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**EMC test report for Li-ion Battery Charger
Models SSLC084V42 and SSLC058V29**

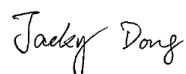
Guangzhou, date of issue: 2012-12-26

Author Jacky Dong

By order of Wuxi Sans Electronics Co., Ltd. at Wuxi City, China

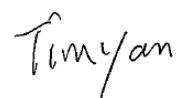
Author : Jacky Dong

Pages : 29 pages

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Reviewed : Tim Yan

Annex : NIL

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1 **CONCLUSION**

The equipment under test (EUT) meets the essential requirements of the EMC Directive 2004/108/EC.

This report is based on report GZ09050006a issued by DEKRA CTI Testing & Laboratory Services on 2009-05-26. In this update, the applied standards were upgraded, after technical reviewing, the radiated emission assessment was added, and Power supply voltage interruptions & dips test was added for model SSLC084V42.

The test results included in this report belong to models SSLC084V42 and SSLC058V29.

The conclusion and results stated in this test report are based on a non-recurrent examination of sample(s) provided by the applicant.

1.1 **Model description**

The apparatus as supplied for the test is Li-ion Battery Charger, models SSLC084V42 and SSLC058V29 are intended for residential use, the products contain electronic control circuit and with earth connection.

Base on client's declaration, Models SSLC084V42 and SSLC058V29 are identical except the output voltage, the output voltage of model SSLC084V42 is 42V, and model SSLC058V29 is 29.4V.

Hence, model SSLC084V42 was chosen for full test, model SSLC058V29 was chosen to repeat conducted emission and disturbance power for compliance verification.



Figure 1 model SSLC084V42



Figure 2 model SSLC058V29

The operating modes as stated in the user manual are on modes and off mode.

1.2 Environment

The requirements and standards apply to equipment intended for use in:

√	Residential (domestic) environment
√	Commercial and light-industrial environment
	Industrial environment
	Medical environment

1.3 Classification

The standard EN 55014-2:1997+A1: 2001+A2: 2008 is subdivided in four categories. For each category, the specific immunity requirements are formulated.

	Category 1	Apparatus containing no electronic control circuitry.
√	Category 2	Apparatus containing electronic control circuitry with no internal clock or oscillator frequency higher than 15 MHz.
	Category 3	Battery powered apparatus containing electronic control circuitry with no internal clock higher than 15 MHz.
	Category 4	All other apparatus.

2 SUMMARY

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

2.1 Applied standards

Standard	Year	Title
EN 55014-1	2006	Emission – Electrical motor-operated and thermal appliances for household and similar purposes, electrical tools and similar electrical apparatus
A1	2009	
A2	2011	
EN 55014-2	1997	Immunity – Household appliances, electric tools and similar
A1	2001	
A2	2008	
EN 61000-3-2	2006	Limits for harmonic currents emissions
A1	2009	
A2	2009	
EN 61000-3-3	2008	Limitation of voltage fluctuations and flicker

2.2 Overview of results

Emission tests	Result
Mains disturbance voltage	PASS
Disturbance power	PASS
Radiated emission (30MHz-1GHz)	PASS
Harmonic current	PASS
Limitation of voltage fluctuations and flicker	PASS

Immunity tests	Result
Electrostatic Discharges (ESD)	PASS
Electrical fast transient (EFT) / Burst transients	PASS
Surge transients	PASS
Conducted RF disturbances	PASS
Power supply voltage interruptions & dips	PASS

3 GENERAL INFORMATION

3.1 Product Information

Equipment under test	Li-ion Battery Charger
Trade mark	SANS
Tested Type	SSLC084V42, SSLC058V29
U _{nominal}	100-240Vac, 47-63Hz
P _{rated}	42V/2.0A for SSLC084V42 29.4V/2.0A for SSLC058V29

3.2 Customer Information

Applicant/ Manufacturer	Wuxi Sans Electronics Co., Ltd.
Contact person	/
Telephone	/
Fax	/
Address	Building, No. E Industrial YanDai, Dongbeitang Town, Wuxi City, Jiangsu Province, China

Factory	Wuxi Sans Electronics Co., Ltd.
Contact person	/
Telephone	/
Fax	/
Address	Building, No. E Industrial YanDai, Dongbeitang Town, Wuxi City, Jiangsu Province, China

3.3 Test data

Location	Centre Testing International Corporation
Address	Building C, Hongwei Industrial Zone, Baoan 70 District, Shenzhen, Guangdong, China
Date	May 19, 2009 to May 26, 2009
Supervised by	Sunny Liang
Location	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch
Address	Building A3, No.3 Qiyun Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, P.R. China
Date	2012-12-20 to 2012-12-21
Supervised by	Jacky Dong

3.4 Environmental conditions

Tests have been performed in a controlled laboratory environment, where the environmental conditions are maintained within the applicable ranges.

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

4 EMISSION TEST RESULTS

4.1 Mains disturbance voltage

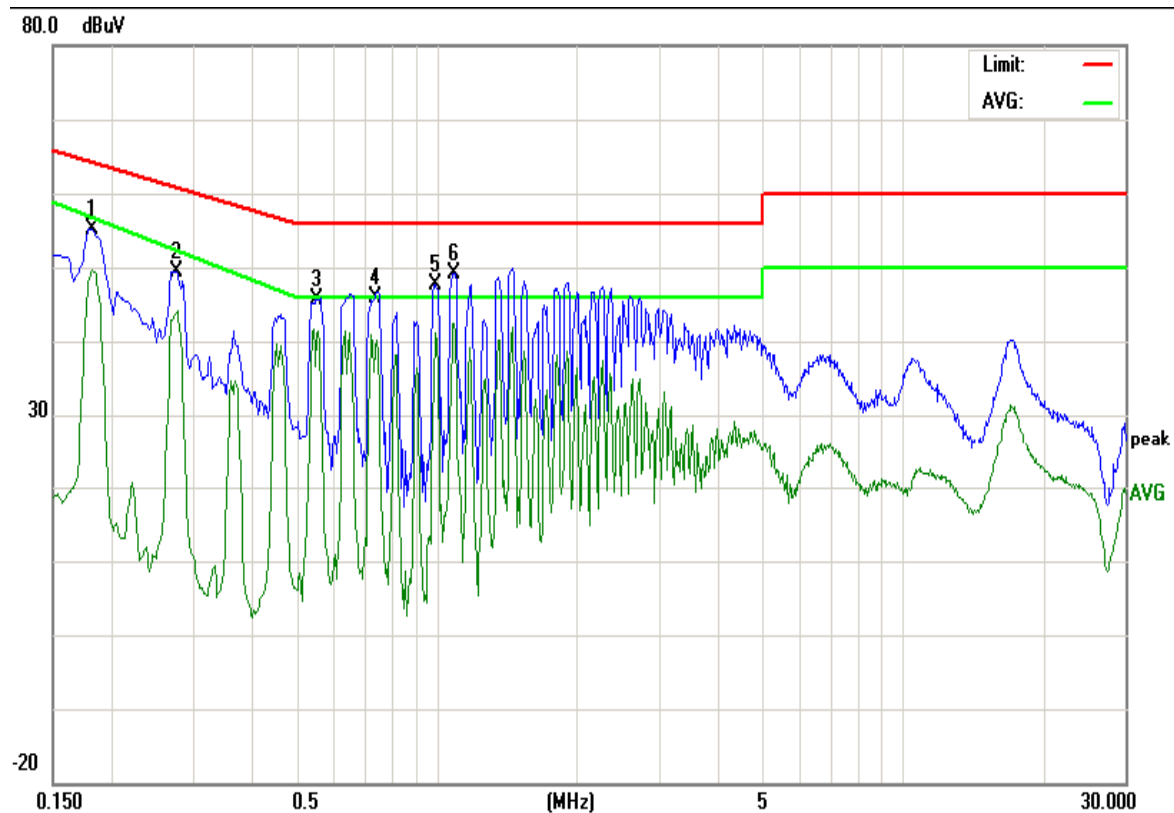
Standard	EN 55014-1				
	Limit				
Frequency [MHz]	QP [dB(μV)]		AV [dB(μV)]		
0,15 – 0,50	66	– 56 *)	59	– 46 *)	
0,50 – 5,0	56		46		
5,0 – 30,0	60		50		

*) Limits decreasing linearly with the logarithm of the frequency

Port	AC mains
Test method	LISN
Mode	On mode
Test voltage	240V,50Hz

Results for model SSLC084V42

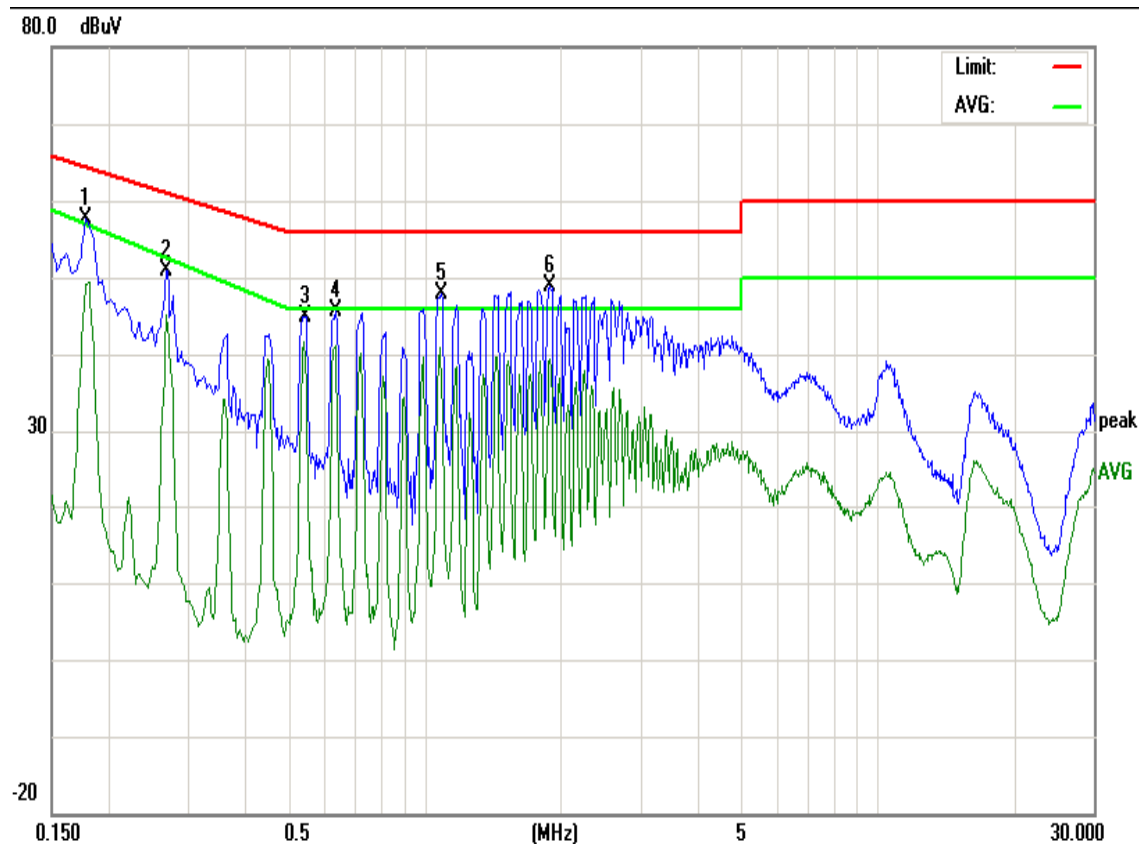
Live



Frequency (MHz)	Reading Level (dBuV)			Correct Factor (dB)	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		Result (P/F)	Remarks (L/N)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
0.1819	45.12	43.21	39.93	10.13	55.25	53.34	50.06	64.39	58.91	-11.05	-8.85	P	L
0.2779	39.10	37.89	34.63	9.97	49.07	47.86	44.60	60.88	52.34	-13.22	-7.74	P	L
0.5460	35.08	33.71	31.08	10.00	45.08	43.71	41.08	56.00	46.00	-12.29	-4.92	P	L
0.7260	35.59	33.84	30.10	9.94	45.53	43.58	40.04	56.00	46.00	-12.42	-5.96	P	L
0.9980	37.69	35.94	31.37	9.85	47.54	45.79	41.22	56.00	46.00	-10.21	-4.78	P	L
1.0900	39.40	40.03	32.96	9.85	49.25	49.88	42.81	56.00	46.00	-8.12	-3.19	P	L

No other significant emissions were measured at the frequency range of interest employing both the QP and AV detectors.

Neutral

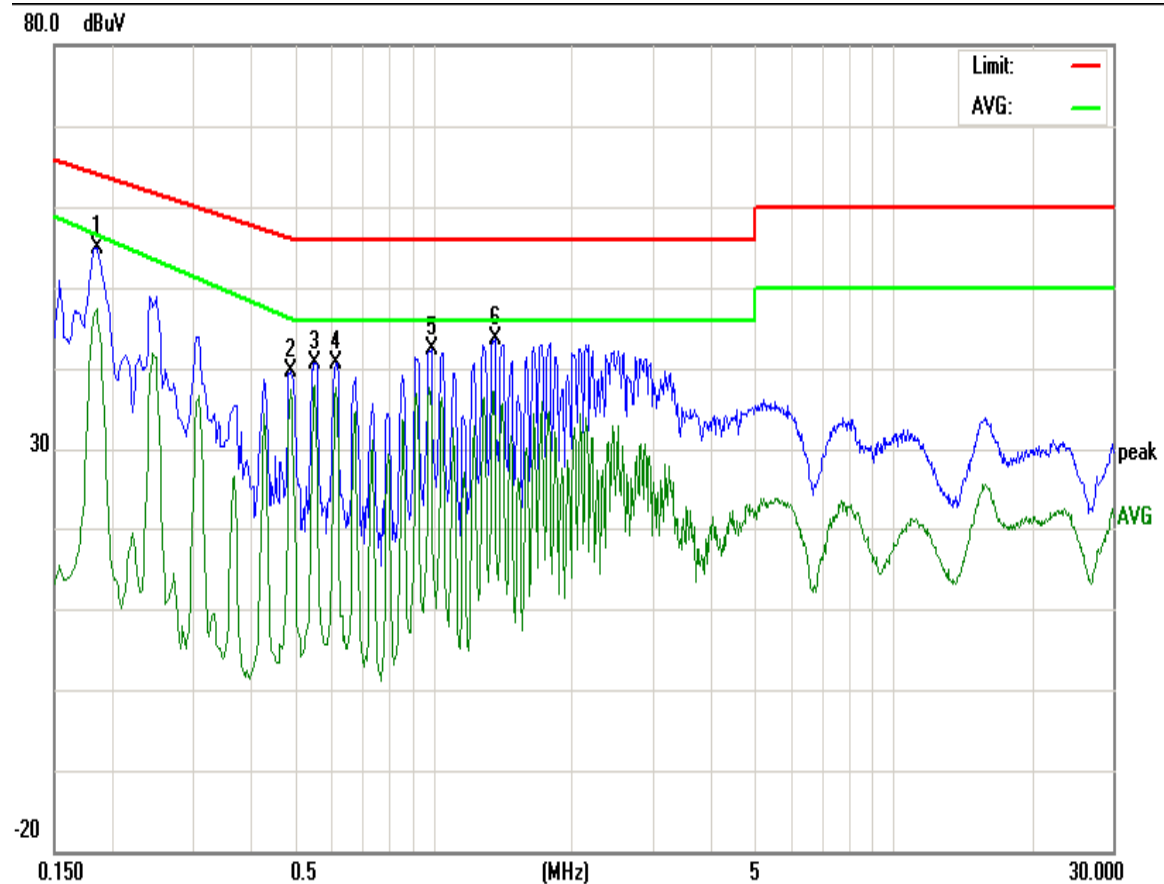


Frequency (MHz)	Reading Level (dBuV)			Correct Factor (dB)	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		Result (P/F)	Remarks (L/N)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
0.1780	47.47	44.94	36.74	10.15	57.62	55.09	46.89	64.57	57.15	-9.48	-10.26	P	N
0.2700	40.95	38.49	32.16	9.98	50.91	48.45	42.12	61.12	52.85	-12.67	-10.53	P	N
0.5480	34.82	33.58	28.01	10.00	44.82	43.58	38.01	58.00	46.00	-12.42	-7.99	P	N
0.6340	35.58	33.14	30.10	9.97	45.55	43.11	40.07	58.00	46.00	-12.89	-5.93	P	N
1.0900	37.93	38.04	31.37	9.85	47.78	47.89	41.22	58.00	46.00	-8.11	-4.78	P	N
1.8940	38.95	37.15	28.56	9.83	48.78	46.98	38.39	58.00	46.00	-9.02	-7.61	P	N

No other significant emissions were measured at the frequency range of interest employing both the QP and AV detectors.

Results for model SSLC058V29

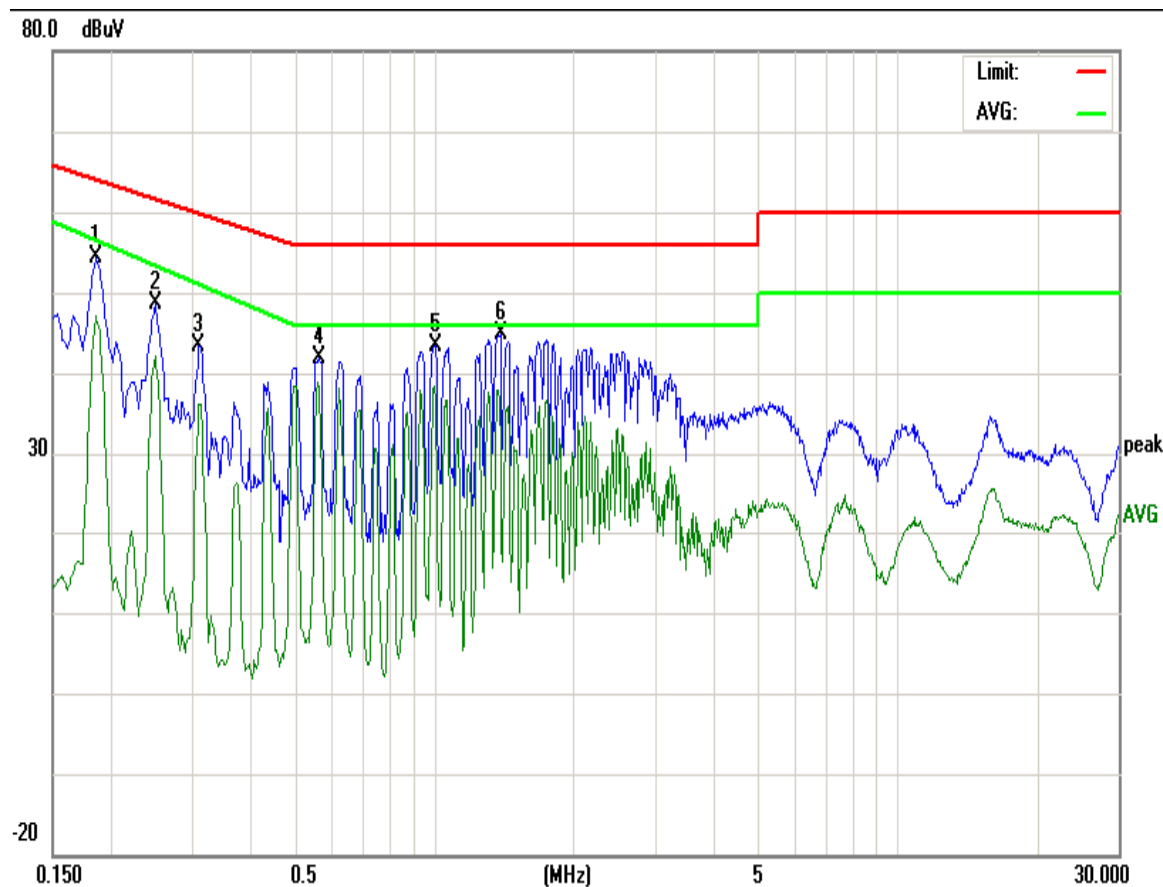
Live



Frequency (MHz)	Reading Level (dBuV)			Correct Factor (dB)	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		Result (P/F)	Remarks (L/N)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
0.1880	44.84	39.89	34.15	10.09	54.93	49.78	44.24	64.21	58.67	-14.43	-12.43	P	L
0.4900	29.57	27.49	26.87	10.01	39.58	37.50	36.88	56.17	46.22	-18.67	-9.34	P	L
0.5540	30.65	27.89	25.76	9.99	40.64	37.88	35.75	56.00	46.00	-18.12	-10.25	P	L
0.6140	30.64	28.14	26.38	9.97	40.61	38.11	36.35	56.00	46.00	-17.89	-9.65	P	L
0.9900	32.62	30.28	21.43	9.85	42.47	40.13	31.28	56.00	46.00	-15.87	-14.72	P	L
1.3619	33.67	--	21.59	9.84	43.51	--	31.43	56.00	46.00	<-10	-14.57	P	L

No other significant emissions were measured at the frequency range of interest employing both the QP and AV detectors.

Neutral



Frequency (MHz)	Reading Level (dBuV)			Correct Factor (dB)	Measurement (dBuV)			Limit (dBuV)		Margin (dB)		Result (P/F)	Remarks (L/N)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.		
0.1880	44.23	41.03	33.26	10.09	54.32	51.12	43.35	64.21	56.67	-13.09	-13.32	P	N
0.2500	38.73	--	32.23	9.96	48.69	--	42.19	61.75	53.48	<-10	-11.29	P	N
0.3100	33.47	--	26.19	9.97	43.44	--	36.16	59.97	51.16	<-10	-15.00	P	N
0.5000	31.96	31.32	29.11	9.99	41.95	41.31	39.10	56.00	46.00	-14.69	-6.90	P	N
1.0100	33.58	34.90	29.96	9.85	43.43	44.75	39.81	56.00	46.00	-11.25	-6.19	P	N
1.3900	34.92	--	20.77	9.84	44.76	--	30.61	56.00	46.00	<-10	-15.39	P	N

No other significant emissions were measured at the frequency range of interest employing both the QP and AV detectors.

Refer to chapter 6 for the test set-up.

Conclusion:

PASS

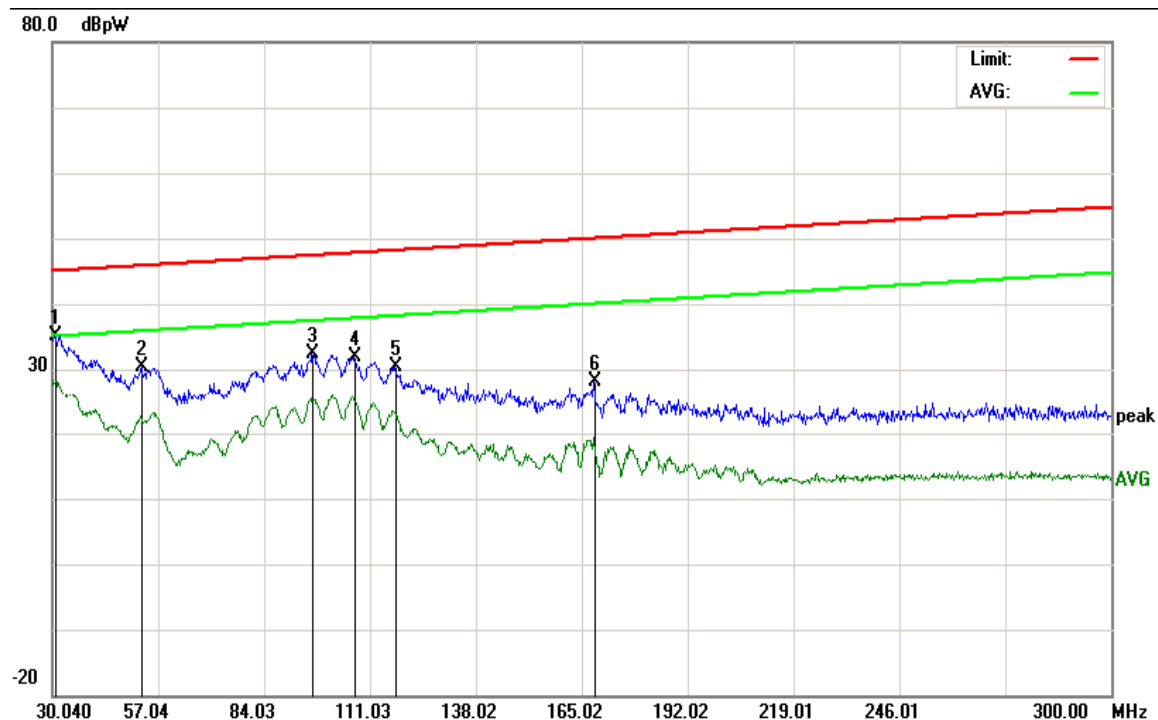
4.2 Disturbance power

Standard	EN 55014-1			
	Limit			
Frequency [MHz]	QP [dB(pW)]		AV [dB(pW)]	
30,0-300,0	45	–	55 *)	35 – 45 *)

*) Limits increasing linearly with the frequency

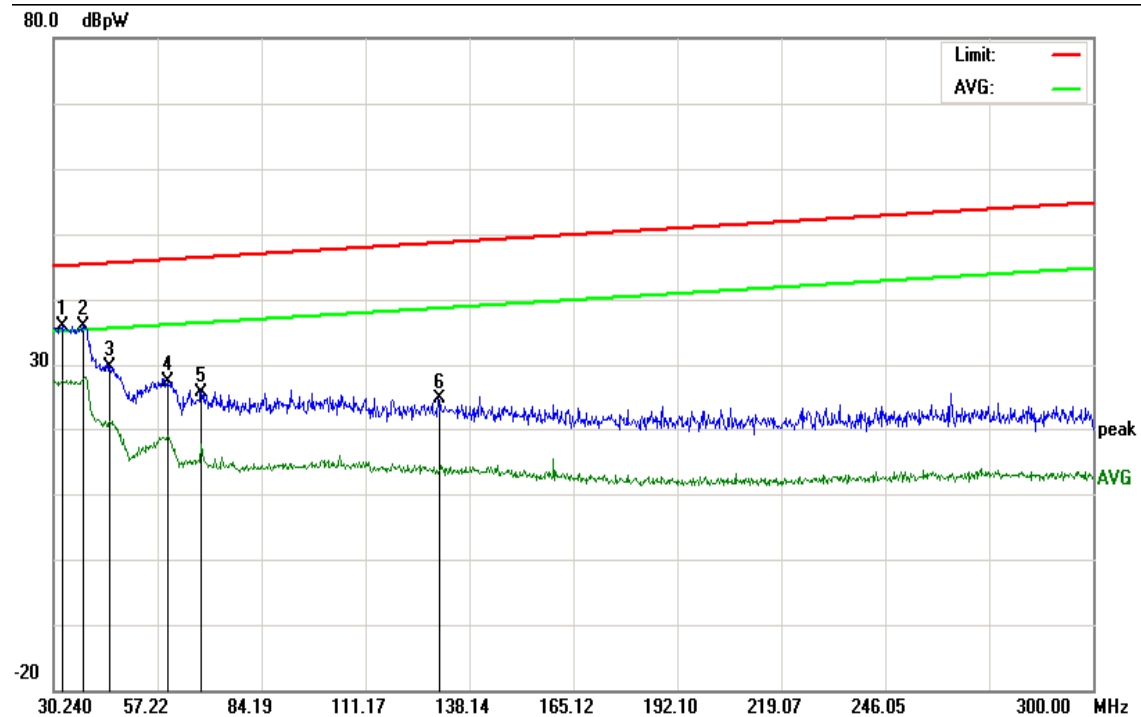
Port	AC Mains
Mode	On mode

Results model SSLC084V42



No other significant emission was measured at the frequency range of interest employing both the QP and AV detectors.

Results for model SSLC058V29

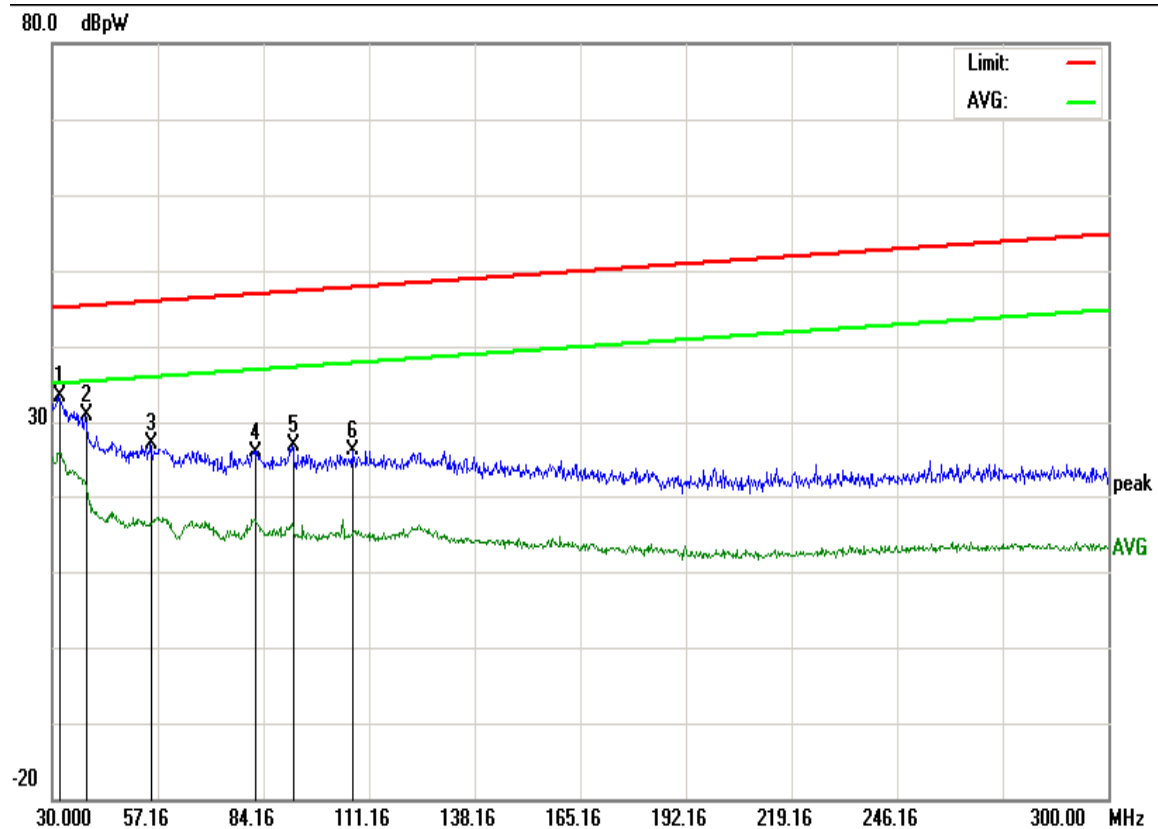


Disturbance Power Emission Test Result												
Frequency (MHz)	Reading Level (dBpW)			Correct Factor (dB)	Measurement (dBpW)			Limit (dBpW)		Margin (dB)		Result (P/F)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.	
30.1600	10.31	--	1.44	27.18	37.49	--	28.62	45.01	35.01	<-6	-6.39	P
39.0000	10.78	--	2.89	26.50	37.28	--	29.39	45.33	35.33	<-6	-5.94	P
45.1600	9.89	--	1.01	24.88	34.77	--	25.89	45.56	35.56	<-10	-9.67	P
52.4000	8.27	--	-0.62	23.86	32.13	--	23.24	45.83	35.83	<-10	-12.59	P
76.1600	4.60	--	-5.03	23.30	27.90	--	18.27	46.71	36.71	<-10	-18.44	P
98.3600	7.48	--	-1.12	23.62	31.10	--	22.50	47.53	37.53	<-10	-15.03	P

No other significant emission was measured at the frequency range of interest employing both the QP and AV detectors.

Port	Load Line
Mode	On mode

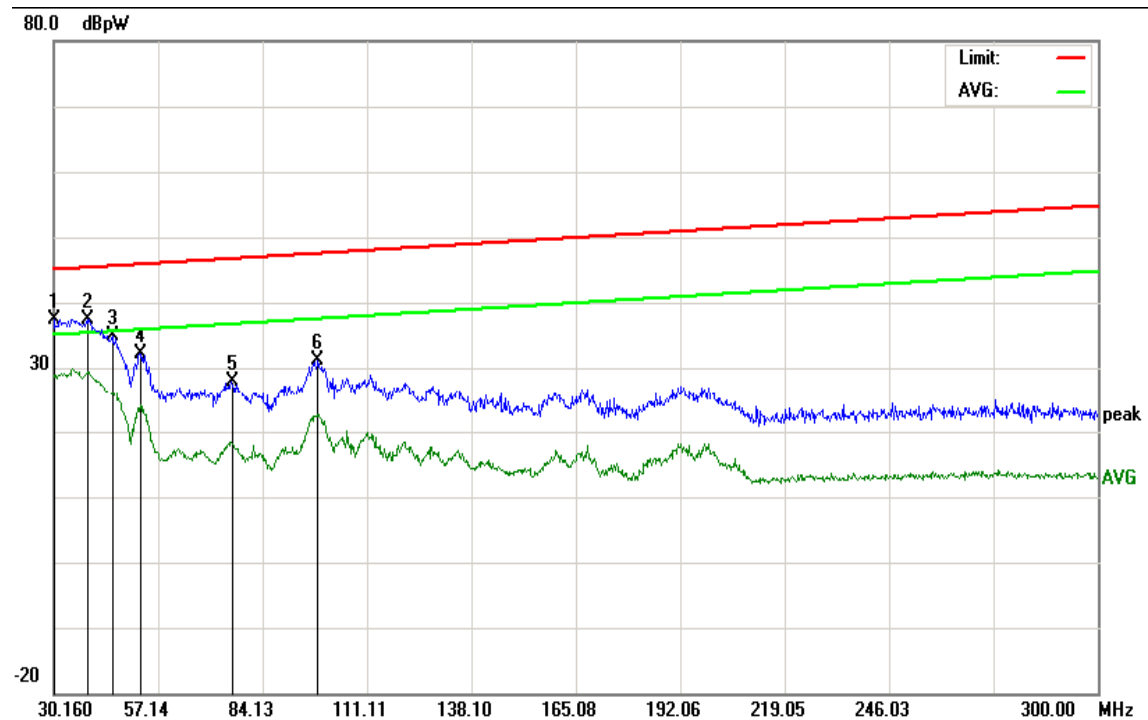
Results model SSLC084V42



Disturbance Power Emission Test Result												
Frequency (MHz)	Reading Level (dBpW)			Correct Factor (dB)	Measurement (dBpW)			Limit (dBpW)		Margin (dB)		Result (P/F)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.	
31.8000	6.46	4.26	-5.54	27.02	33.48	31.28	21.48	45.07	35.07	-13.79	-13.59	P
38.6000	4.55	--	-4.37	26.30	30.85	--	21.93	45.32	35.32	<-10	-13.39	P
55.2800	3.47	--	-7.65	23.67	27.14	--	16.02	45.94	35.94	<-10	-19.92	P
81.8000	2.52	--	-6.52	23.30	25.82	--	16.78	46.92	36.92	<-10	-20.14	P
91.3200	3.32	--	-7.23	23.67	26.99	--	16.44	47.27	37.27	<-10	-20.83	P
106.6800	2.51	--	-8.75	23.70	26.21	--	14.95	47.84	37.84	<-10	-22.89	P

No other significant emission was measured at the frequency range of interest employing both the QP and AV detectors.

Results for model SSLC058V29



Disturbance Power Emission Test Result												
Frequency (MHz)	Reading Level (dBpW)			Correct Factor (dB)	Measurement (dBpW)			Limit (dBpW)		Margin (dB)		Result (P/F)
	Peak	Q.P.	Avg.		Peak	Q.P.	Avg.	Q.P.	Avg.	Q.P.	Avg.	
32.2399	8.95	3.58	0.38	26.98	35.93	30.56	27.36	45.08	35.08	-14.52	-7.72	P
37.6399	9.96	4.25	1.08	26.04	36.00	30.29	27.12	45.28	35.28	-14.99	-8.16	P
44.6399	4.69	--	-3.75	24.97	29.66	--	21.22	45.54	35.54	<-10	-14.32	P
59.7599	3.85	--	-4.75	23.52	27.37	--	18.77	46.10	36.10	<-10	-17.33	P
68.4799	2.48	--	-5.65	23.20	25.68	--	17.55	46.43	36.43	<-10	-18.88	P
130.0800	1.49	--	-10.00	23.20	24.69	--	13.20	48.71	38.71	<-10	-25.51	P

No other significant emission was measured at the frequency range of interest employing both the QP and AV detectors.

Refer to chapter 6 for the test set-up.

Conclusion:

PASS

4.3 Radiated emission (30MHz-1GHz)

Requirements

Standard	EN 55014-1
Testing method	SAC
Measuring distance	3 meters

Frequency [MHz]	Limit-QP [dB(μV/m)]
30 – 230	40
230 – 1000	47

Or

Margin requirements when performing disturbance power measurement

Standard	EN 55014-1
Frequency [MHz]	QP [dB(pW)]
200,0– 300,0	0 – 10 *)

*) margin limits increasing linearly with the frequency

And

Maximum Clock Frequency	< 30 MHz
-------------------------	----------

Port	Enclosure
Mode	On mode

Results

Frequency [MHz]	QP [dB(pW)]	
	Level – requirement margin	Limit
200,0– 300,0	More than 20 dB Below the limit	

And

Maximum Clock Frequency	< 30 MHz
-------------------------	----------

Remark:

The disturbance power margin of 200 – 300 MHz is more than 10 dB below the limit; and the maximum clock frequency of the product is less than 30 MHz, therefore, this product is fulfil the relevant requirements of this standard without further testing.

Conclusion:**PASS**

4.4 Harmonic currents

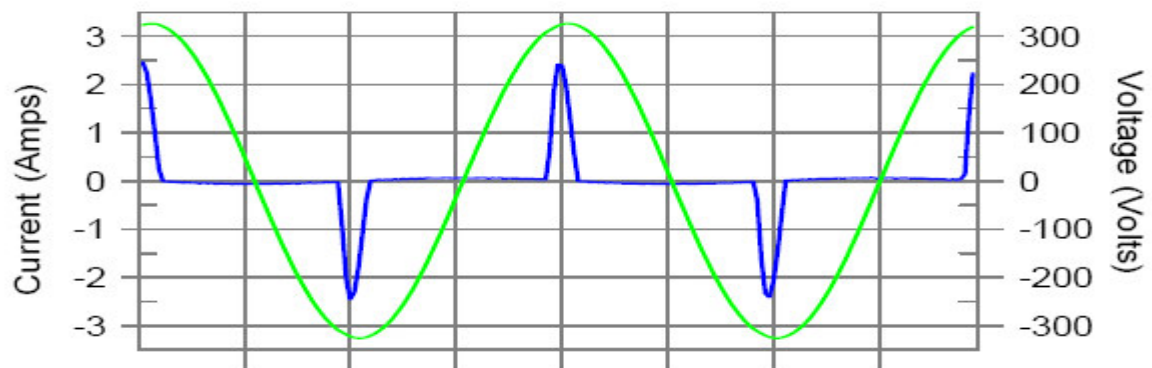
Standard	EN 61000-3-2
Port	AC Mains
Rated power	42V/2A
Mode	On mode

√	Class A	All apparatus not classified as Class B, C or D
	Class B	Portable tools
	Class C	Lighting equipment
	Class D	Personal computers, television receivers

Results and limits for model SSLC084V42

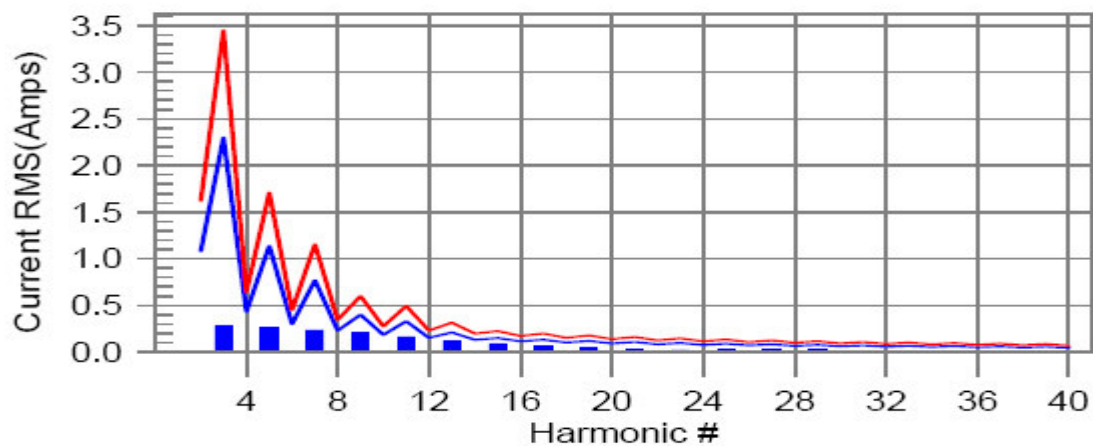
Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line

European Limits



Test result: Pass Worst harmonic was #15 with 40.55% of the limit.

Test Result: Pass Source qualification: Normal
 THC(A): 0.45 I-THD(%): 188.62 POHC(A): 0.043 POHC Limit(A): 0.251
 Highest parameter values during test:
 V_{RMS} (Volts): 230.19 Frequency(Hz): 50.00
 I_{Peak} (Amps): 4.053 I_{RMS} (Amps): 0.745
 I_{Fund} (Amps): 0.401 Crest Factor: 4.124
 Power (Watts): 92.4 Power Factor: 0.491

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.001	1.080	0.1	0.002	1.620	0.11	Pass
3	0.226	2.300	9.8	0.282	3.450	8.18	Pass
4	0.001	0.430	0.2	0.001	0.645	0.21	Pass
5	0.211	1.140	18.5	0.262	1.710	15.31	Pass
6	0.001	0.300	0.3	0.001	0.450	0.23	Pass
7	0.192	0.770	24.9	0.234	1.155	20.25	Pass
8	0.001	0.230	0.3	0.001	0.345	0.28	Pass
9	0.167	0.400	41.8	0.200	0.600	33.30	Pass
10	0.001	0.184	0.5	0.001	0.276	0.40	Pass
11	0.140	0.330	42.5	0.163	0.495	32.93	Pass
12	0.001	0.153	0.4	0.001	0.230	0.38	Pass
13	0.112	0.210	53.4	0.125	0.315	39.81	Pass
14	0.001	0.131	0.5	0.001	0.197	0.43	Pass
15	0.085	0.150	56.5	0.091	0.225	40.55	Pass
16	0.000	0.115	0.4	0.001	0.173	0.33	Pass
17	0.059	0.132	45.1	0.062	0.199	31.30	Pass
18	0.000	0.102	0.4	0.001	0.153	0.38	Pass
19	0.038	0.118	32.1	0.040	0.178	22.26	Pass
20	0.000	0.092	0.2	0.000	0.138	0.15	Pass
21	0.021	0.107	20.0	0.023	0.161	14.18	Pass
22	0.000	0.084	0.2	0.000	0.125	0.19	Pass
23	0.013	0.098	13.3	0.018	0.147	12.48	Pass
24	0.000	0.077	0.3	0.000	0.115	0.27	Pass
25	0.013	0.090	14.6	0.022	0.135	16.35	Pass
26	0.000	0.071	0.2	0.000	0.106	0.23	Pass
27	0.016	0.083	19.0	0.023	0.125	18.28	Pass
28	0.000	0.066	0.4	0.000	0.099	0.39	Pass
29	0.017	0.078	21.8	0.021	0.116	18.01	Pass
30	0.000	0.061	0.2	0.000	0.092	0.21	Pass
31	0.016	0.073	21.4	0.017	0.109	15.69	Pass
32	0.000	0.058	0.3	0.000	0.086	0.30	Pass
33	0.013	0.068	18.6	0.013	0.102	13.18	Pass
34	0.000	0.054	0.2	0.000	0.081	0.30	Pass
35	0.009	0.064	13.7	0.010	0.096	10.38	Pass
36	0.000	0.051	0.3	0.000	0.077	0.34	Pass
37	0.005	0.061	8.6	0.007	0.091	7.60	Pass
38	0.000	0.048	0.5	0.000	0.073	0.48	Pass
39	0.003	0.058	5.3	0.006	0.087	6.58	Pass
40	0.000	0.046	0.6	0.000	0.069	0.51	Pass

Conclusion:

PASS

4.5 Voltage fluctuations and flicker

Standard	EN 61000-3-3
Port	AC Mains
Voltage	230 V _{AC}
Mode	On mode

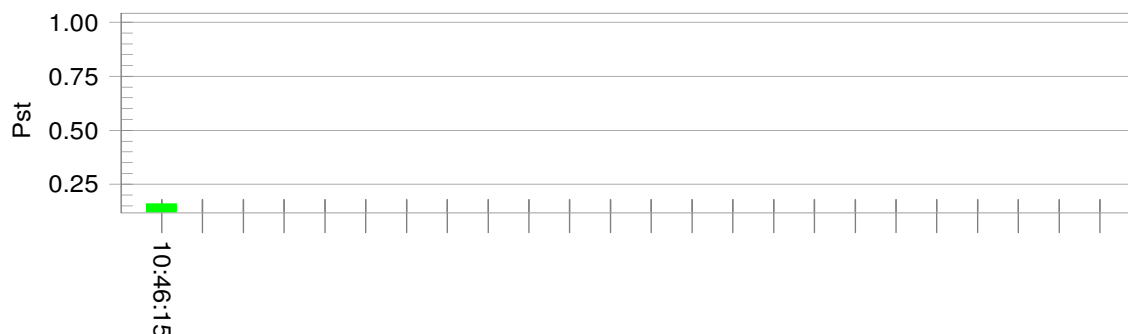
Equipment intended to be connected to 230/400 V, 50 Hz supply systems may not produce voltage fluctuations in the supply systems due to variation of the input current above the limits as stated below.

P _{ST}	≤ 1
P _{LT}	Not Applicable
dt > 3,3%	≤ 500 ms
d _C	≤ 3,3%
d _{MAX}	≤ 4%

Results for model SSLC084V42

P_{st} and limit line

European Limits



Parameter values recorded during the test:

V_{rms} at the end of test (Volt): 230.08

Highest dt (%): 0.25

Time(mS) > dt: 0.0

Highest dc (%): 0.00

Highest dmax (%): 0.15

Test limit (%): 3.30 Pass

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Tests and mode of operation

The measurements were performed with the following mode of operation: On mode.

Conclusion:

PASS

5 IMMUNITY TEST RESULTS

5.1 Electrostatic discharge immunity

Electrostatic discharges (ESD) are the result of persons or objects that accumulate static electricity due to for instance walking on synthetic carpets. The ESD can influence the operation of equipment or damage its electronics, either by a direct discharge or indirectly by coupling or radiation. Both effects are simulated during the tests.

Requirements

Standard	EN 55014-2
Basic standard	EN 61000-4-2
Port	Enclosure
Performance criterion	B; During the test degradation is allowed. No change of operating state or stored data is allowed.
Air discharges	8 kV
Contact discharges	4 kV
Mode	On mode

Performed tests for model SSLC084V42

Air discharges		4 kV	√	8 kV		15 kV		kV
Contact discharges		2 kV	√	4 kV		8 kV		kV
Via coupling planes	√	Horizontal			√	Vertical		
Polarity	√	Positive			√	Negative		
Set-up	√	Table-top				Floor standing		
Ambient temperature	20,1 °C							
Relative Humidity air	51,9 %							

Observations

During the test no loss of performance was observed. After the test the EUT functioned as intended. No unacceptable loss of performance or loss of data was observed.

Conclusion:

PASS

5.2 Electrical Fast Transient immunity

The EFT immunity test simulates disturbances by bursts of very short transients caused for example by switching off loads such as an AC motor or bouncing relay contacts. The transients are likely to disturb electronics but less likely to cause damage.

Requirements

Standard	EN 55014-2			
Basic standard	EN 61000-4-4			
Performance criterion	B; During the test degradation is allowed. No change of operating state or stored data is allowed.			
Pulse characteristics	5/50 ns			
Peak Voltage; Port	1 kV; AC input power port 0,5 kV; DC input output power port 0,5 kV; Signal lines			
Repetition frequency	√	5 kHz		2,5 kHz

Performed tests for model SSLC084V42

Tested Voltage; Port	1 kV; AC input power port			
Mode	On mode			
Injection method	√	CDN		Capacitive clamp
Polarity	√	Positive	√	Negative
Set-up	√	Table-top		Floor standing

Observations

During the test no loss of performance was observed. After the test the EUT functioned as intended. No unacceptable loss of performance or loss of data was observed.

Conclusion:

PASS

5.3 Surge transient immunity

The surge transient immunity test simulates the surges that are caused by overvoltages due to indirect (induced) lightning transients. The pulse is a slow transient with high-energy contents and due to its long duration may cause damage to an unprotected EUT.

Requirements

Standard	EN 55014-2
Basic standard	EN 61000-4-5
Performance criterion	B; During the test degradation is allowed. No change of operating state or stored data is allowed.
Pulse characteristics	1,2/50 μ s
Peak Voltage; Port	1 kV; AC input power port (line to line) 2 kV; AC input power port (line to earth)

Performed tests for model SSLC084V42

Tested Voltage; Port	1 kV; AC input power port (line to line) 2 kV; AC input power port (line to earth)			
Mode	On mode			
Polarity	√	Positive	√	Negative

Observations

During the test no loss of performance was observed. After the test the EUT functioned as intended. No unacceptable loss of performance or loss of data was observed.

Conclusion:

PASS

5.4 RF Conducted immunity

During this test the immunity of the equipment for induced or conducted electromagnetic fields is checked. Fields generated by radio and other transmitters cause RF voltages in long cables like the mains network. This test reproduces these induced disturbing voltages by injecting them to the EUT via the cabling.

Requirements

Standard	EN 55014-2
Basic standard	EN 61000-4-6
Performance criterion	A; Operation as intended
Frequency range	0,15 – 230 MHz
Modulation	1 kHz – 80% AM
Test level; Port	3 V; AC input output power port 1 V; DC input output power port 1 V; Signal lines

Performed tests for model SSLC084V42

Tested level; Port	3V; AC input power port			
Mode	On mode			
Frequency range	0,15 – 230 MHz			
Dwell time	3 second			
Injection method	√	CDN-M3		EM clamp

Observations

During the test no loss of performance was observed. After the test the EUT functioned as intended. No unacceptable loss of performance or loss of data was observed.

Conclusion:

PASS

5.5 Power supply interruptions and dips

Requirements

Basic standard	EN 61000-4-11
Performance criterion	B; During the test degradation is allowed. No change of operating state or stored data is allowed. C; Temporary, self-recoverable loss of function is allowed.

Standard	EN 55014-2			
AC input power port			50 Hz	60 Hz
	C	$U_{NOM} - 30\%$	(25 periods)	(30 periods)
	C	$U_{NOM} - 60\%$	(10 periods)	(12 periods)
	C	$U_{NOM} - 100\%$	(0,5 period)	(0,5 period)

Performed tests for model SSLC084V42

Tested voltage	AC input power port, 230 V _{AC}			
Mode	On mode			
AC input power port			50 Hz	60 Hz
	$U_{NOM} - 30\%$		(25 periods)	(30 periods)
	$U_{NOM} - 60\%$		(10 periods)	(12 periods)
	$U_{NOM} - 100\%$		(0,5 period)	(0,5 period)

Observations

During the test no loss of performance was observed. After the test the EUT functioned as intended. No unacceptable loss of performance or loss of data was observed.

Conclusion:

PASS

6 IDENTIFICATION OF THE EQUIPMENT UNDER TEST

The photographs show the tested device.



Figure 3 Conducted emission test set-up



Figure 4 Disturbance power test set-up