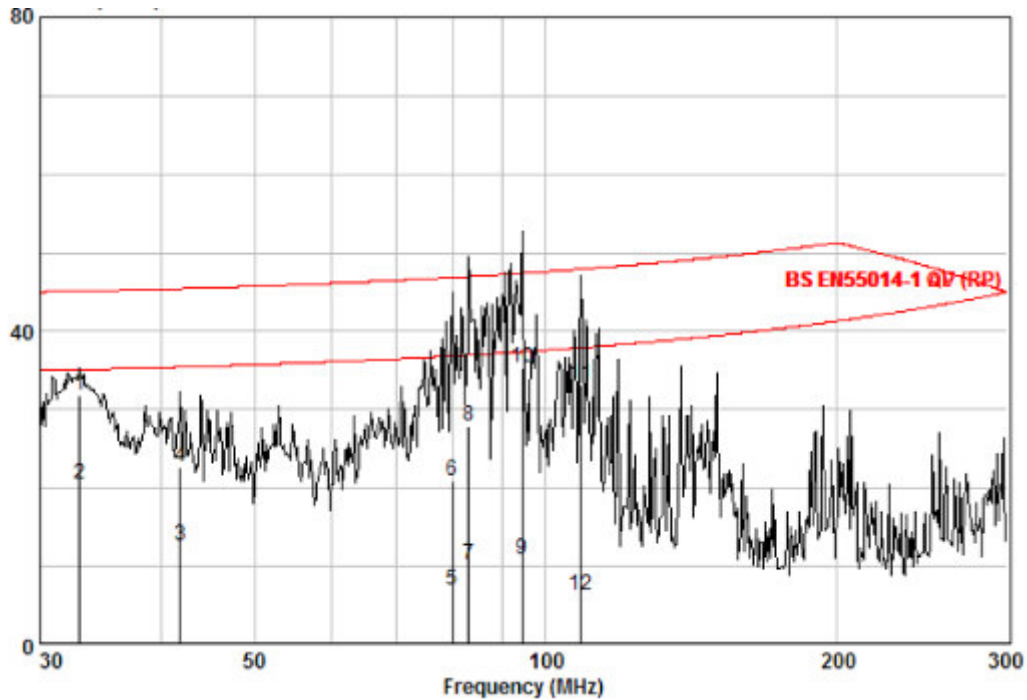


For BS EN 55014-1

DC IN:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

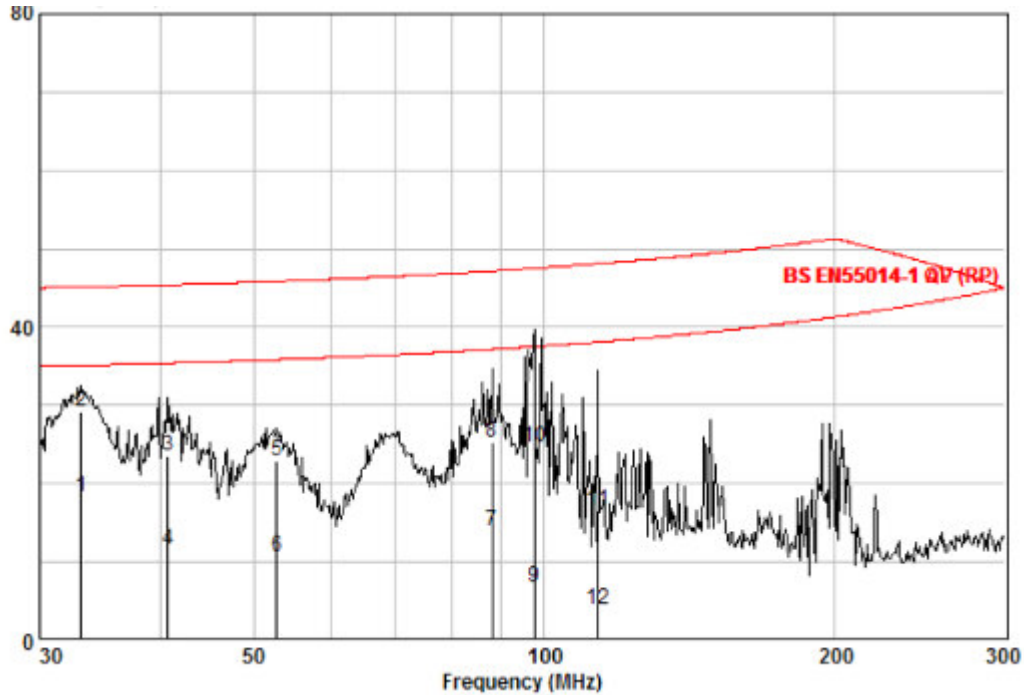
Freq	Read Level	Trans.	RF Switch Loss	Level	Limit Line	Over Limit	Detector
MHz	(dBμV)	dB	dB	(dBpW)	(dBpW)	dB	
32.970	29.82	1.91	0.00	31.73	45.11	-13.38	QP
32.970	18.57	1.91	0.00	20.48	35.11	-14.63	AVERAGE
41.891	10.55	2.14	0.00	12.69	35.44	-22.75	AVERAGE
41.891	20.45	2.14	0.00	22.59	45.44	-22.85	QP
80.006	6.30	0.70	0.00	7.00	36.85	-29.85	AVERAGE
80.006	20.16	0.70	0.00	20.86	46.85	-25.99	QP
83.200	9.54	0.63	0.00	10.17	36.97	-26.80	AVERAGE
83.200	27.24	0.63	0.00	27.87	46.97	-19.10	QP
94.650	10.18	0.61	0.00	10.79	37.39	-26.60	AVERAGE
94.650	34.64	0.61	0.00	35.25	47.40	-12.14	QP
108.673	31.70	1.43	0.00	33.13	47.92	-14.79	QP
108.673	4.93	1.43	0.00	6.36	37.91	-31.56	AVERAGE

For BS EN 55014-1

AC MAINS:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

Freq	Read Level	Trans.	RF Switch Loss	Level	Limit Line	Over Limit	Detector
MHz	(dBμV)	dB	dB	(dBpW)	(dBpW)	dB	
33.122	16.39	1.96	0.00	18.35	35.12	-16.76	AVERAGE
33.122	27.30	1.96	0.00	29.26	45.12	-15.85	QP
40.749	21.24	2.34	0.00	23.58	45.40	-21.82	QP
40.749	9.11	2.34	0.00	11.45	35.40	-23.95	AVERAGE
52.859	22.02	0.77	0.00	22.79	45.85	-23.05	QP
52.859	10.01	0.77	0.00	10.78	35.85	-25.06	AVERAGE
88.333	13.43	0.51	0.00	13.94	37.16	-23.22	AVERAGE
88.333	24.74	0.51	0.00	25.25	47.16	-21.91	QP
97.751	6.14	0.70	0.00	6.84	37.51	-30.67	AVERAGE
97.751	23.84	0.70	0.00	24.54	47.51	-22.97	QP
113.533	15.03	1.51	0.00	16.54	48.10	-31.56	QP
113.533	2.45	1.51	0.00	3.96	38.09	-34.13	AVERAGE

For BS EN 55014-1

DC OUT:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

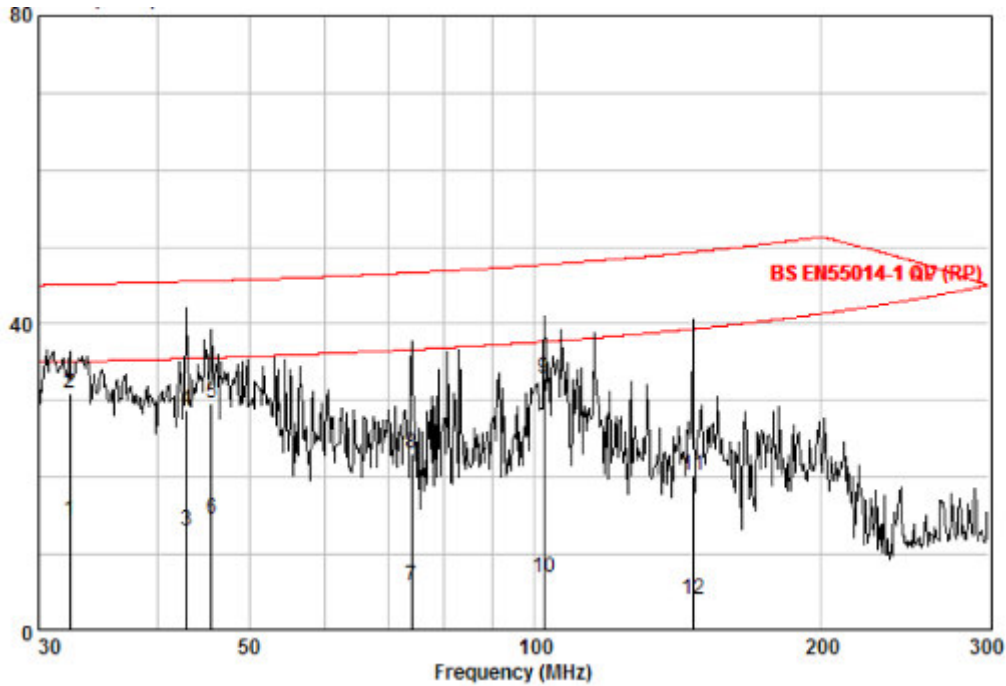
Freq MHz	Read Level (dBμV)	Trans. Loss dB	RF Switch Loss dB	Level (dBpW)	Limit Line (dBpW)	Over Limit dB	Detector
32.368	28.38	1.73	0.00	30.11	45.09	-14.98	QP
32.368	17.43	1.73	0.00	19.16	35.09	-15.93	AVERAGE
34.843	25.63	2.47	0.00	28.10	45.18	-17.08	QP
34.843	15.25	2.47	0.00	17.72	35.18	-17.46	AVERAGE
52.375	29.46	0.79	0.00	30.25	45.83	-15.58	QP
52.375	16.46	0.79	0.00	17.25	35.83	-18.58	AVERAGE
77.825	28.13	0.87	0.00	29.00	46.77	-17.77	QP
77.825	14.13	0.87	0.00	15.00	36.77	-21.77	AVERAGE
103.782	31.24	1.06	0.00	32.30	47.73	-15.44	QP
103.782	14.14	1.06	0.00	15.20	37.73	-22.54	AVERAGE
112.751	11.26	1.51	0.00	12.77	38.06	-25.29	AVERAGE
112.751	28.93	1.51	0.00	30.44	48.07	-17.63	QP

For BS EN 55014-1

CONTROL IN:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

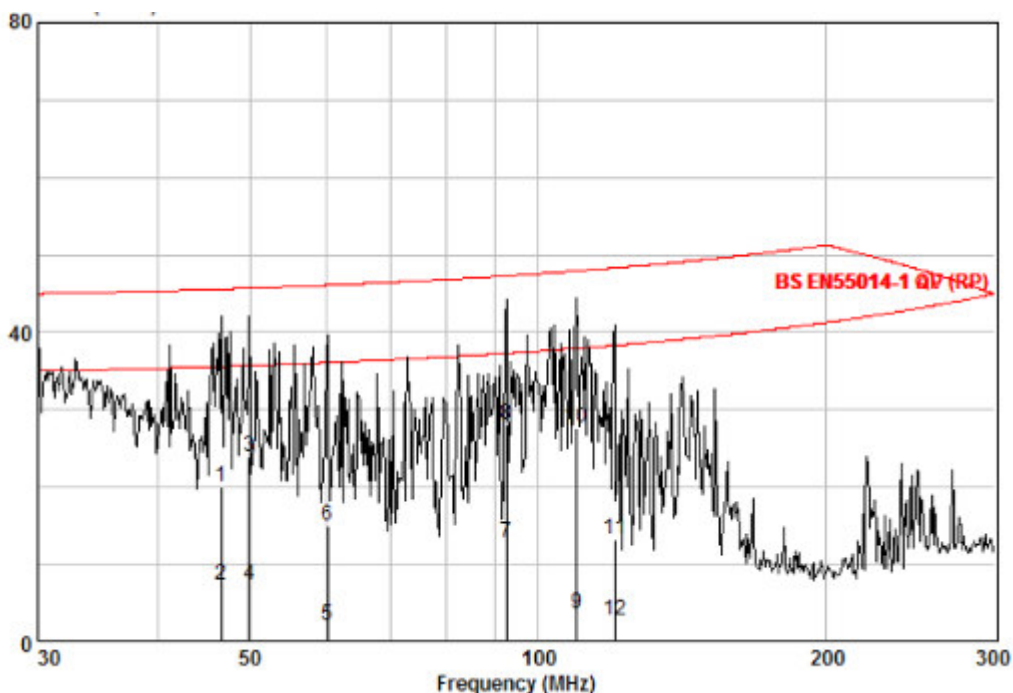
Freq	Read Level	Trans.	RF Switch Loss	Level	Limit Line	Over Limit	Detector
MHz	(dBμV)	dB	dB	(dBpW)	(dBpW)	dB	
32.368	12.68	1.73	0.00	14.41	35.09	-20.68	AVERAGE
32.368	29.22	1.73	0.00	30.95	45.09	-14.14	QP
42.966	11.19	1.96	0.00	13.15	35.48	-22.33	AVERAGE
42.966	26.87	1.96	0.00	28.83	45.48	-16.65	QP
45.616	28.14	1.53	0.00	29.67	45.58	-15.91	QP
45.616	13.06	1.53	0.00	14.59	35.58	-20.99	AVERAGE
74.152	4.77	1.18	0.00	5.95	36.64	-30.69	AVERAGE
74.152	21.86	1.18	0.00	23.04	46.64	-23.60	QP
102.123	32.00	0.93	0.00	32.93	47.67	-14.75	QP
102.123	6.05	0.93	0.00	6.98	37.67	-30.69	AVERAGE
146.596	18.71	1.61	0.00	20.32	49.32	-29.00	QP
146.596	2.47	1.61	0.00	4.08	39.32	-35.24	AVERAGE

For BS EN 55014-1

CONTROL OUT:

Peak Scan:

Level (dBpW)



Quasi-peak and Average measurement:

Freq	Read Level	Trans. Loss	RF Switch Loss	Level	Limit Line	Over Limit	Detector
MHz	(dBμV)	dB	dB	(dBpW)	(dBpW)	dB	
46.679	18.68	1.36	0.00	20.04	45.62	-25.57	QP
46.679	6.05	1.36	0.00	7.41	35.62	-28.20	AVERAGE
49.902	23.11	0.89	0.00	24.00	45.74	-21.74	QP
49.902	6.58	0.89	0.00	7.47	35.74	-28.27	AVERAGE
60.273	1.68	0.58	0.00	2.26	36.12	-33.86	AVERAGE
60.273	14.36	0.58	0.00	14.94	46.12	-31.18	QP
92.709	12.34	0.56	0.00	12.90	37.32	-24.42	AVERAGE
92.709	27.59	0.56	0.00	28.15	47.32	-19.17	QP
109.678	2.13	1.50	0.00	3.63	37.95	-34.32	AVERAGE
109.678	26.10	1.50	0.00	27.60	47.95	-20.35	QP
120.260	11.79	1.51	0.00	13.30	48.34	-35.04	QP
120.260	1.26	1.51	0.00	2.77	38.34	-35.57	AVERAGE

7.3 Harmonics Test Result

Test Requirement: EN 61000-3-2 & BS EN 61000-3-2

Test Method: N/A: See Remark Below

Frequency Range: 100 Hz to 2 kHz

There is no need for Harmonics test to be performed on this product (rated power is less than 75W) in accordance with EN 61000-3-2 & BS EN 61000-3-2.

For further details, please refer to Clause 7, Note 1 of EN 61000-3-2 & BS EN 61000-3-2 which states:

“For the following categories of equipment limits are not specified in this edition of the standard.

Note 1: Equipment with a rated power of 75W or less, other than lighting equipment.”

7.4 Flicker Test Result

Test Requirement:	EN 61000-3-3 & BS EN 61000-3-3
Test Method:	EN 61000-3-3 & BS EN 61000-3-3
Test Date:	2011-07-06
Test voltage	AC 230V 50Hz
Measurement Time:	10 mins
Class / Severity:	Clause 5 of EN 61000-3-3

7.4.1 E.U.T. Operation

Operating Environment:

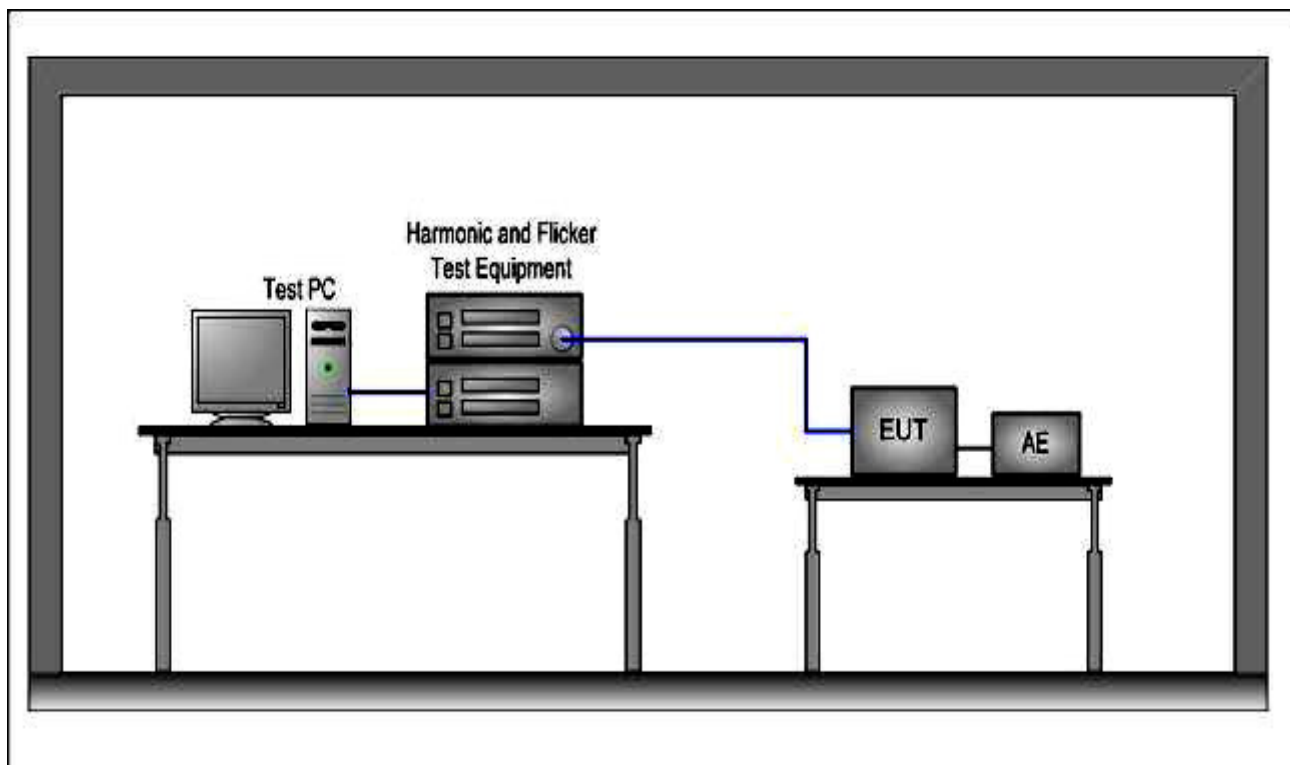
Temperature: 22.0 °C Humidity: 52% RH Atmospheric Pressure: 1005 mbar

EUT Operation: Test the EUT in motor running and heating mode.

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 & BS EN 61000-3-3.

7.4.2 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 $\pm 2\%$ of the nominal value. The frequency was $50\text{ Hz} \pm 0.5\%$.
2. The voltage fluctuations and flicker were measured at the supply terminals of the EUT.
3. The observation period, T_p , for the assessment of flicker values by flicker measurement, flicker simulation, or analytical method was:
 - for P_{st} , $T_p = 10\text{ min}$;
 - for P_{lt} , $T_p = 2\text{ h}$.

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



7.4.3 Measurement Data

For EN 61000-3-3

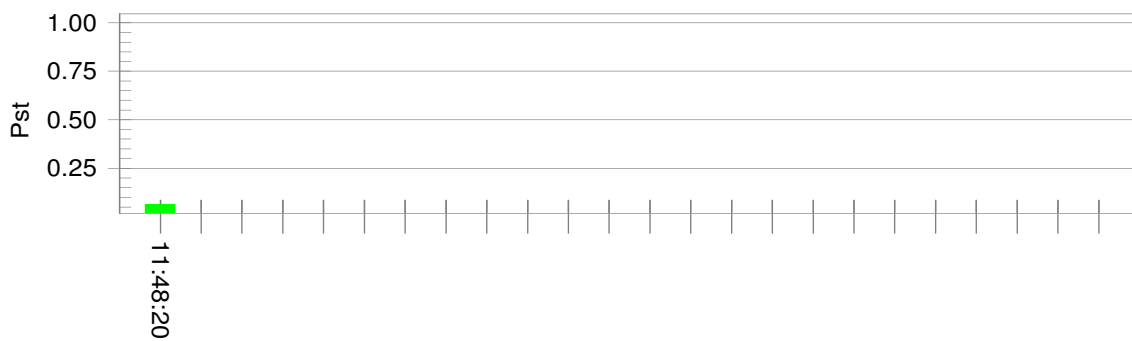
Flicker Test Summary

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):	230.15			
Highest dt (%):	0.00	Test limit (%):	3.30	Pass
Time(mS) > dt:	0.00	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass



For BS EN 61000-3-3

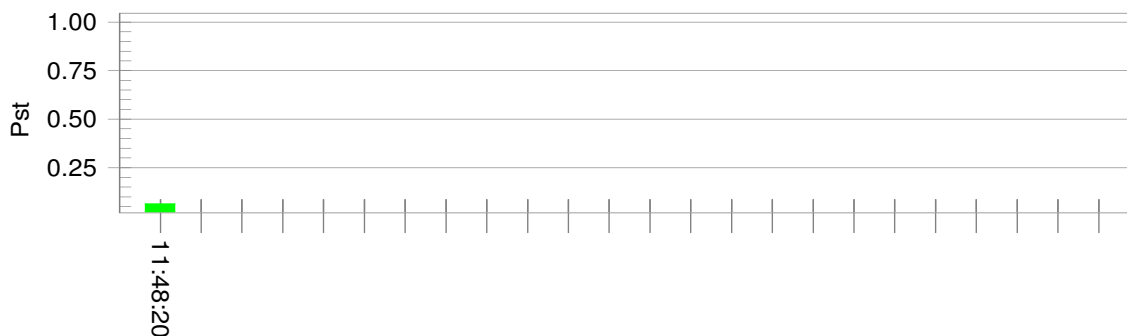
Flicker Test Summary

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):	230.15			
Highest dt (%):	0.00	Test limit (%):	3.30	Pass
Time(mS) > dt:	0.00	Test limit (mS):	500.0	Pass
Highest dc (%):	0.00	Test limit (%):	3.30	Pass
Highest dmax (%):	0.00	Test limit (%):	4.00	Pass
Highest Pst (10 min. period):	0.064	Test limit:	1.000	Pass