SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technological Development District, Guangzhou, China 510663
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TEST REPORT

The following sample(s) was/were submitted and identified on behalf of the client as:

Application No.:	GZEM1505002437HS
Applicant:	
Manufacturer:	The same as applicant
Product Description:	Raclette Grill
Model No.:	9905WS020, 9905WS021, 9905WS0201, 9905WS040, 9905WS041, 9905WS060, 9905WS061, 9905WC060, 9905WC061, 9905WS080, 9905WS081, 9905WS082, 9905WC080, 9905WC081, 9905WC082, 9905WE080, 9905WE081, 9905WE082, 9905WS100, 9905WS101. ♣
♣	Please refer to section 3 of this report for further details.
Trade Mark:	
Standards:	EN 55014-1:2006+A1:2009+A2:2011, EN 55014-2:1997+A1:2001+A2:2008, EN 61000-3-2:2014, EN 61000-3-3:2013.
Date of Receipt:	2015-05-26
Date of Test:	2015-05-29 to 2015-06-18
Date of Issue:	2015-06-25
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

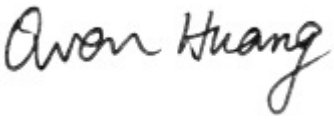
Kobe Jian
Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

2 Version

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00		2015-06-25		Original

Authorized for issue by:				
Tested By		 **(Owen Huang) / Project Engineer**		2015-05-29 to 2015-06-18 **Date**
Prepared By		 **(Icy Chou) / Clerk**		2015-06-23 **Date**
Checked By		 **(Shrek He) / Reviewer**		2015-06-25 **Date**

3 Test Summary

Electromagnetic Interference (EMI)				
Test	**Test Requirement**	**Test Method**	**Class / Severity**	**Result**
Conducted Emission on AC (150k to 30MHz)	EN 55014-1:2006 +A1:2009+A2:2011	EN 55014-1:2006 +A1:2009+A2:2011	Table 1 Columns 2&3	PASS
Disturbance Power (30MHz to 300MHz)	EN 55014-1:2006 +A1:2009+A2:2011	EN 55014-1:2006 +A1:2009+A2:2011	Table 2a, Table 2b Columns 2&3 ♀	PASS
Discontinuous Interference on AC (150kHz to 30MHz)	EN 55014-1:2006 +A1:2009+A2:2011	EN 55014-1:2006 +A1:2009+A2:2011	Clause 4.2 of EN 55014-1	PASS
Harmonic Emission on AC	EN 61000-3-2:2014	EN 61000-3-2:2014	Class A	PASS
Flicker Emission on AC	EN 61000-3-3:2013	EN 61000-3-3:2013	Clause 5 of EN 61000-3-3	PASS
Electromagnetic Susceptibility(EMS) [1)]				
Test	**Test Requirement**	**Test Method**	**Class / Severity**	**Result**
Immunity	EN 55014-2:1997 +A1:2001+A2:2008	EN 55014-2:1997 +A1:2001+A2:2008	Clause 4.1 of EN 55014-2	PASS**

Remark :

[1)] **:** The EUT belongs to **Category I apparatus of EN 55014-2**:1997+A1:2001+A2:2008.

EUT In this whole report EUT means Equipment Under Test.

♀ Disturbance Power test is applied to the EUT since:

1) All the measurement result are lower than the applicable limits (Table 2a) minus the corresponding margin (Table 2b); or the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector.

2) No clock frequency or oscillator frequency of the EUT is more than or equal to 30 MHz.

Please refer to section 7.2 of this test report for more details.

**Please refer to Section 8 of this report for details.

♣ **Model No.:** 9905WS020, 9905WS021, 9905WS0201, 9905WS040, 9905WS041, 9905WS060, 9905WS061, 9905WC060, 9905WC061, 9905WS080, 9905WS081, 9905WS082, 9905WC080, 9905WC081, 9905WC082, 9905WE080, 9905WE081, 9905WE082, 9905WS100, 9905WS101

According to the declaration of the applicant, the electrical circuit design, layout, components used and internal wiring were identical for all models, with only difference being the rated power and heating element.

Model No.	Rated Power
9905WS020, 9905WS021	350W
9905WS0201	400W
9905WS040, 9905WS041	650W
9905WS060, 9905WS061, 9905WC060, 9905WC061	900W
9905WS080, 9905WS081, 9905WS082, 9905WC080, 9905WC081, 9905WC082, 9905WE080, 9905WE081, 9905WE082	1200W
9905WS100, 9905WS101	1500W

Therefore only one model **9905WS082, 9905WS021 and 9905WS100** was tested in this report as per applicant's request.

EMI Test was performed on **9905WS082 and 9905WS100.**

EMI Test except for Discontinuous Interference Test was performed on **9905WS021** in this report.

4 Contents

5 General Information

5.1 Client Information

Applicant:

Address of Applicant:

Manufacturer: The same as applicant

Address of Manufacturer: The same as address of applicant

5.2 General Description of E.U.T.

Product Description: Raclette Grill

Model No.: 9905WS082, 9905WS021, 9905WS100

5.3 Details of E.U.T.

Rated Supply (Voltage): AC 2240-240V 50/60Hz

Power Cable: 1.2m x 3 wires unscreened AC mains cable.

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Deviation from Standards

None.

5.6 General Test Climate During Testing

Temperature: 15-30 °C Humidity: 30-70 %RH Atmospheric Pressure: 860-1060 mbar

5.7 Abnormalities from Standard Conditions

None.

5.8 Monitoring of EUT for All Immunity Test

Audio: N/A

Visual: N/A

5.9 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory,

198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District,

Guangzhou, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

5.10 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP (Lab Code: 200611-0)**

  SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

  The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

- **ACMA**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.

- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**

  Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.

- **CNAS (Lab Code: L0167)**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

- **FCC (Registration No.: 282399)**

  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.

- **Industry Canada (Registration No.: 4620B-1)**

  The 3m/10m Alternate Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd., has been registered by Certification and Engineering of Industry Canada for radio equipment testing with Registration No. 4620B-1.

- **VCCI (Registration No.: R-2460, C-2584, G-449 and T-1179)**

  The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co. Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2460, C-2584, G-449 and T-1179 respectively.

- **CBTL (Lab Code: TL129)**

  SGS-CSTC Standards Technical Services Co., Ltd., E&E Laboratory has been assessed and fully comply with the requirements of ISO/IEC 17025:2005, the Basic Rules, IECEE 01:2006-10 and Rules of procedure IECEE 02:2006-10, and the relevant IECEE CB-Scheme Operational documents.

6 Equipment List

Conducted Emission						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m^3	N/A	N/A	N/A
EMC0118	Two-line v-netwok	R&S	ENV216	100359	2015-03-02	2016-03-02
EMC0102	LISN	SCHAFFNER CHASE	MN2050D/1	1421	2014-09-14	2015-09-14
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	2015-03-02	2016-03-02
EMC0107	Coaxial Cable	SGS	2m	N/A	2014-07-25	2016-07-25
EMC0106	Voltage Probe	SGS	N/A	N/A	2014-04-19	2016-04-19
EMC0120	8 Line ISN	Fischer Custom Communications	FCC-TLISN-T8-02	20550	2014-08-30	2015-08-30
EMC0121	4 Line ISN	Fischer Custom Communications	FCC-TLISN-T4-02	20549	2014-08-30	2015-08-30
EMC0122	2 Line ISN	Fischer Custom Communications	FCC-TLISN-T2-02	20548	2014-08-30	2015-08-30
EMC2047	CDN	Elektronik-Feinmechanik	L-801:AF2	2793	2012-09-23	2015-09-23
EMC2048	CDN	Elektronik-Feinmechanik	L-801:M2/M3	2738	2012-09-23	2015-09-23
EMC2062	6dB Attenuator	HP	8491A	24487	2014-04-19	2016-04-19
EMC167	Conical metal housing	SGS-EMC	N/A	N/A	2014-02-16	2016-02-16

Disturbance Power						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m^3	N/A	N/A	N/A
EMC2040	Absorbing Clamp	Beijing Dazhe Co. Ltd.	ZN23201	N/A	2015-03-02	2016-03-02
EMC0303	7m Coaxial Cable	SGS	7m	N/A	2015-06-01	2017-06-01
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	2015-03-02	2016-03-02
EMC2062	6dB Attenuator	HP	8491A	24487	2014-04-19	2016-04-19
EMC0305	Slide Bar Controller	HD-GmbH	HD50	050/490	N/A	N/A
EMC0103	Slide Bar RP	HD-GmbH	KMS560	560/392	N/A	N/A

Click						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC2049	Click Meter	AFJ	CL55C	55049840042	2014-07-30	2015-07-30
EMC0206	Coaxial Cable	N/A	1.5m	N/A	2014-09-29	2016-09-29
EMC0203	LISN	AFJ	LS16-OPT001	16019831056	2015-03-02	2016-03-02

Harmonics / Flicker test						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC0608	AC Power Source	California	50001iX	56627	2015-4-7	2016-4-7
EMC0607	Power Analyzer	California	PACS	72400	2015-4-7	2016-4-7

General used equipment						
No.	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. date (YYYY-MM-DD)	Cal.Due date (YYYY-MM-DD)
EMC0006	DMM	Fluke	73	70681569	2014-09-15	2015-09-15
EMC0007	DMM	Fluke	73	70671122	2014-09-15	2015-09-15

7 Electromagnetic Interference Test Results

7.1 Conducted Emissions on Mains Terminals, 150 kHz to 30 MHz

Test Requirement: EN 55014-1

Test Method: EN 55014-1

Test Date: 2015-05-29 for 9905WS082 & 9905WS021
2015-06-18 for 9905WS100

Test voltage: AC 230V 50Hz

Frequency Range: 150KHz to 30MHz

Detector: Peak for pre-scan
Quasi-Peak and Average for final measurement
(9 kHz resolution bandwidth)

Limit:

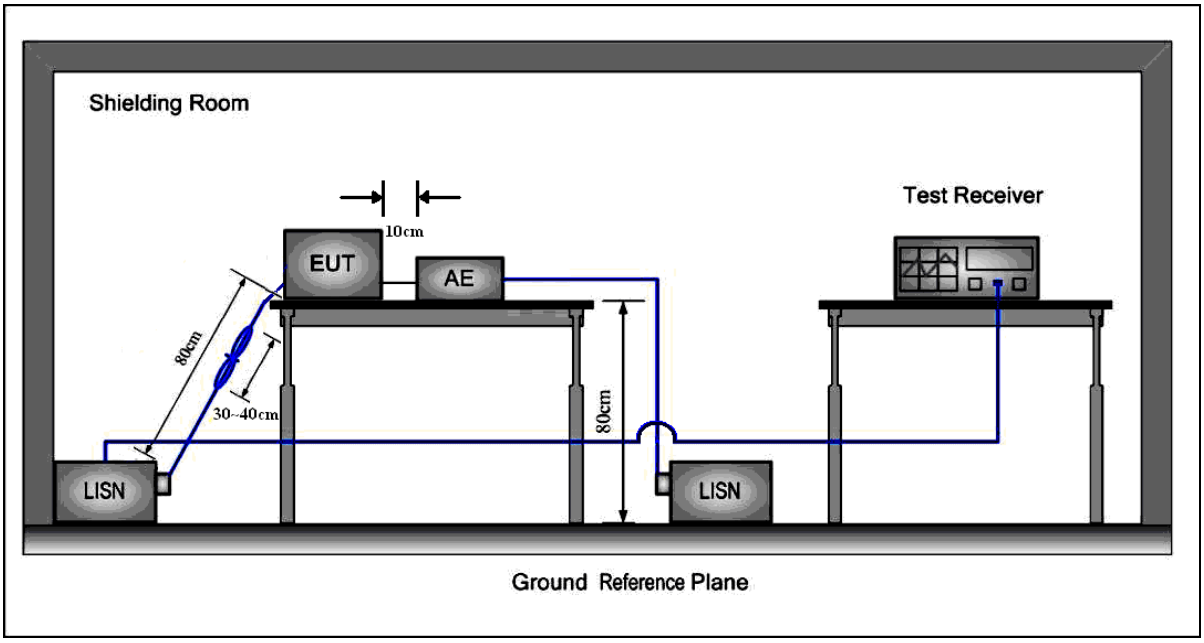
Frequency range MHz	**At mains terminals** dB (μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	59 to 46
0.50 to 5	56	46
5 to 30	60	50
Note1: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. Note2: The lower limit is applicable at the transition frequency.		

7.1.1 E.U.T. Operation

Test the EUT in heating mode; the thermostat be adjusted to the middle of the adjustment range.

A pre-test at 160KHz shall be made over a range of 0.9 to 1.1 times the rated voltage in order to check the level of disturbance varies considerably with the supply voltage, compliance test at AC 230V as no worse case was found.

7.1.2 Test Setup and Procedure



1. The mains terminal disturbance voltage was measured with the EUT in a shielded room.
2. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN, which was bonded to the ground reference plane in the same way as the LISN for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN was placed 0.8m from the boundary of the unit under test and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance was between the closest points of the LISN and the EUT. The mains lead of EUT excess 0.8m was folded back and forth parallel to the lead so as to form a horizontal bundle with a length between 0.3m and 0.4m. All other units of the EUT and associated equipment were at least 0.8m from the LISN.

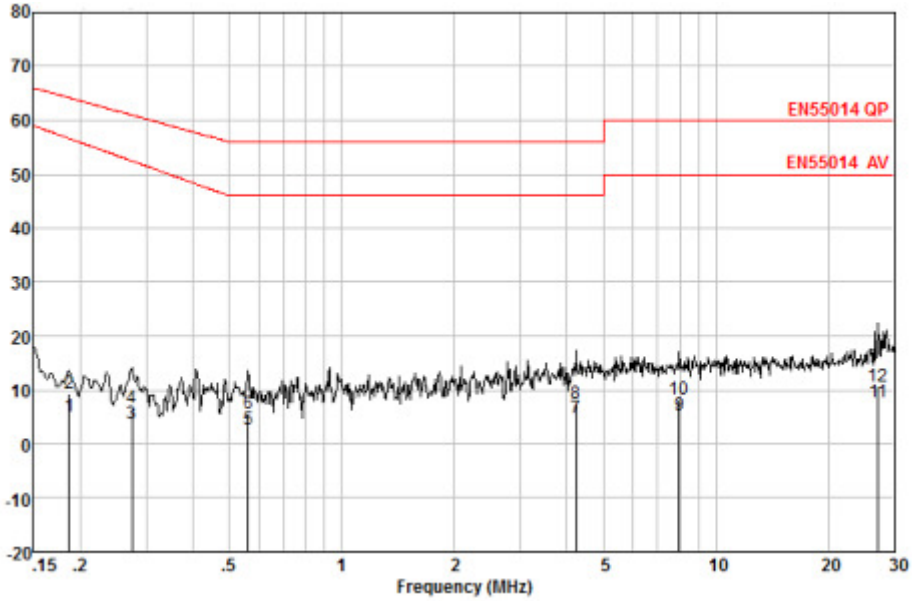
7.1.3 Measurement Data

9905WS021

Live Line:

Peak Scan:

Level (dBµV)



Quasi-peak and Average measurement:

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.186	4.81	0.31	0.00	5.12	56.65	-51.53	Average
0.186	8.91	0.31	0.00	9.22	64.20	-54.98	QP
0.274	3.51	0.31	0.00	3.82	52.48	-48.66	Average
0.274	6.37	0.31	0.00	6.68	60.98	-54.30	QP
0.561	2.37	0.31	0.01	2.69	46.00	-43.31	Average
0.561	5.34	0.31	0.01	5.66	56.00	-50.34	QP
4.224	4.21	0.41	0.15	4.77	46.00	-41.23	Average
4.224	6.94	0.41	0.15	7.50	56.00	-48.50	QP
7.977	4.67	0.55	0.20	5.42	50.00	-44.58	Average
7.977	7.51	0.55	0.20	8.26	60.00	-51.74	QP
27.127	6.15	1.30	0.30	7.75	50.00	-42.25	Average
27.127	9.00	1.30	0.30	10.60	60.00	-49.40	QP

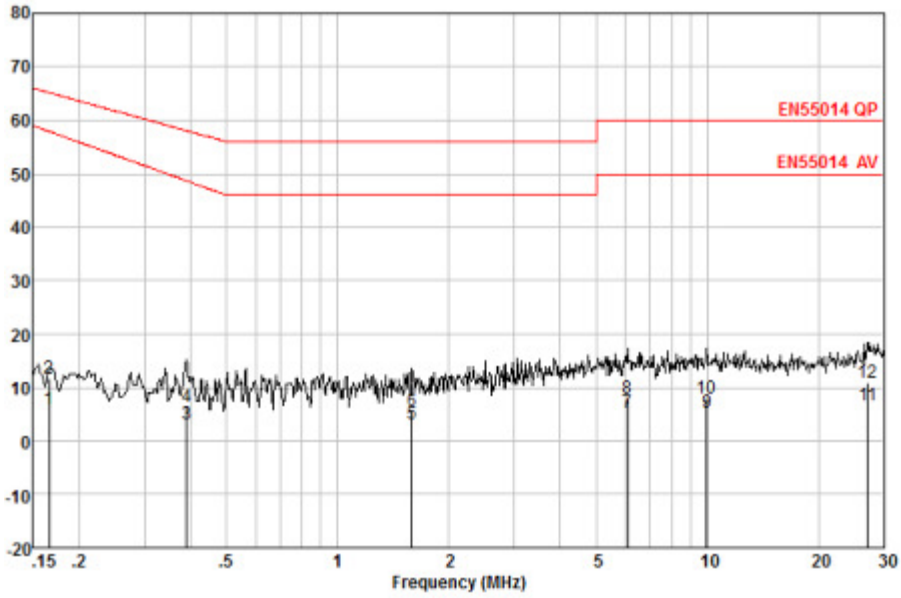
Level = Read Level + LISN Factor + Cable Loss.

9905WS021

Neutral Line

Peak Scan:

Level (dBµV)



Quasi-peak and Average measurement:

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.166	5.54	0.34	0.00	5.88	57.91	-52.03	Average
0.166	11.41	0.34	0.00	11.75	65.16	-53.41	QP
0.389	2.90	0.34	0.00	3.24	48.70	-45.46	Average
0.389	6.12	0.34	0.00	6.46	58.08	-51.62	QP
1.585	2.75	0.36	0.03	3.14	46.00	-42.86	Average
1.585	5.33	0.36	0.03	5.72	56.00	-50.28	QP
6.089	4.70	0.46	0.20	5.36	50.00	-44.64	Average
6.089	7.23	0.46	0.20	7.89	60.00	-52.11	QP
9.966	4.68	0.57	0.20	5.45	50.00	-44.55	Average
9.966	7.31	0.57	0.20	8.08	60.00	-51.92	QP
27.127	5.83	0.59	0.30	6.72	50.00	-43.28	Average
27.127	10.09	0.59	0.30	10.98	60.00	-49.02	QP

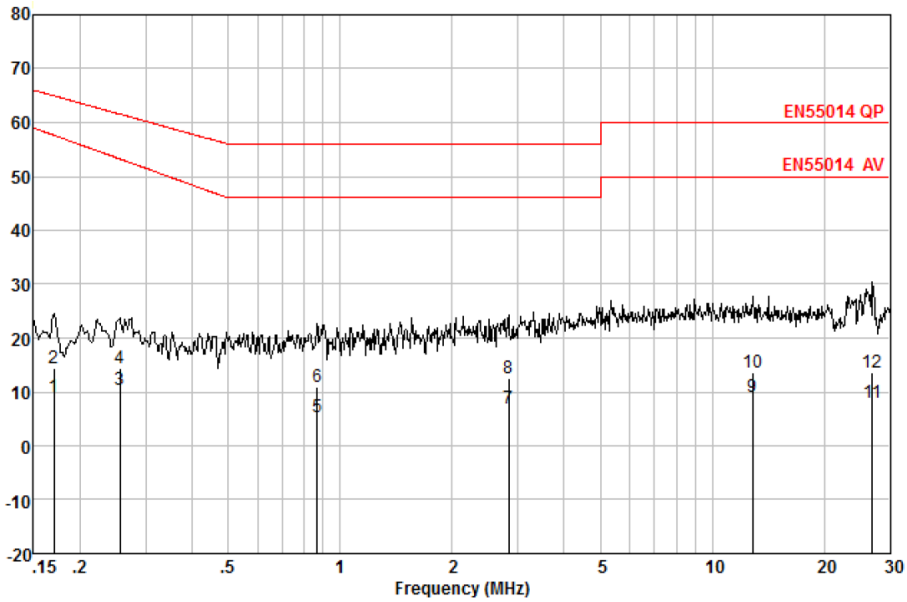
Level = Read Level + LISN Factor + Cable Loss.

9905WS082

Live Line:

Peak Scan:

Level (dBµV)



Quasi-peak and Average measurement:

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.170	8.78	0.31	0.00	9.09	57.63	-48.54	Average
0.170	14.16	0.31	0.00	14.47	64.94	-50.47	QP
0.256	9.99	0.31	0.00	10.30	53.22	-42.92	Average
0.256	14.05	0.31	0.00	14.36	61.56	-47.20	QP
0.866	5.01	0.32	0.01	5.34	46.00	-40.66	Average
0.866	10.53	0.32	0.01	10.86	56.00	-45.14	QP
2.839	6.54	0.37	0.07	6.98	46.00	-39.02	Average
2.839	12.05	0.37	0.07	12.49	56.00	-43.51	QP
12.852	7.80	0.87	0.30	8.97	50.00	-41.03	Average
12.852	12.32	0.87	0.30	13.49	60.00	-46.51	QP
26.984	6.27	1.30	0.30	7.87	50.00	-42.13	Average
26.984	11.90	1.30	0.30	13.50	60.00	-46.50	QP

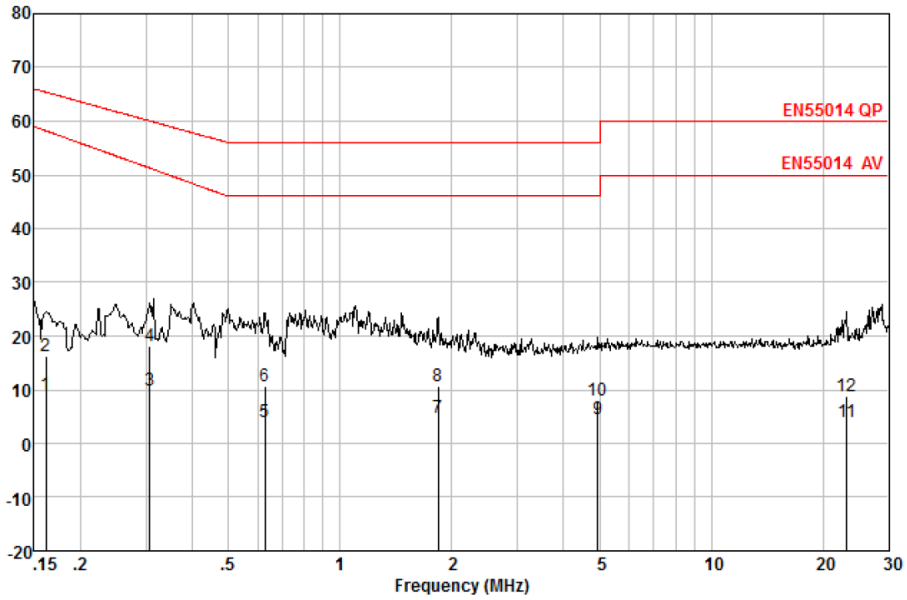
Level = Read Level + LISN Factor + Cable Loss.

9905WS082

Neutral Line

Peak Scan:

Level (dBµV)



Quasi-peak and Average measurement:

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.162	8.73	0.31	0.00	9.04	58.20	-49.16	Average
0.162	15.85	0.31	0.00	16.16	65.38	-49.22	QP
0.307	9.56	0.31	0.00	9.87	51.28	-41.41	Average
0.307	17.75	0.31	0.00	18.06	60.06	-42.00	QP
0.627	3.62	0.31	0.01	3.94	46.00	-42.06	Average
0.627	10.43	0.31	0.01	10.75	56.00	-45.25	QP
1.839	4.36	0.35	0.04	4.75	46.00	-41.25	Average
1.839	10.23	0.35	0.04	10.62	56.00	-45.38	QP
4.952	3.93	0.44	0.20	4.57	46.00	-41.43	Average
4.952	7.27	0.44	0.20	7.91	56.00	-48.09	QP
23.140	2.27	1.30	0.30	3.87	50.00	-46.13	Average
23.140	7.26	1.30	0.30	8.86	60.00	-51.14	QP

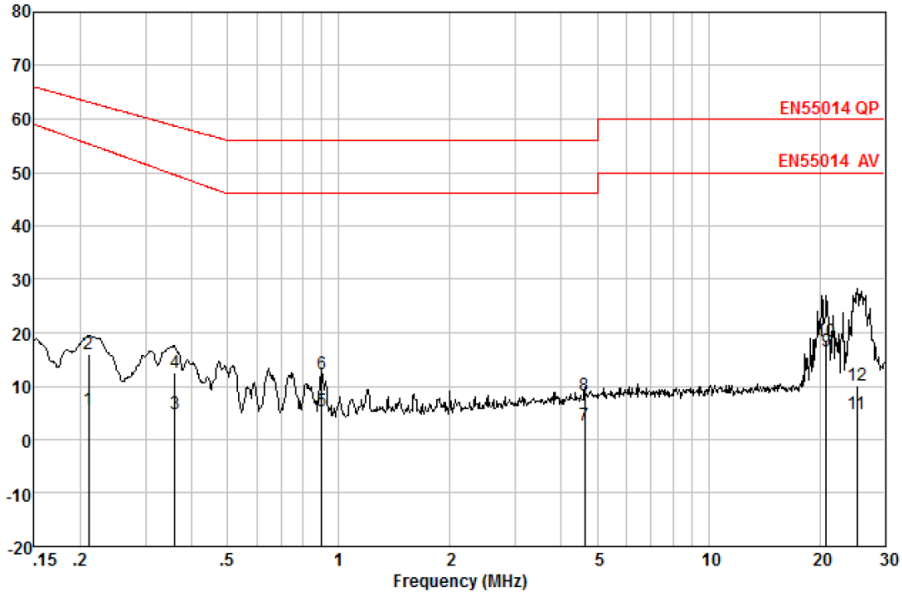
Level = Read Level + LISN Factor + Cable Loss.

9905WS100

Live Line:

Peak Scan:

Level (dBµV)



Quasi-peak and Average measurement:

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.211	5.33	0.31	0.00	5.64	55.34	-49.70	Average
0.211	15.78	0.31	0.00	16.09	63.18	-47.09	QP
0.360	4.51	0.31	0.00	4.82	49.56	-44.74	Average
0.360	12.18	0.31	0.00	12.49	58.74	-46.25	QP
0.899	4.90	0.32	0.01	5.23	46.00	-40.77	Average
0.899	11.86	0.32	0.01	12.19	56.00	-43.81	QP
4.622	2.09	0.43	0.20	2.72	46.00	-43.28	Average
4.622	7.55	0.43	0.20	8.18	56.00	-47.82	QP
20.814	14.93	1.30	0.30	16.53	50.00	-33.47	Average
20.814	16.92	1.30	0.30	18.52	60.00	-41.48	QP
25.188	3.09	1.30	0.30	4.69	50.00	-45.31	Average
25.188	8.48	1.30	0.30	10.08	60.00	-49.92	QP

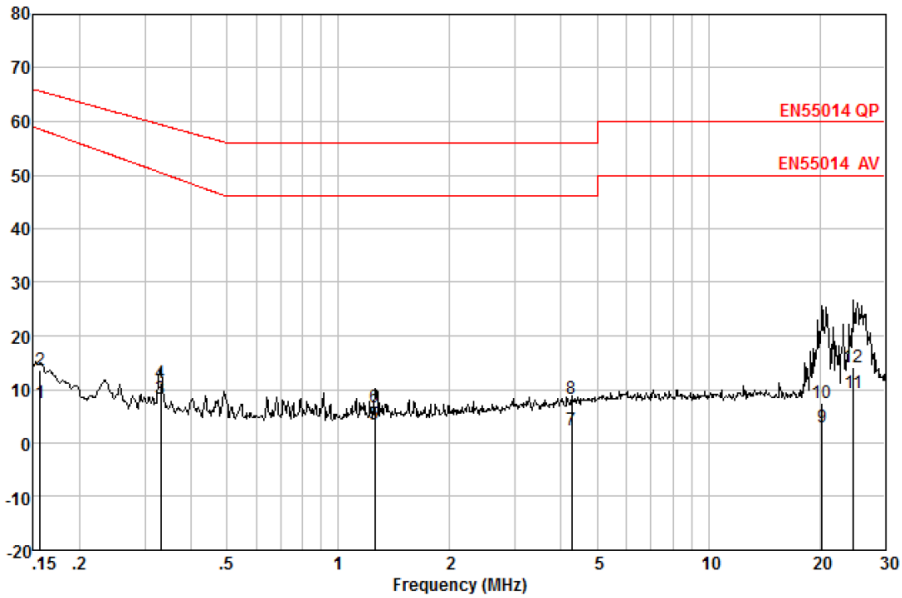
Level = Read Level + LISN Factor + Cable Loss.

9905WS100

Neutral Line

Peak Scan:

Level (dBµV)



Quasi-peak and Average measurement:

Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.156	7.06	0.34	0.10	7.50	58.54	-51.04	Average
0.156	13.04	0.34	0.10	13.48	65.65	-52.17	QP
0.330	7.83	0.34	0.00	8.17	50.48	-42.31	Average
0.330	10.76	0.34	0.00	11.10	59.44	-48.34	QP
1.255	2.96	0.36	0.02	3.34	46.00	-42.66	Average
1.255	6.30	0.36	0.02	6.68	56.00	-49.32	QP
4.269	1.86	0.41	0.15	2.42	46.00	-43.58	Average
4.269	7.68	0.41	0.15	8.24	56.00	-47.76	QP
20.270	1.86	0.77	0.30	2.93	50.00	-47.07	Average
20.270	6.52	0.77	0.30	7.59	60.00	-52.41	QP
24.659	8.44	0.66	0.30	9.40	50.00	-40.60	Average
24.659	13.21	0.66	0.30	14.17	60.00	-45.83	QP

Level = Read Level + LISN Factor + Cable Loss.

7.2 Disturbance Power Test, 30 MHz to 300 MHz

Test Requirement: EN 55014-1

Test Method: EN 55014-1

Test Date: 2015-05-29 for 9905WS082 & 9905WS021
2015-06-18 for 9905WS100

Test voltage: AC 230V 50Hz

Frequency Range: 30MHz to 300MHz

Detector: Peak for pre-scan
Quasi-Peak and Average at frequency with maximum peak (120kHz resolution bandwidth)

Limit:

Table 2a Columns 2&3

Frequency range MHz	**At mains terminals** (dB (pW))	
	Quasi-peak	Average
30 to 300	45 to 55	35 to 45
Note1: The limit increases linearly with the frequency in the range 30 MHz to 300 MHz.		

Table 2b Columns 2&3

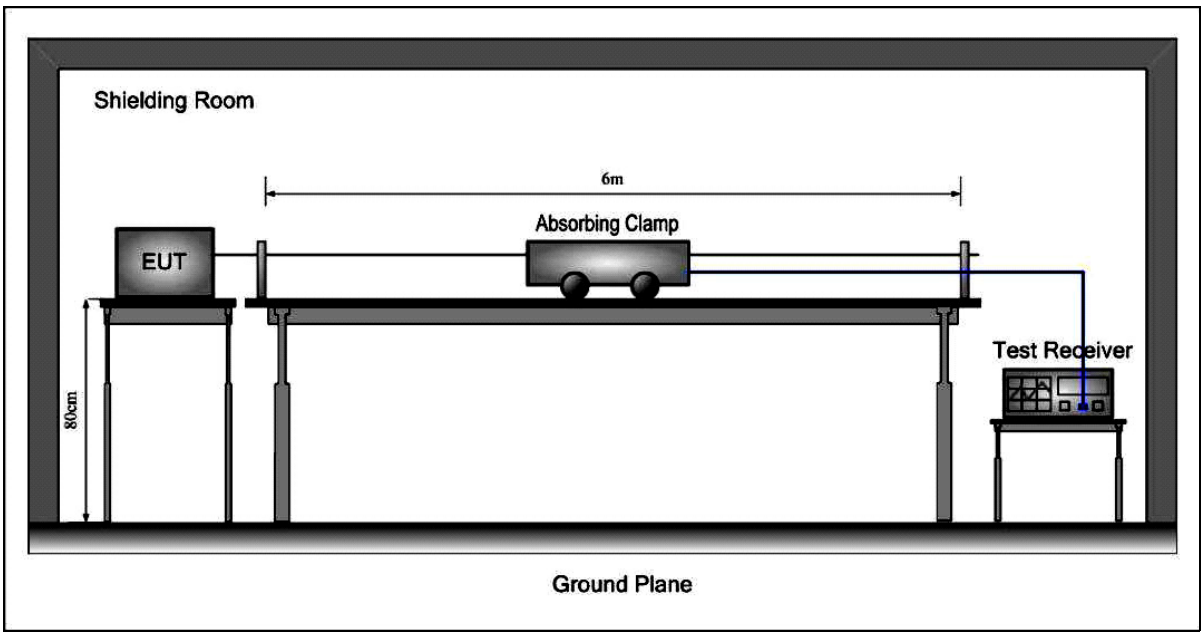
Frequency range MHz	**Margin** (dB)	
	Quasi-peak	Average
200 to 300	0 to 10 dB	--
NOTE 1: Appliances are deemed to comply in the frequency range from 300 MHz to 1 000 MHz if both of the following conditions (1) and 2)) are fulfilled: 1) All the measurement result are lower than the applicable limits (Table 2a) minus the corresponding margin (Table 2b); or the limit for the measurement with the average detector is met when using a receiver with a quasi-peak detector. 2) No clock frequency or oscillator frequency of the EUT is more than or equal to 30 MHz. NOTE 2: The measured result at a particular frequency shall be less than the relevant limit minus the corresponding margin (at that frequency).		

7.2.1 E.U.T. Operation

Test the EUT in heating mode; the thermostat be adjusted to the middle of the adjustment range.

A pre-test at 50MHz shall be made over a range of 0.9 to 1.1 times the rated voltage in order to check the level of disturbance varies considerably with the supply voltage, compliance test at AC 230V as no worse case was found.

7.2.2 Test Setup



1. The disturbance power was measured with the EUT in a shielded room.
2. The distance between the clamp test set-up (the appliance, the lead to be measured and the absorbing clamp) and any other conductive objects (including persons, walls and ceiling, but excluding the floor) shall be at least 0.8m. The appliance to be tested shall be placed on a non-metallic support table parallel to the floor. The height of the table shall be 0.1m ± 0.025m for appliances primarily intended to be positioned on the floor in normal use, and 0.8m ± 0.05m for other appliances.
3. Auxiliary leads normally extendible by the user, for instance with a loose end or leads fitted with a (by the user) easily replaceable plug or socket on one or both ends, shall in accordance with 6.2.3 be extended to a length of about 6 m. Any plug or socket which will not pass through the absorbing clamp due to its size shall be removed (see 6.2.3).
4. If the auxiliary lead is permanently fixed to the appliance and to the auxiliary apparatus and:
   - is shorter than 0.25m, measurement are not to be made on these leads.
   - is longer than 0.25m but shorter than twice the length of the absorbing clamp, it shall be extended to twice the length of the absorbing clamp.
   - is longer than twice the length of the absorbing clamp, measurements shall be made using the original lead.
5. The absorbing clamp was moved along the lead to obtain maximum disturbance.

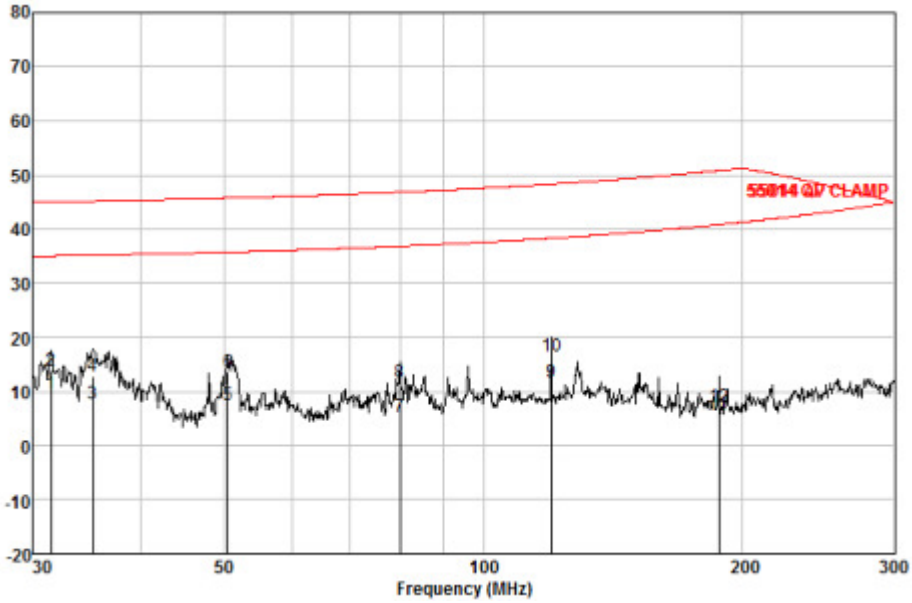
7.2.3 Measurement Data

9905WS021

AC Mains:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

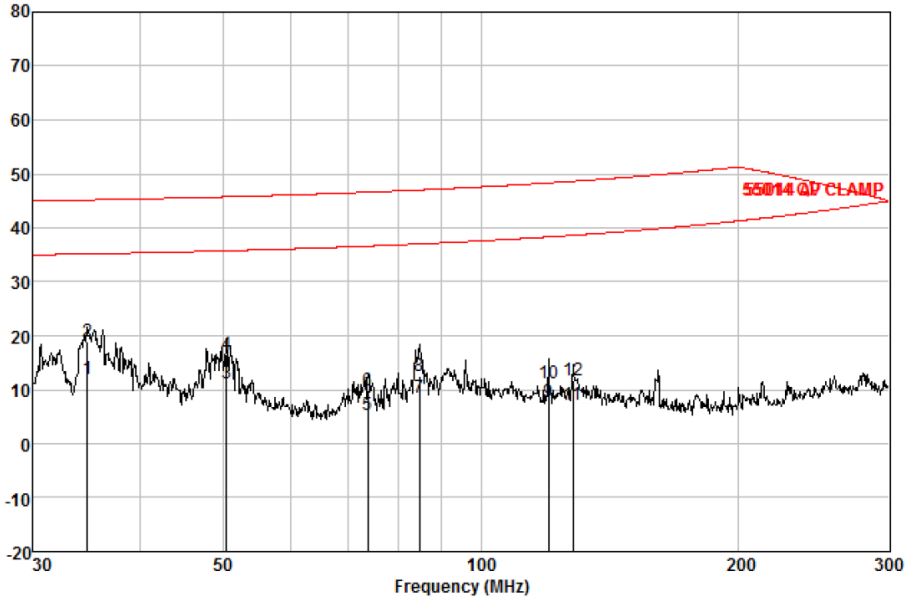
Frequency MHz	Read Level dBuV	Cable Loss dB	Clamp Factor dBpW/dBuV	Measured Level dBpW	Limit Line dBpW	Over limit dB	Remark
31.41	8.09	1.18	0.22	9.49	35.05	-25.56	Average
31.41	12.57	1.18	0.22	13.97	45.05	-31.08	QP
35.17	4.46	1.27	1.99	7.72	35.19	-27.47	Average
35.17	9.48	1.27	1.99	12.74	45.19	-32.45	QP
50.48	5.56	1.63	0.27	7.46	35.76	-28.30	Average
50.48	11.67	1.63	0.27	13.57	45.76	-32.19	QP
80.01	4.15	2.07	-1.00	5.22	36.85	-31.63	Average
80.01	10.76	2.07	-1.00	11.83	46.85	-35.02	QP
119.98	8.99	2.60	0.20	11.79	38.33	-26.54	Average
119.98	13.84	2.60	0.20	16.64	48.33	-31.69	QP
187.55	5.41	3.35	-3.26	5.50	40.84	-35.34	Average
187.55	7.11	3.35	-3.26	7.20	50.84	-43.64	QP

9905WS082

AC Mains:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

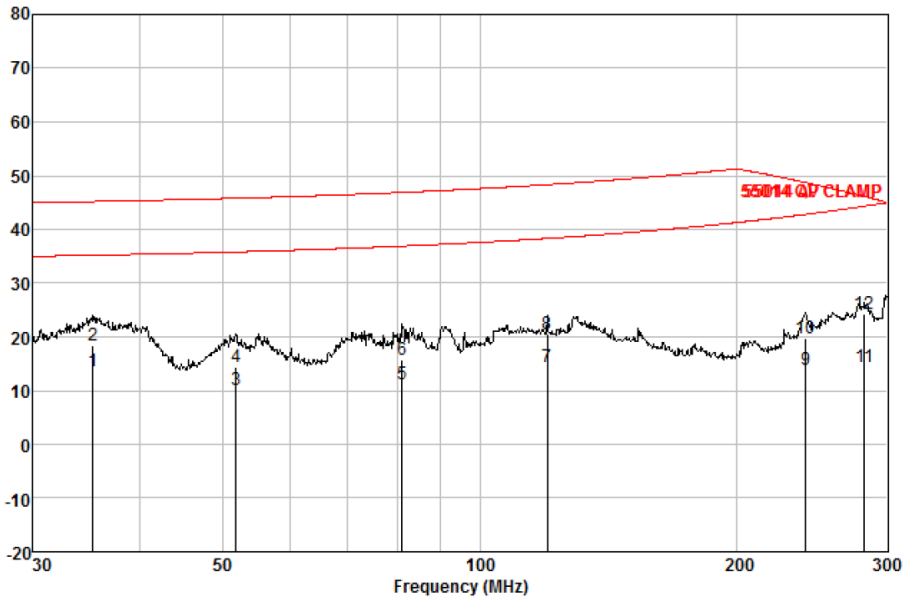
Frequency MHz	Read Level dBuV	Cable Loss dB	Clamp Factor dBpW/dBuV	Measured Level dBpW	Limit Line dBpW	Over limit dB	Remark
34.68	8.97	1.25	1.90	12.12	35.17	-23.05	Average
34.68	15.82	1.25	1.90	18.97	45.17	-26.20	QP
50.48	9.23	1.63	0.27	11.13	35.76	-24.63	Average
50.48	14.52	1.63	0.27	16.42	45.76	-29.34	QP
73.81	3.42	1.98	-0.19	5.21	36.62	-31.41	Average
73.81	8.15	1.98	-0.19	9.94	46.62	-36.68	QP
84.75	7.30	2.13	-1.00	8.43	37.03	-28.60	Average
84.75	11.32	2.13	-1.00	12.45	47.03	-34.58	QP
119.98	4.90	2.60	0.20	7.70	38.33	-30.63	Average
119.98	8.29	2.60	0.20	11.09	48.33	-37.24	QP
127.97	4.12	2.68	0.30	7.10	38.63	-31.53	Average
127.97	8.68	2.68	0.30	11.66	48.63	-36.97	QP

9905WS100

AC Mains:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

Frequency MHz	Read Level dBuV	Cable Loss dB	Clamp Factor dBpW/dBuV	Measured Level dBpW	Limit Line dBpW	Over limit dB	Remark
35.25	10.34	1.27	1.98	13.59	35.19	-21.60	Average
35.25	15.15	1.27	1.98	18.40	45.19	-26.79	QP
51.78	8.43	1.64	0.12	10.19	35.81	-25.62	Average
51.78	12.62	1.64	0.12	14.38	45.81	-31.43	QP
81.12	10.17	2.08	-1.00	11.25	36.89	-25.64	Average
81.12	14.58	2.08	-1.00	15.66	46.89	-31.23	QP
119.98	11.69	2.60	0.20	14.49	38.33	-23.84	Average
119.98	17.81	2.60	0.20	20.61	48.33	-27.72	QP
240.50	11.62	3.83	-1.64	13.81	42.80	-28.99	Average
240.50	17.61	3.83	-1.64	19.80	48.75	-28.95	QP
281.92	9.87	4.20	0.20	14.27	44.33	-30.06	Average
281.92	19.92	4.20	0.20	24.32	46.14	-21.82	QP

7.3 Discontinuous Interference, 150 kHz to 30 MHz

Test Requirement: EN 55014-1

Test Method: EN 55014-1

Test Date: 2015-06-01 for 9905WS082

2015-06-18 for 9905WS100

Test voltage: AC 230V 50Hz

Frequency range: 150kHz, 500kHz, 1.4MHz, 30MHz.

Class/Severity: Clause 4.2 of EN 55014-1

Limit

Provision	Limit Click Rate (N)		
1	All clicks < 20 ms	90 % click < 10 ms	N≤5
2	N ≤ 0,2	L_q [b] = L [a] + 44	Clicks [c] ≤ 25% exceed L_q [b]
3	30 ≥ N > 0,2	L_q [b] = L [a] + 20 lg(30/N)	Clicks [c] ≤ 25% exceed L_q [b]

[a] The limits L of Conducted Emissions apply also to discontinuous disturbances from all equipment which produce:

1) disturbances other than clicks, or

2) clicks with a click rate *N* equal to or greater than 30

[b] The relevant limit L_q for continuous disturbance, as given in 4.1.1 for the measurement with the quasi-peak detector, increased by a certain value determined from the click rate *N* (see also 4.2.2.2) The click limit applies to the disturbance assessed according to the upper quartile method

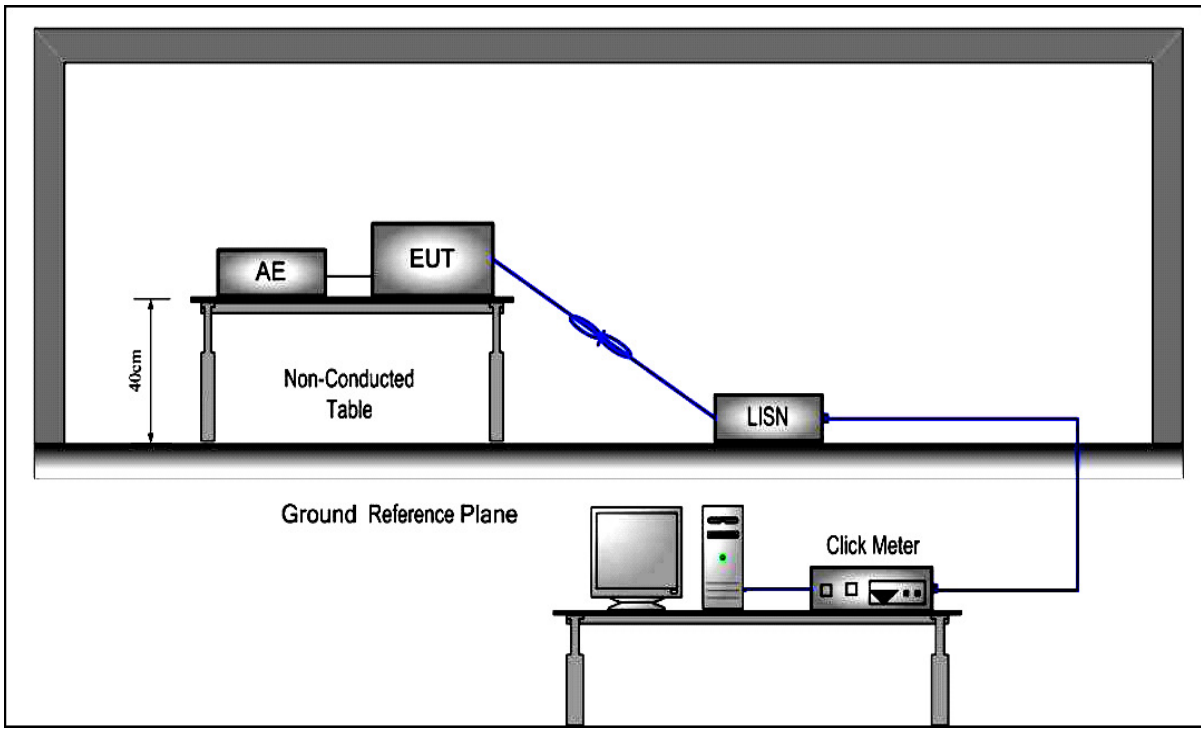
[c] a quarter of the number of the clicks registered during the observation time T is allowed to exceed the click limit Lq

7.3.1 E.U.T. Operation

Test the EUT in heating mode; the thermostat be adjusted to the middle of the adjustment range.

A pre-test at 160KHz shall be made over a range of 0.9 to 1.1 times the rated voltage in order to check the level of disturbance varies considerably with the supply voltage, compliance test at AC 230V as no worse case was found.

7.3.2 Test Setup and Procedure



1. The EUT was placed on a 0.4m high non-metallic table in shielded room, the ground of shielded room used as Ground Reference Plane (GRP), and keeps a distance of at least 0.8m from any of the other metallic surface.
2. The EUT was connected to an artificial mains network and at a distance of 0.8m from it, the excess lead of EUT was bundled with a length of 0.3m to 0.4m parallel to the main lead.
3. The number of counted clicks above the permitted limit for continuous interference and their duration, spacing and rate were measured during the observation time. When relevant, a permitted(relaxed) limit for clicks were calculated and a second measurement was performed. Determination of compliance with the permitted limit according to the upper quartile method.

7.3.3 Measurement Data

9905WS082

Meas Duration	0:52:09	LISN Phase -	Attenuation [dB]	40
Overload	NO			
Frequency	150 kHz	500 kHz	1.4 MHz	30 MHz
Clicks (< 10 ms)	44	40	7	0
Clicks (10ms - 20ms)	0	0	0	0
Clicks (> 20 ms)	0	0	0	0
Click Rate [1/min]	0.85	0.77	0.77	0.77
Continous Disturbances	0	0	0	0
L [dBuV]	66	56	56	60
Lq [dBuV]	97	88	88	92
Clicks > Lq	0	0	0	0
Clicks > Lq [%]	0	0	0	0
Fridge Rules	0	0	0	0
600 ms Rule used	NO	NO	NO	NO
Overall Correction	.42	.32	.37	1.8
Margin for PK Detector	0	0	0	0
Result	PASSED	PASSED	PASSED	PASSED

Conclusion:

The product meets the requirements of **Provision 1.**

9905WS100

Meas Duration	0:42:59	LISN Phase -	Attenuation [dB]	40
Overload	NO			
Frequency	150 kHz	500 kHz	1.4 MHz	30 MHz
Clicks (< 10 ms)	42	40	6	0
Clicks (10ms - 20ms)	0	0	0	0
Clicks (> 20 ms)	0	0	0	0
Click Rate [1/min]	0.98	0.93	0.93	0.93
Continous Disturbances	0	0	0	0
L [dBuV]	66	56	56	60
Lq [dBuV]	96	86	86	90
Clicks > Lq	0	0	0	0
Clicks > Lq [%]	0	0	0	0
Fridge Rules	0	0	0	0
600 ms Rule used	NO	NO	NO	NO
Overall Correction	.42	.32	.37	1.8
Margin for PK Detector	0	0	0	0
Result	PASSED	PASSED	PASSED	PASSED

Conclusion:
The product meets the requirements of **Provision 1.**

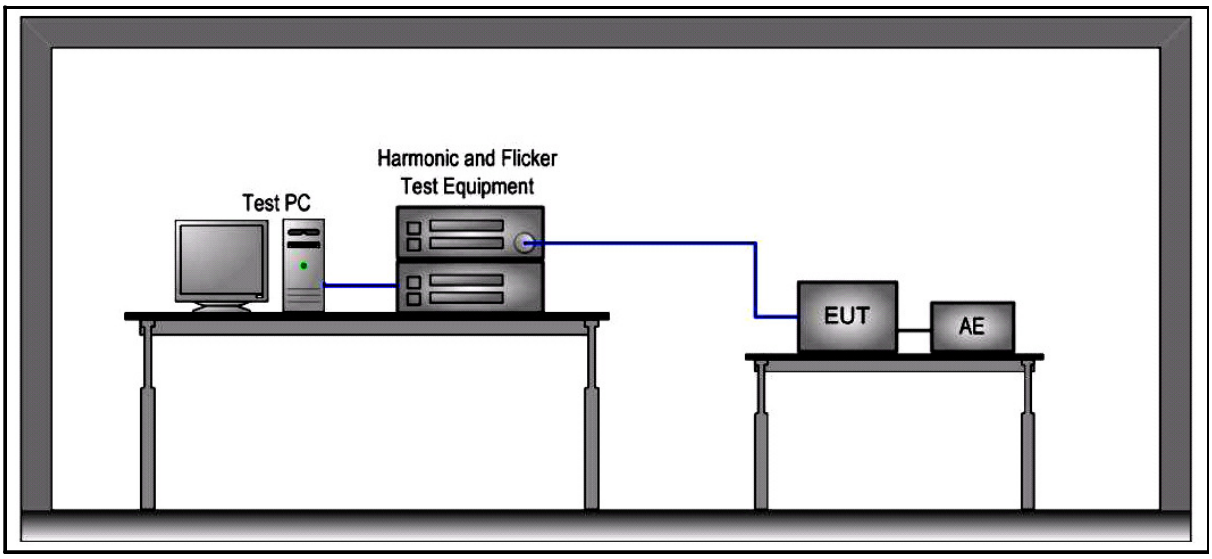
7.4 Harmonics Test Result

Test Requirement:	EN 61000-3-2
Test Method:	EN 61000-3-2
Test Date:	2015-06-02 for 9905WS082 & 9905WS021
	2015-06-18 for 9905WS100
Test voltage:	AC 230V 50Hz
Frequency Range	100Hz to 2kHz
Measurement Time:	3 mins
Class / Severity:	Class A

7.4.1 E.U.T. Operation

Test the EUT in heating mode; the thermostat be adjusted to the middle of the adjustment range.

7.4.2 Test Setup and Procedure



1. The EUT was tested with the equipment configured to its rated current.
2. The measurements were carried out under steady conditions. When a piece of EUT is brought into operation or is taken out of operation, manually or automatically, harmonic currents and power are not taken into account at first 10s following the switching event. EUT shall not be in standby mode for more than 10% of any observation period.
3. Harmonics of the fundamental current were measured using a digital power meter with an analogue output and frequency analyser which was integrated in the harmonic & flicker test system.
4. For each harmonic order, measure the 1.5 s smoothed r.m.s. harmonic current in each DFT time window and calculate the arithmetic average of the measured values from the DFT time windows, over the entire observation period. Each harmonic order, all 1.5 s smoothed r.m.s. harmonic current values and the average values for the individual harmonic currents, taken over the entire test observation period shall be less than or equal to the applicable limits.

7.4.3 Measurement Data

9905WS021

Current Test Result Summary (Run time)

Test Result: Pass **Source qualification: Normal**
THC(A): 0.045 **I-THD(%): 2.795** **POHC(A): 0.004** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	**230.00**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**2.17**	**I_RMS (Amps):**	**1.528**
I_Fund (Amps):	**1.611**	**Crest Factor:**	**1.420**
Power (Watts):	**351.4**	**Power Factor:**	**1.000**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.011	1.080	1.02	0.013	1.620	0.80	Pass
3	0.029	2.300	1.26	0.031	3.450	0.90	Pass
4	0.015	0.430	3.49	0.017	0.645	2.64	Pass
5	0.013	1.140	1.14	0.016	1.710	0.94	Pass
6	0.010	0.300	3.33	0.013	0.450	2.89	Pass
7	0.010	0.770	1.30	0.013	1.155	1.13	Pass
8	0.010	0.230	4.35	0.013	0.345	3.77	Pass
9	0.009	0.400	N/A	0.012	0.600	N/A	Pass
10	0.007	0.184	N/A	0.009	0.276	N/A	Pass
11	0.006	0.330	N/A	0.009	0.495	N/A	Pass
12	0.006	0.153	N/A	0.008	0.230	N/A	Pass
13	0.006	0.210	N/A	0.008	0.315	N/A	Pass
14	0.005	0.131	N/A	0.005	0.197	N/A	Pass
15	0.004	0.150	N/A	0.006	0.225	N/A	Pass
16	0.005	0.115	N/A	0.006	0.173	N/A	Pass
17	0.004	0.132	N/A	0.004	0.199	N/A	Pass
18	0.002	0.102	N/A	0.004	0.153	N/A	Pass
19	0.003	0.118	N/A	0.004	0.178	N/A	Pass
20	0.002	0.092	N/A	0.003	0.138	N/A	Pass
21	0.003	0.107	N/A	0.003	0.161	N/A	Pass
22	0.002	0.084	N/A	0.003	0.125	N/A	Pass
23	0.002	0.098	N/A	0.003	0.147	N/A	Pass
24	0.002	0.077	N/A	0.003	0.115	N/A	Pass
25	0.002	0.090	N/A	0.002	0.135	N/A	Pass
26	0.002	0.071	N/A	0.002	0.106	N/A	Pass
27	0.001	0.083	N/A	0.002	0.125	N/A	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.001	0.078	N/A	0.001	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	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	0.001	0.054	N/A	0.001	0.081	N/A	Pass
35	0.000	0.064	N/A	0.000	0.096	N/A	Pass
36	0.001	0.051	N/A	0.001	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

9905WS082

Current Test Result Summary (Run time)

Test Result: Pass **Source qualification: Normal**
THC(A): 0.062 **I-THD(%): 1.171** **POHC(A): 0.005** **POHC Limit(A): 0.251**
Highest parameter values during test:

V_RMS (Volts):	**230.00**	**Frequency(Hz):**	**50.00**
I_Peak (Amps):	**7.38**	**I_RMS (Amps):**	**5.206**
I_Fund (Amps):	**5.31**	**Crest Factor:**	**1.418**
Power (Watts):	**1197.4**	**Power Factor:**	**1.000**

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.019	1.080	N/A	0.021	1.620	N/A	Pass
3	0.044	2.300	1.91	0.047	3.450	1.36	Pass
4	0.021	0.430	N/A	0.023	0.645	N/A	Pass
5	0.016	1.140	N/A	0.018	1.710	N/A	Pass
6	0.013	0.300	N/A	0.015	0.450	N/A	Pass
7	0.013	0.770	N/A	0.016	1.155	N/A	Pass
8	0.011	0.230	N/A	0.012	0.345	N/A	Pass
9	0.010	0.400	N/A	0.012	0.600	N/A	Pass
10	0.008	0.184	N/A	0.010	0.276	N/A	Pass
11	0.009	0.330	N/A	0.010	0.495	N/A	Pass
12	0.005	0.153	N/A	0.008	0.230	N/A	Pass
13	0.005	0.210	N/A	0.008	0.315	N/A	Pass
14	0.004	0.131	N/A	0.005	0.197	N/A	Pass
15	0.004	0.150	N/A	0.006	0.225	N/A	Pass
16	0.003	0.115	N/A	0.003	0.173	N/A	Pass
17	0.004	0.132	N/A	0.004	0.199	N/A	Pass
18	0.003	0.102	N/A	0.004	0.153	N/A	Pass
19	0.003	0.118	N/A	0.004	0.178	N/A	Pass
20	0.003	0.092	N/A	0.003	0.138	N/A	Pass
21	0.003	0.107	N/A	0.003	0.161	N/A	Pass
22	0.002	0.084	N/A	0.003	0.125	N/A	Pass
23	0.002	0.098	N/A	0.003	0.147	N/A	Pass
24	0.002	0.077	N/A	0.003	0.115	N/A	Pass
25	0.002	0.090	N/A	0.002	0.135	N/A	Pass
26	0.002	0.071	N/A	0.002	0.106	N/A	Pass
27	0.001	0.083	N/A	0.002	0.125	N/A	Pass
28	0.001	0.066	N/A	0.001	0.099	N/A	Pass
29	0.001	0.078	N/A	0.001	0.116	N/A	Pass
30	0.001	0.061	N/A	0.001	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.000	0.058	N/A	0.000	0.086	N/A	Pass
33	0.001	0.068	N/A	0.001	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	0.001	0.051	N/A	0.001	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

9905WS100

Harmonics – Class-A

Current Test Result Summary (Run time)

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

THC(A): 0.083 **I-THD(%): 1.259** **POHC(A): 0.012** **POHC Limit(A): 0.251**

Highest parameter values during test:

V_RMS (Volts):	230.00	Frequency(Hz):	50.00
I_Peak (Amps):	9.28	I_RMS (Amps):	6.507
I_Fund (Amps):	6.611	Crest Factor:	1.426
Power (Watts):	1496.7	Power Factor:	1.00

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.023	1.080	N/A	0.025	1.620	N/A	Pass
3	0.052	2.300	2.26	0.055	3.450	1.59	Pass
4	0.027	0.430	N/A	0.038	0.645	N/A	Pass
5	0.018	1.140	N/A	0.020	1.710	N/A	Pass
6	0.016	0.300	N/A	0.018	0.450	N/A	Pass
7	0.012	0.770	N/A	0.014	1.155	N/A	Pass
8	0.012	0.230	N/A	0.014	0.345	N/A	Pass
9	0.011	0.400	N/A	0.013	0.600	N/A	Pass
10	0.010	0.184	N/A	0.013	0.276	N/A	Pass
11	0.011	0.330	N/A	0.012	0.495	N/A	Pass
12	0.010	0.153	N/A	0.011	0.230	N/A	Pass
13	0.010	0.210	N/A	0.011	0.315	N/A	Pass
14	0.011	0.131	N/A	0.012	0.197	N/A	Pass
15	0.010	0.150	N/A	0.012	0.225	N/A	Pass
16	0.011	0.115	N/A	0.012	0.173	N/A	Pass
17	0.010	0.132	N/A	0.012	0.199	N/A	Pass
18	0.010	0.102	N/A	0.012	0.153	N/A	Pass
19	0.009	0.118	N/A	0.010	0.178	N/A	Pass
20	0.008	0.092	N/A	0.010	0.138	N/A	Pass
21	0.009	0.107	N/A	0.010	0.161	N/A	Pass
22	0.006	0.084	N/A	0.008	0.125	N/A	Pass
23	0.006	0.098	N/A	0.007	0.147	N/A	Pass
24	0.005	0.077	N/A	0.007	0.115	N/A	Pass
25	0.004	0.090	N/A	0.006	0.135	N/A	Pass
26	0.003	0.071	N/A	0.006	0.106	N/A	Pass
27	0.003	0.083	N/A	0.005	0.125	N/A	Pass
28	0.002	0.066	N/A	0.003	0.099	N/A	Pass
29	0.002	0.078	N/A	0.003	0.116	N/A	Pass
30	0.000	0.061	N/A	0.000	0.092	N/A	Pass
31	0.001	0.073	N/A	0.001	0.109	N/A	Pass
32	0.001	0.058	N/A	0.002	0.086	N/A	Pass
33	0.001	0.068	N/A	0.002	0.102	N/A	Pass
34	0.001	0.054	N/A	0.002	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

7.5 Flicker Test Result

Test Requirement:	EN 61000-3-3
Test Method:	EN 61000-3-3
Test Date:	2015-06-02 for 9905WS082 & 9905WS021 2015-06-18 for 9905WS100
Test voltage:	AC 230V 50Hz
Measurement Time:	10 mins
Class / Severity:	Clause 5 of EN 61000-3-3

7.5.1 E.U.T. Operation

Test the EUT in heating mode; the thermostat be adjusted to the middle of the adjustment range.

Note: "Pst and Plt requirements shall not be applied to voltage changes caused by manual switching.

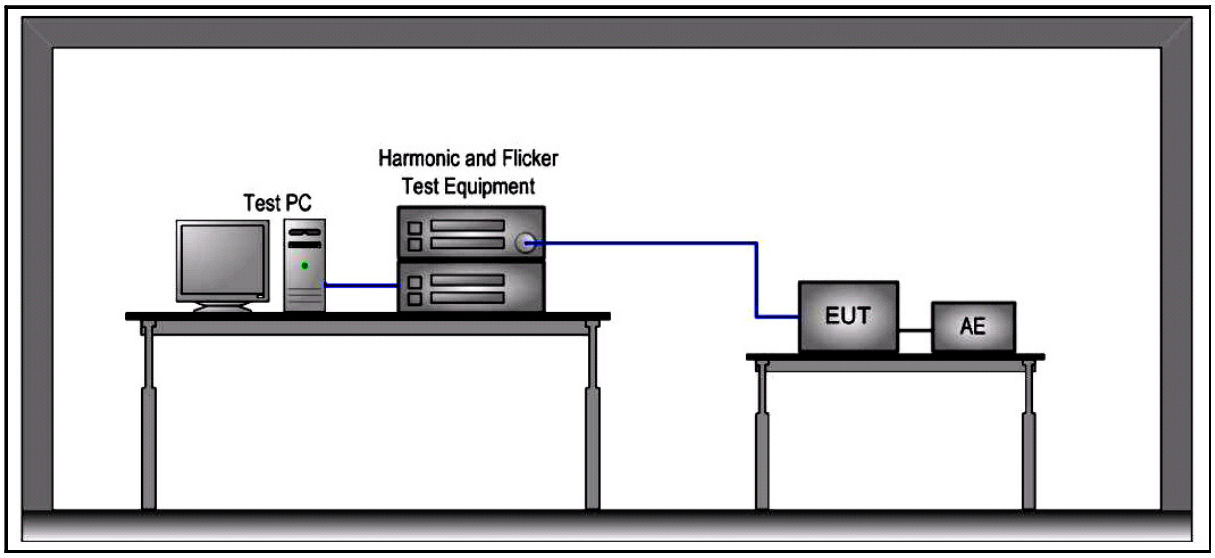
The limits shall not be applied to voltage changes associated with emergency switching or emergency interruptions."

Please also refer to Annex A (Application of limits and type test conditions) for details in EN 61000-3-3.

--No limits shall apply to lamps.
--Incandescent lamp luminaires with ratings less than or equal to 1 000 W and discharge lamp luminaires with ratings less than or equal to 600 W, are deemed to comply with the dmax limits in this standard and are not required to be tested.

--Ballasts are deemed to be part of luminaires and are not required to be tested.

7.5.2 Test Setup and Procedure



1. The test supply voltage (open-circuit voltage) was the rated voltage of the EUT. The test voltage was maintained within ±2 % of the nominal value. The frequency was 50 Hz ±0.5 %.
2. The voltage fluctuations and flicker were measured at the supply terminals of the EUT.
3. The observation period, Tp, for the assessment of flicker values by flicker measurement, flicker simulation, or analytical method was:

   — for Pst, Tp = 10 min.
   — for Plt, Tp = 2 h.

   The observation period included that part of the whole operation cycle in which the EUT produces the most unfavorable sequence of voltage changes.

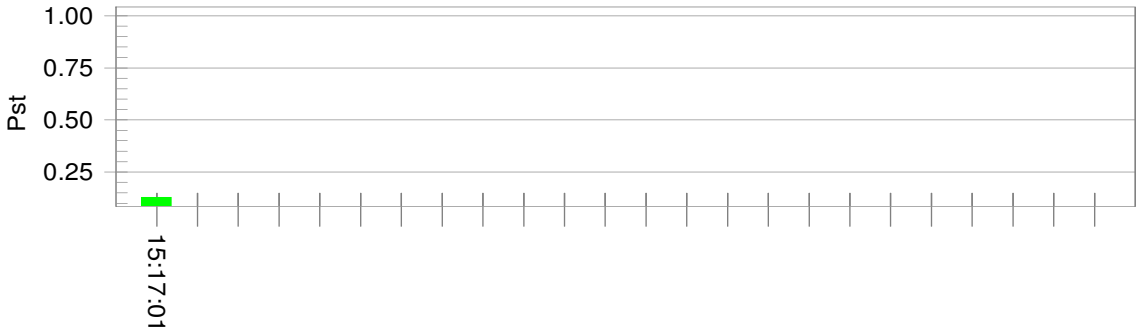
7.5.3 Measurement Data

9905WS021

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

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**



Parameter values recorded during the test:

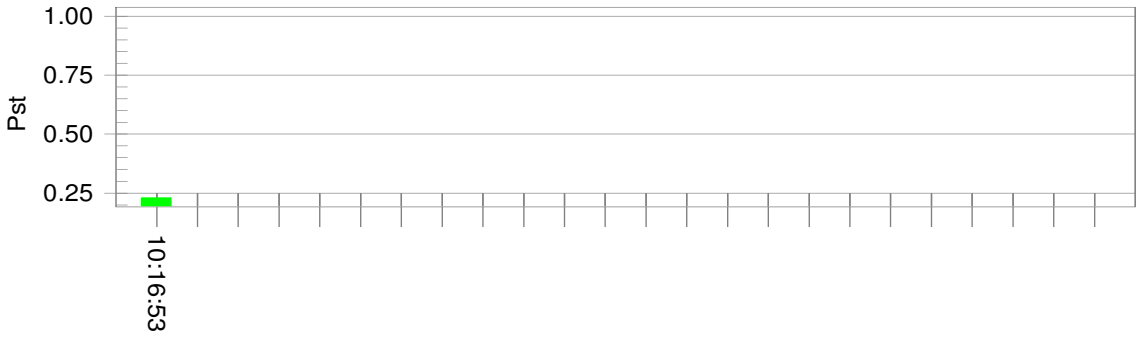
Vrms at the end of test (Volt):	**230.00**			
Highest dt (%):	**0.00**	**Test limit (%):**	**N/A**	**N/A**
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.04**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.096**	**Test limit:**	**1.000**	**Pass**

9905WS082

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

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**



Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.01**			
Highest dt (%):	**0.00**	**Test limit (%):**	**N/A**	**N/A**
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**-0.07**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.105**	**Test limit:**	**1.000**	**Pass**

9905WS100

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

Test Result: Pass **Status: Test Completed**

Pst and limit line **European Limits**

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.00**			
Highest dt (%):	**0.00**	**Test limit (%):**	**N/A**	**N/A**
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.09**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.116**	**Test limit:**	**1.000**	**Pass**

8 Electromagnetic Susceptibility Test Results

Test Requirement: EN 55014-2

Test Method: N/A: See Remark Below

There is no need for immunity tests to be performed on this product in accordance with clause 7.2.1 of EN 55014-2 which states:

“Category I apparatus is deemed to fulfil the relevant immunity requirement without testing.”

For further details, please refer to clause 4.1 of EN 55014-2 which states:

“Category I: apparatus containing no electronic control circuitry.

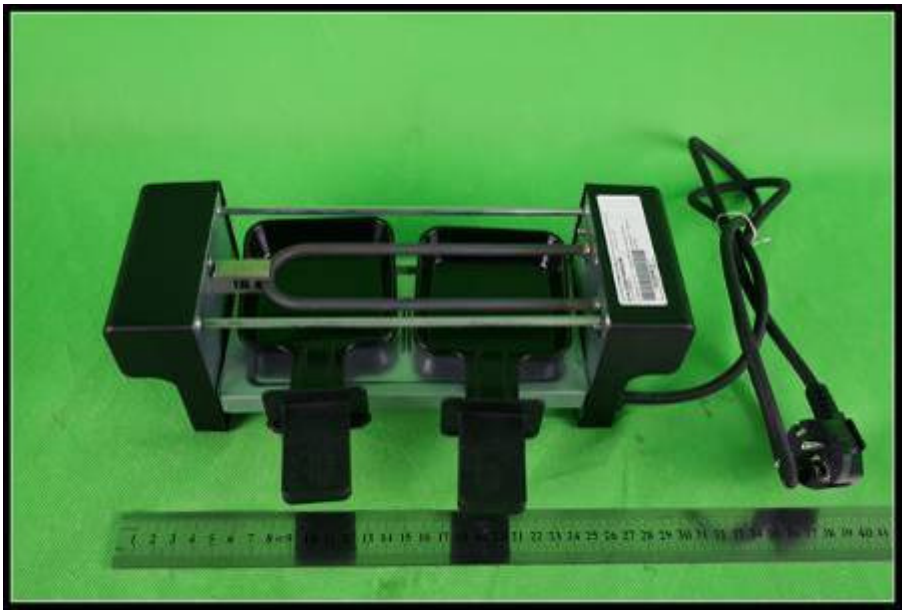
Example: motor operated appliances, lighting toys, track sets without electronic control units, tools, heating appliances UV and IR radiators and apparatus containing components such as electromechanical switches and thermostats.

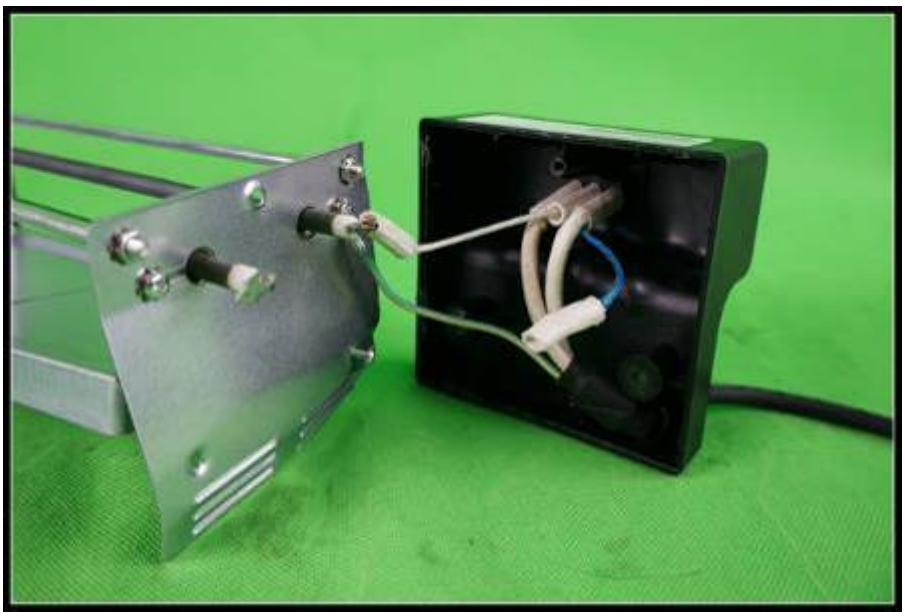
Electric circuits consisting of passive components (such as radio interference suppression capacitors or inductors, mains transformers and mains frequency rectifiers) are not considered to be electronic control circuitry.”

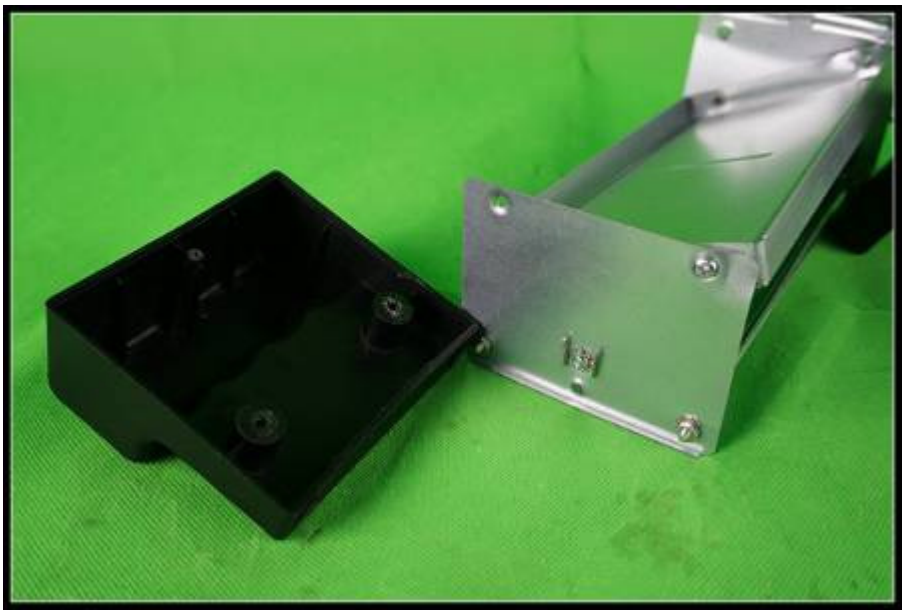
9 Photographs

9.1 EUT Constructional Details

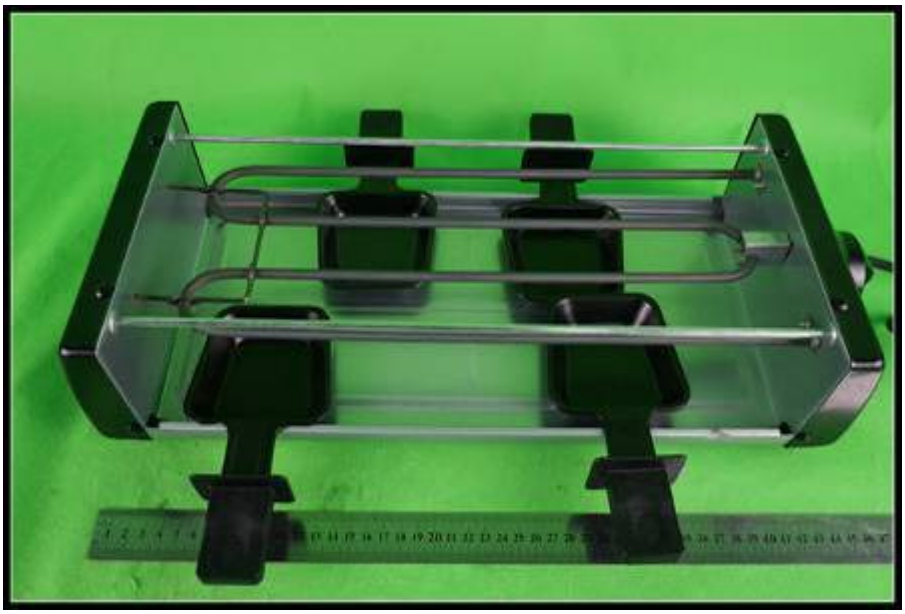
9905WS021

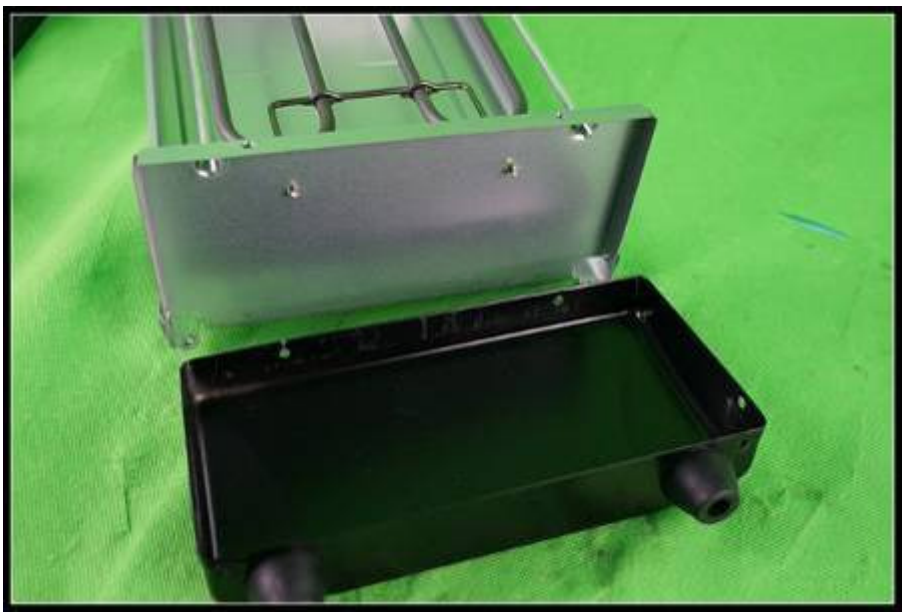




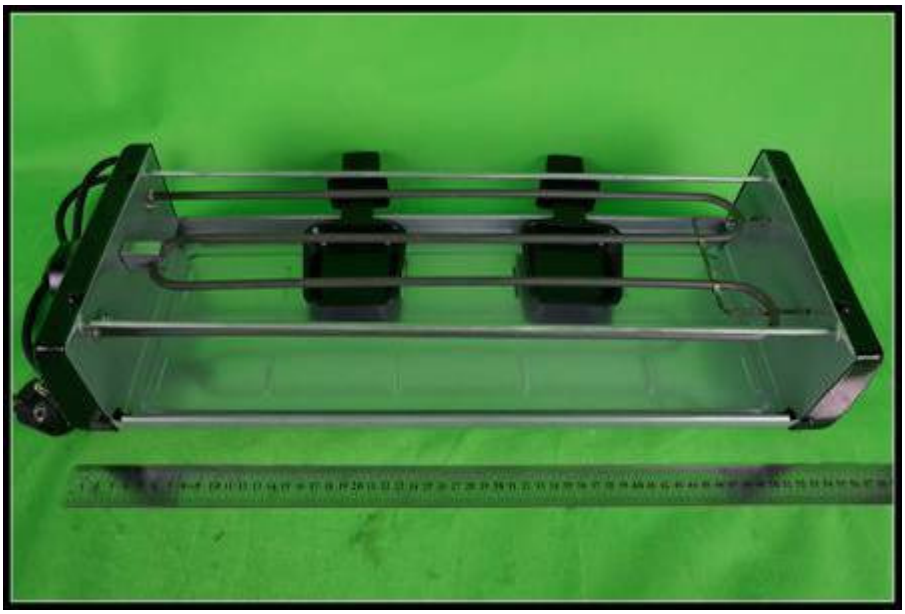


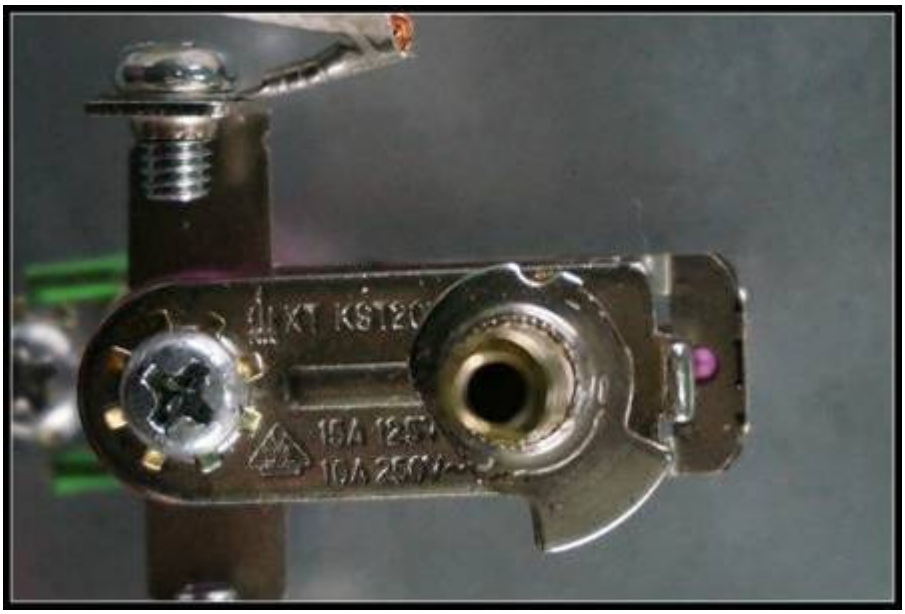
9905WS082





9905WS100





--End of Report--