



<b>Test Report Number:</b>	LCZE16010021				
<b>Applicant Name:</b>	Energy Recovery Products (Zhuhai) Co.,Ltd				
<b>Applicant Address:</b>	F building No.8,Pingdong Road 2, Nanping Science Park, Zhuhai, Guangdong China 519060				
<b>Test item:</b>	LED Driver				
<b>Model / Type Reference:</b>	See section 4.2 ratings and system details				
<b>Date of Issue:</b>	2016-01-20				
<b>Testing Laboratory:</b>	LCTECH (Zhongshan) Testing Service Co.,Ltd 2/F.,Technology and Enterprise Development Center, Guangyuan Road, Xiaolan, Zhongshan, Guangdong, China				
<b>Test Specification:</b>	FCC PART 15 Subpart B:2013				
<b>Test Result:</b>	Passed				
<b>Compiled by:</b>	<b>Reviewed by:</b>				
2016-01-20	Mike		2016-01-20	Gordon Xie	
<i>Date</i>	<i>Name</i>	<i>Signature</i>	<i>Date</i>	<i>Name</i>	<i>Signature</i>
<b>Remark:</b>					
N/A					
<p>The duplication of this report or parts of it and its use for advertising purposes is only allowed with permission of the testing laboratory. This report contains the result of the examination of the product sample submitted by the applicant. A general statement concerning the quality of the products from the series manufacture cannot be derived therefore.</p>					



## TEST SUMMARY

5.1 MAINS TERMINAL CONTINUOUS DISTURBANCE VOLTAGE

RESULT: Pass

5.2 RADIATED EMISSION

RESULT: Pass

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## 1 General Remarks

### 1.1 Complementary Materials

Constructional Data form

## 2 Measurement Uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	3.26dB
Uncertainty for Radiation Emission test	3.14 dB (Polarize: V)
	3.16 dB (Polarize: H)

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

## 3 Test Sites

### 3.1 Test Facilities

#### A. LCTECH (Zhongshan) Testing Service Co.,Ltd

Add: 2/F., Technology and Enterprise Development Center, Guangyuan Road, Xiaolan, Zhongshan, Guangdong, China

CNAS Registration Number:L3337

FCC Registration Number: 899311

Industry Canada site registration number:12114A-1

### 3.2 Testing

Date of receipt of test item : 2016-01-12

Date (s) of performance of tests : 2016-01-13

### 3.3 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

Radiated Emission <input checked="" type="checkbox"/>						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	EMI Test Receiver	R&S	ESCI 7	100965	2015-02-11	2016-02-10
2	Log-periodic Dipole Antenna	Schwarzbeck	VULB 9162	058	2015-02-11	2016-02-10
3	Pre-Amplifier	SCHWARZBECK	BBV9743	9743-143	2015-02-11	2016-02-10
4	3m Semi-anechoic	Zhongshuo Electronics	9mx6mx6m	N/A	2015-02-11	2016-02-10
Disturbance Voltage <input checked="" type="checkbox"/>						
5	EMI Test Receiver	Rohde&Schwarz	ESCI	100939	2015-08-29	2016-08-28
6	Artificial Mains Network	Rohde&Schwarz	ENV216	3560655012	2015-08-29	2016-08-28
7	Shield Room	ZhongYu Eletron	8X5X3.5	N/A	2015-08-29	2016-08-28
8	Conducted Emission Software	FALA	EZ-EMC	N/A	N/A	N/A

☐ : Not Used

☒ : Used

## 4 General Product Information

According to the declaration from the applicant, this report covers the model as below: See section 4.2 ratings and system details. These models have the same internal configuration and PCB layout, the difference of these models was power, Therefore two models ESM020W-0440-25 and ESM060W-1400-42 were fully tested in the report.

1. PP designate: If  $10W < P_{out} < 20W$ ,  $PP=20$ , If  $20W < P_{out} < 30W$ ,  $PP=30$ , If  $30W \leq P_{out} < 40W$ ,  $PP=40$ , If  $40W \leq P_{out} < 51W$ ,  $PP=50$ .
2. If AC input is 120VAC,  $A=U$ , If AC input is 120-277VAC,  $A=W$ , If AC input is 277VAC,  $A=V$ , If AC input is 230VAC,  $A=E$ .
3. - could be blank, XXXX means regulated output current, which is not greater than max output regulated current within the output voltage range.
4. - could be blank, YYY( $Y=0\sim9$ ,  $A\sim Z$  or blank, for marketing purpose only).
5. ZZZ( $Y=0\sim9$ ,  $A\sim Z$  or blank, for marketing purpose only).
6. -VV means max output voltage, which is not greater than 58V.

### 4.1 Product Description and Intended Use

Refer to Constructional Data Form and user manual.

### 4.2 Ratings and System Details

No.	Model No.	Input Voltage (Vac)	Max Output Power	Max output regulated current(A)	Min output regulated current (mA)	PCB layout & Schematic	Max Voltage	Output Voltage Range (Vdc)
1	ESM0 PPA-XXXX-VV-YYY-ZZZ	A	50.0	2.000	100	Same	25.0	$12 < V_{out} < 25$
2	ESM0 PPA-XXXX-VV-YYY-ZZZ	A	58.8	1.400	100	Same	42.0	$24 < V_{out} < 42$
3	ESM0 PPA-XXXX-VV-YYY-ZZZ	A	50.0	0.870	100	Same	58.0	$42 < V_{out} < 58$



### 4.3 Independent Operation Modes

The basic operation modes are:

A. Test in lighting mode

### 4.4 Noise Generating and Noise Suppressing Parts

Refer to the Constructional Data Form

### 4.5 Submitted Documents

Difference declaration  
Rating Label  
Circuit diagram  
User manual  
PCB layout

#### 4.6 Principle of Configuration Selection

**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.

**Immunity:** The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

#### 4.7 Physical Configuration for Testing

Refer to the related chapter in this test report.

#### 4.8 Test Operation and Test Software

Refer to test set up in chapter 5 and chapter 6.

#### 4.9 Special Accessories and Auxiliary Equipment

None

#### 4.10 Countermeasures to achieve EMC Compliance

None



## 5 Test Results EMISSION

### 5.1 Conducted Emission

#### Results:

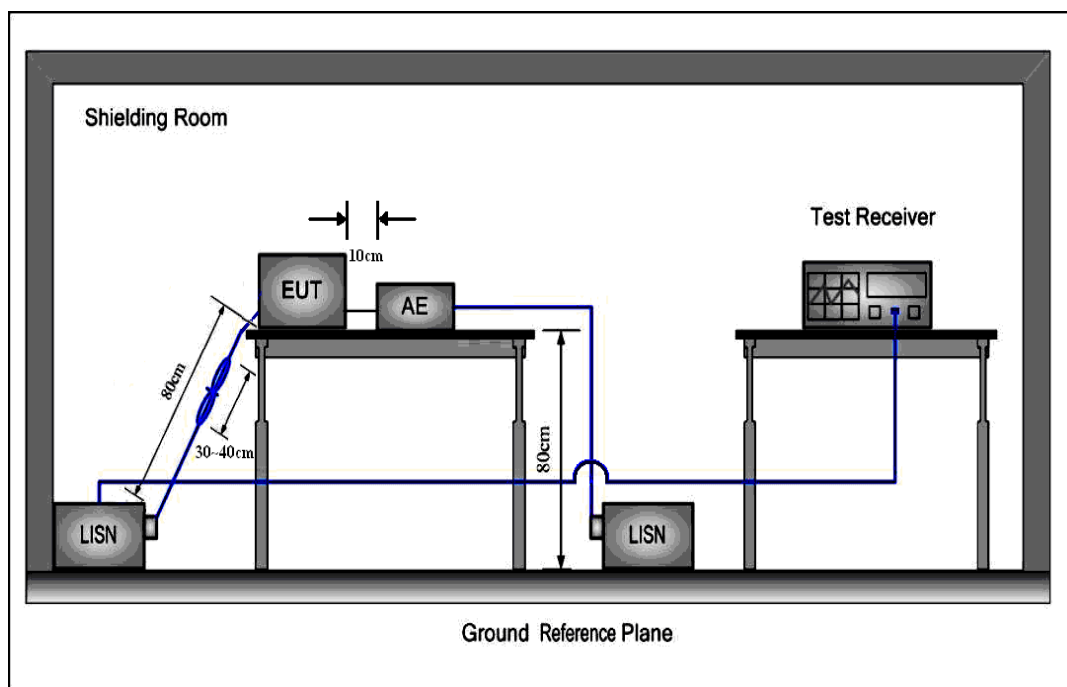
Pass

Date of testing : 13 January 2016  
 Test procedure : ANSI C63.4:2009  
 Frequency range : 0.15- 30MHz  
 Kind of test site : shielded room  
 Limits : FCC PART 15 Subpart B: 2013

#### Test setup

Input Voltage : 120Vac& 277Vac, 60Hz  
 Operation Mode : Test in lighting mode  
 Artificial Hand : Not applied  
 Earthing : Not applied  
 Temperature : 24°C  
 Humidity : 60%  
 Air pressure : 101KPA

#### Test Connection Diagram

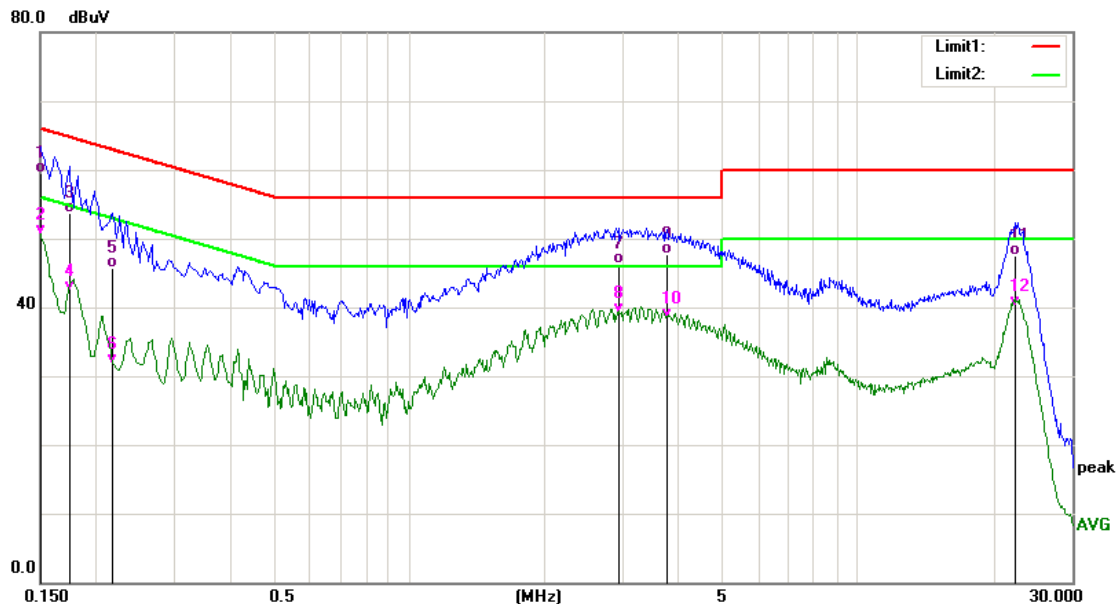


### Test data

**Model: ESM020W-0440-25 with 120Vac,60Hz**

Peak and Average Scan:

Live:

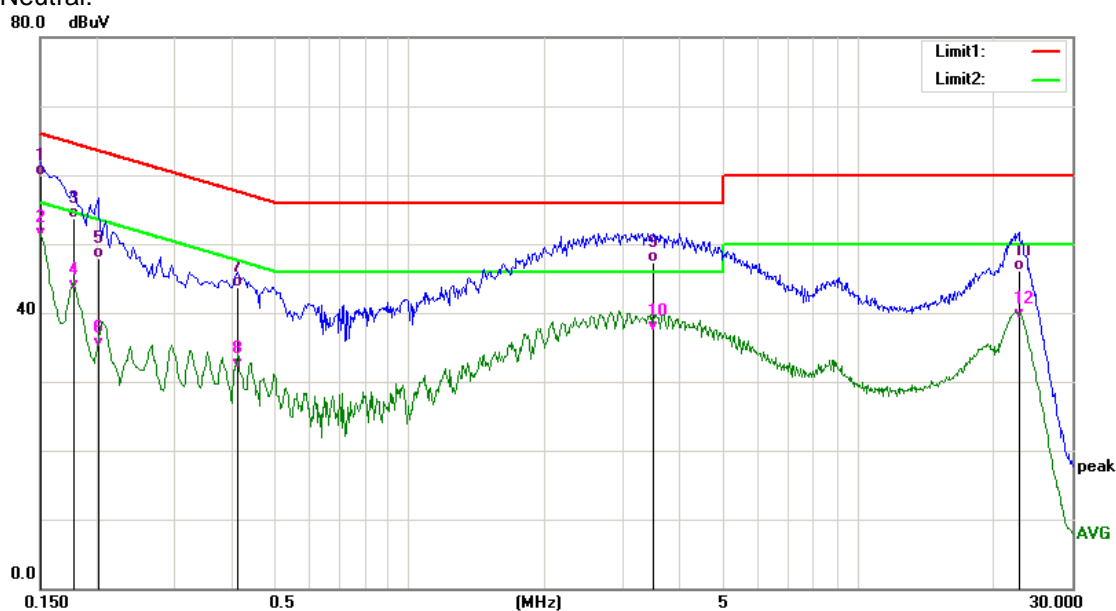


Quasi-peak and Average measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	49.92	9.64	59.56	66.00	-6.44	QP
2	0.1500	40.83	9.64	50.47	56.00	-5.53	AVG
3	0.1740	44.01	9.65	53.66	64.77	-11.11	QP
4	0.1740	32.71	9.65	42.36	54.77	-12.41	AVG
5	0.2180	36.03	9.66	45.69	62.89	-17.20	QP
6	0.2180	22.01	9.66	31.67	52.89	-21.22	AVG
7	2.9180	36.53	9.79	46.32	56.00	-9.68	QP
8	2.9180	29.27	9.79	39.06	46.00	-6.94	AVG
9	3.7460	37.81	9.80	47.61	56.00	-8.39	QP
10	3.7460	28.46	9.80	38.26	46.00	-7.74	AVG
11	22.3420	36.84	10.61	47.45	60.00	-12.55	QP
12	22.3420	29.50	10.61	40.11	50.00	-9.89	AVG

Peak and Average Scan:

Neutral:



Quasi-peak and Average measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	50.18	9.64	59.82	65.99	-6.17	QP
2	0.1500	41.19	9.64	50.83	55.99	-5.16	AVG
3	0.1768	43.96	9.65	53.61	64.63	-11.02	QP
4	0.1768	33.61	9.65	43.26	54.63	-11.37	AVG
5	0.2020	38.18	9.66	47.84	63.52	-15.68	QP
6	0.2020	25.20	9.66	34.86	53.52	-18.66	AVG
7	0.4140	33.93	9.68	43.61	57.57	-13.96	QP
8	0.4140	22.15	9.68	31.83	47.57	-15.74	AVG
9	3.5020	37.49	9.80	47.29	56.00	-8.71	QP
10	3.5020	27.59	9.80	37.39	46.00	-8.61	AVG
11	22.8180	35.56	10.60	46.16	60.00	-13.84	QP
12	22.8180	28.47	10.60	39.07	50.00	-10.93	AVG

### Test data

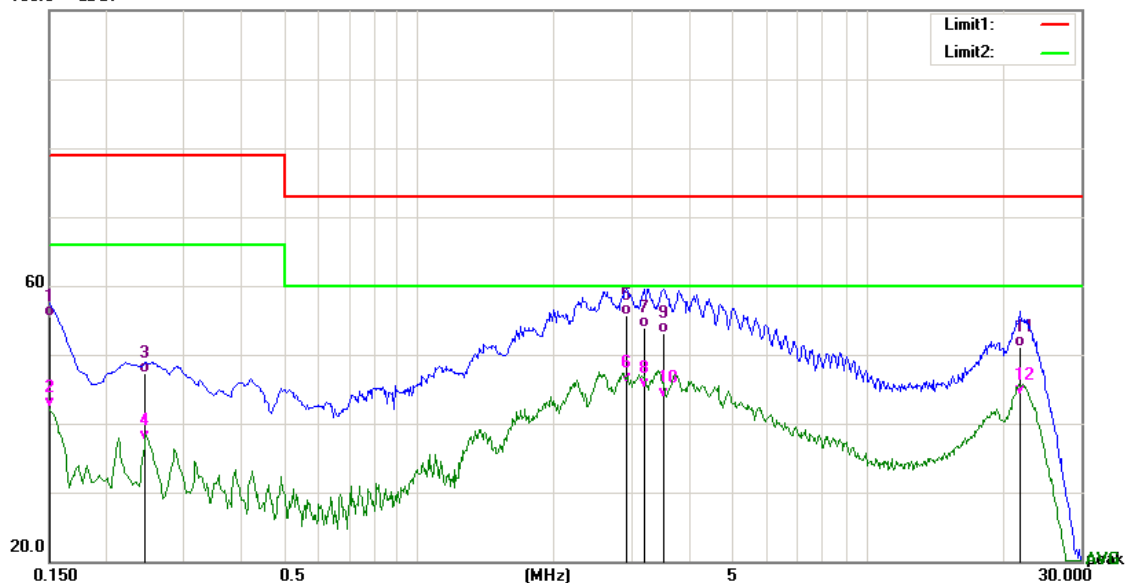
Model: ESM020W-0440-25 with 277Vac,60Hz

(Customer declaration use for in a industrial environment,so with class A limit)

Peak and Average Scan:

Live:

100.0 dBuV



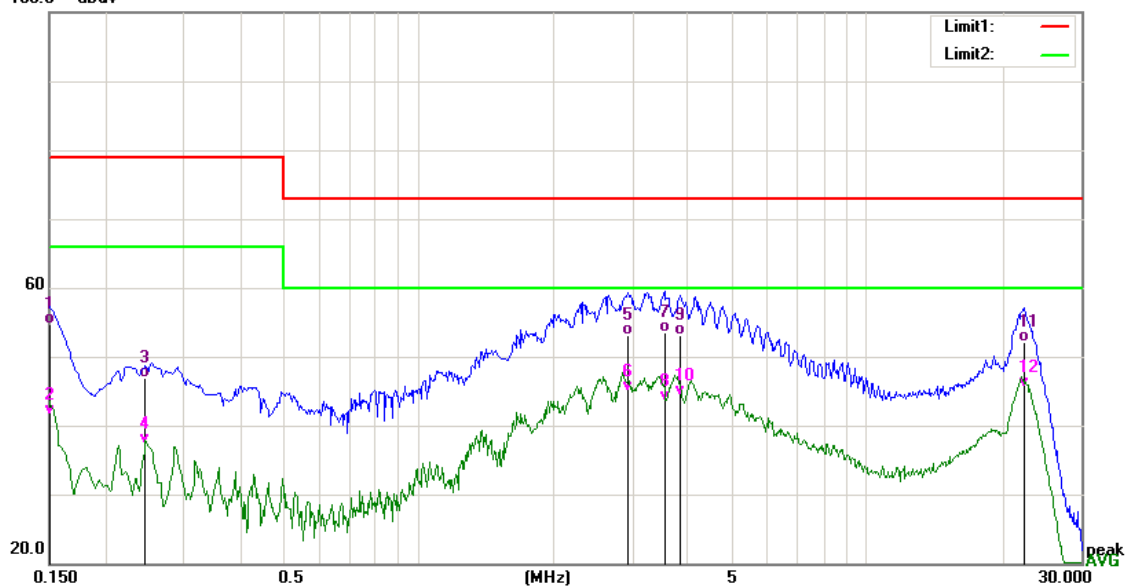
Quasi-peak and Average measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	45.84	9.64	55.48	79.00	-23.52	QP
2	0.1500	32.59	9.64	42.23	66.00	-23.77	AVG
3	0.2481	37.71	9.65	47.36	79.00	-31.64	QP
4	0.2481	27.95	9.65	37.60	66.00	-28.40	AVG
5	2.9060	45.99	9.79	55.78	73.00	-17.22	QP
6	2.9060	36.20	9.79	45.99	60.00	-14.01	AVG
7	3.1900	44.19	9.79	53.98	73.00	-19.02	QP
8	3.1900	35.33	9.79	45.12	60.00	-14.88	AVG
9	3.5260	43.25	9.80	53.05	73.00	-19.95	QP
10	3.5260	33.98	9.80	43.78	60.00	-16.22	AVG
11	21.9300	40.46	10.62	51.08	73.00	-21.92	QP
12	21.9300	33.47	10.62	44.09	60.00	-15.91	AVG

Peak and Average Scan:

Neutral:

100.0 dBuV



Quasi-peak and Average measurement:

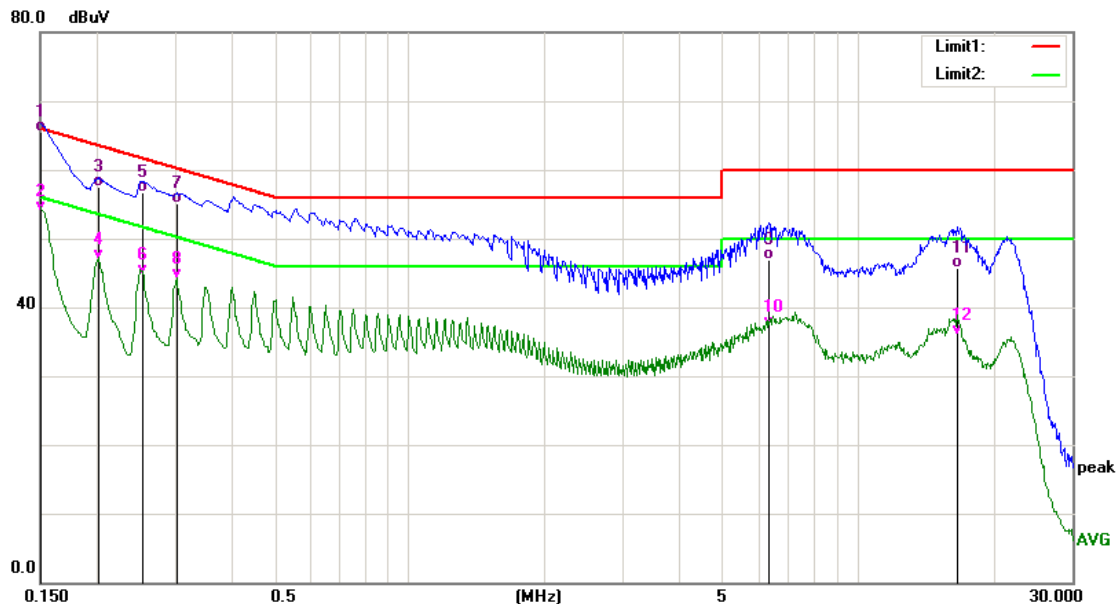
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1516	45.11	9.64	54.75	79.00	-24.25	QP
2	0.1516	31.88	9.64	41.52	66.00	-24.48	AVG
3	0.2481	37.22	9.65	46.87	79.00	-32.13	QP
4	0.2481	27.71	9.65	37.36	66.00	-28.64	AVG
5	2.9380	43.35	9.79	53.14	73.00	-19.86	QP
6	2.9380	35.10	9.79	44.89	60.00	-15.11	AVG
7	3.5340	43.64	9.80	53.44	73.00	-19.56	QP
8	3.5340	33.79	9.80	43.59	60.00	-16.41	AVG
9	3.8300	43.39	9.81	53.20	73.00	-19.80	QP
10	3.8300	34.58	9.81	44.39	60.00	-15.61	AVG
11	22.3180	41.58	10.61	52.19	73.00	-20.81	QP
12	22.3180	34.80	10.61	45.41	60.00	-14.59	AVG

### Test data

**Model: ESM060W-1400-42 with 120Vac,60Hz**

Peak and Average Scan:

Live:

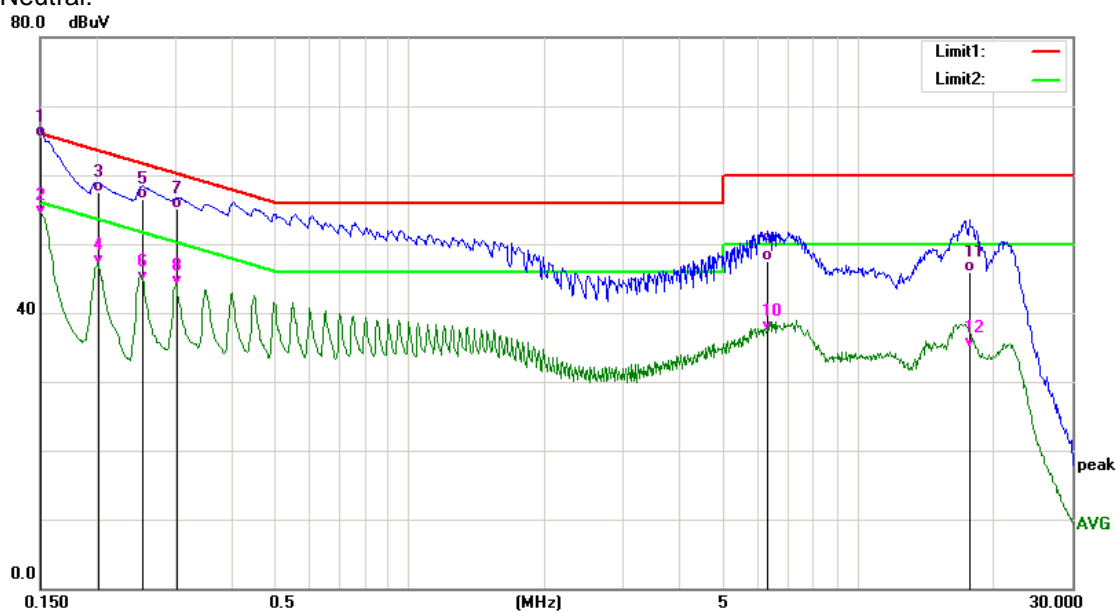


Quasi-peak and Average measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	55.91	9.64	65.55	66.00	-0.45	QP
2	0.1500	44.31	9.64	53.95	56.00	-2.05	AVG
3	0.2020	47.79	9.66	57.45	63.53	-6.08	QP
4	0.2020	37.24	9.66	46.90	53.53	-6.63	AVG
5	0.2540	46.96	9.65	56.61	61.63	-5.02	QP
6	0.2540	35.04	9.65	44.69	51.63	-6.94	AVG
7	0.3020	45.44	9.66	55.10	60.19	-5.09	QP
8	0.3020	34.37	9.66	44.03	50.19	-6.16	AVG
9	6.3300	37.05	9.95	47.00	60.00	-13.00	QP
10	6.3300	27.18	9.95	37.13	50.00	-12.87	AVG
11	16.6220	35.39	10.32	45.71	60.00	-14.29	QP
12	16.6220	25.54	10.32	35.86	50.00	-14.14	AVG

Peak and Average Scan:

Neutral:



Quasi-peak and Average measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	55.80	9.64	65.44	66.00	-0.56	QP
2	0.1500	44.43	9.64	54.07	56.00	-1.93	AVG
3	0.2020	47.80	9.66	57.46	63.53	-6.07	QP
4	0.2020	37.16	9.66	46.82	53.53	-6.71	AVG
5	0.2540	46.95	9.65	56.60	61.63	-5.03	QP
6	0.2540	34.84	9.65	44.49	51.63	-7.14	AVG
7	0.3020	45.47	9.66	55.13	60.19	-5.06	QP
8	0.3020	34.33	9.66	43.99	50.19	-6.20	AVG
9	6.3100	37.57	9.95	47.52	60.00	-12.48	QP
10	6.3100	27.45	9.95	37.40	50.00	-12.60	AVG
11	17.7020	35.47	10.42	45.89	60.00	-14.11	QP
12	17.7020	24.42	10.42	34.84	50.00	-15.16	AVG

# Test data

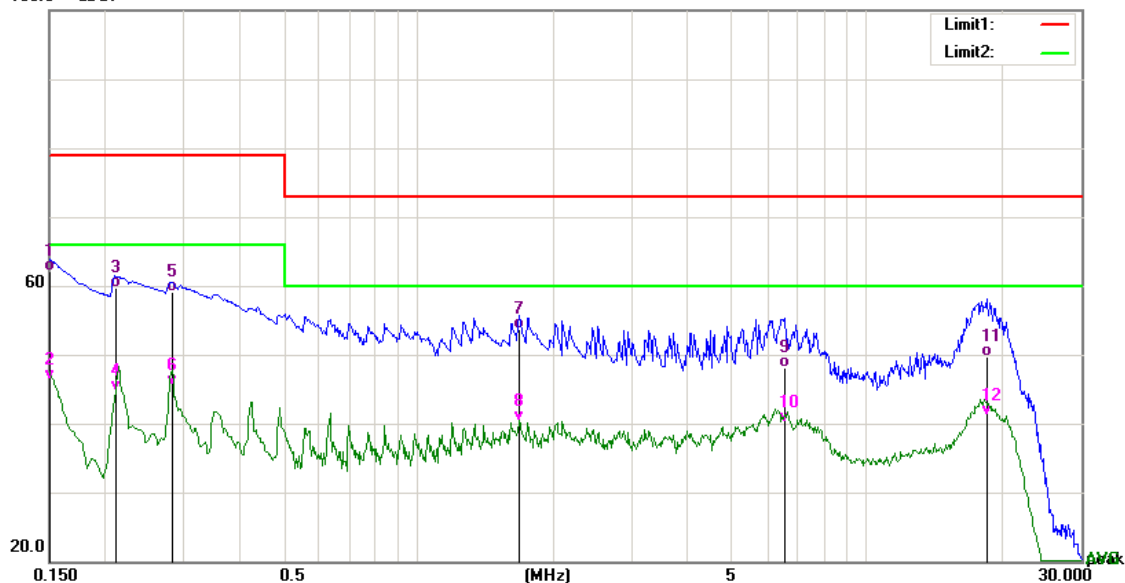
Model: ESM060W-1400-42 with 277Vac,60Hz

(Customer declaration use for in a industrial environment,so with class A limit)

Peak and Average Scan:

Live:

100.0 dBuV



Quasi-peak and Average measurement:

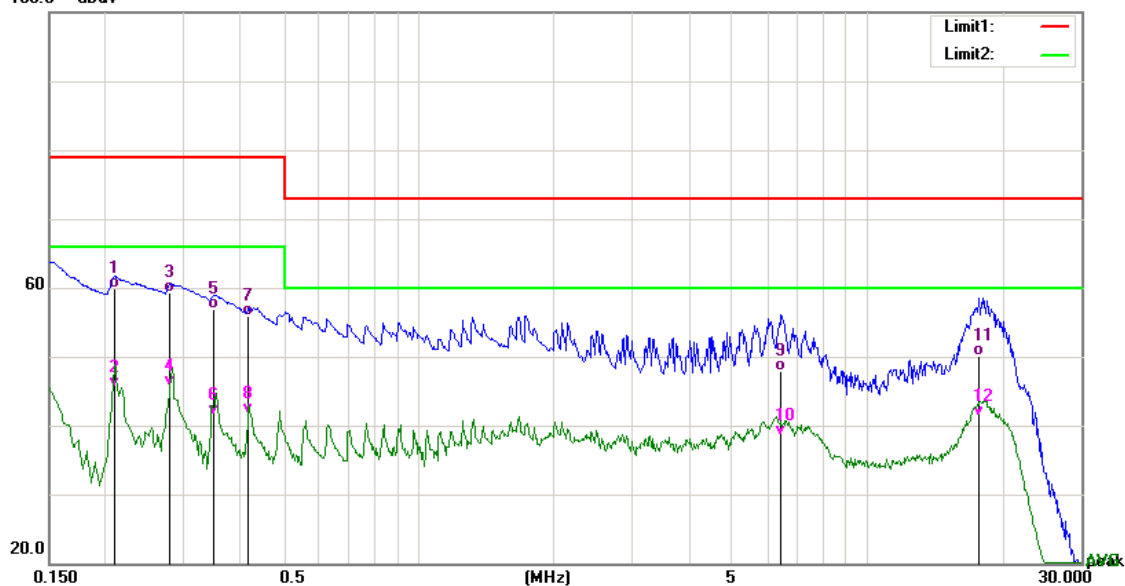
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	52.56	9.64	62.20	79.00	-16.80	QP
2	0.1500	36.67	9.64	46.31	66.00	-19.69	AVG
3	0.2140	50.01	9.66	59.67	79.00	-19.33	QP
4	0.2140	35.14	9.66	44.80	66.00	-21.20	AVG
5	0.2820	49.39	9.66	59.05	79.00	-19.95	QP
6	0.2820	35.81	9.66	45.47	66.00	-20.53	AVG
7	1.6740	43.88	9.73	53.61	73.00	-19.39	QP
8	1.6740	30.54	9.73	40.27	60.00	-19.73	AVG
9	6.5740	38.19	9.96	48.15	73.00	-24.85	QP
10	6.5740	30.17	9.96	40.13	60.00	-19.87	AVG
11	18.2380	39.17	10.48	49.65	73.00	-23.35	QP
12	18.2380	30.58	10.48	41.06	60.00	-18.94	AVG



Peak and Average Scan:

Neutral:

100.0 dBuV



Quasi-peak and Average measurement:

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2117	50.26	9.66	59.92	79.00	-19.08	QP
2	0.2117	35.80	9.66	45.46	66.00	-20.54	AVG
3	0.2803	49.66	9.66	59.32	79.00	-19.68	QP
4	0.2803	35.98	9.66	45.64	66.00	-20.36	AVG
5	0.3540	47.14	9.67	56.81	79.00	-22.19	QP
6	0.3540	31.89	9.67	41.56	66.00	-24.44	AVG
7	0.4180	46.17	9.68	55.85	79.00	-23.15	QP
8	0.4180	32.04	9.68	41.72	66.00	-24.28	AVG
9	6.4500	38.04	9.96	48.00	73.00	-25.00	QP
10	6.4500	28.58	9.96	38.54	60.00	-21.46	AVG
11	17.8380	39.61	10.44	50.05	73.00	-22.95	QP
12	17.8380	30.94	10.44	41.38	60.00	-18.62	AVG

## 5.2 Radiated Emission

### Results:

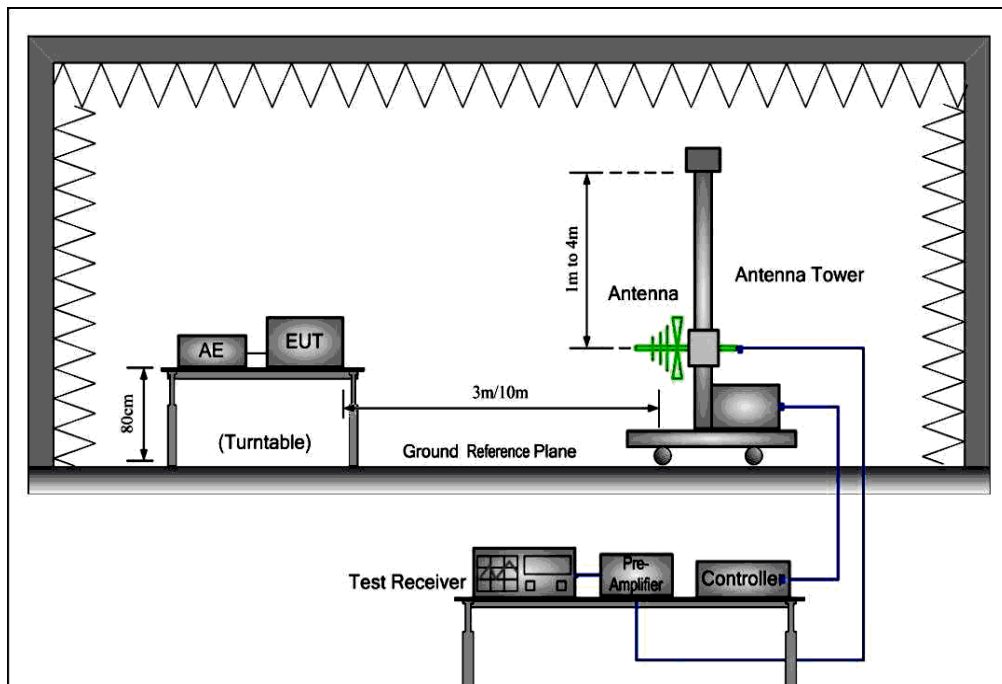
Pass

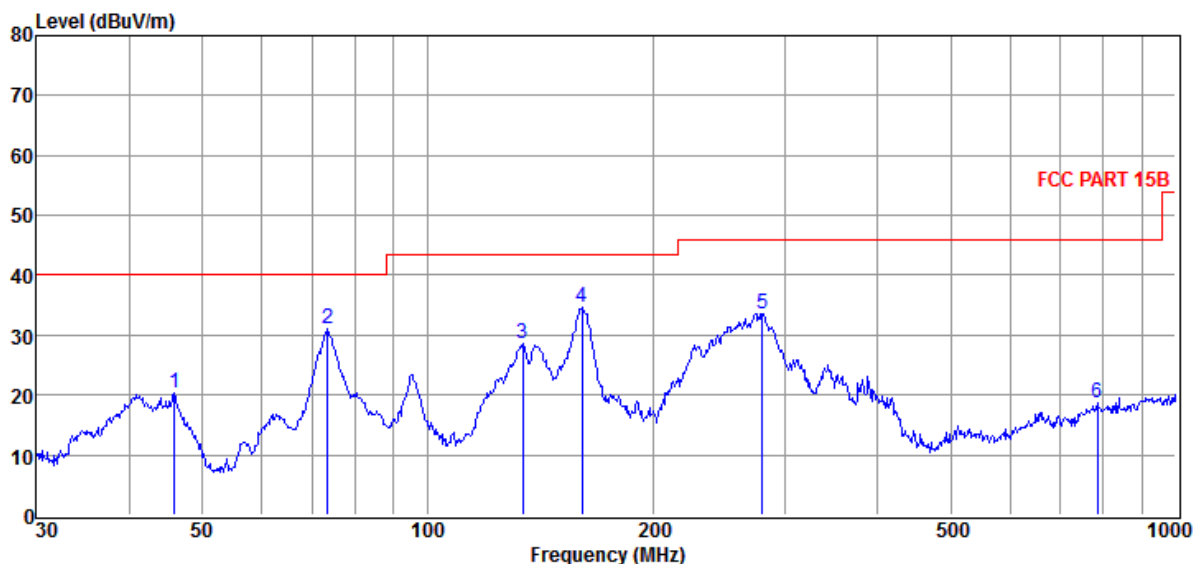
Date of testing : 13 January 2016  
 Test procedure : ANSI C63.4:2009  
 Frequency range : 30- 1000MHz  
 Kind of test site : Semi-Anechoic chamber  
 Limits : FCC PART 15 Subpart B: 2013

### Test setup:

Input Voltage : 120Vac& 277Vac, 60Hz  
 Operation Mode : Test in lighting mode  
 Artificial Hand : Not applied  
 Earthing : Not applied  
 Temperature : 24°C  
 Humidity : 60%  
 Air pressure : 101KPA

### Test Connection Diagram



**Test Data:**
**Model: ESM020W-0440-25 with 120Vac,60Hz**
**Peak Scan:**
**Horizontal**

**Quasi-peak measurement:**

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	45.86	32.05	16.07	27.89	0.00	20.23	40.00	-19.77	Peak	HORIZONTAL
2	73.62	52.31	6.83	28.17	0.00	30.97	40.00	-9.03	Peak	HORIZONTAL
3	134.09	48.31	8.15	28.00	0.00	28.46	43.50	-15.04	Peak	HORIZONTAL
4	160.91	55.53	7.18	27.99	0.00	34.72	43.50	-8.78	Peak	HORIZONTAL
5	280.02	48.80	12.80	28.00	0.00	33.60	46.00	-12.40	Peak	HORIZONTAL
6	785.09	24.77	21.65	27.73	0.00	18.69	46.00	-27.31	Peak	HORIZONTAL

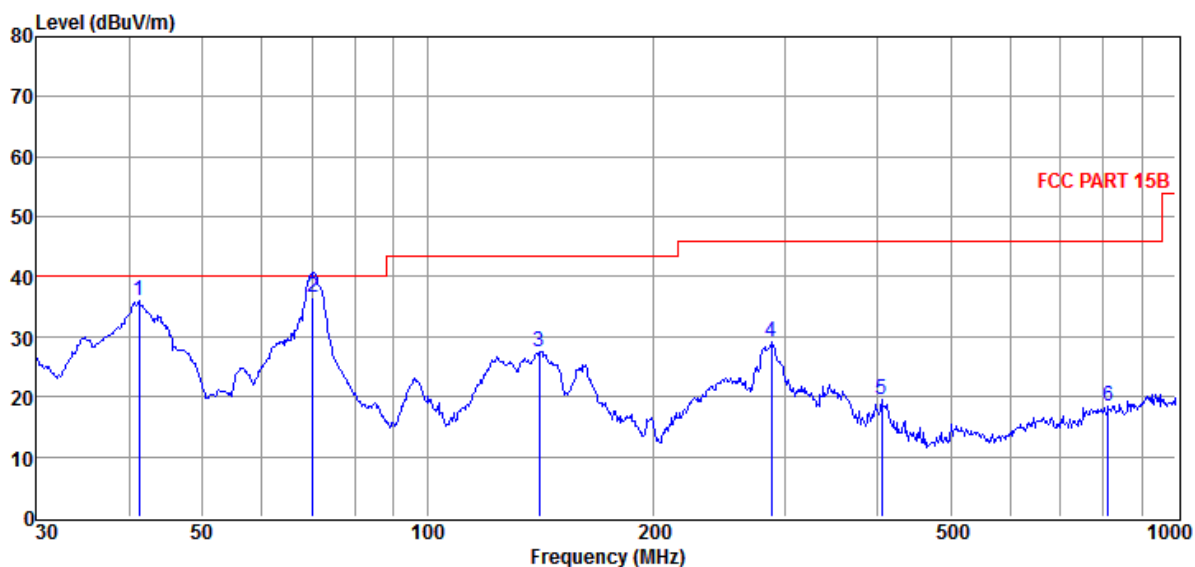
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

Peak Scan:

Vertical:



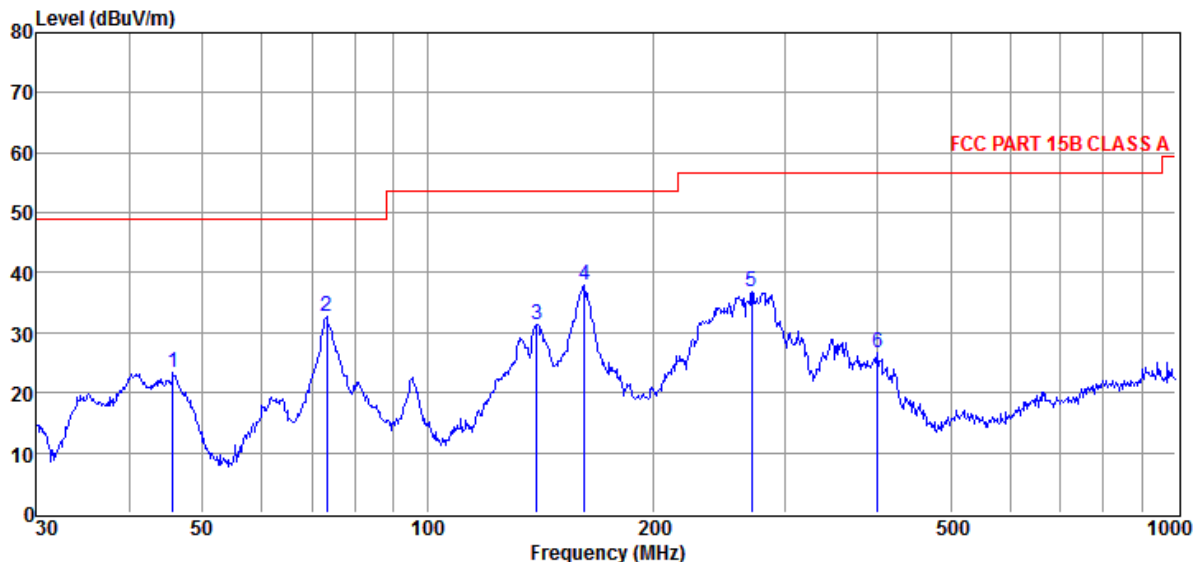
Quasi-peak measurement:

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	41.13	48.88	14.82	27.80	0.00	35.90	40.00	-4.10	Peak	VERTICAL
2	70.34	57.00	7.62	28.11	0.00	36.51	40.00	-3.49	QP	VERTICAL
3	140.84	47.78	7.78	28.00	0.00	27.56	43.50	-15.94	Peak	VERTICAL
4	287.99	44.64	12.60	28.00	0.00	29.24	46.00	-16.76	Peak	VERTICAL
5	404.67	31.43	16.05	28.00	0.00	19.48	46.00	-26.52	Peak	VERTICAL
6	813.11	24.42	21.56	27.70	0.00	18.28	46.00	-27.72	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

**Test Data:**
**Model: ESM020W-0440-25 with 277Vac,60Hz**
**(Customer declaration use for in a industrial environment,so with class A limit)**
**Peak Scan:**
**Horizontal**

**Quasi-peak measurement:**

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	45.70	34.42	16.15	27.88	0.65	23.34	49.00	-25.66	Peak	HORIZONTAL
2	73.36	53.25	6.89	28.17	0.85	32.82	49.00	-16.18	Peak	HORIZONTAL
3	139.85	50.39	7.81	28.00	1.21	31.41	53.50	-22.09	Peak	HORIZONTAL
4	162.04	57.48	7.16	27.98	1.31	37.97	53.50	-15.53	Peak	HORIZONTAL
5	271.33	50.31	12.61	28.00	1.78	36.70	56.50	-19.80	Peak	HORIZONTAL
6	399.03	36.33	15.97	28.00	2.26	26.56	56.50	-29.94	Peak	HORIZONTAL

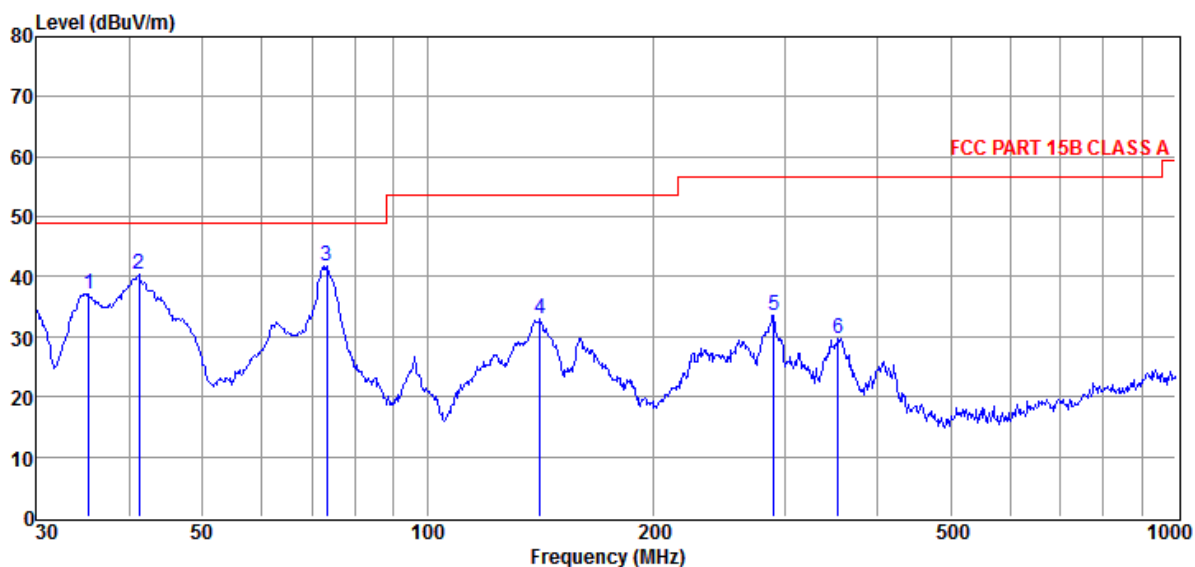
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

Peak Scan:

Vertical:



Quasi-peak measurement:

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	35.25	52.90	11.45	27.76	0.57	37.16	49.00	-11.84	Peak	VERTICAL
2	41.13	52.72	14.82	27.80	0.62	40.36	49.00	-8.64	Peak	VERTICAL
3	73.36	62.31	6.88	28.17	0.85	41.87	49.00	-7.13	Peak	VERTICAL
4	141.33	51.89	7.77	28.00	1.22	32.88	53.50	-20.62	Peak	VERTICAL
5	290.02	47.22	12.60	28.00	1.85	33.67	56.50	-22.83	Peak	VERTICAL
6	354.18	41.45	14.27	28.00	2.10	29.82	56.50	-26.68	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

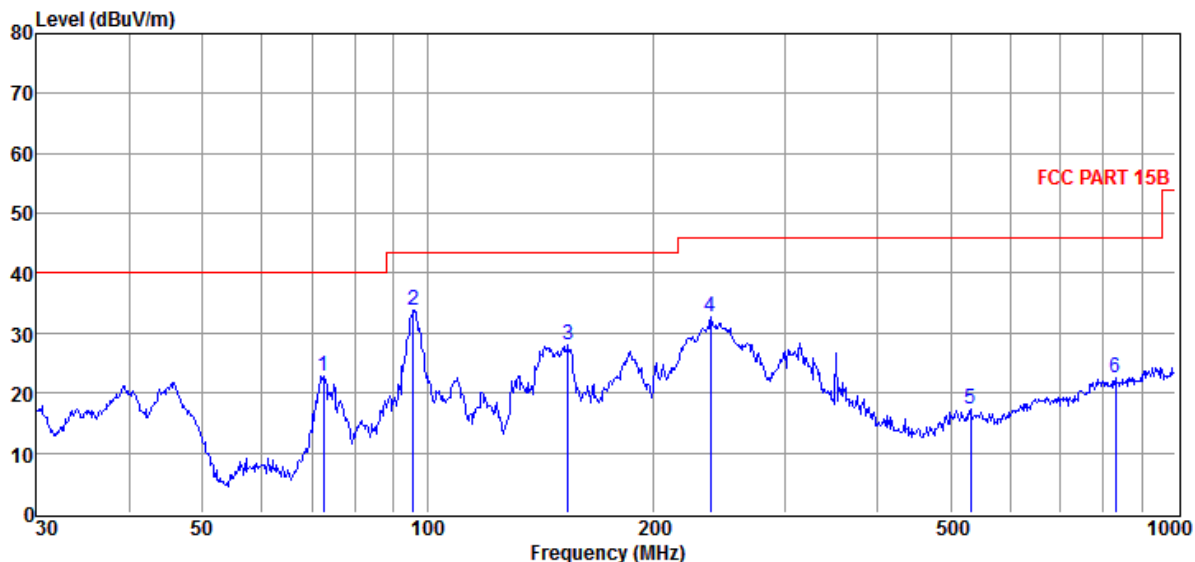
2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

**Test Data:**
**Model:** ESM060W-1400-42 with 120Vac,60Hz

**Peak Scan:**

Horizontal


**Quasi-peak measurement:**

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	72.59	43.16	7.08	28.15	0.85	22.94	40.00	-17.06	Peak	HORIZONTAL
2	95.76	49.88	10.95	28.04	1.00	33.79	43.50	-9.71	Peak	HORIZONTAL
3	154.28	47.27	7.41	28.00	1.28	27.96	43.50	-15.54	Peak	HORIZONTAL
4	239.15	47.16	11.77	28.00	1.66	32.59	46.00	-13.41	Peak	HORIZONTAL
5	531.96	24.38	18.08	28.00	2.73	17.19	46.00	-28.81	Peak	HORIZONTAL
6	830.40	24.83	21.68	27.70	3.72	22.53	46.00	-23.47	Peak	HORIZONTAL

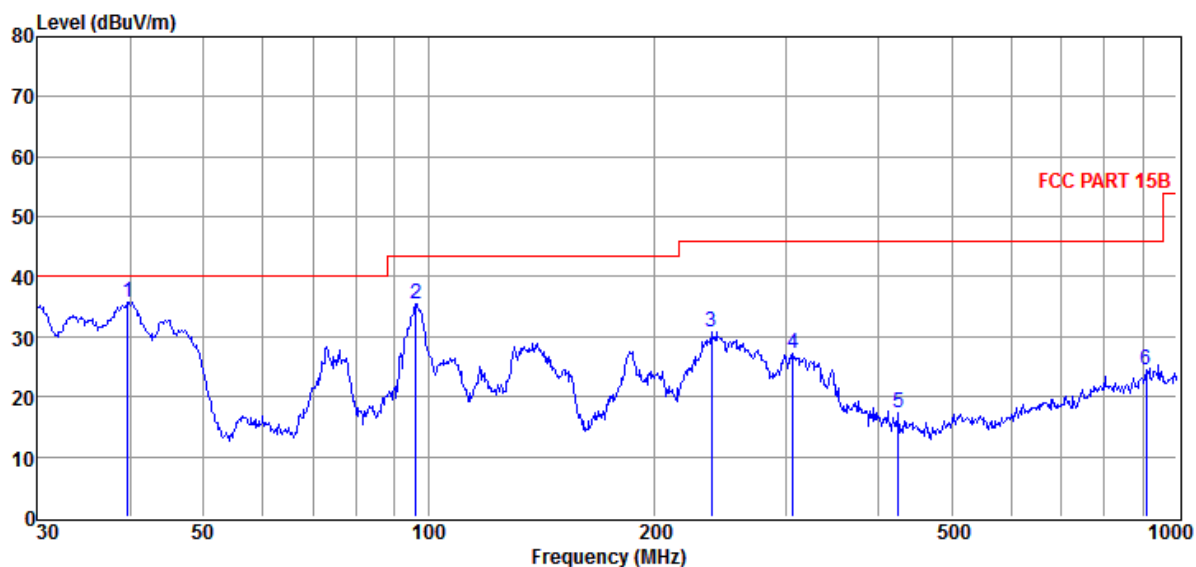
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

Peak Scan:

Vertical:



Quasi-peak measurement:

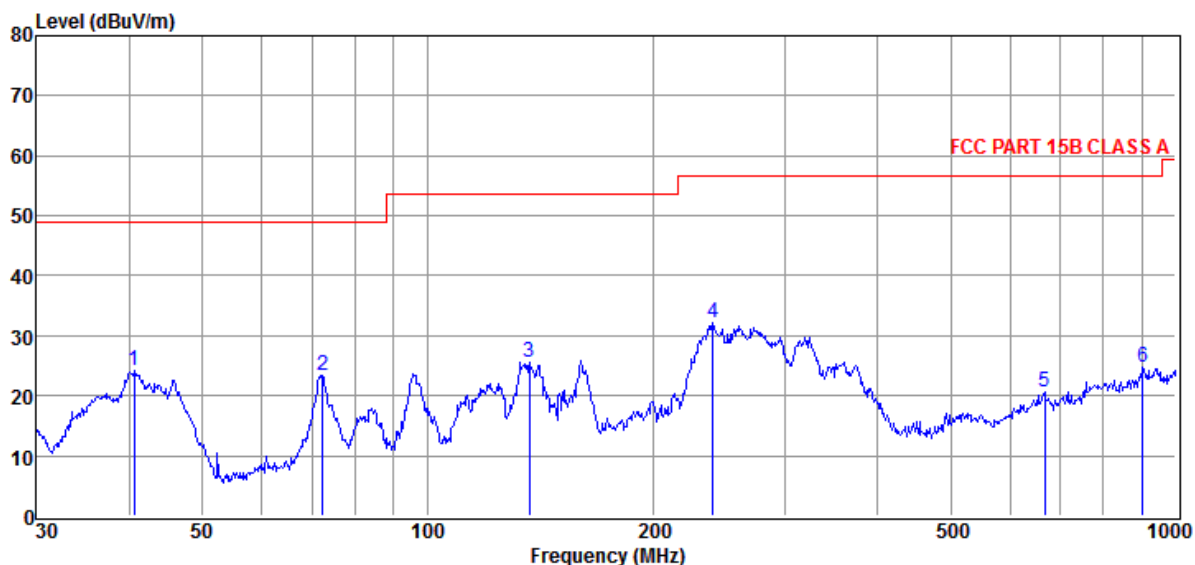
Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	39.58	49.39	13.59	27.80	0.61	35.79	40.00	-4.21	Peak	VERTICAL
2	96.10	51.50	11.02	28.04	1.00	35.48	43.50	-8.02	Peak	VERTICAL
3	239.15	45.26	11.77	28.00	1.66	30.69	46.00	-15.31	Peak	VERTICAL
4	306.75	41.06	12.24	28.00	1.91	27.21	46.00	-18.79	Peak	VERTICAL
5	425.03	27.31	15.60	28.00	2.36	17.27	46.00	-28.73	Peak	VERTICAL
6	909.67	25.25	22.98	27.60	3.96	24.59	46.00	-21.41	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto



**Test Data:**
**Model: ESM060W-1400-42 with 277Vac,60Hz**
**(Customer declaration use for in a industrial environment,so with class A limit)**
**Peak Scan:**
**Horizontal**

**Quasi-peak measurement:**

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	40.56	36.92	14.35	27.80	0.61	24.08	49.00	-24.92	Peak	HORIZONTAL
2	72.34	43.64	7.14	28.15	0.85	23.48	49.00	-25.52	Peak	HORIZONTAL
3	136.94	44.49	7.98	28.00	1.20	25.67	53.50	-27.83	Peak	HORIZONTAL
4	240.83	46.72	11.80	28.00	1.66	32.18	56.50	-24.32	Peak	HORIZONTAL
5	668.14	25.76	19.62	27.86	3.18	20.70	56.50	-35.80	Peak	HORIZONTAL
6	903.31	25.67	22.60	27.60	3.94	24.61	56.50	-31.89	Peak	HORIZONTAL

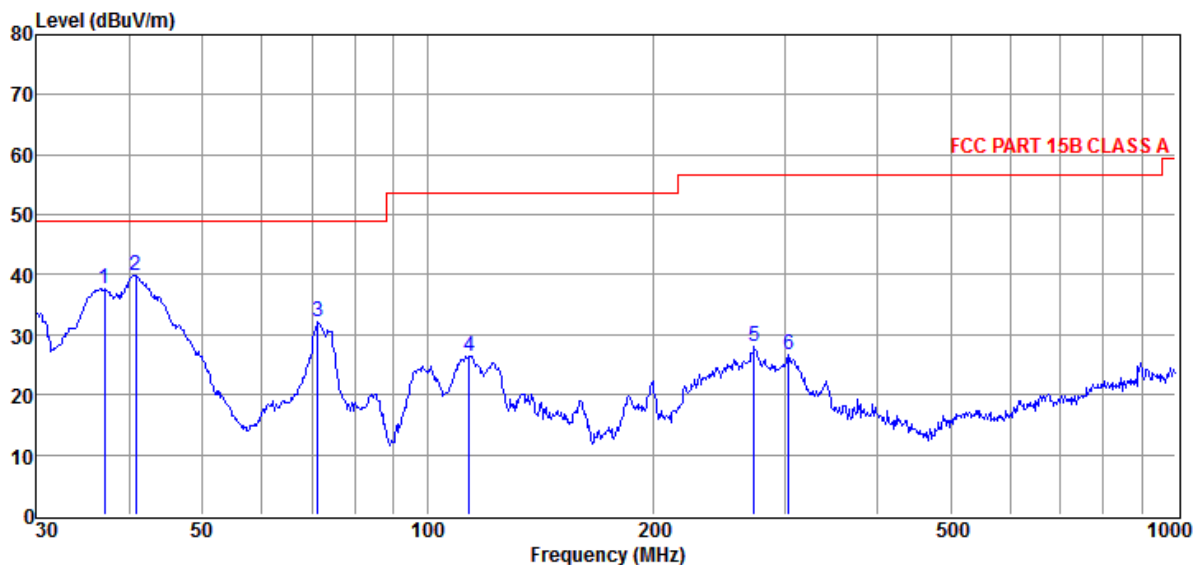
Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

Peak Scan:

Vertical:



Quasi-peak measurement:

Item (Mark)	Freq (MHz)	Read Level (dBμV)	Antenna Factor (dB/m)	PRM Factor dB	Cable Loss dB	Result Level (dBμV/m)	Limit Line (dBμV/m)	Over Limit (dB)	Detector	Polarization
1	37.03	52.98	12.02	27.80	0.59	37.79	49.00	-11.21	Peak	VERTICAL
2	40.70	52.69	14.47	27.80	0.62	39.98	49.00	-9.02	Peak	VERTICAL
3	71.33	52.07	7.37	28.13	0.84	32.15	49.00	-16.85	Peak	VERTICAL
4	113.71	42.71	10.68	28.00	1.08	26.47	53.50	-27.03	Peak	VERTICAL
5	273.23	41.45	12.76	28.00	1.79	28.00	56.50	-28.50	Peak	VERTICAL
6	303.54	40.75	12.08	28.00	1.90	26.73	56.50	-29.77	Peak	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss

2. If Peak Result comply with QP limit, QP Result is deemed to comply with QP limit

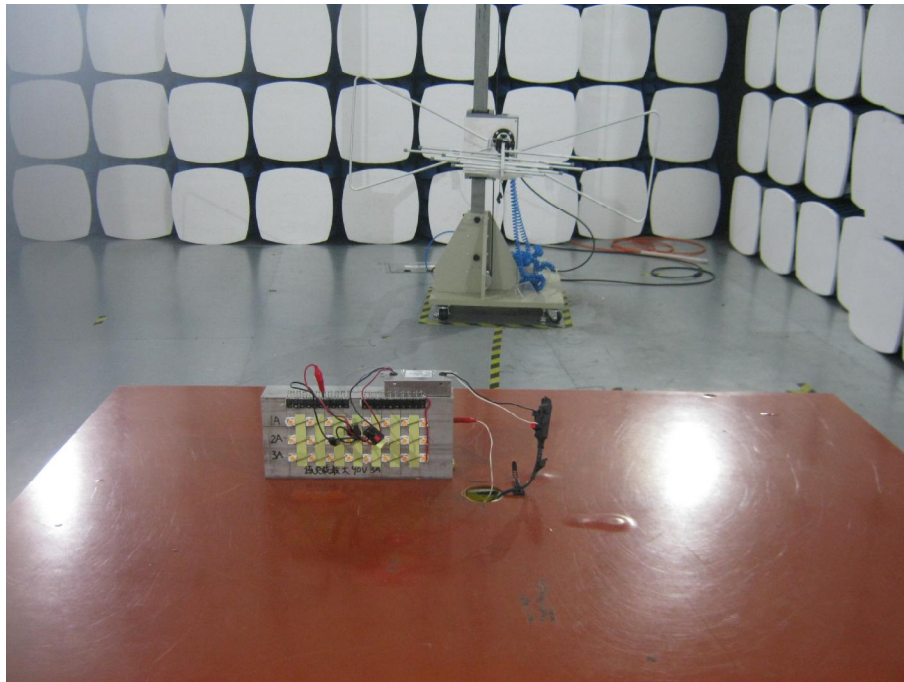
3. Test setup: RBW: 120kHz, VBW: 300kHz, Sweep time: auto

## 6 The photos of test setting

Terminal Continuous Disturbance Voltage:



Radiated Emission:





## 7 The photos of EUT

Model: ESM020W-0440-25



Picture 1



Picture 2

Model: ESM060W-1400-42

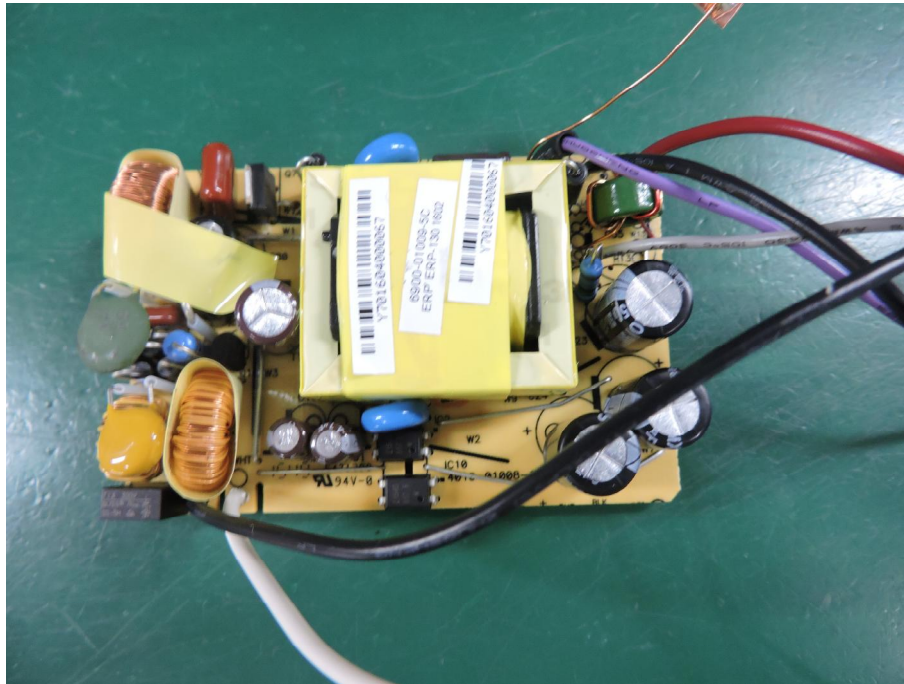


Picture 3

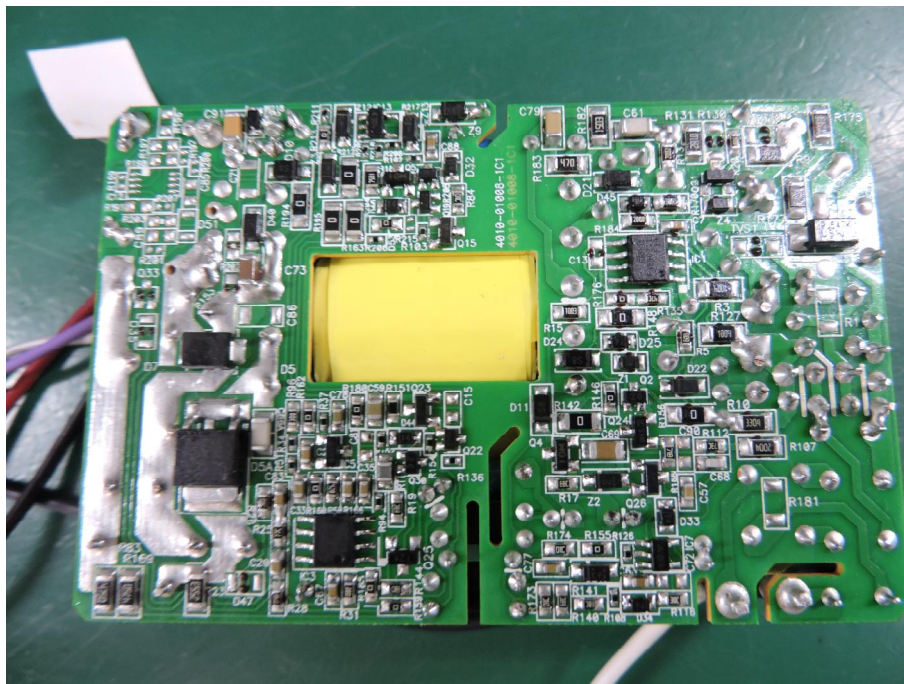


Picture 4





Picture 5



Picture 6

-----End of test report-----