



# MEASUREMENT REPORT

## FCC PART 15.209

---

**FCC ID:** FHO-E2122  
**Applicant:** IKEA of Sweden AB  
**Product:** SYMFONISK charging shelf  
**Model No.:** E2122  
**Brand Name:** IKEA  
**FCC Classification:** Part 15 Low Power Transmitter Below 1705 kHz (DCD)  
**FCC Rule Part(s):** Part15 Subpart C (Section 15.209)  
**Test Procedure(s):** ANSI C63.10-2013  
**Test Date:** August 24 ~ August 31, 2021

**Reviewed By:**

\_\_\_\_\_  
Vincent Yu

**Approved By:**

\_\_\_\_\_  
Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

---

### Revision History

Report No.	Version	Description	Issue Date	Note
2108RSU057-U1	Rev. 01	Initial Report	03-18-2022	Valid

---

## CONTENTS

Description	Page
<b>1. GENERAL INFORMATION</b> .....	<b>4</b>
1.1. Applicant .....	4
1.2. Manufacturer .....	4
1.3. Testing Facility .....	4
1.4. Product Information .....	5
1.5. Test Mode .....	5
1.6. Configuration of Test System .....	5
1.7. Test System Details .....	6
1.8. Test Environment Condition .....	6
<b>2. ANTENNA REQUIREMENTS</b> .....	<b>7</b>
<b>3. TEST EQUIPMENT CALIBRATION DATE</b> .....	<b>8</b>
<b>4. MEASUREMENT UNCERTAINTY</b> .....	<b>11</b>
<b>5. TEST RESULT</b> .....	<b>12</b>
5.1. Summary .....	12
5.2. Conducted Emission .....	13
5.2.1. Test Limit .....	13
5.2.2. Test Setup .....	13
5.2.3. Test Result .....	14
5.3. General Radiated Emission .....	18
5.3.1. Test Limit .....	18
5.3.2. Test Procedure Used .....	18
5.3.3. Test Setup .....	19
5.3.4. Test Result .....	20
5.4. 20dB Spectrum Bandwidth Measurement .....	22
5.4.1. Test Limit .....	22
5.4.2. Test Procedure Used .....	22
5.4.3. Test Setting .....	22
5.4.4. Test Setup .....	22
5.4.5. Test Result .....	23
<b>6. CONCLUSION</b> .....	<b>25</b>
<b>Appendix A - Test Setup Photograph</b> .....	<b>26</b>
<b>Appendix B - EUT Photograph</b> .....	<b>27</b>

# 1. GENERAL INFORMATION

## 1.1. Applicant

IKEA of Sweden AB  
SE-343 81, Almhult, Sweden

## 1.2. Manufacturer

IKEA of Sweden AB  
SE-343 81, Almhult, Sweden

## 1.3. Testing Facility

<input checked="" type="checkbox"/>	<b>Test Site – MRT Suzhou Laboratory</b>
	<b>Laboratory Location (Suzhou - Wuzhong)</b> D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
	<b>Laboratory Location (Suzhou - SIP)</b> 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China
	<b>Laboratory Accreditations</b>
	A2LA: 3628.01 FCC: CN1166 VCCI: <input type="checkbox"/> R-20025 <input type="checkbox"/> G-20034 <input type="checkbox"/> C-20020 <input type="checkbox"/> T-20020 <input type="checkbox"/> R-20141 <input type="checkbox"/> G-20134 <input type="checkbox"/> C-20103 <input type="checkbox"/> T-20104 CNAS: L10551 ISED: CN0001
<input type="checkbox"/>	<b>Test Site – MRT Shenzhen Laboratory</b>
	<b>Laboratory Location (Shenzhen)</b> 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China
	<b>Laboratory Accreditations</b>
	A2LA: 3628.02 FCC: CN1284 CNAS: L10551 ISED: CN0105
<input type="checkbox"/>	<b>Test Site – MRT Taiwan Laboratory</b>
	<b>Laboratory Location (Taiwan)</b> No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
	<b>Laboratory Accreditations</b>
	TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

#### 1.4. Product Information

Product Name	SYMFONISK charging shelf
Model No.	E2122
Brand Name	IKEA
Test Device S/N	20210819Sample#02
Working Frequency Range	110kHz ~ 148kHz
Modulation Type	FSK
Working Temperature Range	0 ~ 40°C
Input	AC 100-240V, 0.6A
Output	5W MAX
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

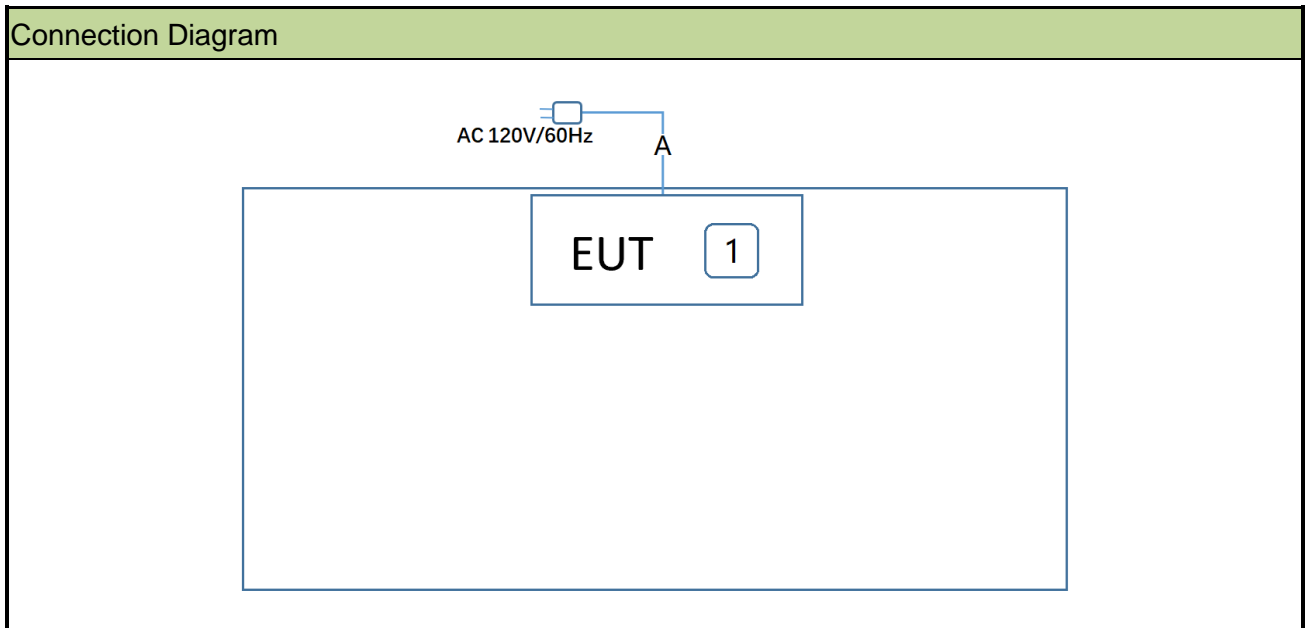
#### 1.5. Test Mode

Test Mode
Mode 1: Communicate with load
Mode 2: Standby Mode

Note: The load is provided by the manufacturer and it can control the EUT to be at the maximum output power state.

#### 1.6. Configuration of Test System

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



Signal Cable Type		Signal Cable Description
A	Power Cable	Non-Shielded, 1.5m

### 1.7. Test System Details

Product	Manufacturer	Model No.
1 Load	Kwong Ming	IDT_P9221_EV_Board

### 1.8. Test Environment Condition

Ambient Temperature	15°C ~ 35°C
Relative Humidity	20%RH ~ 75%RH

## 2. ANTENNA REQUIREMENTS

### **Excerpt from §15.203 of the FCC Rules/Regulations:**

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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.”

- The antenna of the unit is **permanently attached**.
- There are no provisions for connection to an external antenna.

### **Conclusion:**

The unit complies with the requirement of §15.203.

### 3. TEST EQUIPMENT CALIBRATION DATE

#### Conducted Emission (SIP-SR2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2021/11/22
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2022/06/08
Thermal Hygrometer	testo	608-H1	MRTSUE06404	1 year	2022/06/28
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

#### Conducted Emission (SIP-SR2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2022/06/24
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2022/06/08
Thermal Hygrometer	testo	608-H1	MRTSUE06621	1 year	2021/12/03

#### Radiated Spurious Emissions (WZ-AC1)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2022/01/04
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2022/08/05
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2021/09/27
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2021/12/14
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2021/11/14
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2022/06/09
Thermal Hygrometer	testo	608-H1	MRTSUE06403	1 year	2022/06/28
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2022/04/29

#### Radiated Spurious Emissions (WZ-AC2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Keysight	N9038A	MRTSUE06125	1 year	2022/06/24
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2022/05/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2021/10/25
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2021/12/14
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2021/11/14
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2022/06/09
Thermal Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2021/12/08
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2022/04/29



## Radiated Spurious Emissions (SIP-AC1)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2022/06/24
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2022/06/24
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2022/03/09
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06645	1 year	2022/08/26
Double Ridged Horn Antenna	R&S	HF907	MRTSUE06610	1 year	2022/08/05
Preamplifier	EMCI	EMC051845SE	MRTSUE06600	1 year	2021/11/09
Thermal Hygrometer	testo	608-H1	MRTSUE06620	1 year	2021/12/03
Anechoic Chamber	RIKEN	SIP-AC1	MRTSUE06554	1 year	2021/12/24

## Radiated Spurious Emissions (SIP-AC2)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2022/06/24
MXA Signal Analyzer	Keysight	N9020B	MRTSUE06604	1 year	2021/09/26
Loop Antenna	Schwarzbeck	FMZB 1519 B	MRTSUE06937	1 year	2022/03/09
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06646	1 year	2022/08/26
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06648	1 year	2021/11/26
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06599	1 year	2021/11/26
Preamplifier	EMCI	EMC051845SE	MRTSUE06644	1 year	2021/11/09
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2021/10/12
Thermal Hygrometer	testo	608-H1	MRTSUE06624	1 year	2021/12/03
Anechoic Chamber	RIKEN	SIP-AC2	MRTSUE06781	1 year	2021/12/24

## Radiated Spurious Emissions (SIP-AC3)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2022/06/09
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2022/06/24
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2022/06/24
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/11/08
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06646	1 year	2022/08/26
Double Ridged Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2021/09/13
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06598	1 year	2021/11/26
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2022/01/14
Thermal Hygrometer	testo	608-H1	MRTSUE06622	1 year	2021/12/03
Anechoic Chamber	RIKEN	SIP-AC3	MRTSUE06782	1 year	2021/12/24

Software	Version	Function
EMI Software	V3	EMI Test Software

#### 4. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

Conducted Emission
Measurement Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): 9kHz~150kHz: 3.74dB 150kHz~30MHz: 3.44dB
Radiated Emission
Measurement Uncertainty for a Level of Confidence of 95% ( $U=2Uc(y)$ ): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~6GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~6GHz: 6.40dB

## 5. TEST RESULT

### 5.1. Summary

FCC Part Section (s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 5.2
15.209	General Field Strength Limits	FCC Part 15.209 limits	Radiated	Pass	Section 5.3
15.215(c)	20dB Spectrum Bandwidth	20 dB bandwidth of the emission in the specific band		Pass	Section 5.4

Note: The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

## 5.2. Conducted Emission

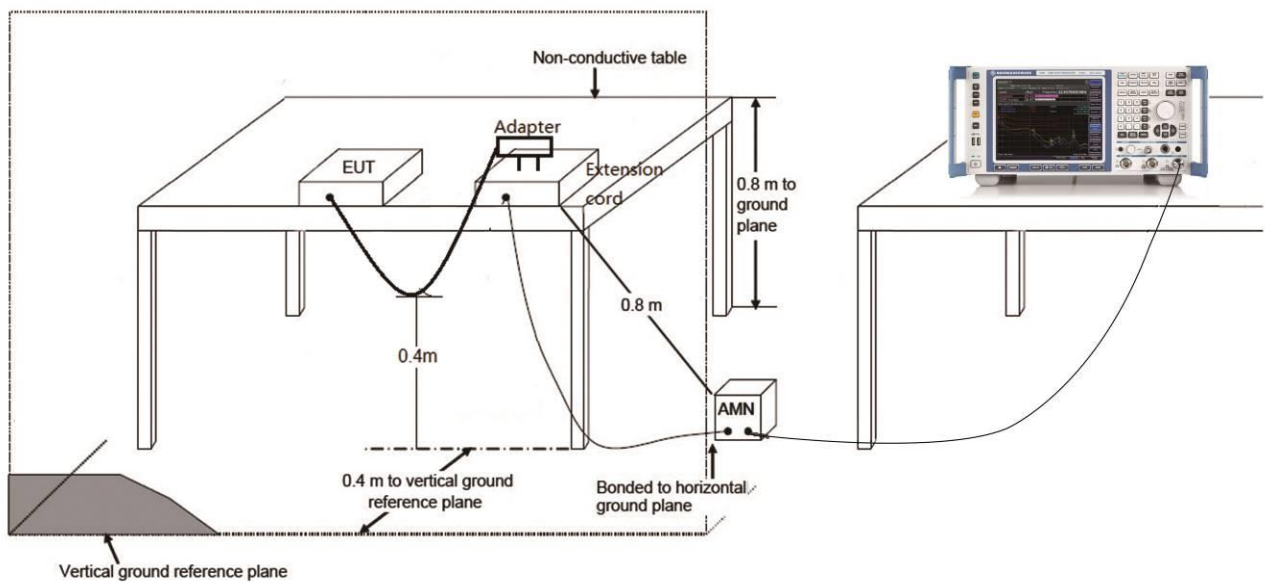
### 5.2.1. Test Limit

FCC 15.207 Limits		
Frequency (MHz)	QP (dB $\mu$ V)	AV (dB $\mu$ V)
0.15 ~ 0.50	66 ~ 56	56 ~ 46
0.50 ~ 5.0	56	46
5.0 ~ 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

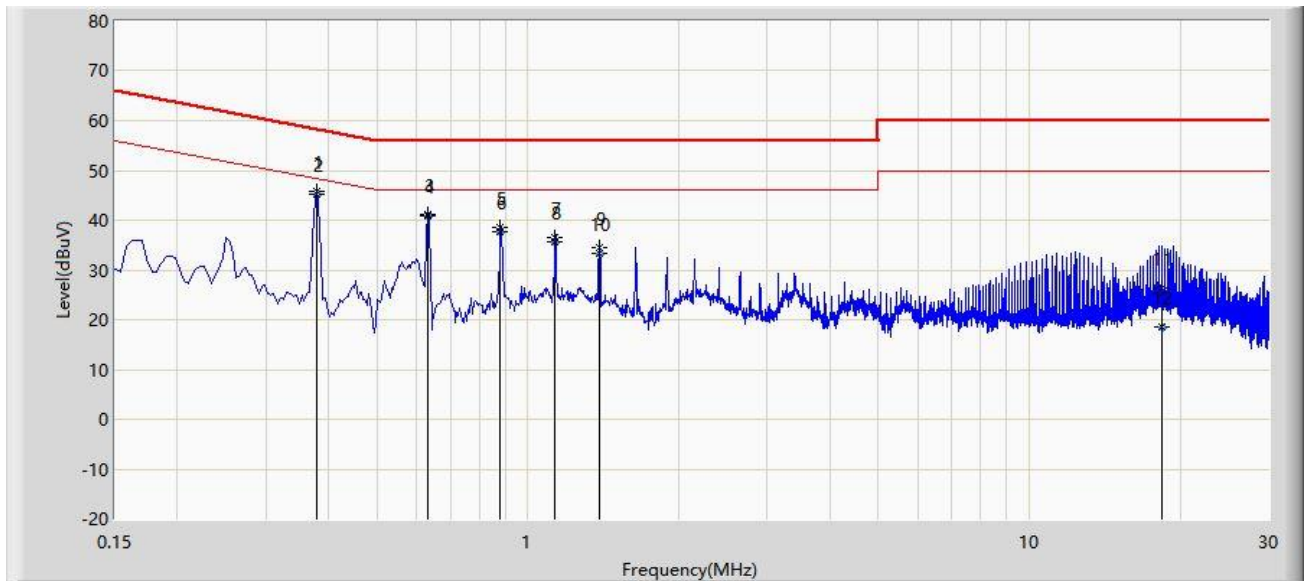
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

### 5.2.2. Test Setup



### 5.2.3. Test Result

Site: WZ-SR2	Time: 2021/08/26 - 18:27
Limit: FCC_Part15.207_CE_AC Power	Engineer: Messiah Li
Probe: ENV216_101683_Filter Off	Polarity: Line
EUT: SYMFONISK charging shelf	Power: AC 120V/60Hz
Test Mode 1	

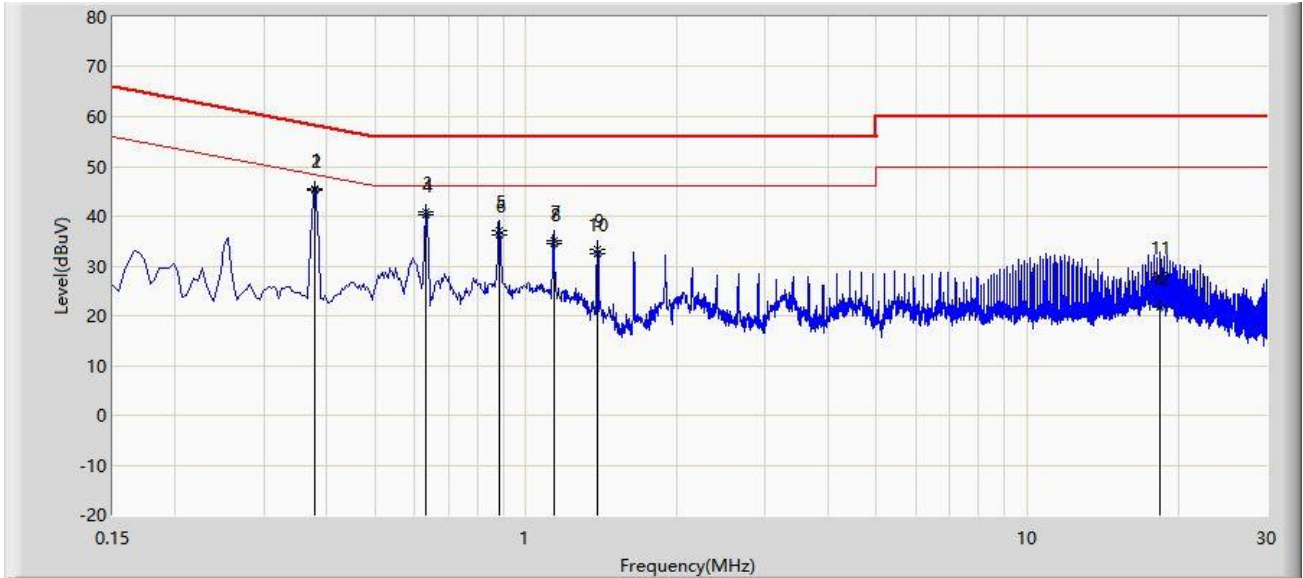


No.	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.378	45.750	35.900	-12.574	58.323	9.850	QP
2		*	0.378	45.350	35.500	-2.974	48.323	9.850	AV
3			0.630	41.082	31.200	-14.918	56.000	9.881	QP
4			0.630	40.782	30.900	-5.218	46.000	9.881	AV
5			0.882	38.495	28.600	-17.505	56.000	9.895	QP
6			0.882	37.795	27.900	-8.205	46.000	9.895	AV
7			1.134	36.500	26.600	-19.500	56.000	9.900	QP
8			1.134	35.600	25.700	-10.400	46.000	9.900	AV
9			1.386	34.600	24.700	-21.400	56.000	9.900	QP
10			1.386	33.400	23.500	-12.600	46.000	9.900	AV
11			18.370	26.345	15.600	-33.655	60.000	10.745	QP
12			18.370	18.645	7.900	-31.355	50.000	10.745	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: WZ-SR2	Time: 2021/08/26 - 18:34
Limit: FCC_Part15.207_CE_AC Power	Engineer: Messiah Li
Probe: ENV216_101683_Filter Off	Polarity: Neutral
EUT: SYMFONISK charging shelf	Power: AC 120V/60Hz
Test Mode 1	

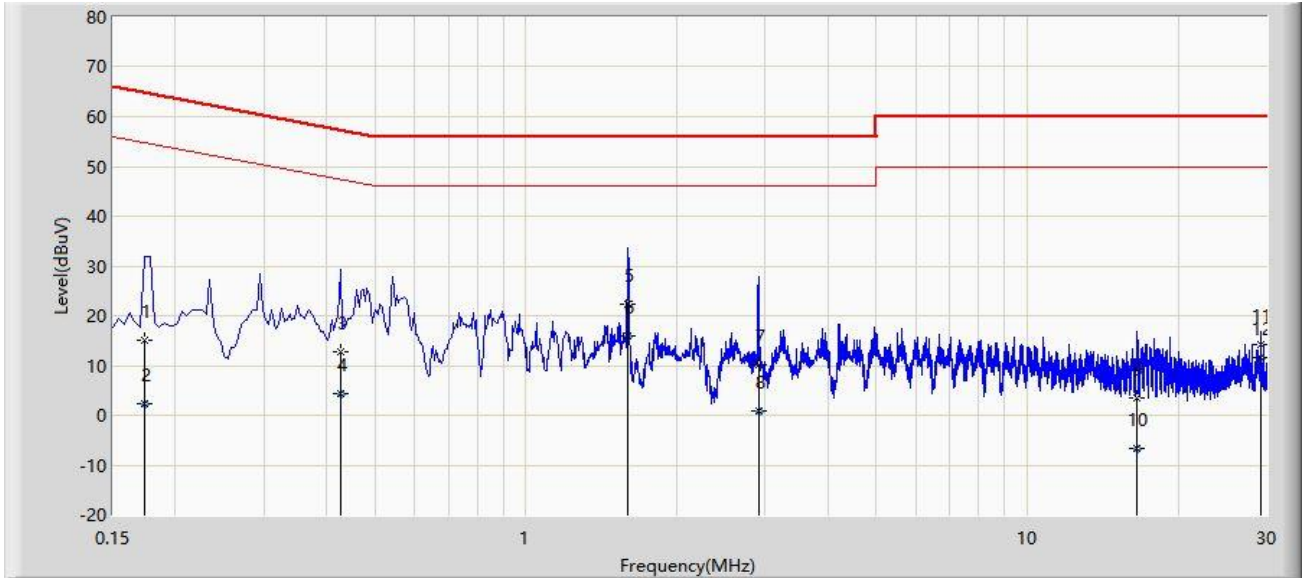


No.	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.378	45.640	35.800	-12.684	58.323	9.840	QP
2		*	0.378	45.340	35.500	-2.984	48.323	9.840	AV
3			0.630	40.772	30.900	-15.228	56.000	9.871	QP
4			0.630	40.272	30.400	-5.728	46.000	9.871	AV
5			0.886	36.985	27.100	-19.015	56.000	9.885	QP
6			0.886	36.185	26.300	-9.815	46.000	9.885	AV
7			1.138	35.191	25.300	-20.809	56.000	9.891	QP
8			1.138	34.391	24.500	-11.609	46.000	9.891	AV
9			1.390	33.394	23.500	-22.606	56.000	9.894	QP
10			1.390	32.594	22.700	-13.406	46.000	9.894	AV
11			18.410	27.883	17.200	-32.117	60.000	10.683	QP
12			18.410	21.883	11.200	-28.117	50.000	10.683	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

Site: WZ-SR2	Time: 2021/08/26 - 18:10
Limit: FCC_Part15.207_CE_AC Power	Engineer: Messiah Li
Probe: ENV216_101683_Filter Off	Polarity: Line
EUT: SYMFONISK charging shelf	Power: AC 120V/60Hz
Test Mode 2	



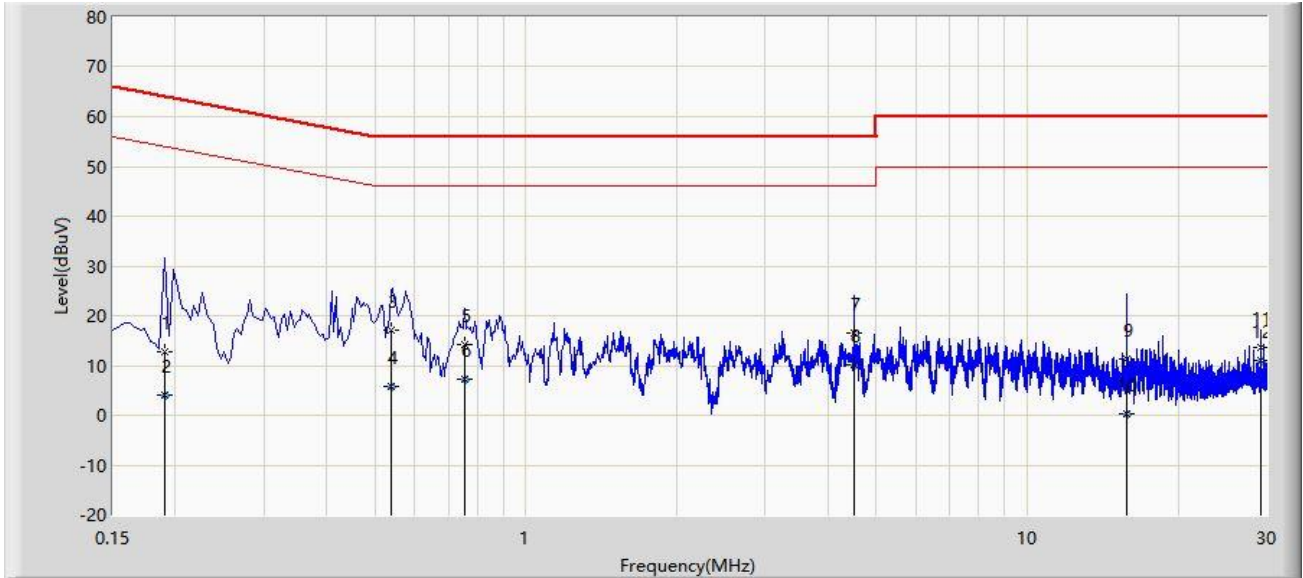
No.	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.174	15.210	5.400	-49.557	64.767	9.810	QP
2			0.174	2.410	-7.400	-52.357	54.767	9.810	AV
3			0.426	12.858	3.000	-44.473	57.330	9.858	QP
4			0.426	4.358	-5.500	-42.973	47.330	9.858	AV
5			1.598	22.400	12.500	-33.600	56.000	9.900	QP
6		*	1.598	16.000	6.100	-30.000	46.000	9.900	AV
7			2.906	10.257	0.200	-45.743	56.000	10.057	QP
8			2.906	0.757	-9.300	-45.243	46.000	10.057	AV
9			16.582	3.352	-7.300	-56.648	60.000	10.653	QP
10			16.582	-6.648	-17.300	-56.648	50.000	10.653	AV
11			29.174	14.328	3.400	-45.672	60.000	10.928	QP
12			29.174	11.628	0.700	-38.372	50.000	10.928	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).



Site: WZ-SR2	Time: 2021/08/26 - 18:18
Limit: FCC_Part15.207_CE_AC Power	Engineer: Messiah Li
Probe: ENV216_101683_Filter Off	Polarity: Neutral
EUT: SYMFONISK charging shelf	Power: AC 120V/60Hz
Test Mode 2	



No.	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.190	12.806	3.000	-51.230	64.037	9.806	QP
2			0.190	4.006	-5.800	-50.030	54.037	9.806	AV
3			0.538	17.163	7.300	-38.837	56.000	9.864	QP
4			0.538	5.763	-4.100	-40.237	46.000	9.864	AV
5			0.754	14.180	4.300	-41.820	56.000	9.880	QP
6			0.754	7.280	-2.600	-38.720	46.000	9.880	AV
7			4.518	16.628	6.300	-39.372	56.000	10.328	QP
8		*	4.518	10.028	-0.300	-35.972	46.000	10.328	AV
9			15.738	11.202	0.600	-48.798	60.000	10.602	QP
10			15.738	0.302	-10.300	-49.698	50.000	10.602	AV
11			29.174	13.675	2.700	-46.325	60.000	10.975	QP
12			29.174	11.075	0.100	-38.925	50.000	10.975	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB).

### 5.3. General Radiated Emission

#### 5.3.1. Test Limit

FCC Part 15.209 Limit		
Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Measurement Distance (m)
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

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dB $\mu\text{V}/\text{m}$ ) = 20 log E field strength ( $\mu\text{V}/\text{m}$ ).

#### 5.3.2. Test Procedure Used

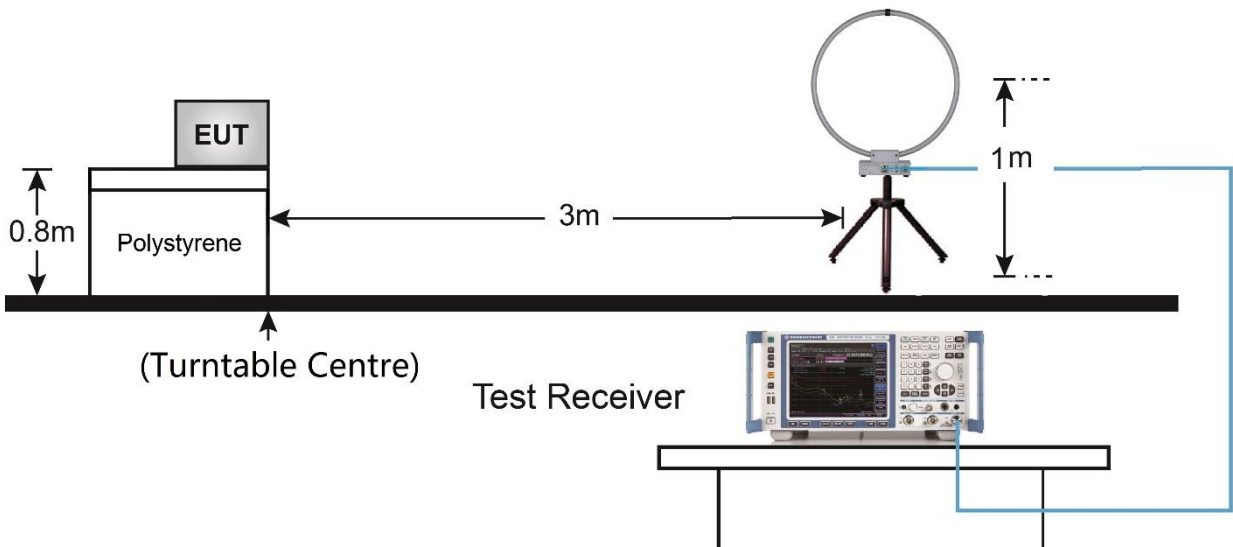
ANSI C63.10:2013 - Section 6.3 (General Requirements)

ANSI C63.10:2013 - Section 6.4 (Standard test method below 30MHz)

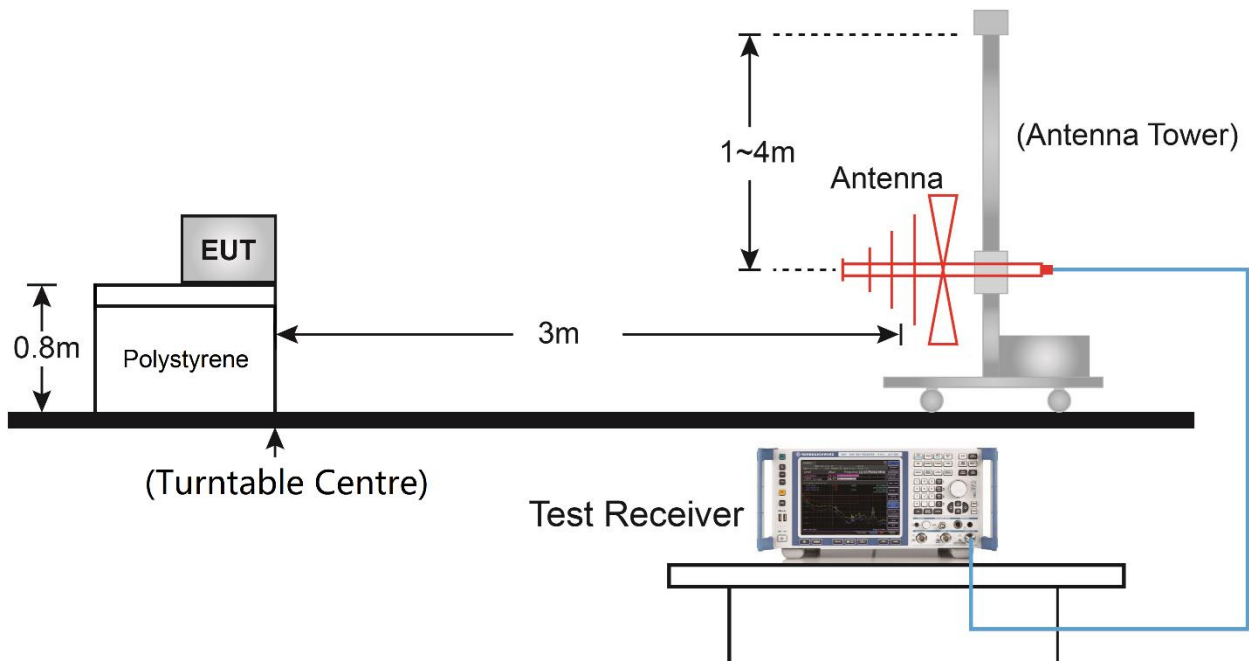
ANSI C63.10:2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

### 5.3.3. Test Setup

#### Below 30MHz Test Setup:



#### 30MHz ~ 1GHz Test Setup:



### 5.3.4. Test Result

Product	SYMFONISK charging shelf	Test Engineer	Tommy Tang
Test Site	WZ-AC1	Test Date	2020/08/24 ~ 2021/08/25
Test Mode	Mode 1		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
<b>Fundamental Radiated Emission</b>							
0.119	66.62	19.56	86.18	106.09	-19.91	Peak	Face On
0.119	59.27	19.56	78.83	106.09	-27.26	Peak	Face Off
<b>Radiated Spurious Emission</b>							
0.344	43.20	20.02	63.22	96.87	-33.65	Peak	Face On
0.583	34.18	19.75	53.93	72.29	-18.36	Peak	Face On
0.837	29.20	19.92	49.12	69.15	-20.03	Peak	Face On
1.075	25.55	20.55	46.10	66.98	-20.88	Peak	Face On
5.329	17.16	20.43	37.59	69.54	-31.95	Peak	Face On
14.194	15.75	20.95	36.70	69.54	-32.84	Peak	Face On
0.583	27.63	19.75	47.38	72.29	-24.91	Peak	Face Off
0.822	23.38	19.86	43.24	69.31	-26.07	Peak	Face Off
5.15	25.95	20.45	46.40	69.54	-23.14	Peak	Face Off
5.329	25.32	20.43	45.75	69.54	-23.79	Peak	Face Off
14.194	19.83	20.95	40.78	69.54	-28.76	Peak	Face Off
15.478	20.67	21.11	41.78	69.54	-27.76	Peak	Face Off
48.43	1.19	17.92	19.11	40.00	-20.89	Peak	Horizontal
190.05	9.52	15.37	24.89	43.50	-18.61	Peak	Horizontal
299.01	26.20	18.27	44.47	46.00	-1.53	QP	Horizontal
418.97	14.49	21.14	35.63	46.00	-10.37	Peak	Horizontal
539.25	10.84	23.89	34.73	46.00	-11.27	Peak	Horizontal
659.045	6.82	26.36	33.18	46.00	-12.82	Peak	Horizontal
40.185	9.98	17.42	27.40	40.00	-12.60	Peak	Vertical
179.38	5.84	16.48	22.32	43.50	-21.18	Peak	Vertical
299.175	16.93	18.28	35.21	46.00	-10.79	Peak	Vertical
418.97	18.51	21.14	39.65	46.00	-6.35	Peak	Vertical
479.11	10.81	22.81	33.62	46.00	-12.38	Peak	Vertical
538.765	18.17	23.87	42.04	46.00	-3.96	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)							

Product	SYMFONISK charging shelf	Test Engineer	Tommy Tang
Test Site	WZ-AC1	Test Date	2020/08/24 ~ 2021/08/25
Test Mode	Mode 2		

Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
<b>Fundamental Radiated Emission</b>							
0.145	52.48	19.56	72.04	104.38	-32.34	Peak	Face On
0.146	41.88	19.56	61.44	104.32	-42.88	Peak	Face Off
<b>Radiated Spurious Emission</b>							
0.15	42.90	19.56	62.46	104.08	-41.62	Peak	Face On
0.434	20.43	19.92	40.35	94.85	-54.50	Peak	Face On
0.717	22.35	19.60	41.95	70.49	-28.54	Peak	Face On
1.448	14.47	20.41	34.88	64.39	-29.51	Peak	Face On
14.194	12.74	20.95	33.69	69.54	-35.85	Peak	Face On
20.493	10.58	20.84	31.42	69.54	-38.12	Peak	Face On
0.15	32.77	19.56	52.33	104.08	-51.75	Peak	Face Off
1.001	13.68	20.58	34.26	67.60	-33.34	Peak	Face Off
1.896	13.75	20.24	33.99	69.54	-35.55	Peak	Face Off
7.075	10.61	20.27	30.88	69.54	-38.66	Peak	Face Off
15.478	12.11	21.11	33.22	69.54	-36.32	Peak	Face Off
22.358	9.97	20.74	30.71	69.54	-38.83	Peak	Face Off
47.46	1.47	17.86	19.33	40.00	-20.67	Peak	Horizontal
148.34	0.31	17.97	18.28	43.50	-25.22	Peak	Horizontal
300.63	16.54	18.32	34.86	46.00	-11.14	Peak	Horizontal
420.91	12.75	21.22	33.97	46.00	-12.03	Peak	Horizontal
661.47	3.62	26.37	29.99	46.00	-16.01	Peak	Horizontal
754.59	2.86	28.15	31.01	46.00	-14.99	Peak	Horizontal
60.07	4.67	17.38	22.05	40.00	-17.95	Peak	Vertical
159.98	2.13	17.97	20.10	43.50	-23.40	Peak	Vertical
199.265	6.29	14.88	21.17	43.50	-22.33	Peak	Vertical
300.63	7.36	18.32	25.68	46.00	-20.32	Peak	Vertical
420.91	20.06	21.22	41.28	46.00	-4.72	Peak	Vertical
541.19	16.37	23.92	40.29	46.00	-5.71	Peak	Vertical
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB/m)							

## 5.4. 20dB Spectrum Bandwidth Measurement

### 5.4.1. Test Limit

N/A

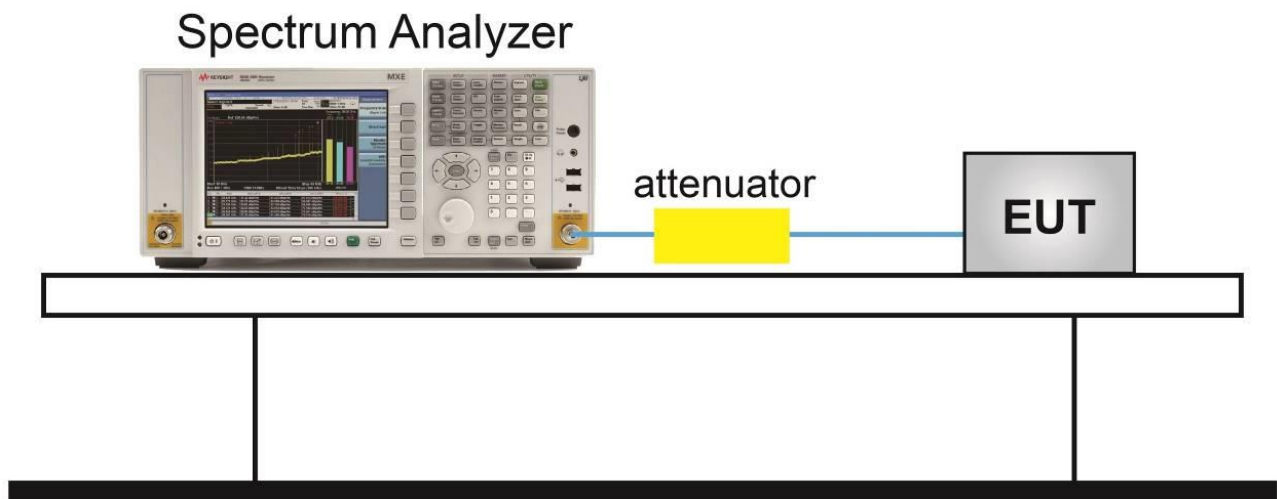
### 5.4.2. Test Procedure Used

ANSI C63.10:2013 Clause 6.9.2

### 5.4.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 20dB bandwidth measurement. The "X" dB bandwidth parameter was set to  $X = 20$ . The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set the spectrum span range to overlap the nominal center frequency
3. Set  $RBW = 1\% \sim 5\%$  of the OBW
4.  $VBW \geq 3 \times RBW$
5. Detector = Peak
6. Trace mode = max hold
7. Sweep = auto couple
8. Allow the trace to stabilize.

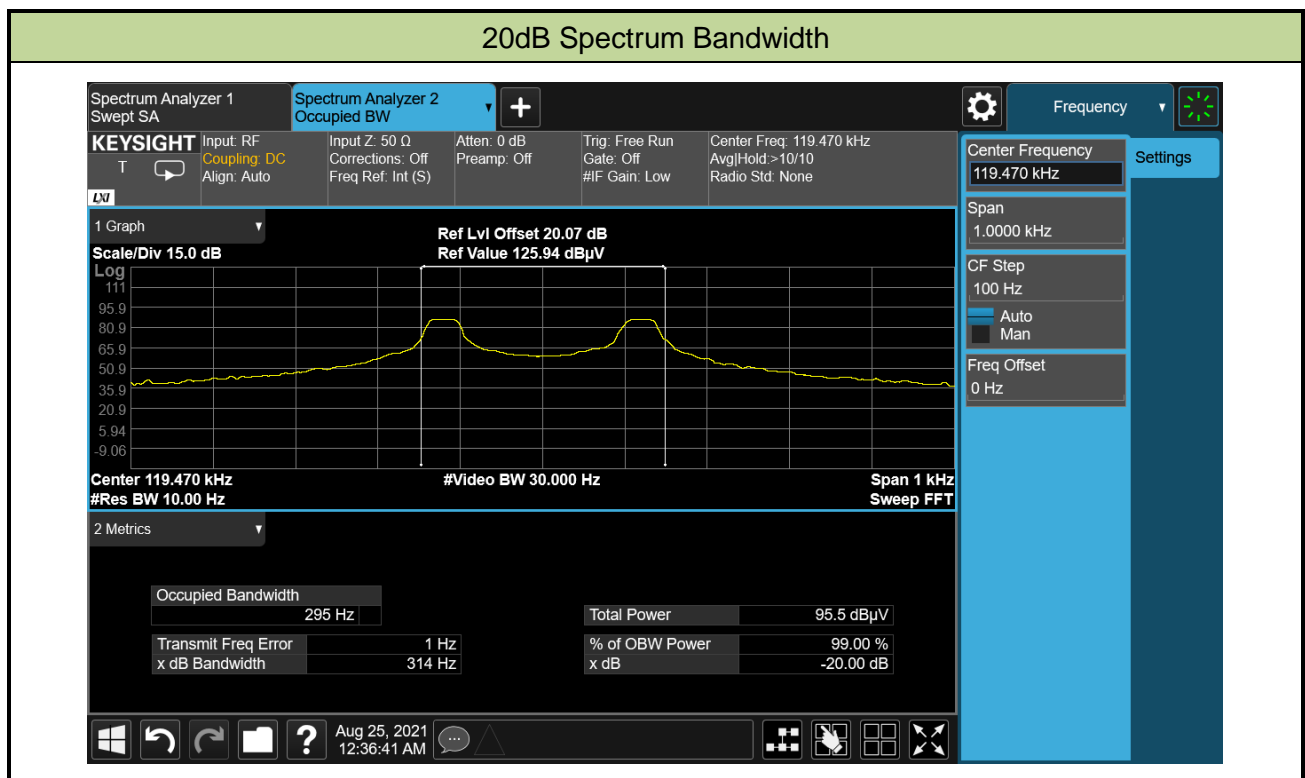
### 5.4.4. Test Setup



**5.4.5. Test Result**

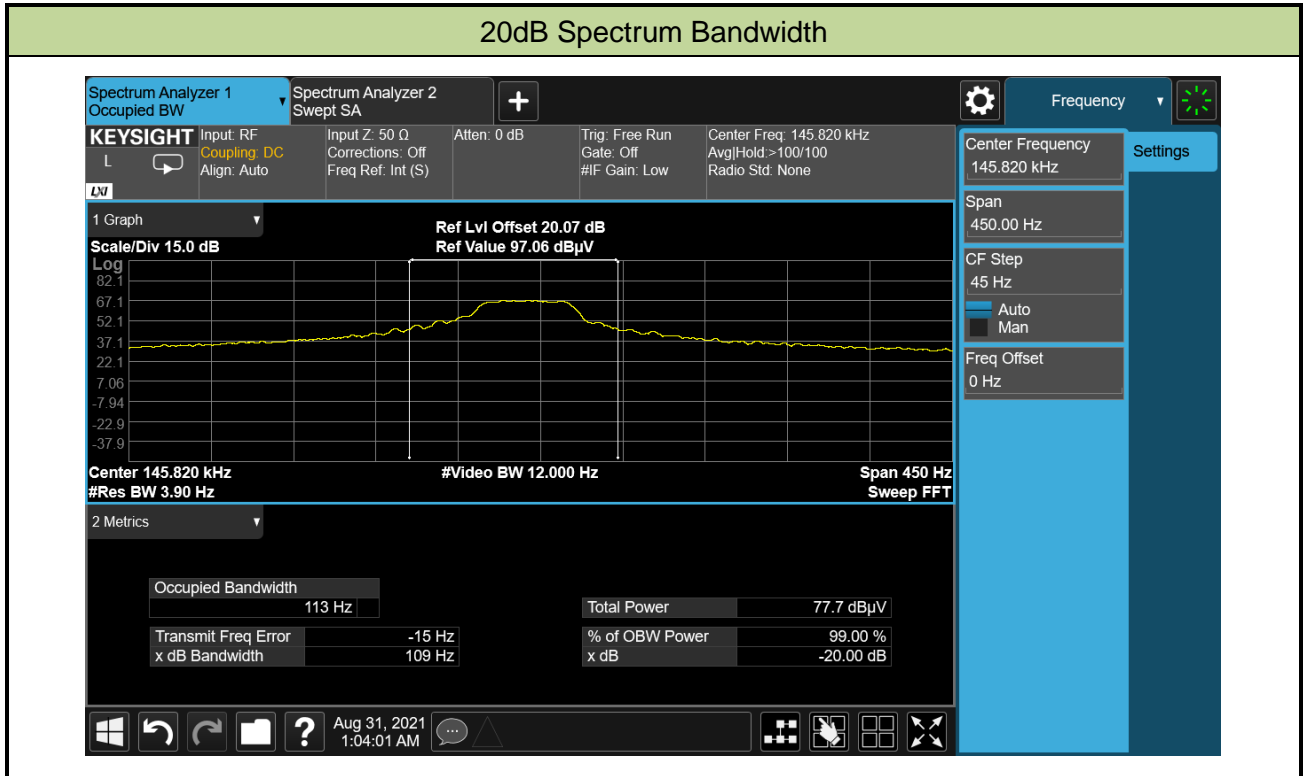
Product	SYMFONISK charging shelf	Test Engineer	Tommy Tang
Test Site	WZ-AC1	Test Date	2021/08/25
Test Mode	Mode 1		

Frequency	20dB Spectrum Bandwidth (kHz)
110kHz ~ 148kHz	0.314



Product	SYMFONISK charging shelf	Test Engineer	Tommy Tang
Test Site	WZ-AC1	Test Date	2021/08/31
Test Mode	Mode 2		

Frequency	20dB Spectrum Bandwidth (kHz)
110kHz ~ 148kHz	0.109





## 6. CONCLUSION

The data collected relate only the item(s) tested and show that the unit is compliance with Part 15C of the FCC rules.

————— The End —————

## Appendix A - Test Setup Photograph

Refer to "2108RSU057-UT" file.

## Appendix B - EUT Photograph

Refer to "2108RSU057-UE" file.