62	46.0	4.16	Peak	0.00	165	Vertical	Pass
3*	247.584	39.41	-23.62	46.0	6.59	QP	0.00	165	Vertical	Pass
4	257.642	37.67	-23.21	46.0	8.33	Peak	126.20	160	Vertical	Pass
4*	257.642	36.11	-23.21	46.0	9.89	QP	126.20	160	Vertical	Pass
5	382.814	35.19	-20.39	46.0	10.81	Peak	297.90	123	Vertical	Pass
5*	382.814	32.06	-20.39	46.0	13.94	QP	297.90	123	Vertical	Pass
6	809.995	37.06	-10.86	46.0	8.94	Peak	288.60	110	Vertical	Pass
6*	809.995	32.32	-10.86	46.0	13.68	QP	288.60	110	Vertical	Pass

5.1.6 Conducted Emissions

RESULT: **Pass**

Test Specification

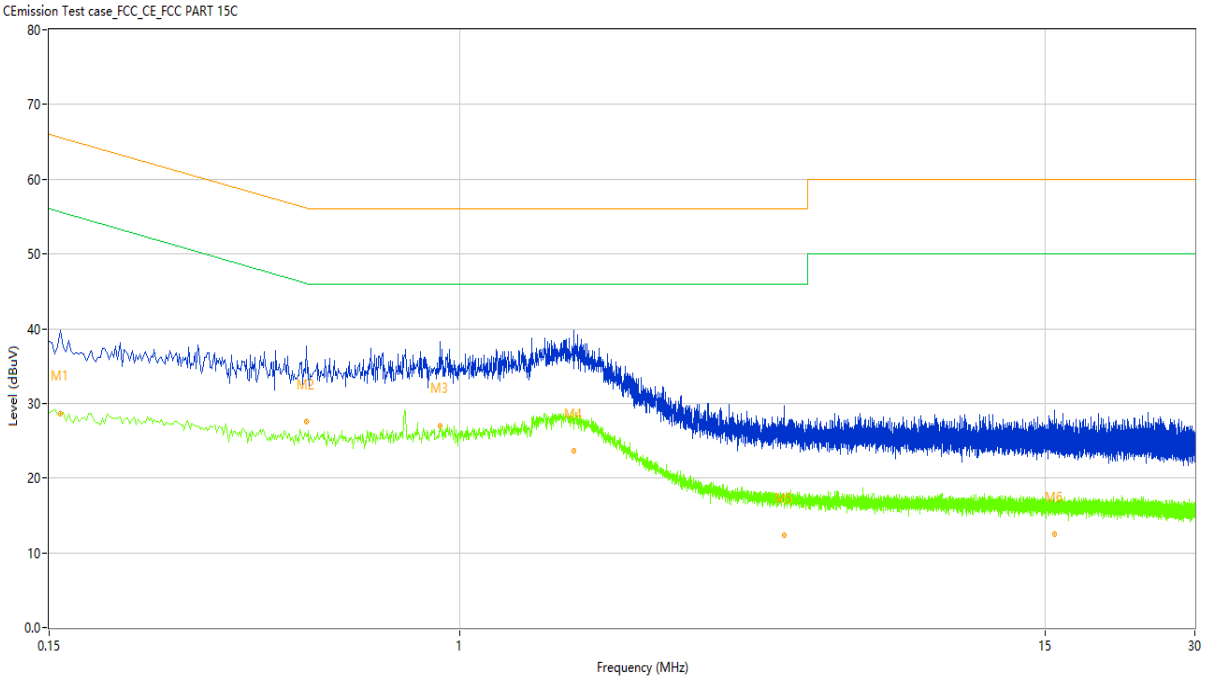
Test standard	:	FCC part 15.207 RSS-Gen
Basic standard	:	ANSI C63.4: 2014
Limit	:	FCC part 15.207 RSS-Gen 8.8
Kind of test site	:	Shielded Enclosure

Test Setup

Date of testing	:	2024-07-05
Input voltage	:	AC120V, 60Hz
Operation mode	:	A
Ambient temperature	:	20°C
Relative humidity	:	50%
Atmospheric pressure	:	102kPa

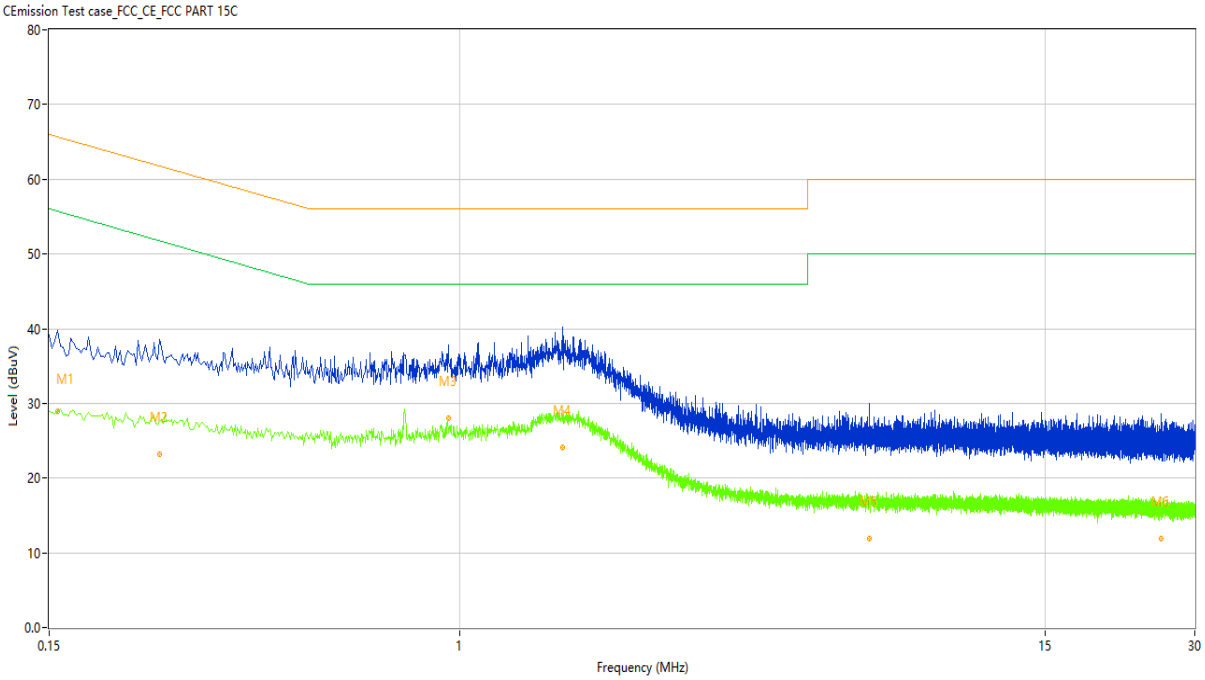
Refer to following test plots for details of test result

Frequency Range:	150k-30MHz	Phase:	Line



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.158	37.76	9.85	65.57	27.81	Peak	L	Pass
1*	0.158	28.69	9.85	65.57	36.88	QP	L	Pass
1**	0.158	28.60	9.85	55.57	26.97	AV	L	Pass
2	0.492	32.85	9.87	56.13	23.28	Peak	L	Pass
2*	0.492	27.58	9.87	56.13	28.55	QP	L	Pass
2**	0.492	25.59	9.87	46.13	20.54	AV	L	Pass
3	0.914	33.95	9.90	56.00	22.05	Peak	L	Pass
3*	0.914	27.03	9.90	56.00	28.97	QP	L	Pass
3**	0.914	26.95	9.90	46.00	19.05	AV	L	Pass
4	1.700	31.07	9.76	56.00	24.93	Peak	L	Pass
4*	1.700	23.65	9.76	56.00	32.35	QP	L	Pass
4**	1.700	27.90	9.76	46.00	18.10	AV	L	Pass
5	4.494	20.23	9.77	56.00	35.77	Peak	L	Pass
5*	4.494	12.34	9.77	56.00	43.66	QP	L	Pass
5**	4.494	17.80	9.77	46.00	28.20	AV	L	Pass
6	15.684	20.25	9.44	60.00	39.75	Peak	L	Pass
6*	15.684	12.47	9.44	60.00	47.53	QP	L	Pass
6**	15.684	16.31	9.44	50.00	33.69	AV	L	Pass

Frequency Range:	150k-30MHz	Phase:	Neutral



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.156	37.48	9.98	65.67	28.19	Peak	N	Pass
1*	0.156	28.92	9.98	65.67	36.75	QP	N	Pass
1**	0.156	28.86	9.98	55.67	26.81	AV	N	Pass
2	0.250	31.32	9.97	61.76	30.44	Peak	N	Pass
2*	0.250	23.25	9.97	61.76	38.51	QP	N	Pass
2**	0.250	27.60	9.97	51.76	24.16	AV	N	Pass
3	0.950	36.51	10.02	56.00	19.49	Peak	N	Pass
3*	0.950	27.98	10.02	56.00	28.02	QP	N	Pass
3**	0.950	26.69	10.02	46.00	19.31	AV	N	Pass
4	1.610	32.08	9.89	56.00	23.92	Peak	N	Pass
4*	1.610	24.04	9.89	56.00	31.96	QP	N	Pass
4**	1.610	28.33	9.89	46.00	17.67	AV	N	Pass
5	6.664	19.90	9.78	60.00	40.10	Peak	N	Pass
5*	6.664	11.94	9.78	60.00	48.06	QP	N	Pass
5**	6.664	16.80	9.78	50.00	33.20	AV	N	Pass
6	25.652	19.47	9.10	60.00	40.53	Peak	N	Pass
6*	25.652	11.96	9.10	60.00	48.04	QP	N	Pass
6**	25.652	16.03	9.10	50.00	33.97	AV	N	Pass

6 Photographs of the EUT and Test Set-Up

Refer to the < Photographs of the EUT> and < Photographs of the Test Set-up>.

End of the report