EMC TEST REPORT	
TEST REPORT NUMBER	BCT 1419ITE063-A2
TEST REPORT DATE	23rd Jun 2014
TEST REPORT VERSION	1.02
MANUFACTURER	APC by Schneider Electric
PRODUCT NAME	SRT6KRMXLT
PRODUCT MODEL	SRT6KXLT SRT6KRMXLT SRT6KXLT-IEC SRT6KRMXLT-IEC
CONDITION OF EUT WHEN RECEIVED	Good and in proper working condition
ISSUED TO	Schneider Electric IT Business India Pvt Ltd , Bearys Global Research Triangle, Survey No 63/3B,Gorvigere Village, Bidarahalli Hobli, Bangalore East Taluk, Whitefield Ashram Road, Bangalore-560067
ISSUED BY	**TARANG Lab** Wipro Technologies, SEZ, Sarjapur-2, Survey no 69(P) DoddaKannelli, Sarjapur road, Bangalore. Karnataka, India - 560 035 Tel: +91-80-30292929 Fax: +91-80-30298200 Email: tarang.planet@wipro.com Web: www.wipro.com

AMENDMENT HISTORY

Amendment Number	Amendment Date	Author of Amendment	Previous Report Version	Previous Report Date
A-1	27th May 2014	Arun Kumar .N.C	1.0	23rd May 2014
Amendment Details	The below listed changes have been made to the current revision of the test report based on the customer email dated 26th May 2014. a) Section 4.4: 5m length EPO cable details has been added in the list of cables. b) Section 5.1.3: The accessory list has been modified to include the network switch & resistive load used during the test. c) Section 5.2: Test voltage/Test limit & Port has been swapped across the two tests (Typo error in the earlier report) d) Section 5.3.2.6.2: The correct reference to battery mode of testing has been added e) Annexure I: Photograph of the Product Label added			
A-2	23rd Jun 2014	Arun Kumar .N.C	1.01	28th May 2014
Amendment Details	As per customer provided details/evidences below changes are incorporated a) Sec 4.2: Max EUT operating Current is modified b) Sec 4.4: C10 Cable is replaced with C19 c) Sec 5.3.1.5: Input votage is modified to 208 V (L-L)			

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 TEST REPORT SUMMARY

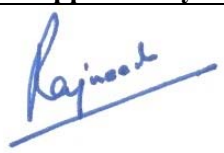
Applicant	APC by Schneider Electric
Manufacturer	APC by Schneider Electric
Product Name	SRT6KRMXLT
Product Model	SRT6KXLT, SRT6KRMXLT, SRT6KXLT-IEC, SRT6KRMXLT-IEC
Product Serial Number	QS1331171293
Date of Test	06th May 2014
Venue of Test	Tarang Lab

Applicable Standard	**Description**	**Results**
FCC 47 CFR, Part 15, Subpart B, 10.1.11 edition, Section 15.107	Conducted Emission	Pass
FCC 47 CFR, Part 15, Subpart B, 10.1.11 edition, Section 15.109	Radiated Emission	Pass

SRT6KRMXLT was tested by Tarang Lab as per the standards that are listed in the table above. Based on the observations during the test and interpretations by Tarang lab, results have been indicated. The test results produced in this report shall apply only to the above samples that have been tested under the specific conditions and modes of testing as described in the report. Other similar equipment may not necessarily reproduce same result due to production tolerances and measurement uncertainties. Any measurement uncertainties listed in this report are for information purpose only.

The results shall stand invalid, in case there are any modifications / additions / removals to the hardware or software or end use atmosphere to the product tested. This report shall not be modified or in any way revised unless it is expressly permitted and endorsed by Tarang lab, through a duly authorized representative. Particulars on Manufacturer / Supplier / Product configuration / performance criteria, given in this report, are based on the information given by the customer, along with test request. Tarang does not assume any responsibility for the correctness of such information for the above mentioned equipment under test.

Customer acknowledges that this is a test report and not a certificate to gain market access for the product. To gain market access, Customer needs appropriate clearance from the Government or authorized agency for the target market. For markets that allow self-declaration, customer needs to follow the procedure defined by the target market.

Prepared by	**Reviewed by**	**Approved by**
		
Arun Kumar .N.C	Albin.A	Rajneesh R
Test Engineer	**Test Engineer**	**Functional Head**

2 GENERAL INFORMATION

2.1 ACCREDITATION DETAILS

Following are the accreditation and listing details for Tarang.

Accreditation / Listing body	Registration / Company / Certificate Number
ISO 17025 Accreditation	Certificate Number :T-1533 and T-1534(NABL) http://www.nabl- india.org
FCC (Federal Communications Commission)	Registration Number: 799247 http://www.fcc.gov/
IC (Industry Canada)	Company Number: 9023A http://www.ic.gc.ca
TEC Approval	Certificate Number: TEC/MRA/CAB/IND-D/3 CAB Identification: IND003
DGAQA Approval	1415/F-15/DGAQA/Aircraft
CEMILAC approval	Certificate Number: F-07-22 Reference Number: CEMILAC/6042/TH-13/TC & S

2.2 MEASUREMENT UNCERTAINTY

The following measurement uncertainties are applicable to the relevant tests that are mentioned below:

Test	Uncertainty
Radiated Emission (30 MHz to 1 GHz), 10 meter	±4.887 dB (95% confidence)
Conducted Emission (150kHz to 30MHz)	±2.717 dB (95% confidence)

3 INSTRUMENTATION AND CALIBRATION

3.1 TEST AND MEASURING EQUIPMENT

The list of following measuring equipment used for this testing conforms to the applicable standards. Performance of all test and measuring equipment including any accessories are checked periodically to ensure accuracy.

3.2 EQUIPMENTS USED

Name of Equipment	Manufacturer	Model No	Serial No	Calibration Due
EMI Test Receiver	R&S	ESIB40	100306	25th Sep 2014
EMI Test Receiver	R&S	ESU8	100324	12th Feb 2015
Hybrid Log Periodic Antenna	TDK RF Solutions	HLP-3003C	130334	17th Jul 2014
Pre-Amplifier	SONOMA	310	270817	30th May2014
V-LISN	Schwarzbeck Mess Elektronik	NSLK 8128	8128-243	11th Jul 2014

Table 1: List of Equipment used for testing

4 PRODUCT INFORMATION

4.1 BRIEF DESCRIPTION

Uninterrupted power supply designed to use in installation category II.UPS is Class 1 & pollution degree-2.It has hardwired input connection and outlets for connecting the appliance load.

4.2 DESCRIPTION OF THE PRODUCT

Product	SRT6KRMXLT
Model Number	SRT6KXLT, SRT6KRMXLT, SRT6KXLT-IEC, SRT6KRMXLT-IEC
Serial Number	QS1331171293
Product Category / Type of Equipment	ITE
EUT Operating Voltage	208 V AC (Line to Line) & Battery mode
EUT Input Frequency	60 Hz
EUT Power Rating	6000 Watt (max)
Max EUT Operating Current	33 Ampere (max)

4.3 SOFTWARE AND FIRMWARE DETAILS

a) **Application Software:** Microlink Simulator
Software Version: ulsim-4.0.0.1

b) **Firmware:** UPSg02.5
Firmware version: UPSg02.5

4.4 LIST OF CABLES

Cable No.	Cable Color	Cable Length	Power / Interconnection cable	Shielded / Unshielded	Cable Photos
Cable 1	Black	2 meter	Mains Power	Unshielded	Refer Annexure I; Figure 23
Cable 2	Black	1 meter	Output Mains Power (IEC C19 C13 cable)	Unshielded	Refer Annexure I; Figure 24
Cable 3	Black	4 meter	RS 232 serial com (RJ45) -I/O cable	Unshielded	Refer Annexure I; Figure 25
Cable 4	Grey (2 nos)	10 meter	RJ45 Cat- 6 (Ethernet)	Unshielded	Refer Annexure I; Figure 26
Cable 5	Black	5 meter	USB	Shielded	Refer Annexure I; Figure 27
Cable 6	Black (3 nos)	4 meter	Universal I/O	Unshielded	Refer Annexure I; Figure 28
Cable 7	Red & Black	5 meter	EPO	Unshielded	Refer Annexure I; Figure 29

Table 2: List of cables connected to the EUT

5 TEST DETAILS

5.1 PRODUCT AND TEST SETUP

5.1.1 PRODUCT CONFIGURATION

The EUT is a UPS (6kVA) has two configurations namely.

- **Mains mode :** The EUT draws power from the mains and power up the load as well as charges the battery.
- **Battery Mode:** The EUT draws power from the battery (when mains power fail) and supplies the load.

5.1.2 TEST SETUP DETAILS

The test was conducted in Online mode.The UPS was loaded using a Resistive Load bank.During the test the EUT was fully operational.The EUT operations were monitored by

- Pinging between the two Ethernet ports.
- Output Power was monitored in the front panel LCD display.
- Parameters were monitored through the two Network Management cards.
- Traffic was monitored through microlink simulator.
- Output Voltage was monitored (208V ±1%)
- XBP Communication monitored through microlink simulator.
- USB Communication verified through the device manger of the Computer connectcd to the UPS

5.1.3 ACCESSORIES

Item	Manufacturer	Model Number	Serial Number
Laptop	Dell	LATITUDE E6400	3214604008
Desktop	Dell	DCNE1F	8PKD6BS
Network Switch	D-Link	DES-1008A	QS0U1C4002538
Resistive Load	Ohmark Control Pvt Ltd	NA	2012-13/J242/11457

5.2 APPLICABLE TESTS

S. No	Applicable Standard: Version, Ed.x.x	Description	Test level / Test Voltage	Port
1	FCC 47 CFR, Part 15, Subpart B, 10.1.11 edition, Section 15.107	Conducted Emission	Frequency Range : 150kHz to 30MHz ;Class A	Power
2	FCC 47 CFR, Part 15, Subpart B, 10.1.11 edition, Section 15.109	Radiated Emission	Frequency Range : 30MHz to 1GHz ;Class A	Enclosure

5.3 TEST RESULT

5.3.1 RADIATED EMISSION TEST

5.3.1.1 TEST SPECIFICATION

Test Standard	FCC 47 CFR, Part 15, Subpart B, 10.1.11 edition,
Test Procedure	ANSI C 63.4, 2009
Product / Generic Standard	NA
Class/Group	Class A
Frequency Range	30MHz to 1GHz
Resolution Bandwidth	120kHz
Video Bandwidth	300kHz
Step size	40kHz
Pre Scan Measurement Time	20ms
Final Measurement Time	1second
Attenuation	10 dB
Test Distance	10 meter
Polarization	Horizontal and Vertical
Detector	Quasi Peak and Peak
Input Voltage	208 V AC (Line to Line) & Battery mode
Input Frequency	60 Hz
Temperature	22.0°C
Humidity	58.0%
Tested By	Arun Kumar .N.C
Test Date	06th May 2014

5.3.1.2 LIMITS

Maximum permissible level of Radiated Emission at 10 meter distance as per FCC 47 CFR part 15 SubpartB Class A is as shown below:

Frequency (MHz)	**Quasi-peak limit for Class A (dBµV/m)**
30 to 88	39.08
88 to 216	43.52
216 to 960	46.44
960 to 1000	49.54

5.3.1.3 TEST SETUP

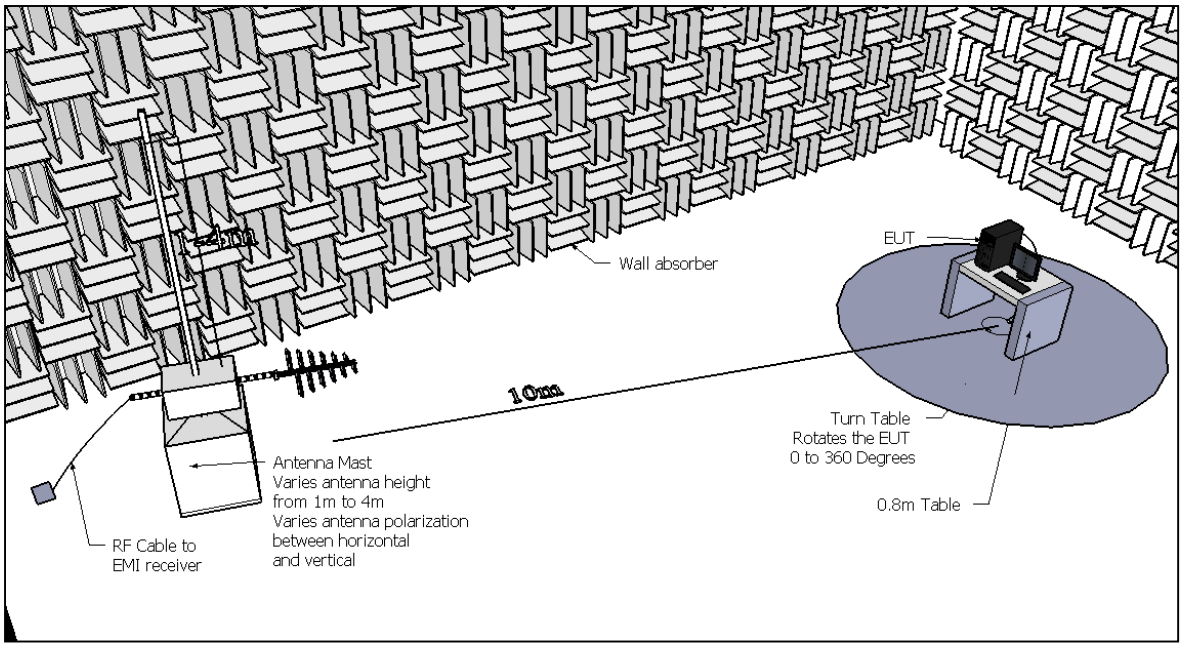


Figure 1: Sample test setup for Radiated Emission test

5.3.1.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C 63.4, 2009).
The EUT was powered by the clean AC source (ACS 503) .

The Radiated Emission test was performed inside a Shielded Semi-Anechoic chamber. The EUT was placed on a 0.8m height non-metallic table as specified in the standard. The test setup was placed on a rotating turn table to enable 0 to 360 degree rotation.

The Periphery of the EUT was placed 10 meter away from the receiving antenna for the radiated emission measurement in the frequency range 30MHz to 1GHz. The receiving antenna was mounted on an antenna mast to enable height variation from 1 to 4 meter above the ground plane.

The radiated emission measurement test system was configured through software as per standard. The test was performed on both mains mode and battery mode. Pre-scan (Peak) was taken at different angles of EUT at 22.5 degree step, by rotating the turn table from 0 to 360 degree and by varying the antenna height from 1 to 4 meter in both vertical and horizontal polarization. The measurement was carried out in max hold mode and maximum amplitude of radiated emissions from the EUT was plotted in Graph. The predominant peaks at various frequencies, closer to limit line were identified using peak search option and listed. The Quasi-peak measurement was carried out for the listed frequencies and compared with the limit specified in standard.

5.3.1.5 CONFIGURATION

Input Voltage:	208 V (L-L)
Input Current:	32 A
Output Voltage:	208 V
Output Current:	28.5 A
Power Factor:	1
Power in Watts:	5908 Watts

5.3.1.6 MEASUREMENT DATA

5.3.1.6.1 WITH AC MAINS 208V(LINE TO LINE)&60HZ

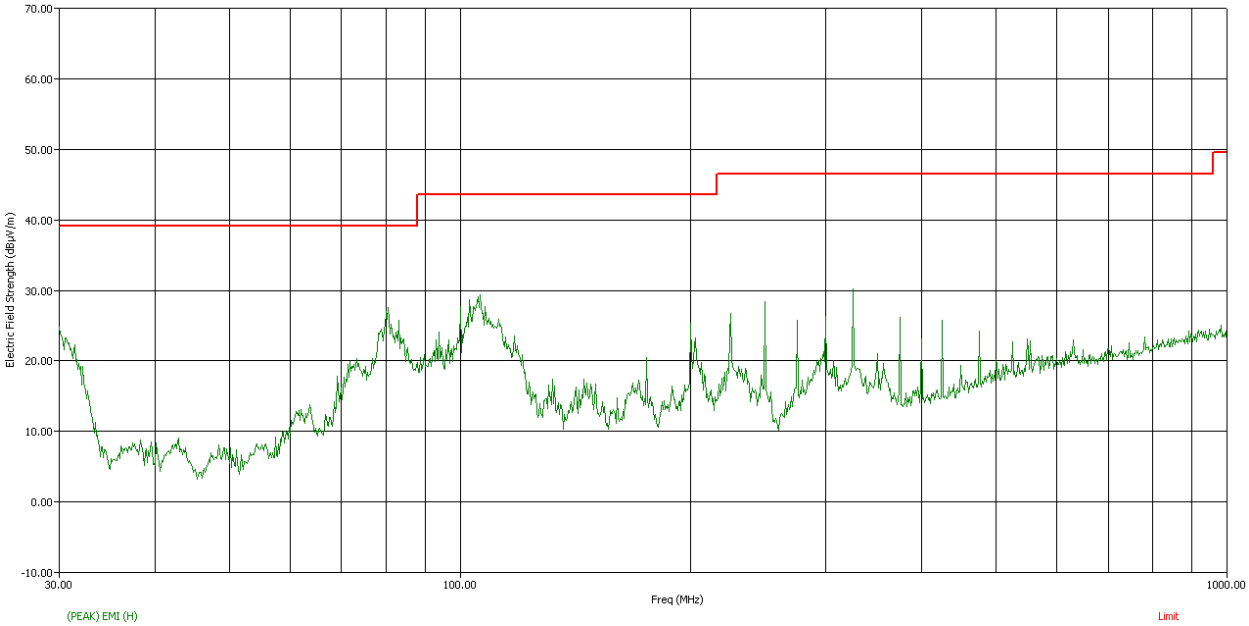


Figure 2: RE from 30 MHz to 1GHz in Horizontal polarization using Peak detector in AC mains mode

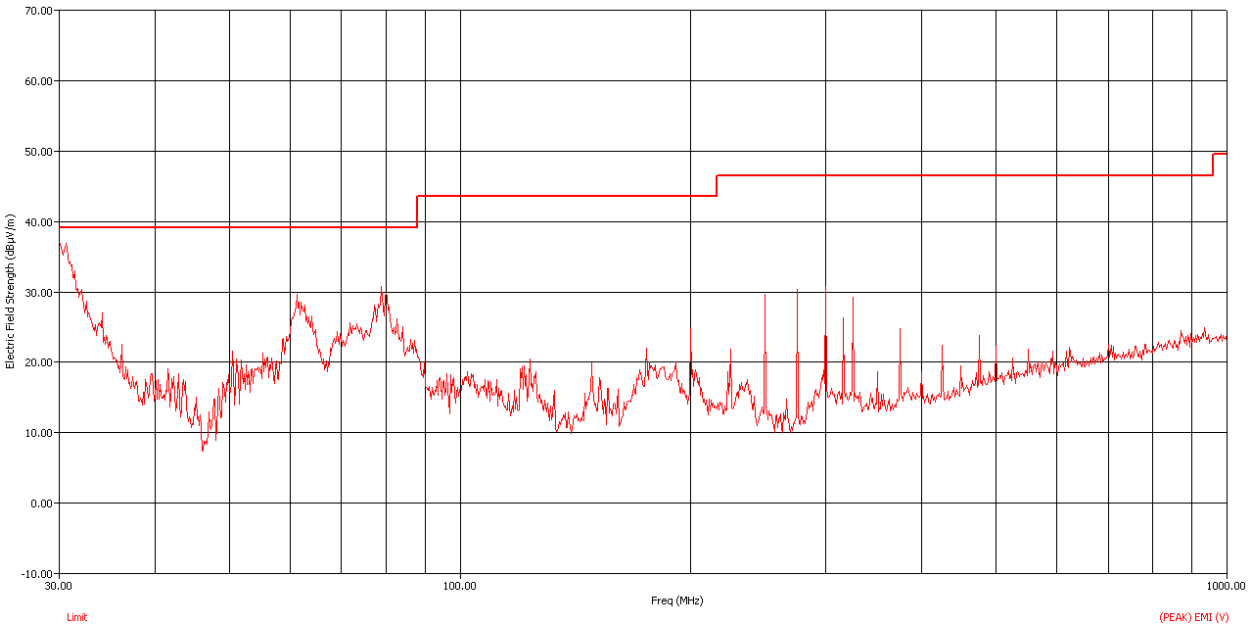


Figure 3: RE from 30 MHz to 1GHz in Vertical polarization using Peak detector in AC mains mode

Freq (MHz)	Freq (Max) (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
30.00	30.00	V	359.30	221.00	53.06	1.05	11.09	32.04	33.17	39.08	-5.91
30.60	30.59	V	344.50	278.00	52.62	1.07	11.09	32.04	32.74	39.08	-6.34
61.28	61.26	V	161.40	303.00	39.70	1.50	11.49	32.10	20.59	39.08	-18.49
78.80	78.91	V	148.20	389.00	42.65	1.71	7.70	32.10	19.95	39.08	-19.13
106.20	106.13	H	295.50	400.00	45.48	1.98	9.67	32.09	25.03	43.52	-18.49
250.00	250.00	V	327.90	103.00	48.70	3.02	10.56	32.00	30.28	46.44	-16.16
275.00	275.00	V	2.20	100.00	48.36	3.17	12.03	32.00	31.56	46.44	-14.88
300.00	300.00	V	344.50	103.00	45.93	3.35	13.38	32.00	30.66	46.44	-15.78
325.00	324.99	H	344.40	334.00	38.60	3.45	13.96	32.00	24.01	46.44	-22.43
375.00	374.98	H	107.60	210.00	42.61	3.72	14.99	32.00	29.31	46.44	-17.13
425.00	424.98	H	54.50	167.00	37.86	3.95	16.22	32.03	26.01	46.44	-20.43

Table 3: Quasi Peak table for RE from 30 MHz to 1GHz in AC main mode

5.3.1.6.2 WITH BATTERY MODE

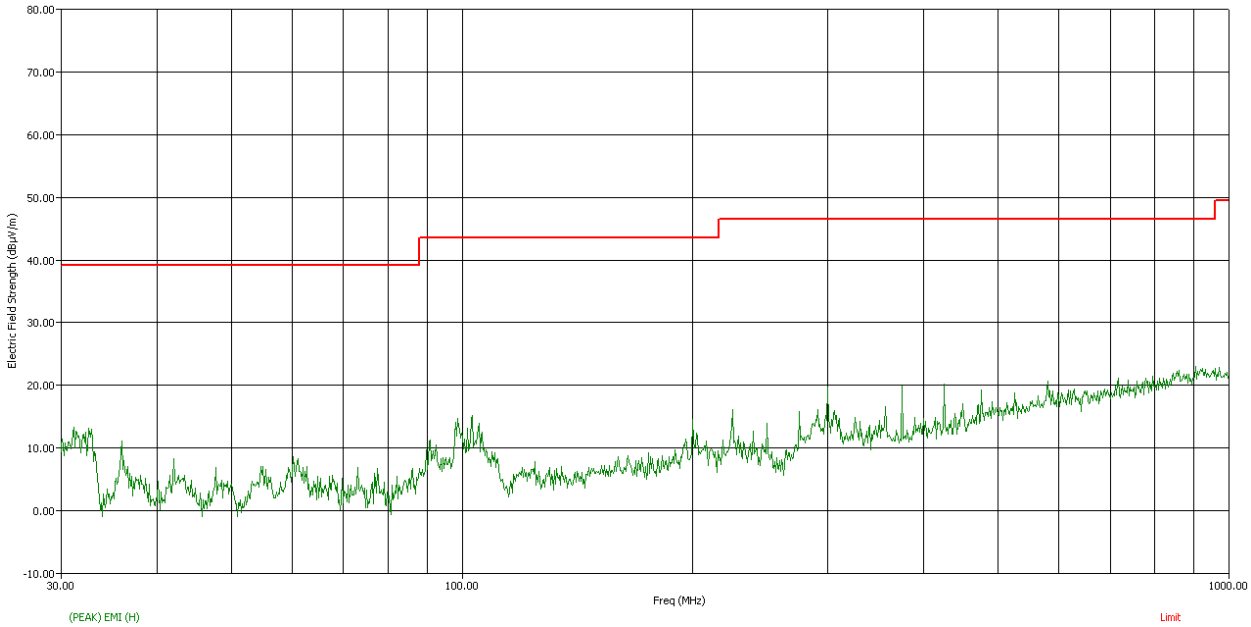


Figure 4: RE from 30 MHz to 1GHz in Horizontal polarization using Peak detector in Battery mode

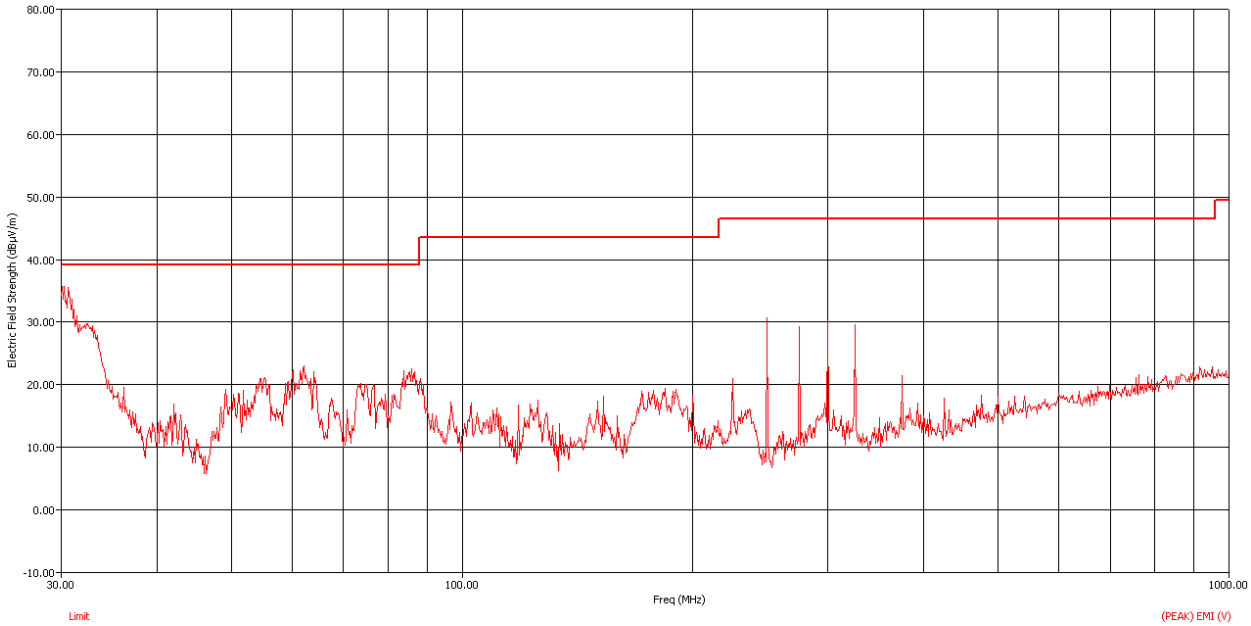


Figure 5: RE from 30 MHz to 1GHz in Vertical polarization using Peak detector in Battery mode

Freq. (MHz)	Freq. max (MHz)	Pol	EUT Ttbl Agl (deg)	Twr Ht (cm)	(QP) Trace (dBµV)	Cable (dB)	Transducer (dB)	Preamp (dB)	(QP) EMI (dBµV/m)	Limit (dBµV/m)	(QP) Margin (dB)
30	30.02	V	179.9	215	47.87	1.05	11.09	32.04	27.98	39.08	-11.1
30.6	30.62	V	158.9	115	50.17	1.07	11.09	32.04	30.28	39.08	-8.8
58.8	58.75	V	188.1	326	41.68	1.48	11.76	32.1	22.81	39.08	-16.27
61.28	61.26	V	161.4	303	39.56	1.5	11.49	32.1	20.45	39.08	-18.63
78.8	78.91	V	148.2	389	40.52	1.71	7.7	32.1	17.83	39.08	-21.25
106.2	106.13	H	295.5	400	46.56	1.98	9.67	32.09	26.12	43.52	-17.4
250	250	V	327.9	103	48.15	3.02	10.56	32	29.73	46.44	-16.71
275	275	V	2.2	100	48.14	3.17	12.03	32	31.34	46.44	-15.1
300	300	V	344.5	103	46.07	3.35	13.38	32	30.8	46.44	-15.64
325	324.99	H	344.4	334	38.73	3.45	13.96	32	24.14	46.44	-22.3
375	374.98	H	107.6	210	42.95	3.72	14.99	32	29.66	46.44	-16.78
425	424.98	H	54.5	167	37.81	3.95	16.22	32.03	25.95	46.44	-20.49

Table 4: Quasi Peak table for RE from 30 MHz to 1GHz in Battery mode

Note:
QP EMI (dBµV/m) = QP Trace (dBµV) + Cable (dB) + Transducer (dB/m) – Preamp (dB)
QP Margin (dB) = QP EMI (dBµV/m) – Limit (dBµV/m)

5.3.1.7 RESULT

Radiated emission results are **within the** limits specified in FCC 47CFR part15 Subpart B, Class A limits.

5.3.2 CONDUCTED EMISSION TEST

5.3.2.1 TEST SPECIFICATION

Test Standard	FCC 47CFR part15 Subpart B
Test Procedure	ANSI C63.4: 2009
Class / Group	Class A
Type of Cable (Shielded/Unshielded)	Unshielded
Frequency Range	150kHz to 30MHz
Resolution Bandwidth	9 kHz
Video Bandwidth	30 kHz
Step size	4 kHz
Pre Scan Measurement Time	20 ms
Final Measurement Time	1second
Attenuation	10 dB
Detector	Quasi peak and Average
Input Voltage	208 V AC(Line to Line) & Battery mode
Input Frequency	60Hz
Temperature	23 ºC
Humidity	58%
Tested By	A.Albin
Test Date	07th May 2014

5.3.2.2 LIMITS

Maximum permissible voltage levels of Conducted Emission as per FCC 47CFR part15 Subpart B ,on Power lines are as shown below:

Frequency (MHz)	**Voltage limits Class A(dBµV)**	
	Quasi-peak	**Average**
0.15 to 0.50	79	66
0.5 to 30	73	60

5.3.2.3 TEST SETUP

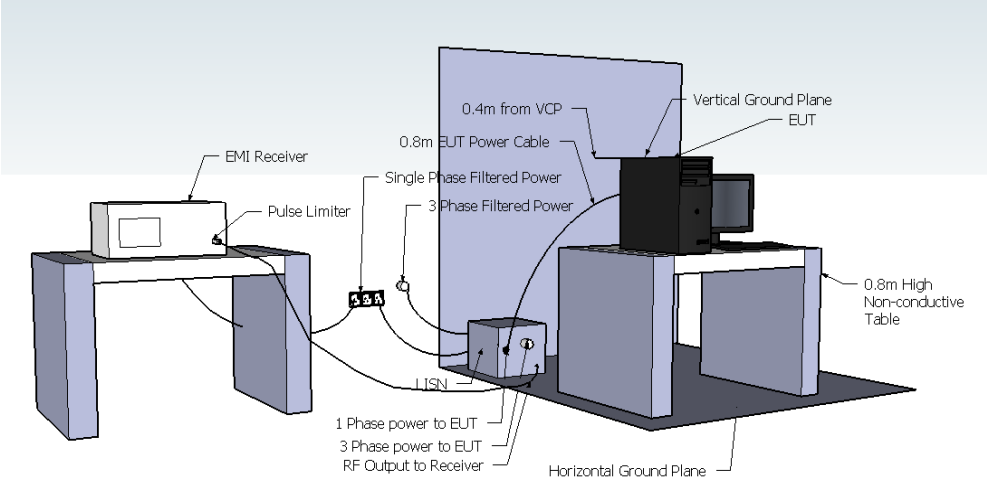


Figure 6: Sample test setup for Conducted Emission

5.3.2.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.4: 2009

The test was performed in Conducted Emission test site. The EUT was placed on a 0.8m table high as described in the standard. Test connection was made as defined in the test standard. The Power supply to the EUT was feed through a LISN (50Ω/50µH). A pre-scan was taken and peaks were identified through peak search. Quasi-peak and Average measurements at these peaks (frequencies) were taken.

5.3.2.5 CONFIGURATION

Input Voltage:	207.6 V (L-L)
Input Current:	31 A
Output Voltage:	207.8 V
Output Current:	28.4 A
Power Factor:	1
Power in Watts:	5886 Watts

5.3.2.6 MEASUREMENT DATA

5.3.2.6.1 WITH MAINS 208V(LINE TO LINE) & 60HZ

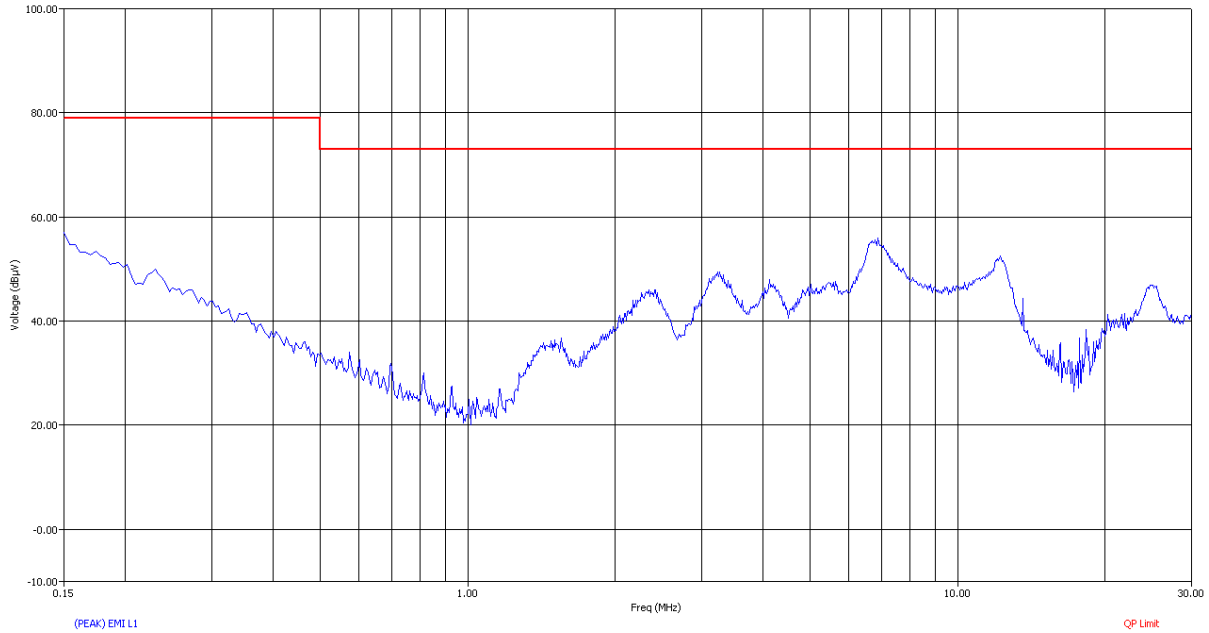


Figure 7: CE from 150 kHz to 30 MHz using Peak detector for Line-1 (L1) in AC mains mode

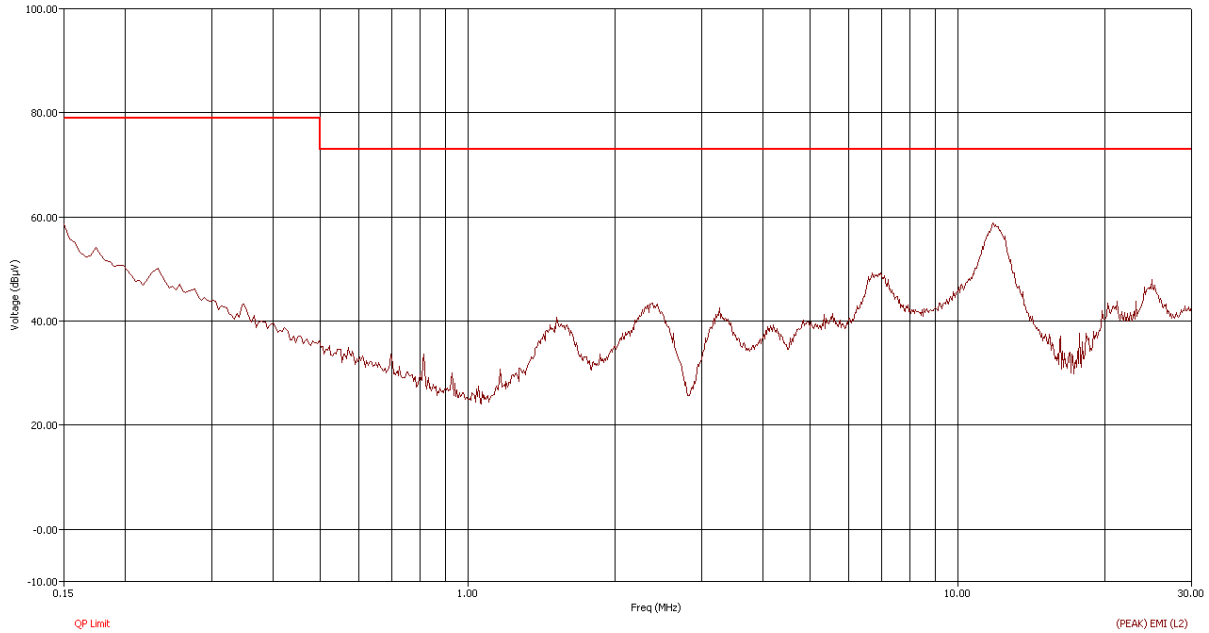


Figure 8: CE from 150 kHz to 30 MHz using Peak detector for Line-2 (L2) in AC mains mode

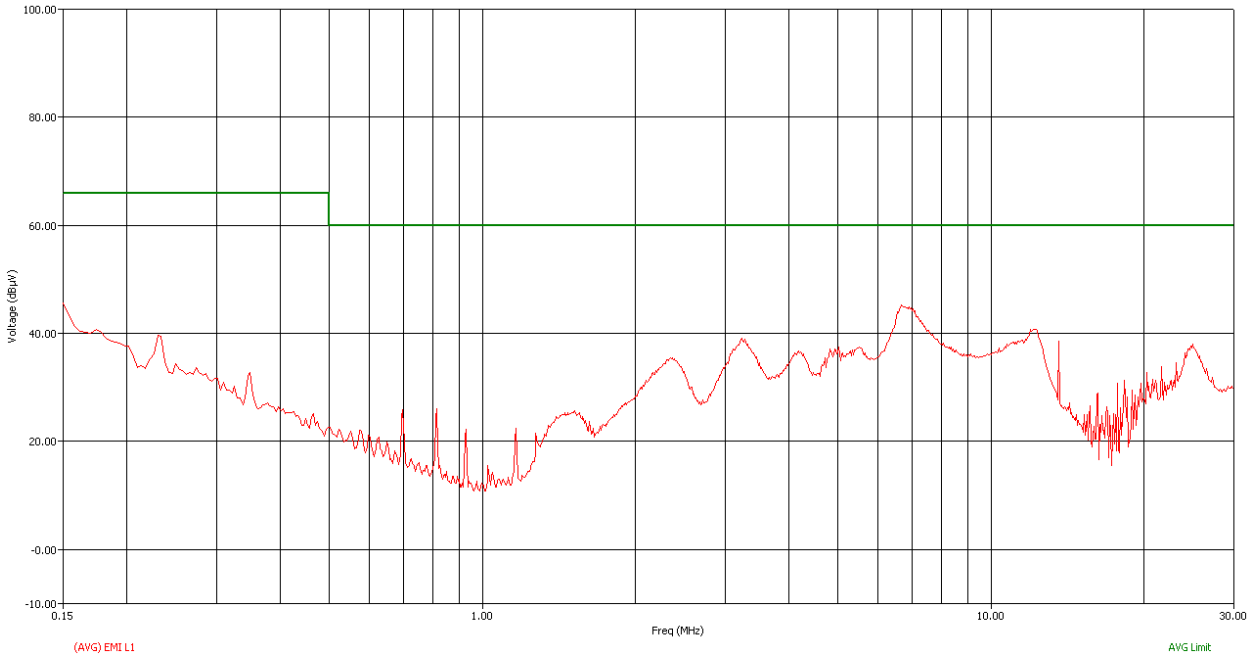


Figure 9: CE from 150 kHz to 30 MHz using Average detector for Line-1 (L1) in AC mains mode

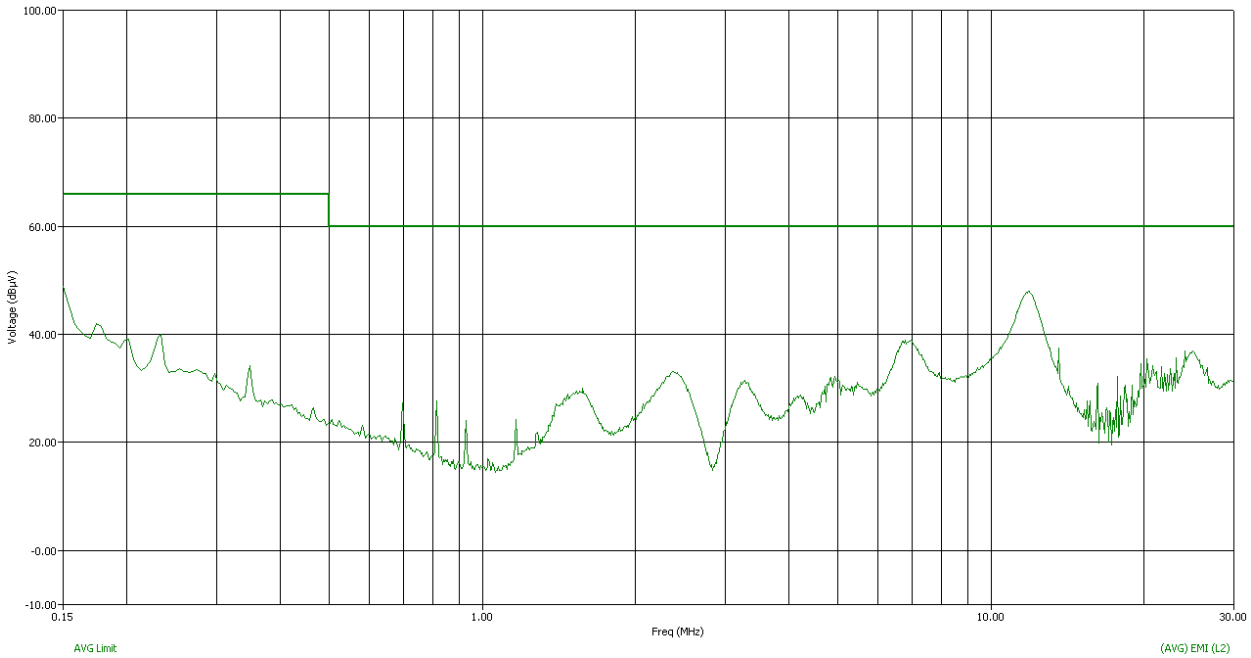


Figure 10: CE from 150 kHz to 30 MHz using Average detector for Line-2 (L2) in AC mains mode

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBµV)	Pulselimiter+Cable (dB)	Transducer L1 (dB)	Transducer L2 (dB)	(QP) EMI (dBµV)	QP Limit (dBµV)	(QP) Margin (dB)
0.150	0.150	L1	43.52	9.81	0.05	0.00	53.38	79.00	-25.62
0.154	0.151	L2	45.19	9.81	0.00	0.05	55.05	79.00	-23.95
1.918	1.919	L2	18.24	9.96	0.00	0.07	28.27	73.00	-44.73
1.954	1.963	L1	23.09	9.96	0.08	0.00	33.13	73.00	-39.87
3.394	3.400	L2	25.06	10.00	0.00	0.10	35.16	73.00	-37.84
3.430	3.423	L1	32.04	10.00	0.11	0.00	42.15	73.00	-30.85
6.570	6.578	L1	38.60	10.06	0.17	0.00	48.83	73.00	-24.17
12.314	12.309	L2	41.28	10.18	0.00	0.32	51.78	73.00	-21.22
12.354	12.352	L1	36.32	10.18	0.34	0.00	46.83	73.00	-26.17
17.694	17.694	L2	24.73	10.29	0.00	0.41	35.42	73.00	-37.58
21.210	21.217	L1	22.63	10.36	0.45	0.00	33.44	73.00	-39.56
24.046	24.050	L1	30.89	10.46	0.46	0.00	41.81	73.00	-31.19
24.050	24.049	L2	30.79	10.46	0.00	0.44	41.69	73.00	-31.31

Table 5: Quasi Peak table for CE from 150 kHz to 30 MHz for Line -1 & Line-2 in AC mains mode

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBµV)	Pulselimiter+Cable (dB)	Transducer L1 (dB)	Transducer L2 (dB)	(AVG) EMI (dBµV)	AVG Limit (dBµV)	(AVG) Margin (dB)
0.150	0.150	L1	35.05	9.81	0.05	0.00	44.91	66.00	-21.09
0.154	0.151	L2	38.51	9.81	0.00	0.05	48.37	66.00	-17.63
1.918	1.919	L2	12.07	9.96	0.00	0.07	22.09	60.00	-37.91
1.954	1.963	L1	16.91	9.96	0.08	0.00	26.95	60.00	-33.05
3.394	3.400	L2	18.74	10.00	0.00	0.10	28.84	60.00	-31.16
3.430	3.423	L1	25.48	10.00	0.11	0.00	35.59	60.00	-24.41
6.570	6.578	L1	32.17	10.06	0.17	0.00	42.41	60.00	-17.59
12.314	12.309	L2	33.43	10.18	0.00	0.32	43.92	60.00	-16.08
12.354	12.352	L1	28.46	10.18	0.34	0.00	38.98	60.00	-21.02
17.694	17.694	L2	18.11	10.29	0.00	0.41	28.80	60.00	-31.20
21.210	21.217	L1	15.42	10.36	0.45	0.00	26.23	60.00	-33.77
24.046	24.050	L1	25.44	10.46	0.46	0.00	36.36	60.00	-23.64
24.050	24.049	L2	25.19	10.46	0.00	0.44	36.09	60.00	-23.91

Table 6: Average table for CE from 150 kHz to 30 MHz for Line -1 & Line-2 in AC mains mode

5.3.2.6.2 WITH BATTERY MODE

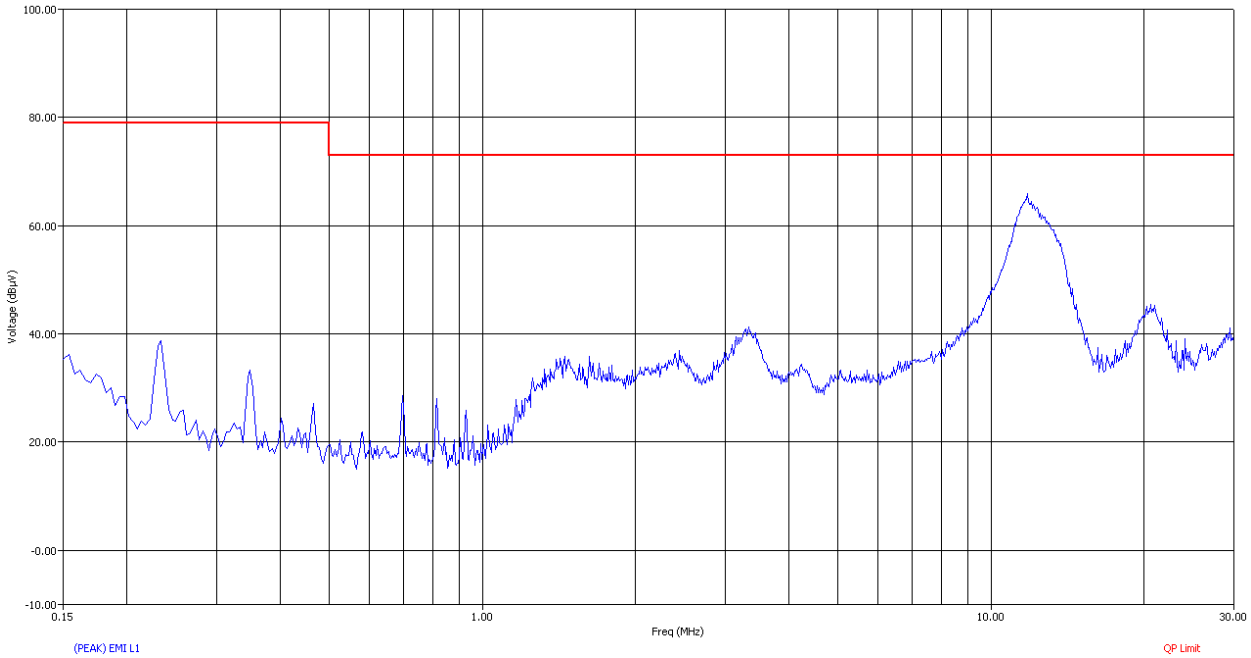


Figure 11: CE from 150 kHz to 30 MHz using Peak detector for Line-1 (L1) in Battery mode

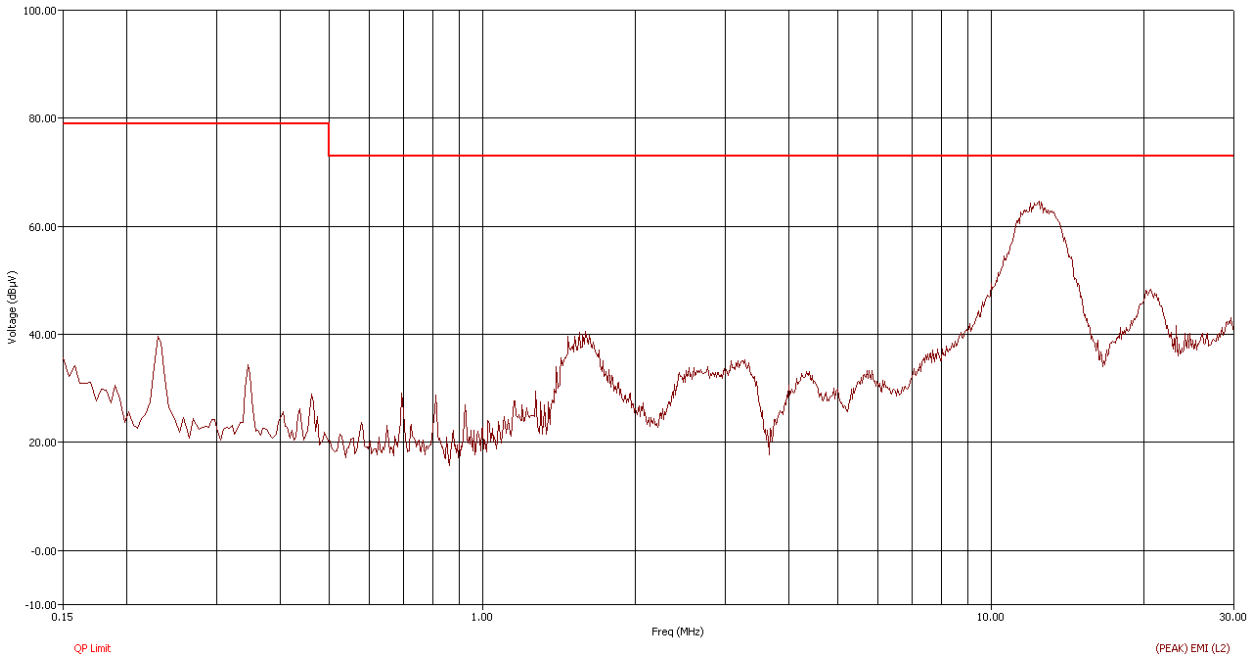


Figure 12: CE from 150 kHz to 30 MHz using Peak detector for Line-2 (L2) in Battery mode

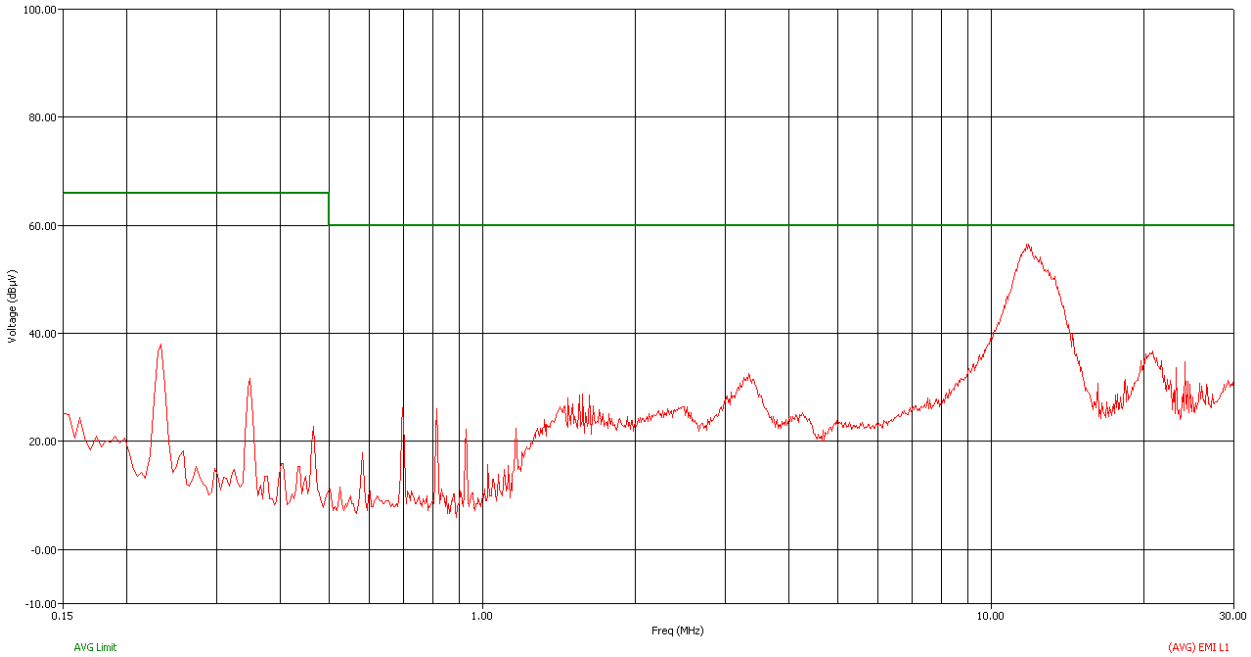


Figure 13: CE from 150 kHz to 30 MHz using Average detector for Line-1 (L1) in Battery mode

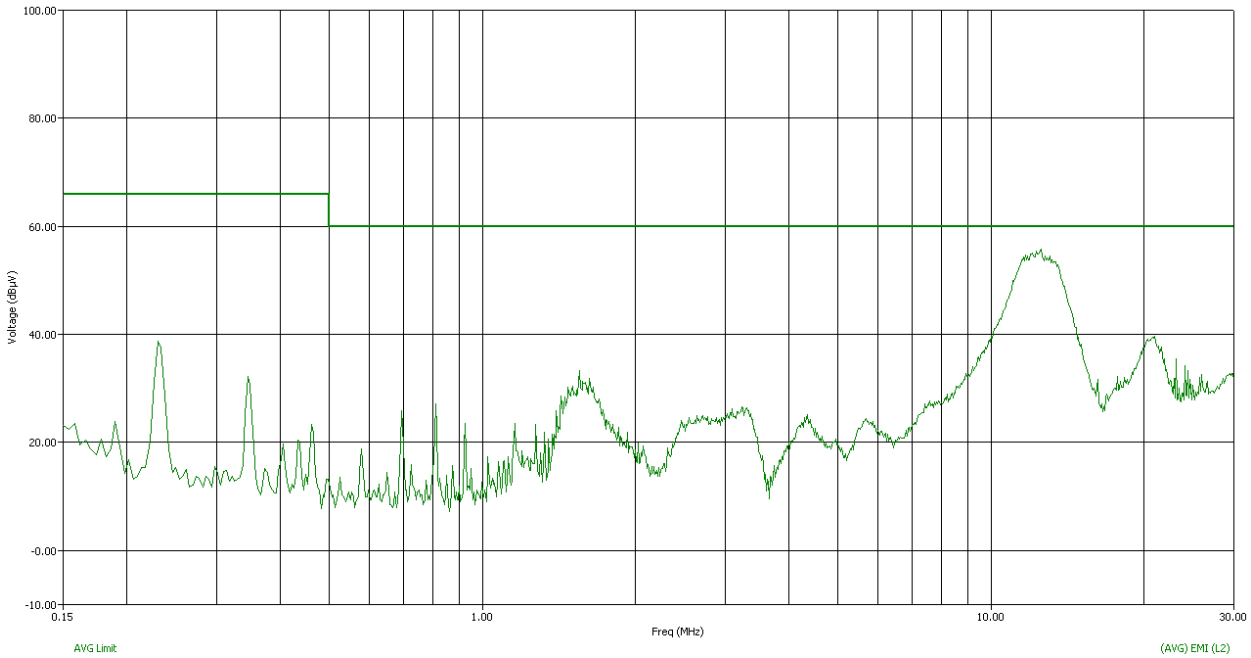


Figure 14: CE from 150 kHz to 30 MHz using Average detector for Line-2 (L2) in Battery mode

Freq (MHz)	Freq (Max) (MHz)	Line	(QP) Trace (dBµV)	Pulselimiter+Cable (dB)	Transducer L1 (dB)	Transducer L2 (dB)	(QP) EMI (dBµV)	QP Limit (dBµV)	(QP) Margin (dB)
0.230	0.231	L2	29.85	9.72	0.00	0.04	39.61	79.00	-39.39
0.234	0.232	L1	29.23	9.72	0.04	0.00	38.99	79.00	-40.01
0.350	0.348	L2	23.92	9.80	0.00	0.04	33.76	79.00	-45.24
0.350	0.348	L1	23.38	9.80	0.04	0.00	33.21	79.00	-45.79
1.598	1.593	L2	25.27	9.94	0.00	0.06	35.27	73.00	-37.73
3.330	3.322	L1	21.48	10.00	0.11	0.00	31.58	73.00	-41.42
3.330	3.326	L2	25.41	10.00	0.00	0.10	35.51	73.00	-37.49
11.774	11.772	L1	50.16	10.16	0.32	0.00	60.64	73.00	-12.36
12.454	12.458	L2	48.51	10.18	0.00	0.32	59.01	73.00	-13.99
20.562	20.569	L1	29.67	10.34	0.44	0.00	40.46	73.00	-32.54
20.594	20.598	L2	33.05	10.34	0.00	0.42	43.82	73.00	-29.18

Table 7: Quasi Peak table for CE from 150 kHz to 30 MHz for Line-1 (L1)& Line-2 (L2) in Battery mode

Freq (MHz)	Freq (Max) (MHz)	Line	(AVG) Trace (dBµV)	Pulselimiter+Cable (dB)	Transducer L1 (dB)	Transducer L2 (dB)	(AVG) EMI (dBµV)	AVG Limit (dBµV)	(AVG) Margin (dB)
0.230	0.231	L2	29.50	9.72	0.00	0.04	39.26	66.00	-26.74
0.234	0.232	L1	28.75	9.72	0.04	0.00	38.51	66.00	-27.49
0.350	0.348	L2	22.91	9.80	0.00	0.04	32.75	66.00	-33.25
0.350	0.348	L1	22.18	9.80	0.04	0.00	32.01	66.00	-33.99
1.598	1.593	L2	14.09	9.94	0.00	0.06	24.10	60.00	-35.90
3.330	3.322	L1	16.93	10.00	0.11	0.00	27.04	60.00	-32.96
3.330	3.326	L2	19.06	10.00	0.00	0.10	29.16	60.00	-30.84
11.774	11.772	L1	43.38	10.16	0.32	0.00	53.87	60.00	-6.13
12.454	12.458	L2	40.85	10.18	0.00	0.32	51.35	60.00	-8.65
20.562	20.569	L1	22.39	10.34	0.44	0.00	33.18	60.00	-26.82
20.594	20.598	L2	25.53	10.34	0.00	0.42	36.29	60.00	-23.71

Table 8: Average table for CE from 150 kHz to 30 MHz for Line-1 (L1) & Line-2 (L2) in Battery mode

Note:
(QP) EMI (dBµV) = (QP) Trace (dBµV) + Transducer (dB) + {Cable + Pulse limiter} (dB)
QP Margin QPL (dB) = (QP) EMI (dBµV) – (QP) Limit (dBµV)
(AVG) EMI (dBµV) = (AVG) Trace (dBµV) + Transducer (dB) + {Cable + Pulse limiter} (dB)
AVG Margin AVL (dB) = (AVG) EMI (dBµV) – (AVG) Limit (dBµV)

5.3.2.7 RESULT

Conducted emission results are **within the** limits specified in FCC 47CFR part15 Subpart B, Class A limits.

ANNEXURE I: TEST SETUP PHOTOGRAPHS

Figure 15: Photograph of the EUT (Front view)

Figure 16: Photograph of the EUT (Rear view)

Figure 17: Photograph of the Serial no over the EUT

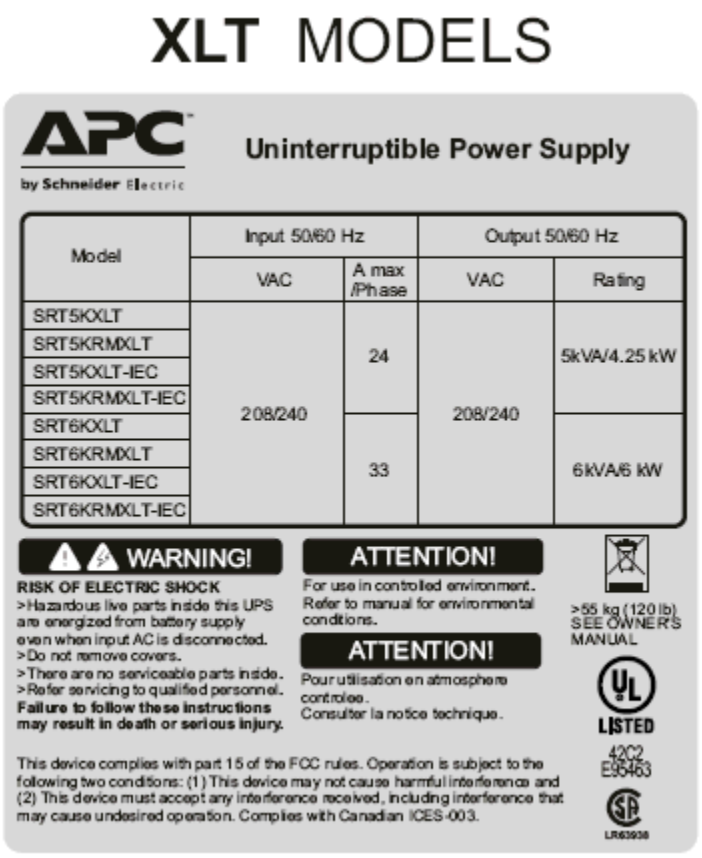


Figure 18: Photograph of the Product Label

Figure 19: Radiated Emission test setup

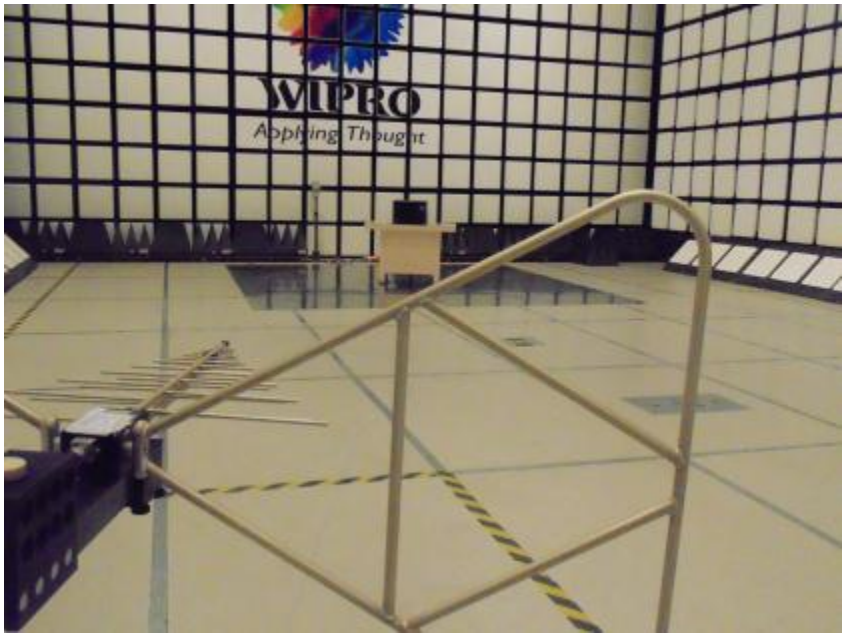


Figure 20: Radiated Emission test setup in Horizontal polarization

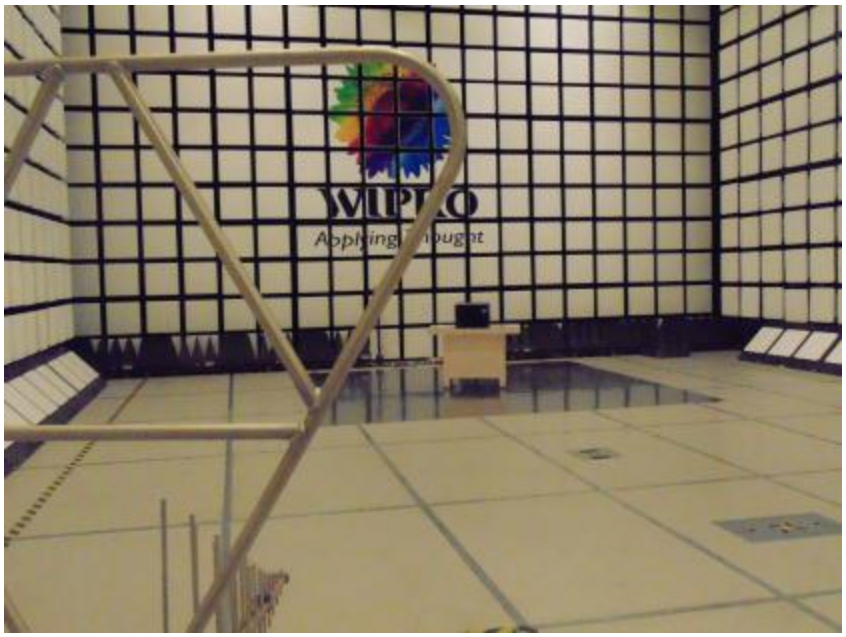


Figure 21: Radiated Emission test setup in Vertical polarization

Figure 22: Conducted Emission test setup

Figure 23: Photograph of the Power supply input cable

Figure 24: Photograph of the Power supply output cable

Figure 25: Photograph of the RS 232 com to Ethernet

Figure 26: Photograph of the Etherenet cable

Figure 27: Photograph of the USB cable

Figure 28: Photograph of the Universal I/O cable

Figure 29: Photograph of the EPO cable

ANNEXURE II: ACRONYMS

CE	Conducted Emission
EMC	Electromagnetic Compatibility
EMI	Electro Magnetic Interference
EUT	Equipment Under Test
I/O	Input / output
NA	Not Applicable
RE	Radiated Emission
USB	Universal Serial Bus

END OF REPORT