TEST REPORT

Product Name	:	Sandwich maker
Model Number	:	See the APPENDIX II of model list1&2

Prepared for	:	YIWU FENGTONG ELECTRIC APPLIANCE CO., LTD.
Address	:	Room 2407, Block A, Futian Building, Finance 6 Street, Financial Business District, Futian Street, Yiwu City, Zhejiang Province, China
Prepared by	:	EMTEK (NINGBO) CO., LTD.
Address	:	No. 8, Building 8, Lane 216, Qingyi Road, Hi-Tech Zone, Ningbo, Zhejiang, China Tel: +86-574-27907998 Fax: +86-574-27721538

Report Number	:	ENB2312130139E00101R
Date(s) of Tests	:	August 30, 2023 to September 08, 2023
Date of issue	:	December 26, 2023

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Test Report Description Page

TEST REPORT DESCRIPTION

Applicant	:	YIWU FENGTONG ELECTRIC APPLIANCE CO., LTD.
Manufacturer	:	YIWU FENGTONG ELECTRIC APPLIANCE CO., LTD.
Trade Mark	:	N/A
EUT	:	Sandwich maker
Model No.	:	See the APPENDIX II of model list1&2
Power Supply	:	AC 220-240V, 50/60Hz

Measurement Procedure Used:

EN IEC 55014-1:2021
EN IEC 61000-3-2:2019+A1:2021
EN 61000-3-3:2013/A2:2021/AC:2022-01
EN IEC 55014-2:2021
(IEC 61000-4-2:2008, IEC 61000-4-3:2020, IEC 61000-4-4:2012, IEC 61000-4-5:2014/AMD1:2017, IEC 61000-4-6:2013, IEC 61000-4-11:2020)

The device described above is tested by EMTEK (NINGBO) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK (NINGBO) CO., LTD. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the EN IEC 55014-1, EN IEC 61000-3-2, EN 61000-3-3 and EN IEC 55014-2 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK (NINGBO) CO., LTD.

Date of Test : August 30, 2023 to September 08, 2023

Prepared by : June Gao/Engineer

Reviewer : Ade Wang/Supervisor

Approved & Authorized Signer : Tony Wei/Manager

Modified History

Version	Report No.	Revision date	Summary
	ENB2312130139E00101R	/	See Note 1

Note 1: This report is issued on the basis of report No. ENB2308300021E00101R. Models R.200, R.201, R.202, R.204, R.206, R.207, R.211, R.211B, R.212, R.214, R.218, R.220, R.222, R.223, R.225, R.226, R.228, R.229, R.230, R.231, R.232, R.233, R.234, R.235, R.237, R.239, R.241, R.242, R.243, R.245, R.246, R.247, R.249, R.251, R.254, R.256, R.260, R.261, R.264, R.274, R.284, R.500, R.509, R.510, R.512, R.513, R.514, R.515, R.516, R.518, R.519, R.520, R.521, R.522, R.523, R.524, R.525, R.526, R.529, R.530, R.531, R.532, R.533, R.536, R.543, R.545, R.546, R.547, R.548, R.556, R.557, R.562, R.563, R.565, R.567, R.572, R.580, R.581, R.582, R.583, R.584, R.585, R.586, R.587, R.588, R.591, R.592, R.594, R.595, R.596, R.610, R.803, R.2200, R.2201, R.2205, R.2206, R.2208, R.2209, R.2210, R.2211, R.2212, R.2213, R.2214, R.2215, R.2216, R.2217, R.2218, R.2219, R.2220, R.2221, R.2223, R.2224, R.2225, R.2226, R.2290, R.2507, R.205, R.216, R.219, R.221, R.227, R.248, R.250, R.252, R.253, R.257, R.258, R.259, R.2000, R.2005, R.2006, R.2007, R.2008, R.2009, R.2010, R.2011, R.2012, R.2013, R.2014, R.2015, R.2016, R.2017, R.2018, R.2019, R.2020, R.2021, R.2022, R.2023, R.2024, R.2025, R.2026, R.2027, R.2028, R.2029, R.2030, R.2031, R.2032, R.2033, R.2034, R.2035, R.2036, R.2037, R.2038, R.2039, R.2040, R.2041, R.2042, R.2043, R.2044, R.2045, R.2046, R.2047, R.2048, R.2049, R.2050, R.2051, R.2052, R.2053, R.2054, R.2055, R.2056, R.2057, R.2058, R.2059, R.2060, R.2061, R.2062, R.2063, R.2064, R.2065, R.2066, R.2067, R.2068, R.2069, R.2070, R.2071, R.2072, R.2073, R.2074, R.2075, R.2076, R.2077, R.2078, R.2079, R.2080, R.2081, R.2082, R.2083, R.2084, R.2085, R.2086, R.2087, R.2088, R.2089, R.2090, R.2091, R.2092, R.2093, R.2094, R.2095, R.2096, R.2097, R.2098, R.2099, R.2202, R.2203, R.2204, R.2227, R.2228, R.2229, R.2230, R.2231, R.2232, R.2233, R.2234, R.2235, R.2236, R.2237, R.2238, R.2239, R.2240, R.2241, R.2242, R.2243, R.2244, R.2245, R.2246, R.2247, R.2248, R.2249, R.2250, R.2251, R.2252, R.2253, R.2254, R.2255, R.2256, R.2257, R.2258, R.2259, R.2260, R.2261, R.2262, R.2263, R.2264, R.2265, R.2266, R.2267, R.2268, R.2269, R.2270, R.2271, R.2272, R.2273, R.2274, R.2275, R.2276, R.2277, R.2278, R.2279, R.2280, R.2281, R.2282, R.2283, R.2284, R.2285, R.2286, R.2287, R.2288, R.2289, R.2291, R.2292, R.2293, R.2294, R.2295, R.2296, R.2297, R.2298, R.2299, R.2500, R.2501, R.2502, R.2503, R.2504, R.2505, R.2506, R.2508, R.2509, R.2510, R.2511, R.2512, R.2513, R.2514, R.2515, R.2516, R.2517, R.2518, R.2519, R.2520, R.2521, R.2522, R.2523, R.2524, R.2525, R.2526, R.2527, R.2528, R.2529, R.2530, R.2531, R.2532, R.2533, R.2534, R.2535, R.2536, R.2537, R.2538, R.2539, R.2540, R.2541, R.2542, R.2543, R.2544, R.2545, R.2546, R.2547, R.2548, R.2549, R.2550, R.2551, R.2552, R.2553, R.2554, R.2555, R.2556, R.2557, R.2558, R.2559, R.2560, R.2561, R.2562, R.2563, R.2564, R.2565, R.2566, R.2567, R.2568, R.2569, R.2570, R.2571, R.2572, R.2573, R.2574, R.2575, R.2576, R.2577, R.2578, R.2579, R.2580, R.2581, R.2582, R.2583, R.2584, R.2585, R.2586, R.2587, R.2588, R.2589, R.2590, R.2591, R.2592, R.2593, R.2594, R.2595, R.2596, R.2597, R.2598, R.2599, R.203, R.209, R.210, R.210B, R.213, R.217, R.224, R.236, R.2689, R.2690, R.2691, R.540, R.541, R.549, R.550, R.551, R.552, R.553, R.555, R.571, R.573, R.575, R.576, R.577, R.579, R.589, R.590, R.593, R.666 are added.

1. SUMMARY OF TEST RESULT

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted Emissions at General Mains port	EN IEC 55014-1:2021	Table 5	Pass
Conducted Emissions at Mains Port for Motor Operated Tools	EN IEC 55014-1:2021	Table 6	N/A
Conducted Emissions at Mains Port for the AC Mains Port of Equipment With Active IPT Functions	EN IEC 55014-1:2021	Table 2	N/A
Conducted Emissions at Auxiliary Ports	EN IEC 55014-1:2021	Table 5	N/A
Click	EN IEC 55014-1:2021	Section 4.4.2	N/A
Disturbance Power	EN IEC 55014-1:2021	Table 7&8	Pass
Magnetic Field Strength at Equipment With Active IPT Functions	EN IEC 55014-1:2021	Table 4	N/A
Magnetic Field Induced Current at Equipment With Active IPT Functions	EN IEC 55014-1:2021	Table 3	N/A
Radiated Emission Up to 1 GHz	EN IEC 55014-1:2021	Table 9	N/A
Radiated Emission Above 1 GHz	EN IEC 55014-1:2021	Table 11	N/A
Harmonic Current Emission	EN IEC 61000-3-2:2019+A1:2021	Class A	Pass
Voltage Fluctuation And Flicker	EN 61000-3-3:2013/A2:2021/AC:2022-01	Section 5	Pass

IMMUNITY (EN IEC 55014-2:2021, Category I)				
Description of Test Item		Basic Standard	Performance Criteria	Results
Electrostatic Discharge	Enclosure ports	IEC 61000-4-2:2008	B	N/A
Radio frequency electromagnetic fields	Enclosure ports	IEC 61000-4-3:2020	A	N/A
Electrical Fast Transient / Burst	Signal ports, control ports and wired network ports	IEC 61000-4-4:2012	B	N/A
	Input and output DC power ports			N/A
	Input and output AC power ports			N/A
Surge	Input AC power ports	IEC 61000-4-5:2014/AMD 1:2017	B	N/A
	wired network ports			N/A
Injected Current Susceptibility	Signal ports, control ports and wired network ports	IEC 61000-4-6:2013	A	N/A
	Input and output DC power ports			N/A
	Input and output AC power ports			N/A
Voltage Dips	Input AC power ports	IEC 61000-4-11:2020	C	N/A
Note: N/A is an abbreviation for Not Applicable.				

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	:	Sandwich maker
Model Number	:	See the APPENDIX II of model list1&2 (Note: All models are the same except the appearance and the model name, we prepared model R.215 for EMC test.)
Test Voltage	:	AC 230V/50Hz
Highest Frequency	:	Below 15 MHz
Sample number	:	ENB2308300021E001-1-1
Applicant	:	YIWU FENGTONG ELECTRIC APPLIANCE CO., LTD.
Address	:	Room 2407, Block A, Futian Building, Finance 6 Street, Financial Business District, Futian Street, Yiwu City, Zhejiang Province, China
Manufacturer	:	YIWU FENGTONG ELECTRIC APPLIANCE CO., LTD.
Address	:	Room 2407, Block A, Futian Building, Finance 6 Street, Financial Business District, Futian Street, Yiwu City, Zhejiang Province, China
Date of Received	:	August 30, 2023
Date of Test	:	August 30, 2023 to September 08, 2023

2.2. Input / Output Ports

Port #	Name	Type*	Cable Max. >3m	Cable Shielded	Comments
1	Enclosure	N/E	--	--	None
2	AC Mains	AC	No	Unshielded	None

*Note: Use abbreviations:
AC= AC Power port
DC= DC Power port
N/E= Non-Electrical
A/D=Analogue/digital data port (signal/control port, antenna port, wired network port, broadcast receiver tuner port, optical fibre port)

2.3. Independent Operation Modes

A. Heating

2.4. Test Voltage and Frequency for EN IEC 55014-1& EN IEC 55014-2

During the tests, the EUT shall be operated at the rated voltage specified for the equipment.
For single-phase equipment with a rated voltage range in the range between:

- 100 V to 127 V, test at one nominal voltage within this range;
- 200 V to 240 V, test at one nominal voltage within this range;
- 100 V to 240 V, test at two voltages within this range, one test in the range 100 V to127 V and another test in the range 200 V to 240 V.

The recommended test voltages are 120 V for the range 100 V to 127 V; and 230 V for the range 200 V to 240 V.
Note: The nominal voltages of mains supply networks are 100 V, 110 V, 115 V, 120 V, 127 V, 200 V, 208 V, 220V, 230 V and 240 V.

During the tests the EUT shall be operated at the rated frequency specified for the equipment.
If the equipment has more than one rated frequency (e.g. 50 Hz to 60 Hz), then the EUT shall be tested at one of these frequencies only.
If the equipment has a rated frequency range (e.g. 50 Hz to 60 Hz), then the EUT shall be tested at one frequency within this range

We prepared AC 230V/50Hz voltage for AC Mains equipment test.

2.5. Test Manner

Test Items	Test Voltage	Operation Modes	Worst case
Conducted Emissions at General Mains port	AC 230V/50Hz	Mode A	Mode A
Disturbance Power	AC 230V/50Hz	Mode A	Mode A
Harmonic Current Emission	AC 230V/50Hz	Mode A	Mode A
Voltage Fluctuation And Flicker	AC 230V/50Hz	Mode A	Mode A

2.6. Description of Test Facility

Site Description

EMC Lab. : **Accredited by CNAS**
The Certificate Registration Number is L6666.
The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2018 (identical to ISO/IEC 17025:2017)

Designation by FCC
Designation Number: CN1354
Test Firm Registration Number: 427606

Accredited by A2LA
The Certificate Number is 4321.03.
The certificate isvalid until May 31, 2025

Designation by Industry Canada
The Conformity Assessment Body Identifier is CN0114

Name of Firm : EMTEK (NINGBO) CO., LTD.
Site Location : No. 8, Building 8, Lane 216, Qingyi Road, Hi-Tech Zone, Ningbo, Zhejiang, China

2.7. Support Device

N/A

2.8. Test Software

Item		Software
Conducted Emission	:	JSDEMC-EMI(V 3.3)
Disturbance Power	:	JSDEMC-EMI(V 3.3)

2.9. Measurement Uncertainty

Test Item		Uncertainty
Conducted Emission Uncertainty	:	2.08dB (9 k-150 kHz) 2.40dB (150 k-30 MHz)
Power Clamp Uncertainty	:	4.34dB
Uncertainty for Harmonic test	:	4.16% mA
Uncertainty for Flicker test	:	0.43% V

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Conducted Emissions at Mains Measurement

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-002	EMI Test Receiver	R & S	ESCI	101107	July 06, 2023	1 Year
ENE-003	L.I.S.N	R & S	ENV216	101193	July 06, 2023	1 Year
ENE-162-1	RF Cable	TIMES	2M(N-N)	605236-0001	May 31, 2023	1 Year
ENE-150	Conduction Test Room 2#	SKET	6.5*5*4m	/	Apr 17, 2023	3 Year

3.2. For Disturbance Power Measurement

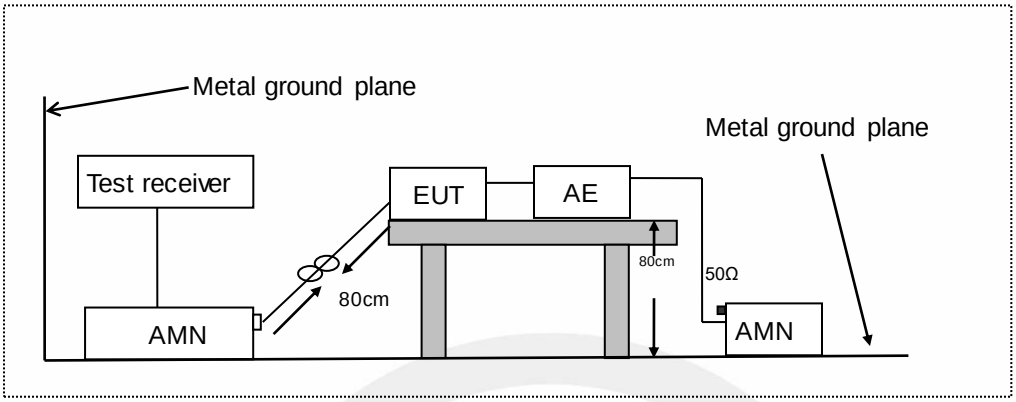
Equ. No	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-001	EMI Test Receiver	R & S	ESCI	101108	Dec 29, 2022	1 Year
ENE-007	Absorbing Clamp	R & S	MDS21	100397	July 06, 2023	1 Year
ENE-008	Coaxial attenuator	R & S	MDS21	100397	July 06, 2023	1 Year
ENE-278	RF Switching Unit	HTEC	HRSU	222101	Aug 22, 2022	1 Year
ENE-165-2	RF Cable	TIMES	10M（N-N）	605239-0003	May 31, 2023	1 Year
ENE-162-2	RF Cable	TIMES	2M(N-N)	605236-0002	May 31, 2023	1 Year
ENE-149	Conduction Test Room 1#	SKET	11.5*5*4m	/	Dec 17, 2021	3 Year

3.3. For Harmonic Current / Voltage Fluctuation And Flicker Measurement

Equ. No	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-157	Harmonic/ flicker analyzer	PACIFIC	ECTS2-3300Z-M18012	550128	Nov 18, 2022	1 Year
ENE-157-1	AC Power source	PACIFIC	330AZX-CE	140250014	Nov 18, 2022	1 Year

4. CONDUCTED EMISSIONS AT MAINS MEASUREMENT

4.1. Block Diagram of Test Setup



AMN: Artificial mains network
AE: Associated equipment
EUT: Equipment under test

4.2. Measurement Standard

EN IEC 55014-1:2021

4.3. Measurement Limits

☒General Mains port

Frequency range MHz	Quasi-peak dBuV	Average dBuV
0.15 to 0.50	66 to 56*	59 to 46*
0.50 to 5	56	46
5 to 30	60	50
The lower limit applies at the transition frequencies. *: Decreasing linearly with logarithm of frequency from		

☐Motor Operated Tools

Frequency range	☐P≤700W		☐700W＜P≤1000W		☐P＞1000W	
MHz	Quasi-peak dBuV	Average dBuV	Quasi-peak dBuV	Average dBuV	Quasi-peak dBuV	Average dBuV
0.15 to 0.35	66 to 59*	59 to 49*	70 to 63*	63 to 53*	76 to 69*	69 to 59*
0.35 to 5	59	49	63	53	69	59
5 to 30	64	54	68	58	74	64
The lower limit applies at the transition frequencies. *: Decreasing linearly with logarithm of frequency from Key: P = rated power of the motor only.						

☐AC Mains Port of Equipment With Active IPT Functions

Frequency range	☐Appliances which are 100 V rated and without ban earth connection		☐All other appliances	
MHz	dBuV Quasi-peak	dBuV Average	dBuV Quasi-peak	dBuV Average
0,009 to 0,050	122	-	110	-
0.050 to 0.150	102 to 92*	-	90 to 80*	-
0.150 to 0.5	72 to 62*	62 to 52*	66 to 56*	56 to 46*
0,5 to 5	56	46	56	46
5 to 30	60	50	60	50
The lower limit applies at the transition frequencies. *: Decreasing linearly with logarithm of frequency from				

4.4. Test Procedure

The EUT was placed on a desk 0.8 m height from the metal ground plane and 0.4 m from the conducting wall of the shielding room and it was kept at least 0.8 m from any other grounded conducting surface. The size of the table will nominally be 1.5 m x1.0 m.

The rear of the arrangement shall be flush with the back of the supporting tabletop unless that would not be possible or typical of normal use.

All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units.

Connect EUT to the power mains through a artificial mains network (AMN). Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

All the support units are connecting to the other AMN.
The AMN provides 50 ohm coupling impedance for the measuring instrument.
The CISPR states that the AMN with 50 ohm and 50 microhenry should be used.
Both sides of AC line were checked for maximum conducted interference.

For frequency band 9 kHz to 150 kHz, the bandwidth of the test receiver is set at 200 Hz. For frequency band 150 kHz to 30 MHz, the bandwidth is set at 9 kHz. The frequency range from 9 kHz or 150 kHz to 30 MHz is investigated.

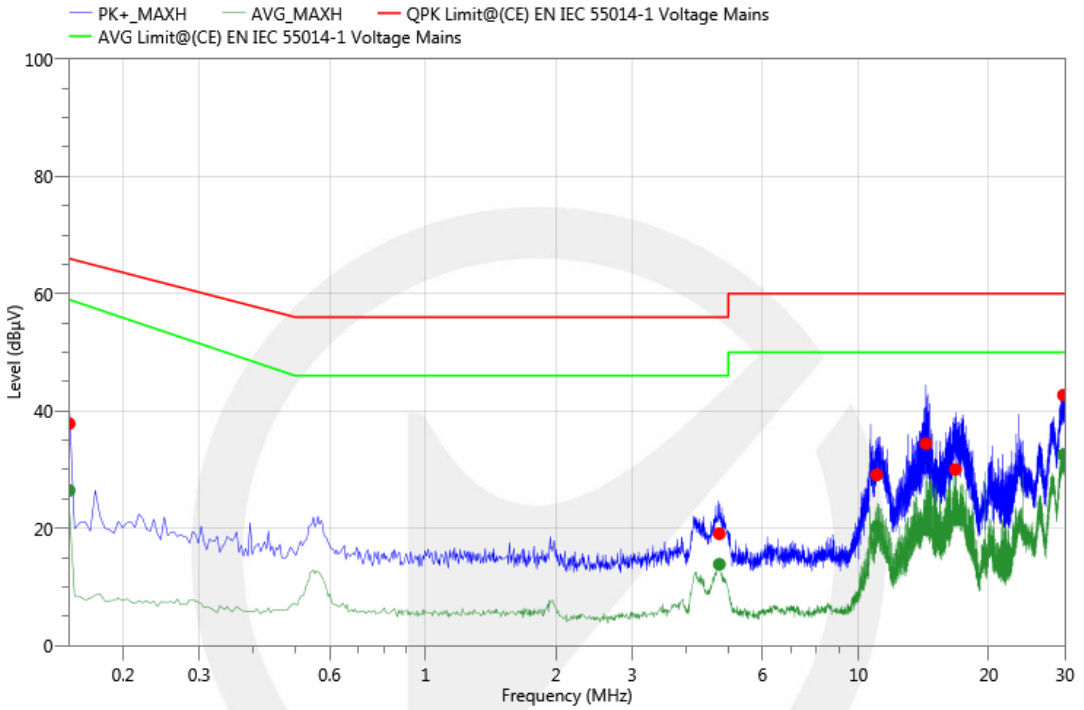
Set the test-receiver system to quasi peak detect function and average detect function, and to measure the conducted emissions values.

4.5. Measuring Results

Pass.

Please refer to the following pages.

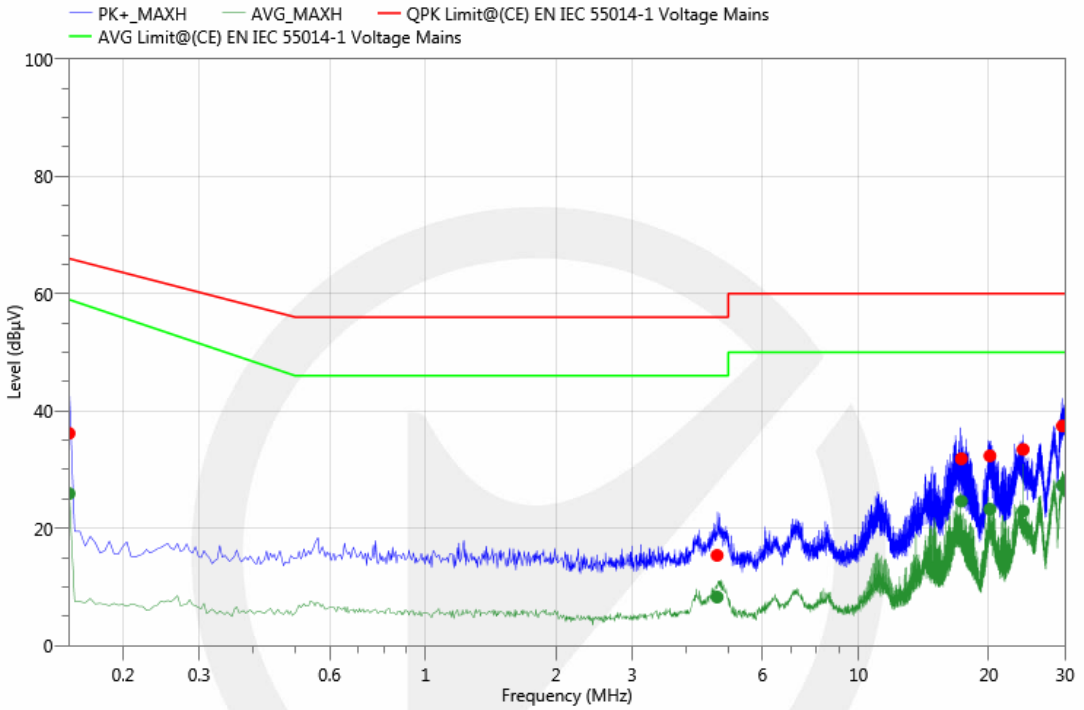
Project Information			
Model：	R.215	Mode：	Heating
Voltage：	AC 230V/50Hz	Temp：	24℃
Humi：	63%	Engineer：	Kerwin Guo



Final Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Corr. (dB)	Verdict
1	0.150	37.72	37.84	66.00	28.16	QPK	L1	GND	9.12	Pass
2	0.150	26.32	26.44	59.00	32.56	AVG	L1	GND	9.12	Pass
3	4.768	18.46	19.07	56.00	36.93	QPK	L1	GND	9.61	Pass
4	4.768	13.24	13.85	46.00	32.15	AVG	L1	GND	9.61	Pass
5	11.025	28.41	29.10	60.00	30.90	QPK	L1	GND	9.69	Pass
6	11.025	19.52	20.21	50.00	29.79	AVG	L1	GND	9.69	Pass
7	14.312	33.80	34.43	60.00	25.57	QPK	L1	GND	9.63	Pass
8	14.312	19.07	19.70	50.00	30.30	AVG	L1	GND	9.63	Pass
9	16.743	29.33	30.02	60.00	29.98	QPK	L1	GND	9.69	Pass
10	16.743	20.70	21.39	50.00	28.61	AVG	L1	GND	9.69	Pass
11	29.751	41.25	42.71	60.00	17.29	QPK	L1	GND	10.46	Pass
12	29.751	31.08	32.54	50.00	17.46	AVG	L1	GND	10.46	Pass

Project Information			
Model：	R.215	Mode：	Heating
Voltage：	AC 230V/50Hz	Temp：	24℃
Humi：	63%	Engineer：	Kerwin Guo

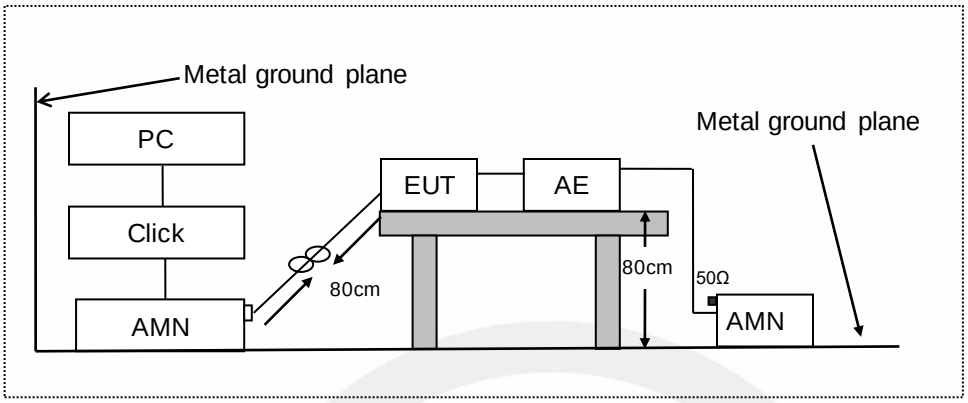


Final Result (Margin=Limit-Meas.(Reading +Corr.))

No.	Freq. (MHz)	Reading (dBµV)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Corr. (dB)	Verdict
1	0.150	36.02	36.19	66.00	29.81	QPK	N	GND	9.17	Pass
2	0.150	25.74	25.91	59.00	33.09	AVG	N	GND	9.17	Pass
3	4.712	14.81	15.37	56.00	40.63	QPK	N	GND	9.56	Pass
4	4.712	7.70	8.26	46.00	37.74	AVG	N	GND	9.56	Pass
5	17.281	31.16	31.85	60.00	28.15	QPK	N	GND	9.69	Pass
6	17.281	23.92	24.61	50.00	25.39	AVG	N	GND	9.69	Pass
7	20.115	31.52	32.35	60.00	27.65	QPK	N	GND	9.83	Pass
8	20.115	22.41	23.24	50.00	26.76	AVG	N	GND	9.83	Pass
9	24.002	32.40	33.43	60.00	26.57	QPK	N	GND	10.03	Pass
10	24.002	21.89	22.92	50.00	27.08	AVG	N	GND	10.03	Pass
11	29.585	36.10	37.44	60.00	22.56	QPK	N	GND	10.34	Pass
12	29.585	25.99	27.33	50.00	22.67	AVG	N	GND	10.34	Pass

5. CLICKS MEASUREMENT

5.1. Block Diagram of Test Setup



AMN: Artificial mains network
AE: Associated equipment
EUT: Equipment under test
Click: Click Switching Operation Box and Click Meter

5.2. Measurement Standard

EN IEC 55014-1:2021

5.3. Measurement Limits

According to Clause 4.4.2 of standard EN IEC 55014-1.

5.4. Test Procedure

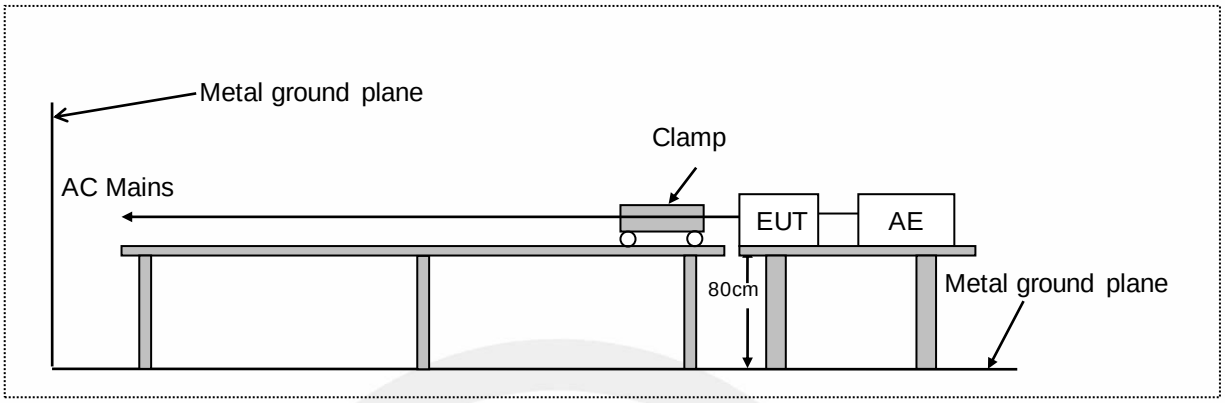
This test is done when switch operations in thermostatically controlled appliances, automatic program controlled machines and other electrically controlled or operated appliances may generate discontinuous disturbance (Click). The measurement of disturbance shall be performed at the following restricted number of frequencies: 150 kHz, 500 kHz, 1.4 MHz and 30 MHz. At each frequency, for appliances, which stop automatically, duration of the minimum number of complete programs necessary to produce 40 counted clicks or, where relevant, 40 counted clicks have not been produced, the test is stopped at the end of the program in course. The relevant click rate N. The appliance under test shall be deemed to comply with the limit if not more than a quarter of the number of the counted click registered during the observation time.

5.5. Test Result

N/A.

6. DISTURBANCE POWER MEASUREMENT

6.1. Block Diagram of Test Setup



6.2. Measurement Standard

EN IEC 55014-1:2021

6.3. Measurement Limits

All emanations from devices or system shall not exceed the level of field strengths specified below:

6.3.1.Limits (Table 7 of standard EN IEC 55014-1)

Frequency range	☒General		Tools					
			☐P≤700W		☐700W＜P≤1000W		☐P＞1000W	
MHz	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW
30 to 300	45 to 55*	35 to 45*	45 to 55*	35 to 45*	49 to 59*	39 to 49*	55 to 65*	45 to 55*
The lower limit applies at the transition frequencies. *: Decreasing linearly with logarithm of frequency from Key: P = rated power of the motor only.								

6.3.2.Margin when performing disturbance power measurement (Table 8 of standard EN IEC 55014-1)

Frequency range	☒General		Tools					
			☐P≤700W		☐700W＜P≤1000W		☐P＞1000W	
MHz	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW
30 to 300	0 to 10*	0	0 to 10*	0	0 to 10*	0	0 to 10*	0
The lower limit applies at the transition frequencies. *: Decreasing linearly with logarithm of frequency from Key: P = rated power of the motor only. Note: This table only applies if method a) specified in 4.3.4.2 is followed.								

6.4. Test Procedure

The EUT are placed on an insulating support 0.8 m high above a ground reference plane and away from other metallic surface at least 0.8m. It is connected to the power mains through an extension cord of 6m min. The absorber clamp clamps the cord and moves from the far end to the EUT to measure the disturbing energy emitted from the cord.

The bandwidth of the receiver is set at 120 kHz in 30 MHz to 300 MHz. The frequency range from 30 MHz to 300 MHz is investigated.

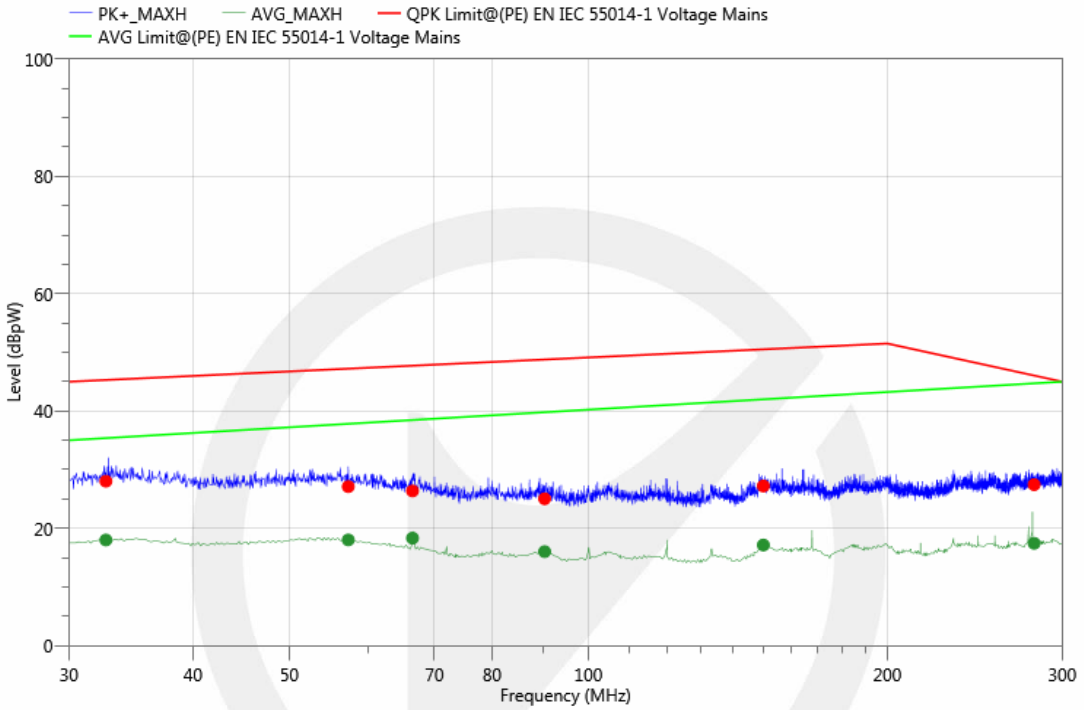
Test results were obtained from the following equation:
Measurement (dBμV) =Correct Factor (dB) + Reading (dBμV)
Over (dB) = Measurement (dBμV) - Limit (dBμV)

6.5. Test Results

Pass.

Please refer to the following pages.

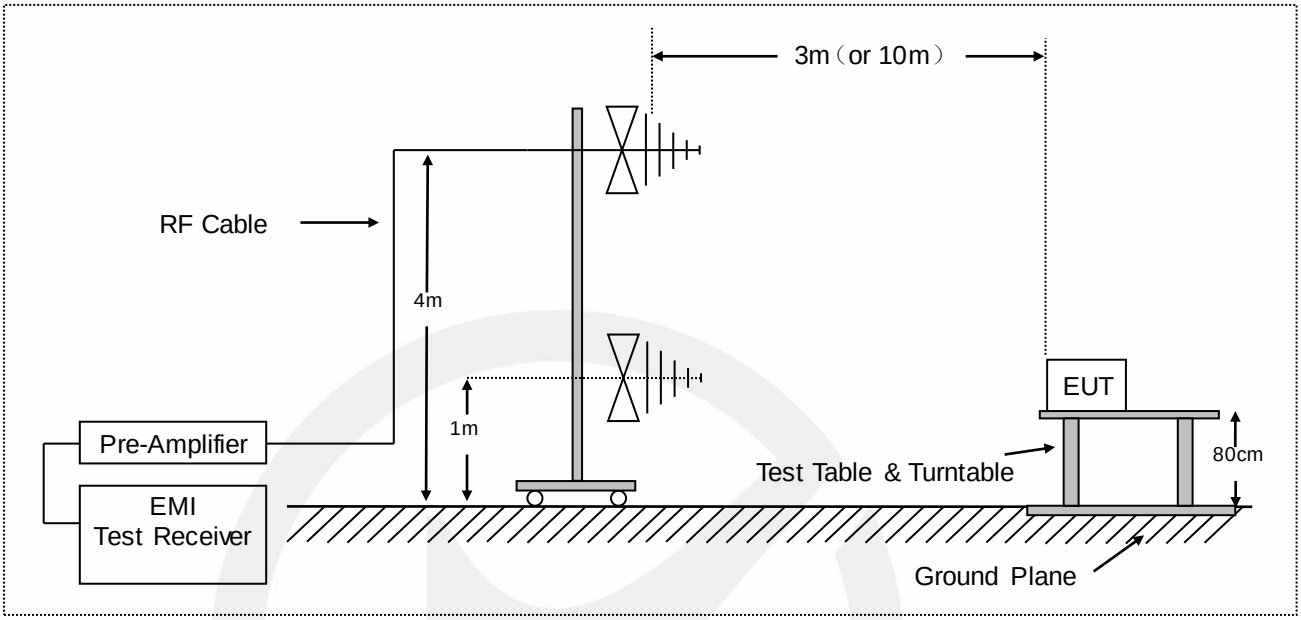
Project Information			
Model：	R.215	Mode：	Heating
Voltage：	AC 230V/50Hz	Engineer：	Kerwin Guo
Temp：	24℃	Humi：	72%



Final Result (Margin=Limit-Meas.(Reading +Corr.))								
No.	Freq. (MHz)	Reading (dBpW)	Meas. (dBpW)	Limit (dBpW)	Margin (dB)	Det.	Corr. (dB)	Verdict
1	32.680	17.77	28.02	45.29	17.27	QPK	10.25	Pass
2	32.680	7.75	18.00	35.37	17.37	AVG	10.25	Pass
3	57.320	16.84	27.09	47.22	20.13	QPK	10.25	Pass
4	57.320	7.76	18.01	37.81	19.80	AVG	10.25	Pass
5	66.520	17.36	26.36	47.73	21.37	QPK	9	Pass
6	66.520	9.31	18.31	38.46	20.15	AVG	9	Pass
7	90.360	16.49	25.02	48.78	23.76	QPK	8.53	Pass
8	90.360	7.48	16.01	39.79	23.78	AVG	8.53	Pass
9	150.040	18.26	27.20	50.52	23.32	QPK	8.94	Pass
10	150.040	8.20	17.14	41.99	24.85	AVG	8.94	Pass
11	281.080	16.50	27.43	46.04	18.61	QPK	10.93	Pass
12	281.080	6.50	17.43	44.72	27.29	AVG	10.93	Pass

7. RADIATED EMISSION MEASUREMENT (UP TO 1GHz)

7.1. Block Diagram of Test Setup



7.2. Measuring Standard

EN IEC 55014-1:2021

7.3. Measurement Limits

Frequency range MHz	Measurement			Class B limits dB(μV/m)
	Facility	Distance (m)	Detector type / bandwidth	
30 to 230	OATS/SAC	10	Quasi Peak / 120 kHz	30
230 to 1 000				37
30 to 230	OATS/SAC	3		40
230 to 1 000				47

Note: (1) The lower limit is applies at the transition frequency.
(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

7.4. Test Procedure

The EUT is placed on a turntable which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters or 10 meters away from the receiving antenna that is mounted on an antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The bandwidth of the Receiver is set at 120 kHz. The frequency range from 30 MHz to 1000 MHz is investigated.

Test results were obtained from the following equation:
Measurement (dBμV) =Correct Factor (dB) + Reading (dBμV)
Over (dB) = Measurement (dBμV) - Limit (dBμV)

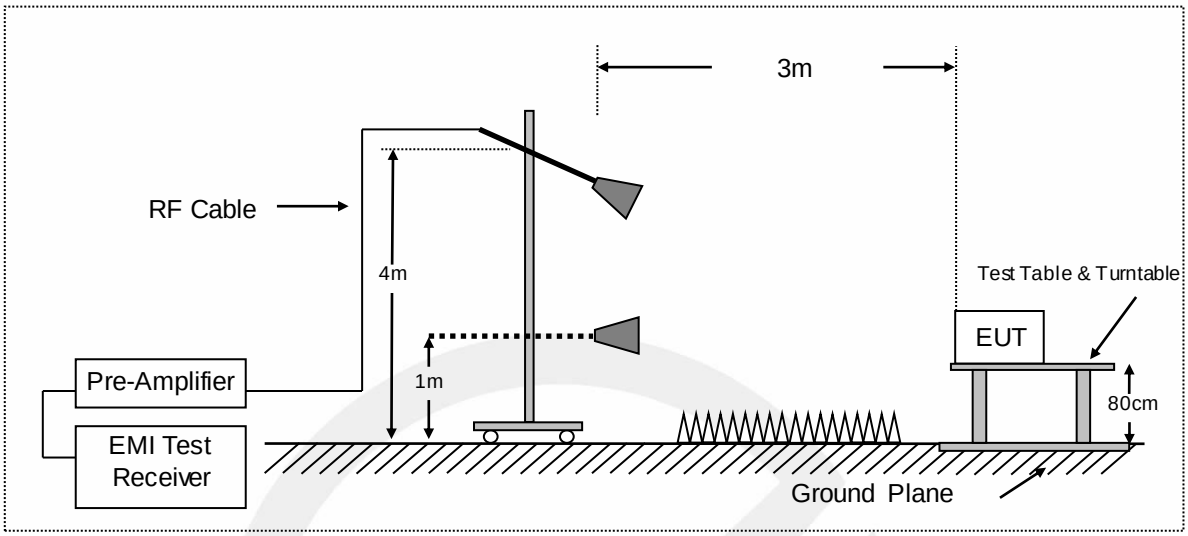
7.5. Measuring Results

N/A.

For the test data of disturbance power is lower than the applicable limits (Table 7) reduced by the margin (Table 8), and the maximum clock frequency is less than 30 MHz, so the radiated measurements in the frequency range from 300 MHz to 1000 MHz is unnecessary to test.

8. RADIATED EMISSION MEASUREMENT (ABOVE 1GHz)

8.1. Block Diagram of Test Setup



8.2. Measuring Standard

EN IEC 55014-1:2021

8.3. Measurement Limits

Test methods Site validation	Frequency range MHz	Limit a dB(μV/m)	Detector / RBW	Measurement distance (m)
FSOATS [b] FAR	1 000 to 3 000	50	Average 1 MHz	3
	3 000 to 6 000	54		
	1 000 to 3 000	70	Peak 1 MHz	
	3 000 to 6 000	74		

a The limits are applied across the frequency range from 1 000 MHz to the required highest frequency of measurement derived from Table 10.

b A FSOATS may be a SAC/OATS with RF absorbers on the RGP.

When using a spectrum analyser the VBW shall be 1 MHz or higher. The recommended VBW is 3 MHz.

8.4. Test Procedure

The EUT was placed on a non-conductive table whose total height equaled 80cm. All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units. Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

The EUT was set 3 meters away from the receiving antenna that was mounted on a non-conductive mast. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level.

The turntable can rotate 360 degree to determine the position of the maximum emission level.

The initial testing identified the frequency that has the highest disturbance relative to the limit while operating the EUT in typical modes of operation and cable positions in a test setup representative of typical system configuration.

The identification of the frequency of highest emission with respect to the limit was found by investigating emissions at a number of significant frequencies. The probable frequency of maximum emission had been found and that the associated cable and EUT configuration and mode of operation had been identified.

The frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz.

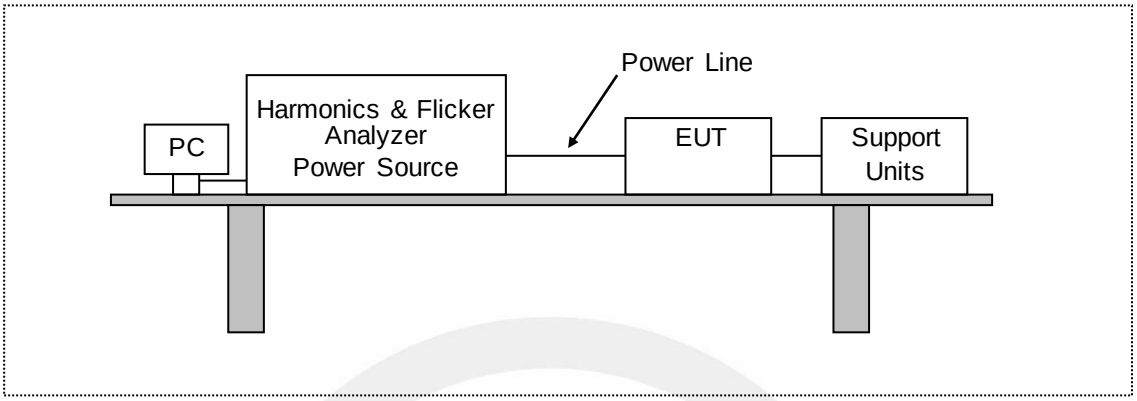
Test results were obtained from the following equation:
Measurement (dBμV) =Correct Factor (dB) + Reading (dBμV)
Over (dB) = Measurement (dBμV) - Limit (dBμV)

8.5. Measuring Results

N/A.

9. HARMONIC CURRENT EMISSION MEASUREMENT

9.1. Block Diagram of Test Setup



9.2. Measuring Standard

EN IEC 61000-3-2:2019+A1:2021, Class A

9.3. Measurement Limits

Table 1 - Limits for Class A equipment

Harmonic order n	Maximum permissible harmonic current (A)
Odd harmonics	
3	2.30
5	1.14
7	0.77
9	0.40
11	0.33
13	0.21
$15 \le n \le 39$	$0.15 \frac{0.15}{n}$
Even harmonics	
2	1.08
4	0.43
6	0.30
$8 \le n \le 40$	$0.23 \frac{8}{n}$

9.4. Test Procedure

The measurement of harmonic currents shall be performed as follows: i. For each harmonic order, measure the 1.5 s smoothed r.m.s. harmonic current in each DFT time window as defined in EN / IEC 61000-4-7:2009. ii. Calculate the arithmetic average of the measured values from the DFT time windows, over the entire observation period Short cyclic (T cycle≤2.5 min). Because of synchronisation to meet the requirements for repeatability in 5%.

9.5. Test Results

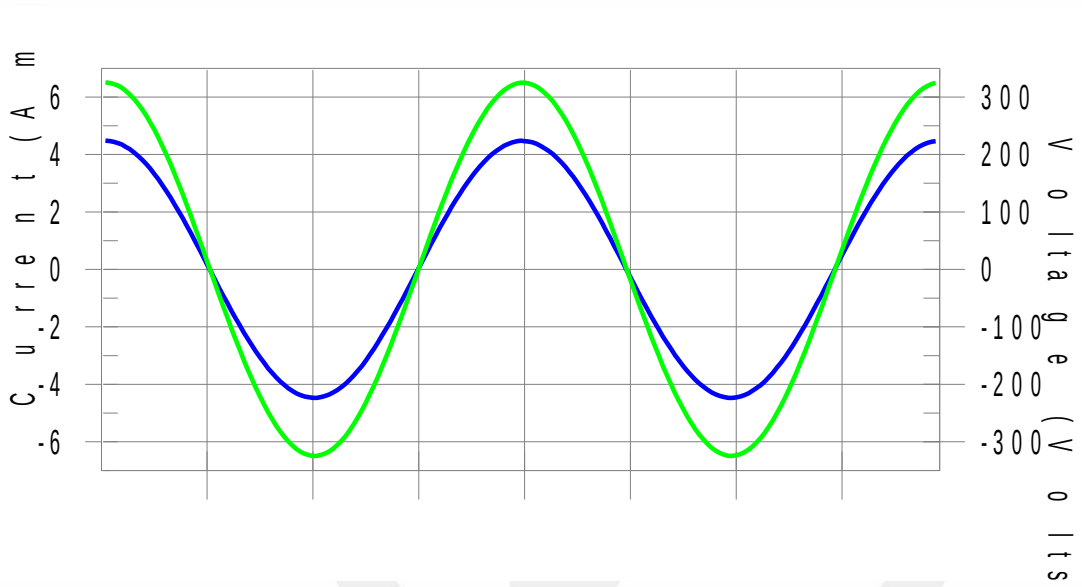
Pass.

Please refer to the following pages.

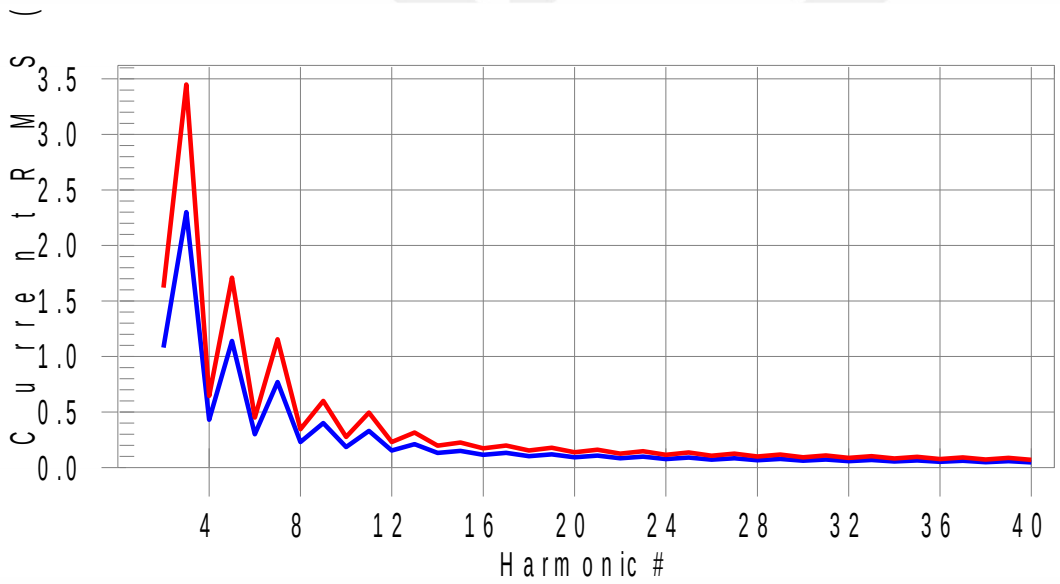
Harmonics – Class-A per IEC 61000-3-2(Run time)

EUT: Sandwich maker(R.215) **Tested by: Jo Liu**
Test category: Class-A (European limits) **Test Margin: 100**
Test date: 2023/8/31 **Start time: 10:17:34** **End time: 10:20:16**
Test duration (min): 2.5 **Data file name: H-000053.cts_data**
Comment: Heating
Customer: Customer information
Temp: 23℃
Humi: 67%
Test Result: Pass **Source qualification: Normal**
Reviewed By : Jade Zhang **2023.9.7**

Current & voltage waveforms



Harmonics and Class A limit line **European Limits**



Test result: Pass **Worst harmonics H3-0.4% of 150% limit, H3-.2% of 100% limit**

Current Test Result Summary (Run time)

EUT: Sandwich maker(R.215) **Tested by: Jo Liu**
Test category: Class-A (European limits) **Test Margin: 100**
Test date: 2023/8/31 **Start time: 10:17:34** **End time: 10:20:16**
Test duration (min): 2.5 **Data file name: H-000053.cts_data**
Comment: Heating
Customer: Customer information

Test Result: Pass **Source qualification: Normal**
THC(A): 0.006 **I-THD(%): 0.2** **POHC(A): 0.000** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	229.70	Frequency(Hz):	50.00
I_Peak (Amps):	4.494	I_RMS (Amps):	3.162
I_Fund (Amps):	3.161	Crest Factor:	4.680
Power (Watts):	726.0	Power Factor:	1.000

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	N/A	0.004	1.620	N/A	Pass
3	0.005	2.300	0.2	0.012	3.450	0.4	Pass
4	0.000	0.430	N/A	0.003	0.645	N/A	Pass
5	0.001	1.140	N/A	0.003	1.710	N/A	Pass
6	0.000	0.300	N/A	0.002	0.450	N/A	Pass
7	0.000	0.770	N/A	0.002	1.155	N/A	Pass
8	0.000	0.230	N/A	0.001	0.345	N/A	Pass
9	0.000	0.400	N/A	0.001	0.600	N/A	Pass
10	0.000	0.184	N/A	0.001	0.276	N/A	Pass
11	0.000	0.330	N/A	0.001	0.495	N/A	Pass
12	0.000	0.153	N/A	0.001	0.230	N/A	Pass
13	0.000	0.210	N/A	0.001	0.315	N/A	Pass
14	0.000	0.131	N/A	0.001	0.197	N/A	Pass
15	0.000	0.150	N/A	0.001	0.225	N/A	Pass
16	0.000	0.115	N/A	0.001	0.173	N/A	Pass
17	0.000	0.132	N/A	0.001	0.198	N/A	Pass
18	0.000	0.102	N/A	0.001	0.153	N/A	Pass
19	0.000	0.118	N/A	0.001	0.178	N/A	Pass
20	0.000	0.092	N/A	0.001	0.138	N/A	Pass
21	0.000	0.107	N/A	0.001	0.161	N/A	Pass
22	0.000	0.084	N/A	0.001	0.125	N/A	Pass
23	0.000	0.098	N/A	0.001	0.147	N/A	Pass
24	0.000	0.077	N/A	0.001	0.115	N/A	Pass
25	0.000	0.090	N/A	0.001	0.135	N/A	Pass
26	0.000	0.071	N/A	0.000	0.107	N/A	Pass
27	0.000	0.083	N/A	0.000	0.125	N/A	Pass
28	0.000	0.066	N/A	0.000	0.099	N/A	Pass
29	0.000	0.078	N/A	0.000	0.116	N/A	Pass
30	0.000	0.061	N/A	0.001	0.092	N/A	Pass
31	0.000	0.073	N/A	0.000	0.109	N/A	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.000	0.068	N/A	0.000	0.102	N/A	Pass
34	0.000	0.054	N/A	0.000	0.081	N/A	Pass
35	0.000	0.064	N/A	0.000	0.096	N/A	Pass
36	0.000	0.051	N/A	0.000	0.077	N/A	Pass
37	0.000	0.061	N/A	0.000	0.091	N/A	Pass
38	0.000	0.048	N/A	0.000	0.073	N/A	Pass
39	0.000	0.058	N/A	0.000	0.087	N/A	Pass
40	0.000	0.046	N/A	0.000	0.069	N/A	Pass

Voltage Source Verification Data (Run time)

EUT: Sandwich maker(R.215) **Tested by: Jo Liu**
Test category: Class-A (European limits) **Test Margin: 100**
Test date: 2023/8/31 **Start time: 10:17:34** **End time: 10:20:16**
Test duration (min): 2.5 **Data file name: H-000053.cts_data**
Comment: Heating
Customer: Customer information

Test Result: Pass **Source qualification: Normal**

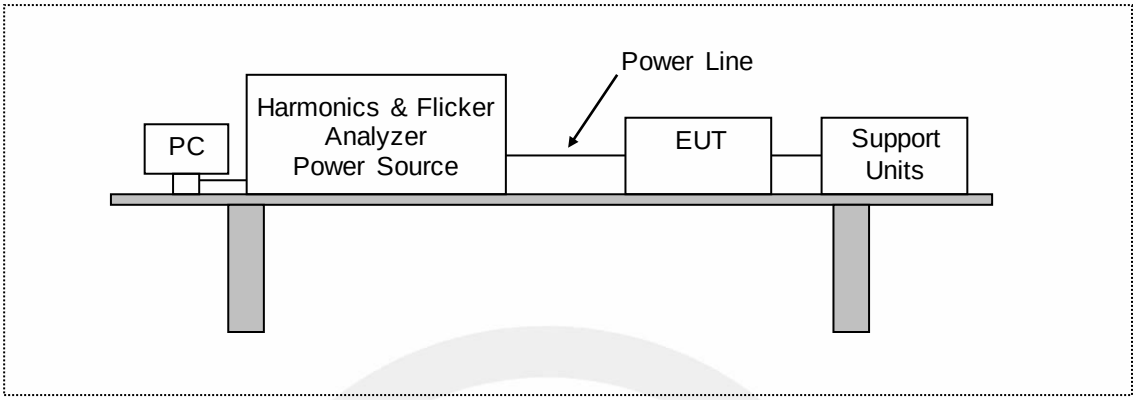
Highest parameter values during test:

Voltage (Vrms):	229.70	Frequency(Hz):	50.00
I_Peak (Amps):	4.494	I_RMS (Amps):	3.162
I_Fund (Amps):	3.161	Crest Factor:	4.680
Power (Watts):	726.0	Power Factor:	1.000

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	0.077	0.459	16.75	OK
3	0.691	2.067	33.45	OK
4	0.044	0.459	9.62	OK
5	0.077	0.918	8.40	OK
6	0.027	0.459	5.89	OK
7	0.037	0.689	5.40	OK
8	0.012	0.459	2.60	OK
9	0.045	0.459	9.84	OK
10	0.017	0.459	3.75	OK
11	0.019	0.230	8.41	OK
12	0.011	0.230	4.77	OK
13	0.012	0.230	5.19	OK
14	0.009	0.230	3.84	OK
15	0.012	0.230	5.24	OK
16	0.013	0.230	5.60	OK
17	0.009	0.230	3.83	OK
18	0.008	0.230	3.64	OK
19	0.008	0.230	3.31	OK
20	0.010	0.230	4.34	OK
21	0.006	0.230	2.66	OK
22	0.005	0.230	2.05	OK
23	0.004	0.230	1.94	OK
24	0.005	0.230	2.24	OK
25	0.010	0.230	4.56	OK
26	0.004	0.230	1.69	OK
27	0.011	0.230	4.69	OK
28	0.005	0.230	2.26	OK
29	0.005	0.230	2.04	OK
30	0.003	0.230	1.46	OK
31	0.005	0.230	2.02	OK
32	0.003	0.230	1.13	OK
33	0.003	0.230	1.24	OK
34	0.003	0.230	1.30	OK
35	0.003	0.230	1.30	OK
36	0.002	0.230	0.93	OK
37	0.003	0.230	1.52	OK
38	0.002	0.230	1.00	OK
39	0.004	0.230	1.53	OK
40	0.004	0.230	1.91	OK

10. VOLTAGE FLUCTUATION AND FLICKER MEASUREMENT

10.1. Block Diagram of Test Setup



10.2. Measuring Standard

EN 61000-3-3:2013/A2:2021/AC:2022-01

10.3. Measurement Limits

The objective of voltage changes, voltage fluctuations and flicker in public low voltage supply systems during equipment with rated current≤16 A per phase, ensures that home appliances and certain other electrical equipment do not adversely affect lighting equipment when connected to the same power system.

Voltage Fluctuation and Flicker Limits:

— the value of Pst shall not be greater than 1.0;
— the value of Plt shall not be greater than 0.65;
— the value of d(t) during a voltage change shall not exceed 3.3 % for more than 500 ms;
— the relative steady-state voltage change, dc, shall not exceed 3.3 %;
— the maximum relative voltage change, dmax, shall not exceed 4.0 %;

10.4. Test Procedure

The total impedance of the test circuit, excluding the appliance under test, but including the internal impedance of the supply source, shall be equal to the reference impedance. The stability and tolerance of the reference impedance shall be adequate to ensure that the overall accuracy of 8% is achieved during the whole assessment procedure.

10.5. Test Results

Pass.

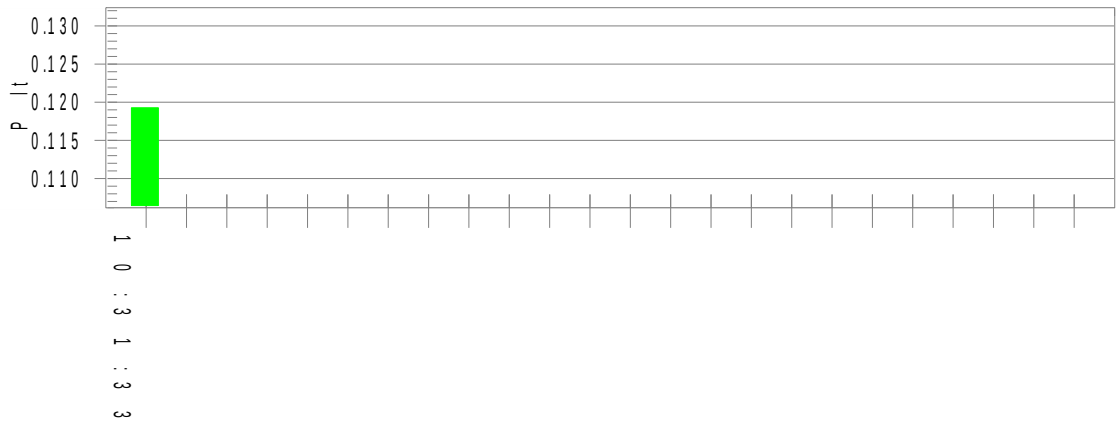
Please refer to the following page.

Flicker Test Summary per IEC61000-3-3(Run time)

EUT: Sandwich maker(R.215) **Tested by: Jo Liu**
Test category: dt,dmax,dc and Pst (European limits) **Test Margin: 100**
Test date: 2023/8/31 **Start time: 10:21:12** **End time: 10:31:39**
Test duration (min): 10 **Data file name: F-000054.cts_data**
Comment: Heating
Customer: Customer information
Temp: **23℃**
Humi: **67%**
Test Result: Pass **Status: Test Completed**
Reviewed By : Jade Zhang **2023.9.7**

Pst_i and limit line **European Limits**

Plt and limit line



Parameter values recorded during the test:

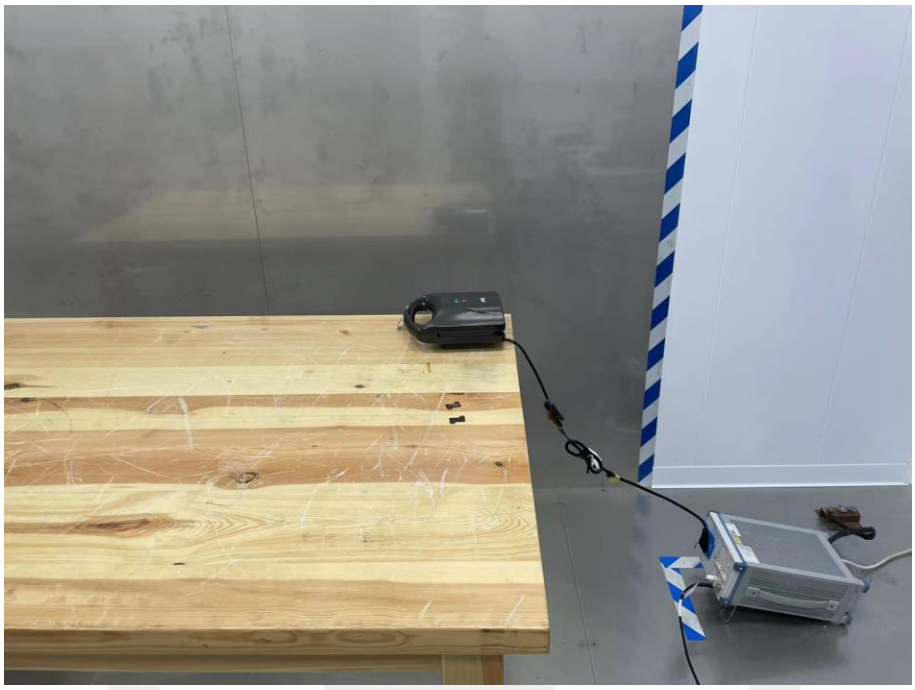
Vrms at the end of test (Volt):	**229.57**			
Highest dt (%):		**Test limit (%):**		
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.63**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.65**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.273**	**Test limit:**	**1.000**	**Pass**

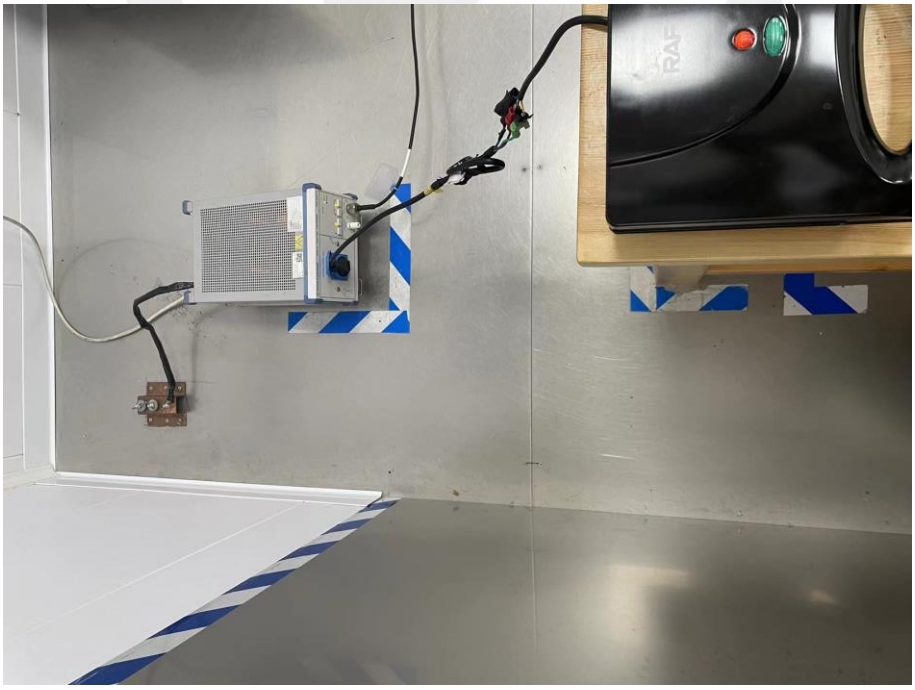
11.IMMUNITY PERFORMANCE CRITERIA DESCRIPTION

In accordance with the specification of EN IEC 55014-2, the EUT does not contain any active electronic component and belongs to Category I appliance, which is deemed to fulfill the immunity requirements without testing.

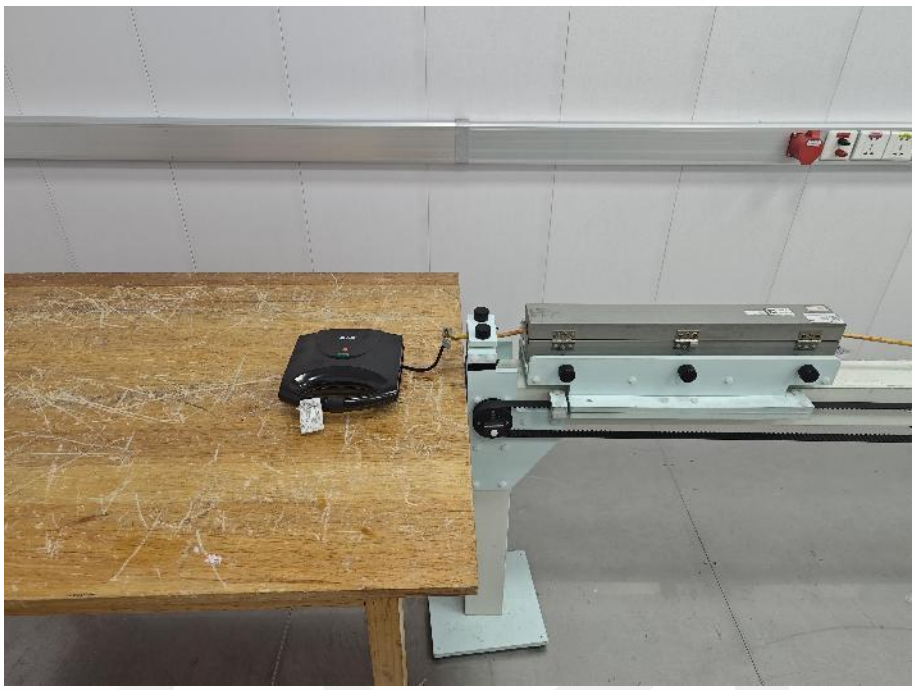
12.PHOTOGRAPH OF TEST

12.1.Photo of Conducted Emission at Mains Measurement





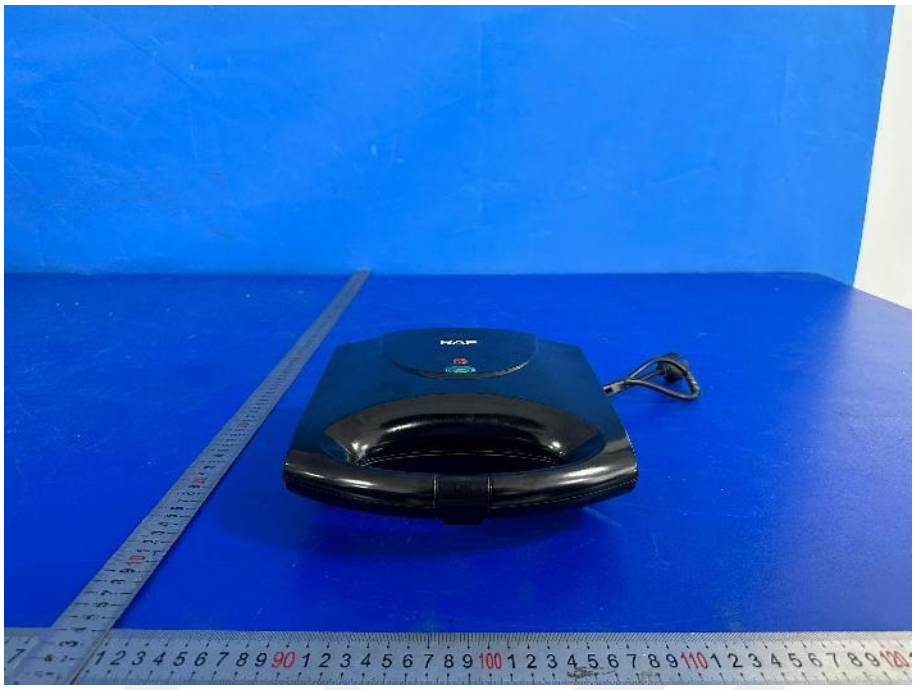
12.2. Photo of Disturbance Power Measurement

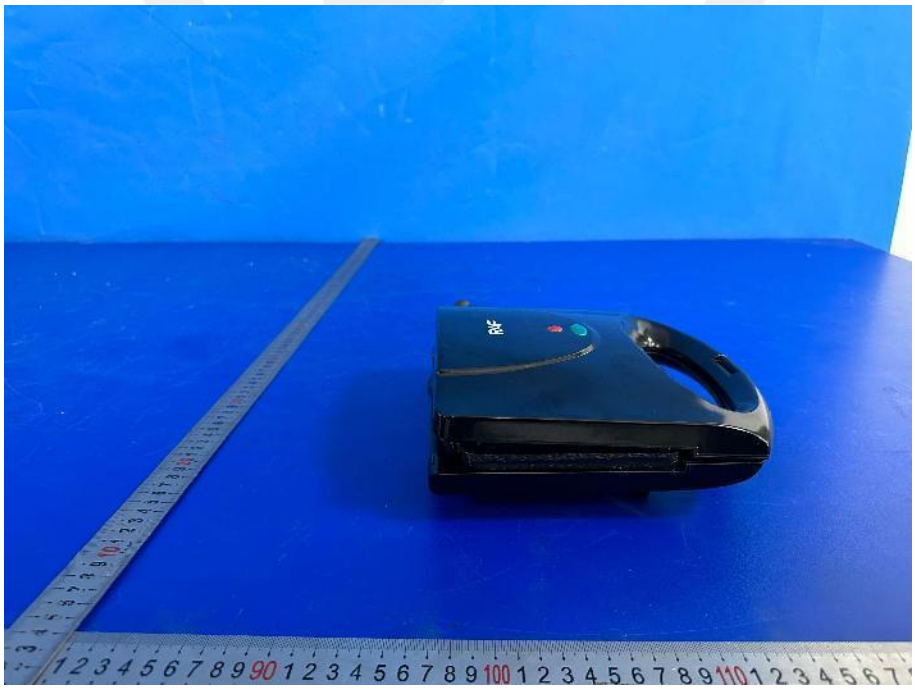


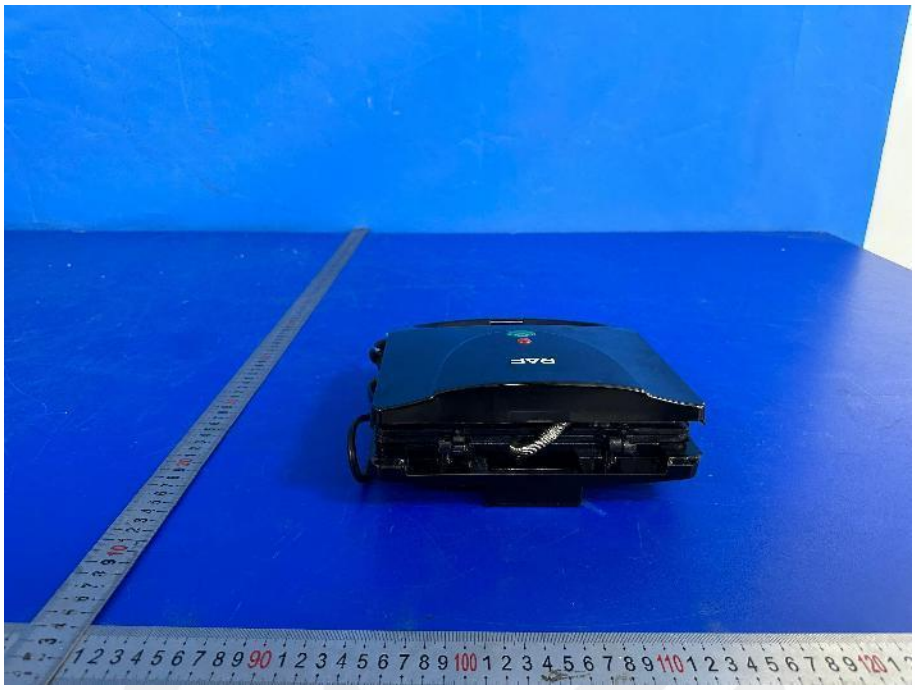
12.3. Photo of Harmonic Current Emission / Voltage Fluctuation And Flicker Measurement

APPENDIX I
(Photos of EUT)


RAF







APPENDIX II
(Model List 1&2)

Model List 1									
R.200	R.201	R.202	R.204	R.206	R.207	R.211	R.211B	R.212	R.214
R.215	R.218	R.220	R.222	R.223	R.225	R.226	R.228	R.229	R.230
R.231	R.232	R.233	R.234	R.235	R.237	R.239	R.241	R.242	R.243
R.245	R.246	R.247	R.249	R.251	R.254	R.256	R.260	R.261	R.264
R.274	R.284	R.500	R.509	R.510	R.512	R.513	R.514	R.515	R.516
R.518	R.519	R.520	R.521	R.522	R.523	R.524	R.525	R.526	R.529
R.530	R.531	R.532	R.533	R.536	R.543	R.545	R.546	R.547	R.548
R.556	R.557	R.562	R.563	R.565	R.567	R.572	R.580	R.581	R.582
R.583	R.584	R.585	R.586	R.587	R.588	R.591	R.592	R.594	R.595
R.596	R.610	R.803	R.593	R.2200	R.2201	R.2205	R.2206	R.2208	R.2209
R.2210	R.2211	R.2212	R.2213	R.2214	R.2215	R.2216	R.2217	R.2218	R.2219
R.2220	R.2221	R.2223	R.2224	R.2225	R.2226	R.2290	R.2507	R.205	R.216
R.219	R.221	R.227	R.248	R.250	R.252	R.253	R.257	R.258	R.259
R.666	R.2000	R.2005	R.2006	R.2007	R.2008	R.2009	R.2010	R.2011	R.2012
R.2013	R.2014	R.2015	R.2016	R.2017	R.2018	R.2019	R.2020	R.2021	R.2022
R.2023	R.2024	R.2025	R.2026	R.2027	R.2028	R.2029	R.2030	R.2031	R.2032
R.2033	R.2034	R.2035	R.2036	R.2037	R.2038	R.2039	R.2040	R.2041	R.2042
R.2043	R.2044	R.2045	R.2046	R.2047	R.2048	R.2049	R.2050	R.2051	R.2052
R.2053	R.2054	R.2055	R.2056	R.2057	R.2058	R.2059	R.2060	R.2061	R.2062
R.2063	R.2064	R.2065	R.2066	R.2067	R.2068	R.2069	R.2070	R.2071	R.2072
R.2073	R.2074	R.2075	R.2076	R.2077	R.2078	R.2079	R.2080	R.2081	R.2082
R.2083	R.2084	R.2085	R.2086	R.2087	R.2088	R.2089	R.2090	R.2091	R.2092
R.2093	R.2094	R.2095	R.2096	R.2097	R.2098	R.2099	R.2202	R.2203	R.2204
R.2227	R.2228	R.2229	R.2230	R.2231	R.2232	R.2233	R.2234	R.2235	R.2236
R.2237	R.2238	R.2239	R.2240	R.2241	R.2242	R.2243	R.2244	R.2245	R.2246
R.2247	R.2248	R.2249	R.2250	R.2251	R.2252	R.2253	R.2254	R.2255	R.2256
R.2257	R.2258	R.2259	R.2260	R.2261	R.2262	R.2263	R.2264	R.2265	R.2266
R.2267	R.2268	R.2269	R.2270	R.2271	R.2272	R.2273	R.2274	R.2275	R.2276
R.2277	R.2278	R.2279	R.2280	R.2281	R.2282	R.2283	R.2284	R.2285	R.2286

Model List 2									
R.2287	R.2288	R.2289	R.2291	R.2292	R.2293	R.2294	R.2295	R.2296	R.2297
R.2298	R.2299	R.2500	R.2501	R.2502	R.2503	R.2504	R.2505	R.2506	R.2508
R.2509	R.2510	R.2511	R.2512	R.2513	R.2514	R.2515	R.2516	R.2517	R.2518
R.2519	R.2520	R.2521	R.2522	R.2523	R.2524	R.2525	R.2526	R.2527	R.2528
R.2529	R.2530	R.2531	R.2532	R.2533	R.2534	R.2535	R.2536	R.2537	R.2538
R.2539	R.2540	R.2541	R.2542	R.2543	R.2544	R.2545	R.2546	R.2547	R.2548
R.2549	R.2550	R.2551	R.2552	R.2553	R.2554	R.2555	R.2556	R.2557	R.2558
R.2559	R.2560	R.2561	R.2562	R.2563	R.2564	R.2565	R.2566	R.2567	R.2568
R.2569	R.2570	R.2571	R.2572	R.2573	R.2574	R.2575	R.2576	R.2577	R.2578
R.2579	R.2580	R.2581	R.2582	R.2583	R.2584	R.2585	R.2586	R.2587	R.2588
R.2589	R.2590	R.2591	R.2592	R.2593	R.2594	R.2595	R.2596	R.2597	R.2598
R.2599	R.203	R.209	R.210	R.210B	R.213	R.217	R.224	R.236	R.2689
R.2690	R.2691	R.589	R.540	R.541	R.549	R.550	R.590	R.551	R.552
R.553	R.555	R.571	R.573	R.575	R.576	R.577	R.579	R.589	R.590
R.593	R.666	/	/	/	/	/	/	/	/

*** End of Report ***

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