

CE TEST REPORT

for

Solar Street Light Lithium-ion Battery System

Model: 12V20AH

(Other models please see the page 3)

Prepared for: SHENZHEN PCHNE TECHNOLOGY CO., LTD.
3/F, C Building, FuXinLin Industry Park, Hangcheng Industrial
Zone, Fuhua Community, XiXiang Street, Bao'An Dist, Shenzhen, China.

Prepared by: Shenzhen NCT Testing Technology Co., Ltd
1 / F, No. B Building, Mianshang Younger Pioneer Park, Hangcheng
Road, Gushu Xixiang Street, Baoan District, Shenzhen

TEL: +86-755-27790922

FAX: +86-755-27790922

Report Number: NCT18020196E1-1

Date of Test: May. 15, 2018~May. 23, 2018

Date of Issue: May. 23, 2018

Tested By Beryl Zhao
Beryl Zhao

Reported By Beryl Zhao
Beryl Zhao

Reviewed By



The results detailed in this test report relate only to the specific sample(s) tested. It is the Application's responsibility to ensure that all production units are manufactured with equivalent EMC characteristics. This report is not to be reproduced except in full, without written approval from NCT Testing Technology.

Table of contents

1.0 General Information	3
1.1 Client Information	3
1.2 General Description of E.U.T.	3
1.3 Test Facility:.....	3
2.0 List of Measurement Equipment	4
3.0 Technical Details	6
3.1 Investigations Requested.....	6
3.2 Test Standards	6
3.3 Performance Criteria.....	6
3.4 Test standards and Results Summary Tables.....	7
3.5 Measurement Uncertainty (95% confidence levels, k=2).....	7
4.0 Electromagnetic Interference Test results	8
4.1 Power Line Conducted Emission Test.....	8
4.2 Telecommunication ports Conducted Emission Test.....	12
4.3 Radiated Emission Test	14
4.4 Harmonic Current Emissions	18
4.5 Flicker and Voltage Fluctuation.....	19
5.0 Immunity Test	20
5.1 Electrostatic Discharge.....	20
5.2 RF field strength susceptibility (80MHz----- 2700MHz).....	21
5.3 Electrical Fast Transient/Burst (EFT/B) immunity test.....	23
5.4 Surge test	24
5.5 Conducted Immunity test	25
5.6 Power-Frequency magnetic field test	26
5.7 Voltage Dips/Interruptions immunity test	27
6.0 CE Label	28
7.0 Photos of testing	29
8.0 Photos of the EUT	30

1.0 General Information

1.1 Client Information

Application:	SHENZHEN PCHNE TECHNOLOGY CO., LTD.
Address of Application:	3/F, C Building, FuXinLin Industry Park, Hangcheng Industrial Zone, Fuhua Community, XiXiang Street, Bao'An Dist, Shenzhen, China.
Manufacturer:	SHENZHEN PCHNE TECHNOLOGY CO., LTD.
Address of Manufacturer:	3/F, C Building, FuXinLin Industry Park, Hangcheng Industrial Zone, Fuhua Community, XiXiang Street, Bao'An Dist, Shenzhen, China.

1.2 General Description of E.U.T.

Product Name:	Solar Street Light Lithium-ion Battery System
Model:	12V20AH
Additional Model:	12V10AH , 12V30AH , 12V40AH, 12V50AH, 12V60AH, 12V70AH, 12V80AH, 12V100AH.
Trade Mark:	Pengcheng
Power Supply:	DC 12V, 20AH for Internal Battery

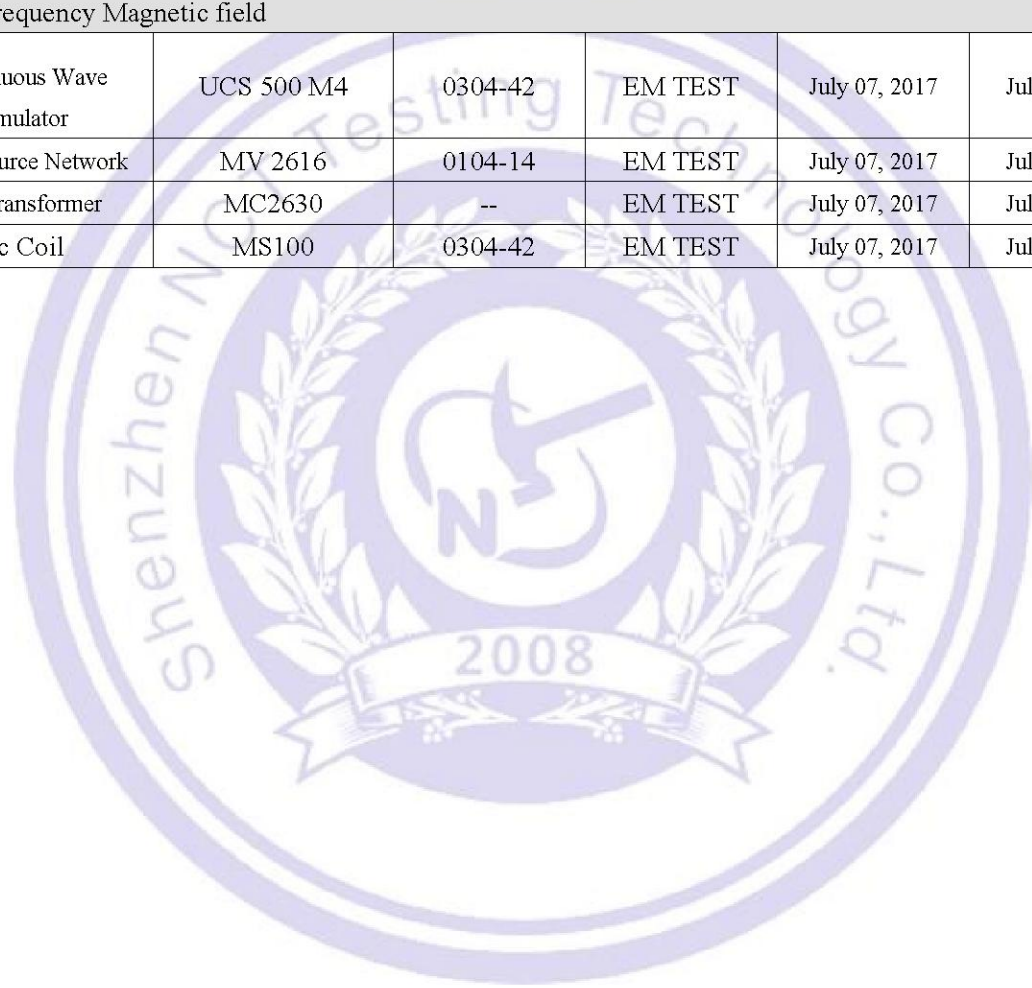
Model Difference:	All models are the same except for model name and capacity.
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1.3 Test Facility:

Name of Test Lab:	Shenzhen NCT Testing Technology Co., Ltd.
Address of Test Lab:	1 / F, No. B Building, Mianshang Younger Pioneer Park, Hangcheng Road, Gushu Xixiang Street, Baoan District, Shenzhen
Telephone:	+86-755-27790922
Fax:	+86-755-27790922

2.0 List of Measurement Equipment					
Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
Conducted emission					
EMI Test Receiver	ESCS30	1102.4500.30	RS	July 07, 2017	July 06, 2018
LISN	LS16C	10010947251	AFJ	July 07, 2017	July 06, 2018
Radiated emission					
EMI Test Receiver	ESVD	1026.5506.10	RS	July 07, 2017	July 06, 2018
Spectrum Analyzer	FSEM	1079.8500.30	RS	July 07, 2017	July 06, 2018
Coaxial Switch	MP59B	M70585	ANRITSU	N/A	N/A
Amplifier	8447D	2727A05017	HP	July 07, 2017	July 06, 2018
Bilog Antenna	VULB9163	9163/340	Schwarebeck	July 07, 2017	July 06, 2018
Harmonic & Flicker					
Harmonics Flicker Test System	PACS-1	72305	CI	July 07, 2017	July 06, 2018
5K VA AC Power source	5001iX	56060	CI	July 07, 2017	July 06, 2018
Electrostatic Discharge					
Electostatic Discharge Generator	ESD61002AG	PR12092502	Prima	July 07, 2017	July 06, 2018
Continuous radiated disturbances					
Signal Generator	2022D	119246/003	Maconi	July 07, 2017	July 06, 2018
Power Amplifier	A00181-1000	9801-112	M2S	July 07, 2017	July 06, 2018
Power Amplifier	AC8113/ 800-250A	9801-179	M2S	July 07, 2017	July 06, 2018
Power Antenna	CBL6140A	1204	SCHAFFNER	July 07, 2017	July 06, 2018
EFT/Surge/Dip					
Fast Transient Burst Simulator	EFT61004BG	PR12074375	Prima	July 07, 2017	July 06, 2018

Lightning Surge Generator	SUG61005BG	PR12125534	Prima	July 07, 2017	July 06, 2018
CYCLE SAG SIMULATOR	DRP61011AG	PR12106201	Prima	July 07, 2017	July 06, 2018
Continuous conducted disturbances					
Signal Generator	2022D	119246/003	Maconi	July 07, 2017	July 06, 2018
Power Amplifier	A00181-1000	9801-112	M2S	July 07, 2017	July 06, 2018
CDN	M3-8016	003683	MEB	July 07, 2017	July 06, 2018
Power-frequency Magnetic field					
Continuous Wave Simulator	UCS 500 M4	0304-42	EM TEST	July 07, 2017	July 06, 2018
Power Source Network	MV 2616	0104-14	EM TEST	July 07, 2017	July 06, 2018
Current Transformer	MC2630	--	EM TEST	July 07, 2017	July 06, 2018
Magnetic Coil	MS100	0304-42	EM TEST	July 07, 2017	July 06, 2018



3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] & Electromagnetic Susceptibility [EMS] tests for CE Marking

3.2 Test Standards

EN 61000-6-3:2007+A1:2011/AC2012	Electromagnetic compatibility (EMC)- Part 6-3: Generic standards- Emission for residential, commercial and light-industrial environments
EN 61000-3-2:2014	Electromagnetic compatibility(EMC)- Part 3-2:Limits-Limits for harmonic current emissions(equipment input current $\leq 16A$ per phase)
EN 61000-3-3:2013	Electromagnetic compatibility (EMC)- Part 3-3:Limits-Limitation of voltage changes, Voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16A$ per phase and not subject to conditional connection
EN 61000-6-1:2007	Electromagnetic compatibility (EMC)- Part 6-1: Generic standards- Immunity for residential, commercial and light-industrial environments

3.3 Performance Criteria

- Criterion A The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer. The performance level may be replaced by a permissible loss of performance. The minimum level may be instead of that, either being derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
- Criterion B The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is allowed. No change of actual operating state or stored data is allowed. The minimum level may be instead of that, either being derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
- Criterion C Temporary loss of function is allowed, provided the function is self-recoverable or can be restored by the operation of the controls.

3.4 Test standards and Results Summary Tables

Test Condition	Test Requirement	Test Method	Test Result
EMISSION Results Summary			
Conducted Emission on AC Mains, 150KHz to 30MHz	EN 61000-6-3:2007+A1:2011 /AC2012	EN 61000-6-3:2007+A1:2011 /AC2012	N/A
Conducted Emission on at telecommunication ports, 150KHz to 30MHz	EN 61000-6-3:2007+A1:2011 /AC2012	EN 61000-6-3:2007+A1:2011 /AC2012	N/A
Radiated Emissions, 30MHz to 1GHz	EN 61000-6-3:2007+A1:2011 /AC2012	EN 61000-6-3:2007+A1:2011 /AC2012	Pass
Harmonic Emissions on AC supply	EN 61000-3-2:2014	EN 61000-3-2:2014	N/A
Voltage fluctuations on AC supply	EN 61000-3-3:2013	EN 61000-3-3:2013	N/A
IMMUNITY Results Summary			
Electrostatic Discharge	EN 61000-6-1:2007	EN 61000-4-2: 2009	Pass
RF field strength susceptibility	EN 61000-6-1:2007	EN 61000-4-3: 2004+A1:2010	Pass
Electrical Fast transients /Burst Immunity	EN 61000-6-1:2007	EN 61000-4-4:2012	N/A
Surge	EN 61000-6-1:2007	EN 61000-4-5:2014/A1:2017	N/A
Conducted susceptibility	EN 61000-6-1:2007	EN 61000-4-6:2014/AC:2015	N/A
Power-frequency Magnetic Field	EN 61000-6-1:2007	EN 61000-4-8:2010	N/A
Dips/Voltage Interruption Variation	EN 61000-6-1:2007	EN 61000-4-11:2004/A1:2017	N/A

Note: N/A=Not applicable

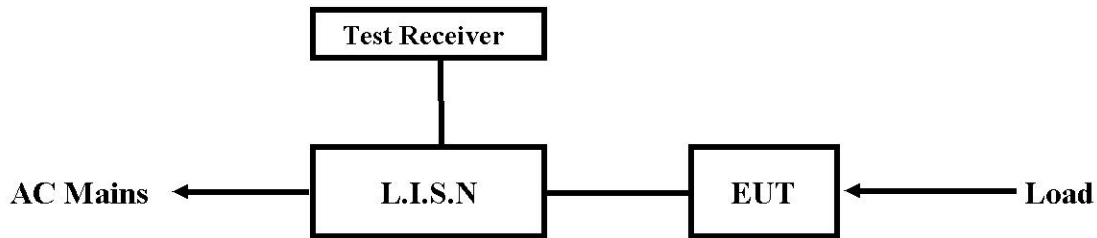
3.5 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	MU
1.	Temperature	$\pm 0.1^{\circ}\text{C}$
2.	Humidity	$\pm 1.0\%$
3.	Spurious emissions, conducted	$\pm 3.70\text{dB}$
4.	All emissions, radiated	$\pm 4.50\text{dB}$

4.0 Electromagnetic Interference Test results

4.1 Power Line Conducted Emission Test

4.1.1 Schematics of the test



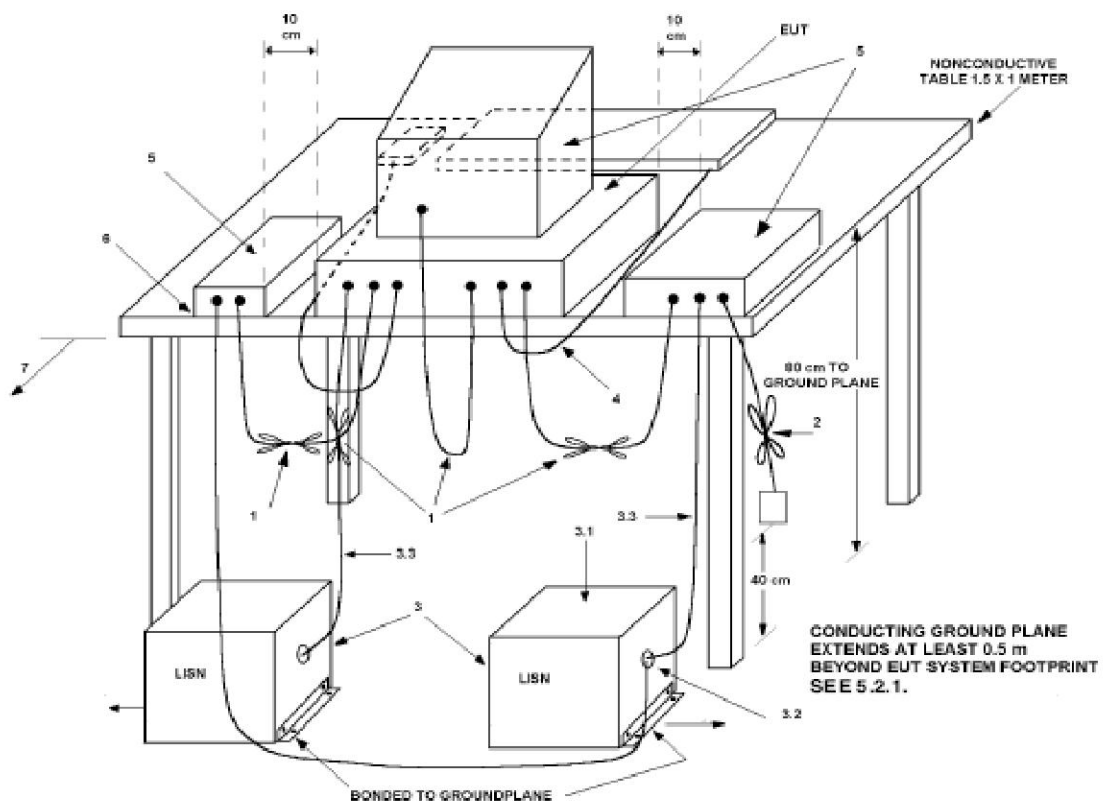
EUT: Equipment Under Test

4.1.2 Test Method and test Procedure

The test was performed in accordance with EN 61000-6-3:2007+A1:2011/AC2012

Test Voltage: DC7.4V

Block diagram of Test setup



4.1.3 EUT Operating Condition

Operating condition is according to EN 61000-6-3:2007+A1:2011/AC2012
Setup the EUT and simulators as shown on the following

4.1.4 Test Equipment

Please refer to the Section 2

4.1.5 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits (dB μ V)		Class B Limits (dB μ V)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ~ 0.50	79.0	66.0	66.0~56.0*	56.0~46.0*
0.50 ~ 5.00	73.0	60.0	56.0	46.0
5.00 ~ 30.00	73.0	60.0	60.0	50.0

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The tighter limit shall apply at the transition frequencies

4.1.6 Photo documentation of the test set-up

Please refer to the Section 7

4.1.7 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 50% Atmospheric pressure: 103kPa

Frequency range: 0.15 MHz – 30 MHz

4.1.8 Test result

The requirements are FULFILLED

Remarks: According to the EN 61000-6-3:2007+A1:2011/AC2012

A Conducted Emission on Live Terminal of the power line (150kHz to 30MHz)

EUT Description: --
 Operation Mode: --
 Tested By: --
 Test date: --
 Test Result: --

Start Frequency Stop Frequency Step IF BW Detector Final M-Time
 0.15MHz 30MHz 4.5KHz 10KHz QP+AV 1s

Frequency (MHz)	Reading(dB μ V)				Limit (dB μ V)	
	Live		Neutral		Quasi-peak	Average
	Quasi-peak	Average	Quasi-peak	Average		
			--	--		
			--	--		

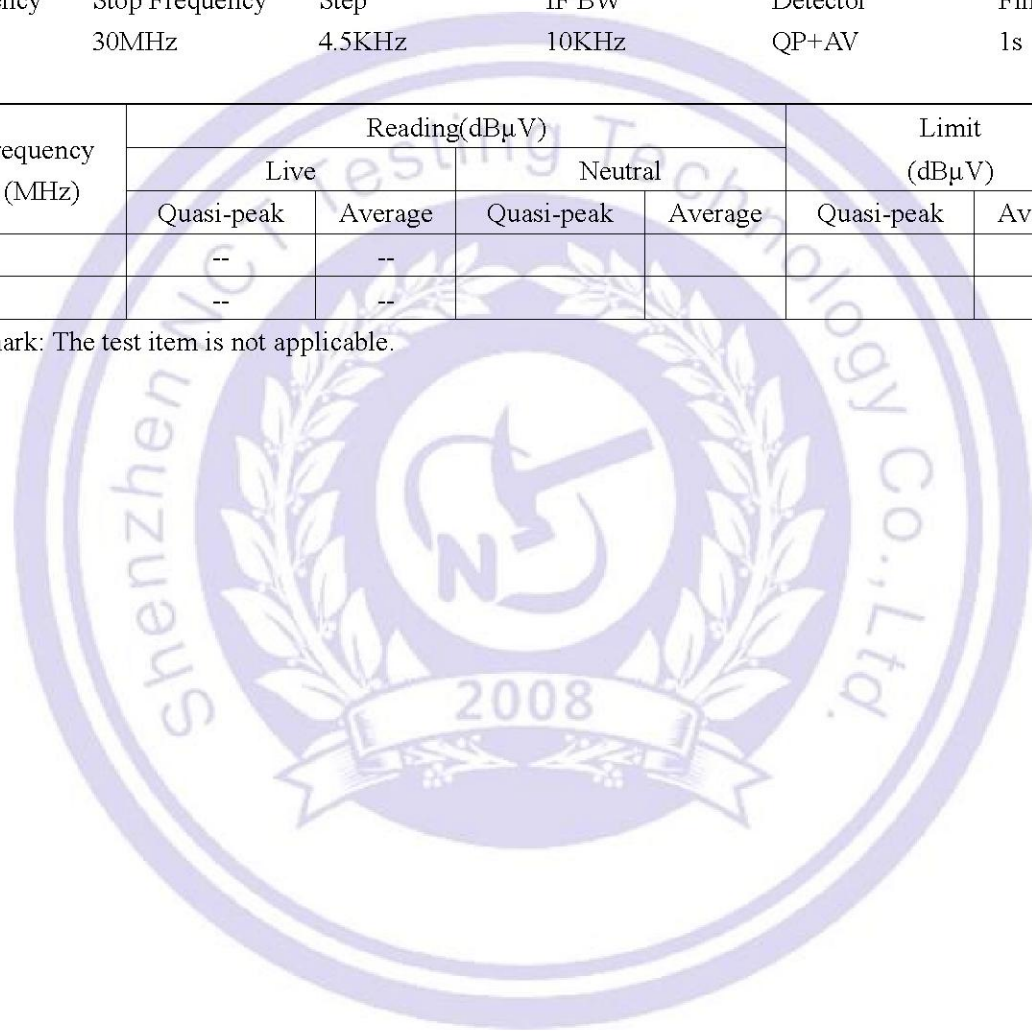
B Conducted Emission on Neutral Terminal of the power line (150kHz to 30MHz)

EUT Description: --
 Operation Mode: --
 Tested By: --
 Test date: --
 Test Result: --

Start Frequency Stop Frequency Step IF BW Detector Final M-Time
 0.15MHz 30MHz 4.5KHz 10KHz QP+AV 1s

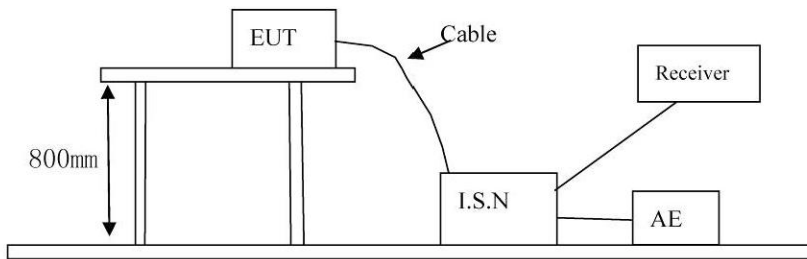
Frequency (MHz)	Reading(dB μ V)				Limit (dB μ V)	
	Live		Neutral		Quasi-peak	Average
	Quasi-peak	Average	Quasi-peak	Average		
	--	--				
	--	--				

Remark: The test item is not applicable.



4.2 Telecommunication ports Conducted Emission Test

4.2.1 Test Method: The test was performed in accordance with EN 61000-6-3:2007+A1:2011/AC2012



4.2.2 EUT Operating Condition

Operating condition is according to EN 61000-6-3:2007+A1:2011/AC2012

4.2.3 Test Equipment

Please refer to the Section 2

4.2.4 Power line conducted Emission Limit

Frequency(MHz)	Class A Limits (dBμV)		Class B Limits (dBμV)	
	Quasi-peak Level	Average Level	Quasi-peak Level	Average Level
0.15 ~ 0.50	97 to 87	84 to 74	84 to 74	74 to 64
0.50 ~ 30.00	87	74	74	64

- Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The tighter limit shall apply at the transition frequencies

4.2.5 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 50% Atmospheric pressure: 103kPa

Frequency range: 0.15 MHz – 30 MHz

4.2.6 Test result

The requirements are FULFILLED

Remarks: According to the EN 61000-6-3:2007+A1:2011/AC2012

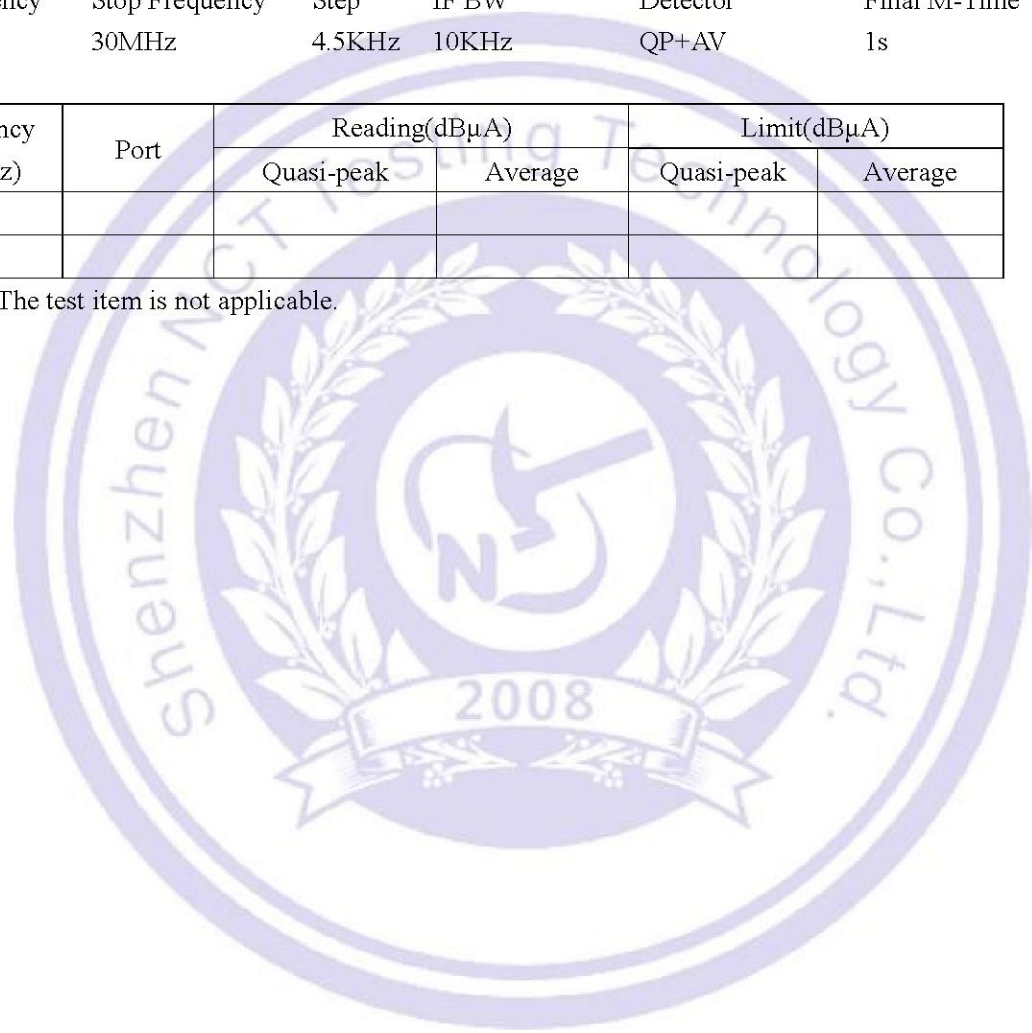
A Conducted Emission on Telecommunication port (150kHz to 30MHz)

EUT Description: --
 Operation Mode: --
 Tested By: --
 Test date: --
 Test Result: --

Start Frequency Stop Frequency Step IF BW Detector Final M-Time
 0.15MHz 30MHz 4.5KHz 10KHz QP+AV 1s

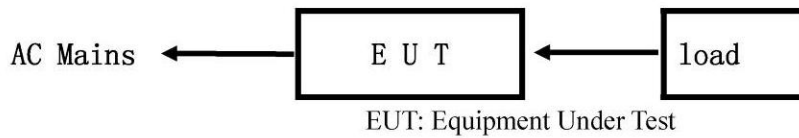
Frequency (MHz)	Port	Reading(dBμA)		Limit(dBμA)	
		Quasi-peak	Average	Quasi-peak	Average

Remark: The test item is not applicable.



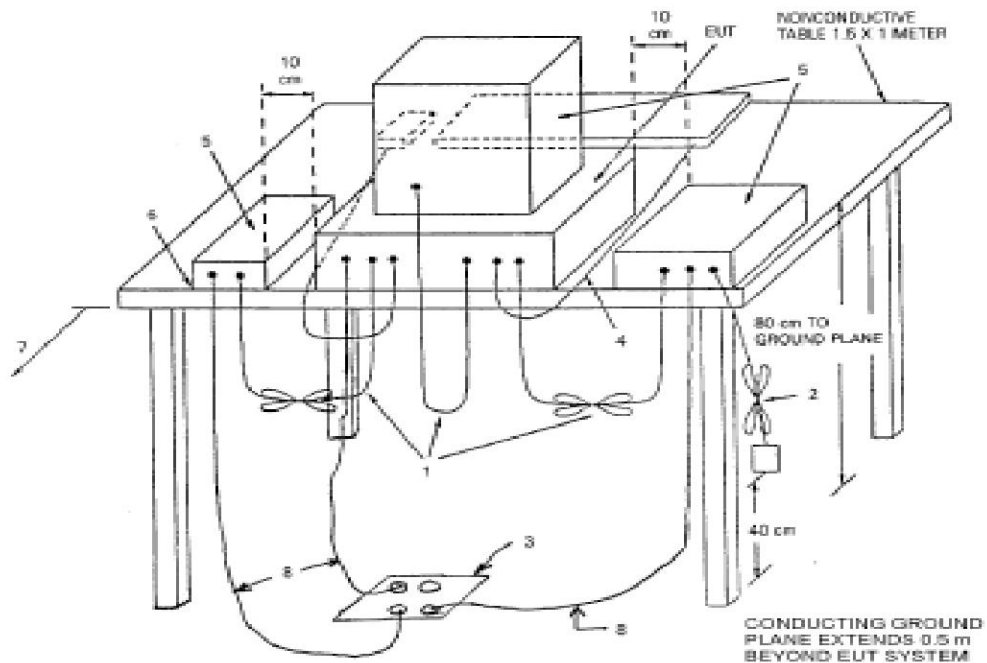
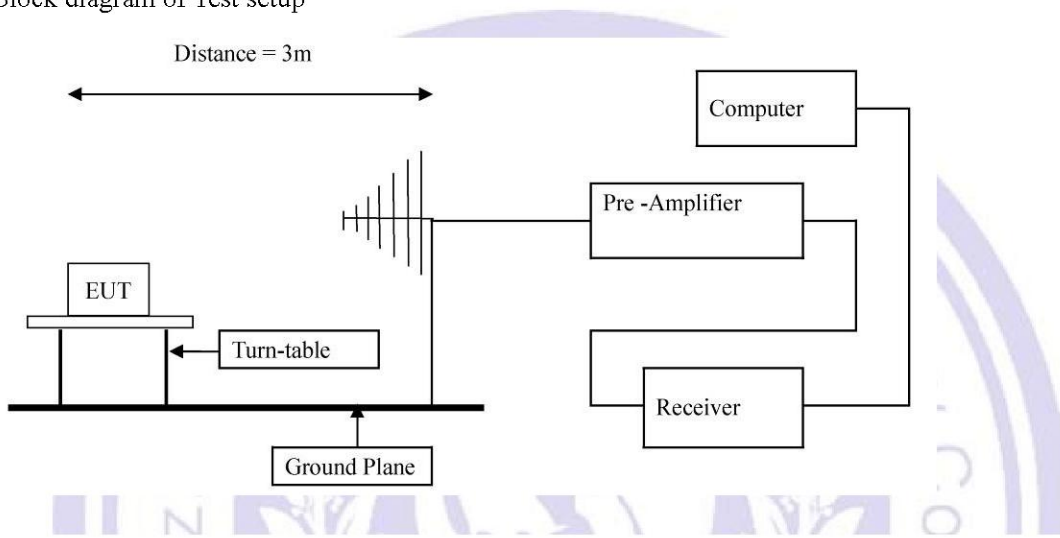
4.3 Radiated Emission Test

4.3.1 Schematics of the test



4.3.2 Test Method: The test was performed in accordance with EN 61000-6-3:2007+A1:2011/AC2012

Block diagram of Test setup



4.3.3 EUT Operating Condition

Operating condition is according to EN 61000-6-3:2007+A1:2011/AC2012

4.3.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequency Range (MHz)	Distance (m)	Quasi-Peak limits (dB μ V/m)	
		Class A Limits	Class B Limits
30-230	3	50.00	40.00
230-1000	3	57.00	47.00

Note: 1) The lower limit shall apply at the transition frequencies
 2) If measurement is not made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula $L_{d1} = L_{d2} * (d2/d1)$

4.3.5 Photo documentation of the test set-up

Please refer to the Section 7

4.3.6 Test Equipment:

Please refer to the Section 2

4.3.7 Test specification:

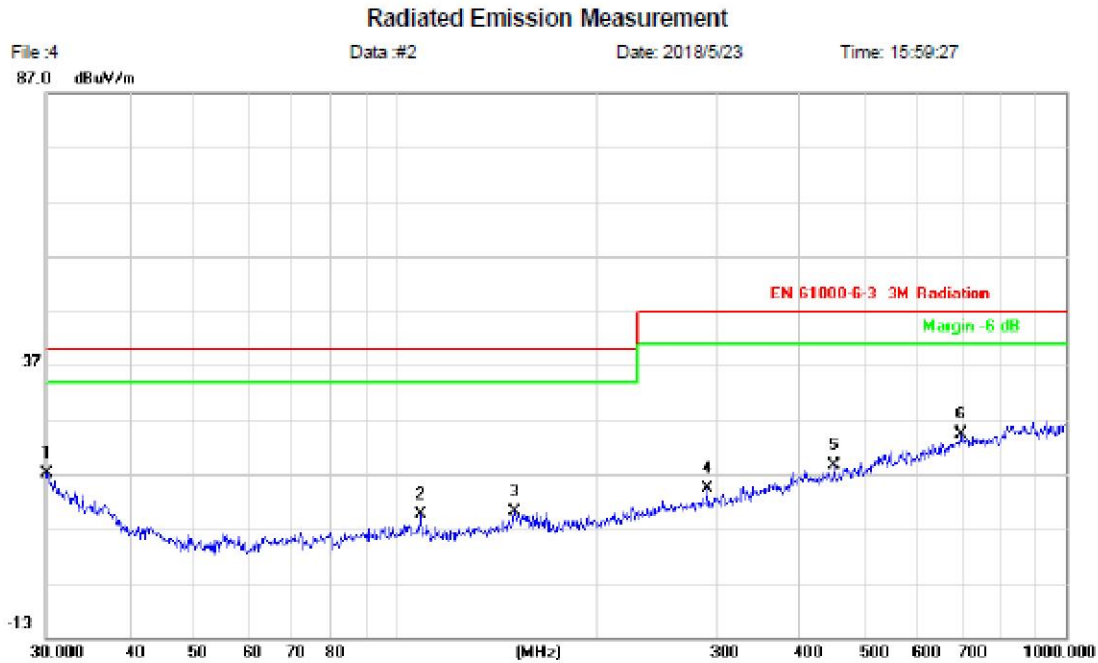
Environmental conditions: Temperature 26° C Humidity: 56% Atmospheric pressure: 103kPa

4.3.8 Test result

The requirements are FULFILLED

Remarks: According to the EN 61000-6-3:2007+A1:2011/AC2012

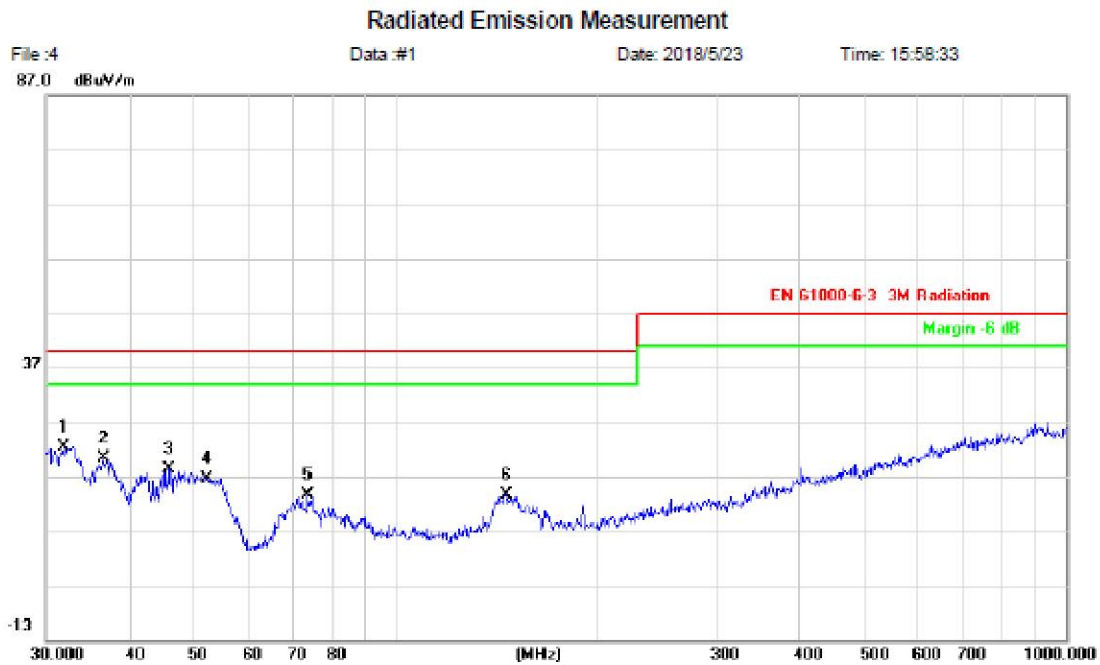
A. Radiated Emission In Horizontal (30MHz----1000MHz)



Site NCT ETS Chamber #1 Polarization: *Horizontal* Temperature: 26
 Limit: EN 61000-6-3 3M Radiation Power: Humidity: 55 %
 EUT: Distance:
 M/N:
 Mode:
 Note:

No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	degree
1	30.0000	31.23	-14.15	17.08	40.00	-22.92	peak	
2	108.6470	31.39	-21.85	9.54	40.00	-30.46	peak	
3	150.0108	31.01	-20.98	10.03	40.00	-29.97	peak	
4	291.0360	31.26	-16.83	14.43	47.00	-32.57	peak	
5	451.1350	30.54	-11.93	18.61	47.00	-28.39	peak	
6 *	694.4174	29.95	-5.64	24.31	47.00	-22.69	peak	

B. Radiated Emission In Vertical (30MHz----1000MHz)



Site: NCT ETS Chamber #1 Polarization: *Vertical* Temperature: 26
 Limit: EN 61000-6-3 3M Radiation Power: Humidity: 55 %
 EUT: Distance:
 M/N:
 Mode:
 Note:

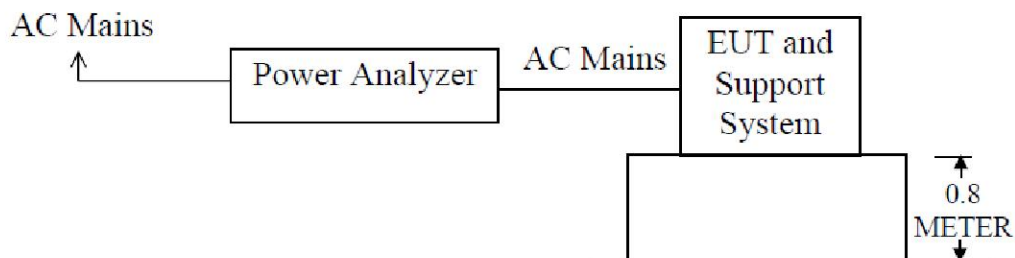
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree degree	Comment
1	*	31.9546	37.81	-15.35	22.46	40.00	-17.54	peak			
2		36.5092	38.49	-18.15	20.34	40.00	-19.66	peak			
3		45.8553	41.11	-22.76	18.35	40.00	-21.65	peak			
4		52.2079	41.27	-24.53	16.74	40.00	-23.26	peak			
5		73.8756	37.12	-23.56	13.56	40.00	-26.44	peak			
6		145.8611	34.96	-21.34	13.62	40.00	-26.38	peak			

4.4 Harmonic Current Emissions

4.4.1 EUT Operating Mode

--

4.4.2 Block Diagram of Test Setup.



This test was performed as per EMC Basic Standard EN61000-3-2 Class A

4.4.3 Test Equipment

Please refer to Section 2 this report.

4.4.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

4.4.5 Results

Port	EUT Operating mode	Result (Passed / Failed)
AC Input	--	N/A

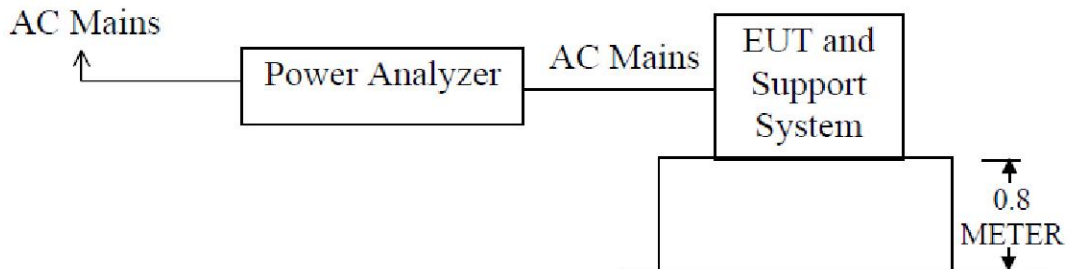
Remark: The test item is not applicable.

4.5 Flicker and Voltage Fluctuation

4.5.1 EUT Operating Mode

--

4.5.2 Block Diagram of Test Setup.



This test was performed as per EMC Basic Standard EN 61000-3-3

4.5.3 Limits of Voltage Fluctuation and Flicks Measurement

Test Item	Limit	Note
P_{st}	1.0	Pst means short-term flicker indicator
P_{lt}	0.65	Plt means long-term flicker indicator
T_{dt} (ms)	200	Tdt means maximum time that dt exceeds 3%.
d_{max} (%)	4	Dmax means maximum relative voltage change.
dc (%)	3	Dc means relative steady-state voltage change.

4.5.4 Test Equipment

Please refer to Section 2 this report.

4.5.5 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

4.5.6 Results

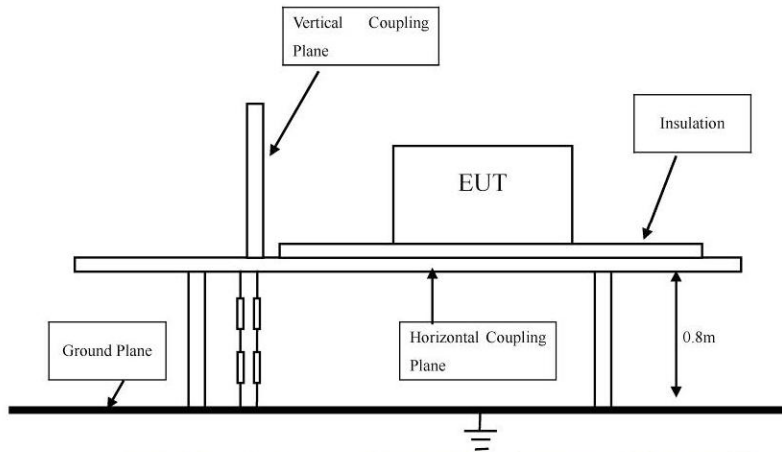
Port	EUT Operating mode	Result (Passed / Failed)
AC Input	--	N/A

Remark: The test item is not applicable.

5.0 Immunity Test

5.1 Electrostatic Discharge

5.1.1 Schematic of the test



5.1.2 Test method

The test was performed in accordance with EN 61000-4-2

5.1.3 Test severity

±4kV for direct & in-direct Contact Discharge

±8kV for air Discharge

Performance Criterion Require: **B**

5.1.4 Test Equipment

Please refer to Section 2 this report.

5.1.5 Test specification:

Environmental conditions: Temperature: 22° C Humidity: 54% Atmospheric pressure: 103kPa

5.1.6 Operation mode:

Discharging Mode

5.1.7 Discharge location

- HCP
- VCP

5.1.8 Test Result

Pass

5.2 RF field strength susceptibility (80MHz----- 2700MHz)

5.2.1 Test Method:

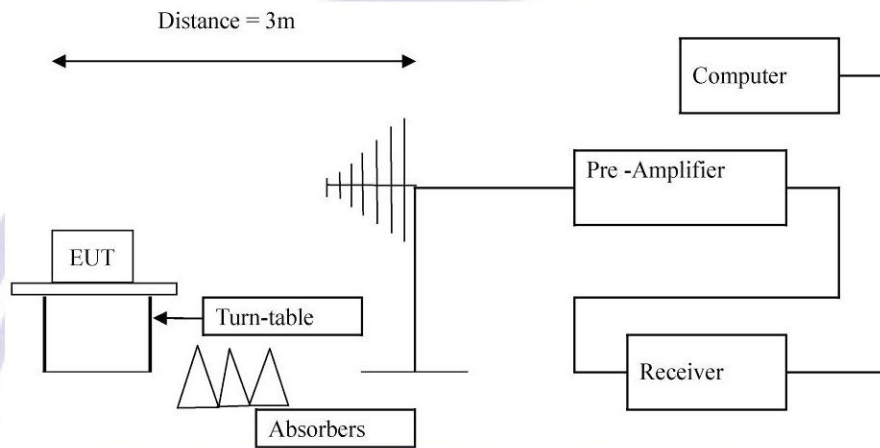
The test was performed in accordance with EN 61000-4-3

Severity: Level 2 (3V/m) for 80MHz-1000MHz
 Level 2 (3V/m) for 1400MHz-2000MHz
 Level 1 (1V/m) for 2000MHz-2700MHz

Modulation: 1 KHz 80% AM

Performance Criterion Require: A

Block diagram of Test setup



5.2.2 Test Equipment

Please refer to Section 2 this report.

5.2.3 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.2.4 Operation mode: Discharging Mode

5.2.5 Test Result:

Please refer to the following table for individual results.

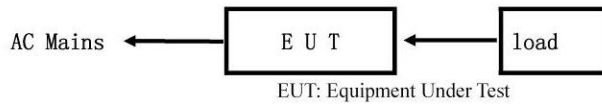
Frequency (MHz)	Radiation to	Polarity	Level (V/m)	Dwell Time(s)	Sweep Rate (%)	Results
80-1000	Front	Horizontal	3	1	1	Pass
80-1000	Rear	Horizontal	3	1	1	Pass
80-1000	Left	Horizontal	3	1	1	Pass
80-1000	Right	Horizontal	3	1	1	Pass
80-1000	Front	Vertical	3	1	1	Pass
80-1000	Rear	Vertical	3	1	1	Pass
80-1000	Left	Vertical	3	1	1	Pass
80-1000	Right	Vertical	3	1	1	Pass

Frequency (MHz)	Radiation to	Polarity	Level (V/m)	Dwell Time(s)	Sweep Rate (%)	Results
1400-2000	Front	Horizontal	3	1	1	Pass
1400-2000	Rear	Horizontal	3	1	1	Pass
1400-2000	Left	Horizontal	3	1	1	Pass
1400-2000	Right	Horizontal	3	1	1	Pass
1400-2000	Front	Vertical	3	1	1	Pass
1400-2000	Rear	Vertical	3	1	1	Pass
1400-2000	Left	Vertical	3	1	1	Pass
1400-2000	Right	Vertical	3	1	1	Pass

Frequency (MHz)	Radiation to	Polarity	Level (V/m)	Dwell Time(s)	Sweep Rate (%)	Results
2000-2700	Front	Horizontal	1	1	1	Pass
2000-2700	Rear	Horizontal	1	1	1	Pass
2000-2700	Left	Horizontal	1	1	1	Pass
2000-2700	Right	Horizontal	1	1	1	Pass
2000-2700	Front	Vertical	1	1	1	Pass
2000-2700	Rear	Vertical	1	1	1	Pass
2000-2700	Left	Vertical	1	1	1	Pass
2000-2700	Right	Vertical	1	1	1	Pass

5.3 Electrical Fast Transient/Burst (EFT/B) immunity test

5.3.1 Schematics of the test



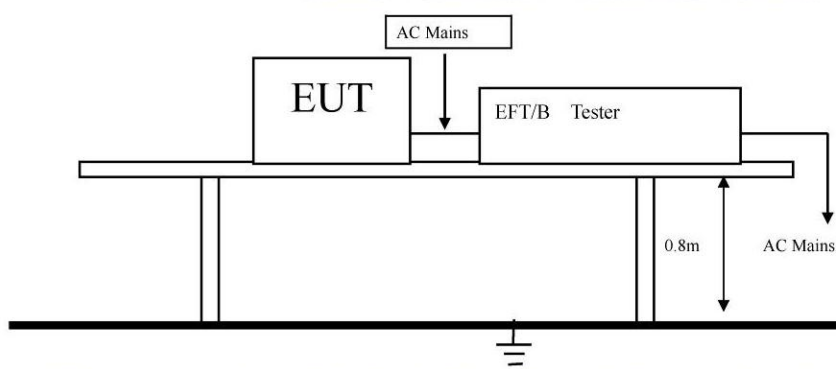
5.3.2 Test Method

The test was performed in accordance with EN 61000-4-4

Severity: Level 2 (1kV)

Performance Criterion Require: **B**

Block diagram of Test setup



5.3.3 Test Equipment

Please refer to Section 2 this report.

5.3.4 Test specification:

Environmental conditions: Temperature: 24° C Humidity: 54% Atmospheric pressure: 103kPa

5.3.5 Operation mode: --

5.3.6 Test Results

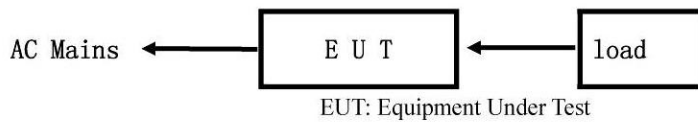
Inject location: AC mains

Inject Line	Voltage kV	Inject Times (s)	Method	Results
L	±1	120	Direct	N/A
N	±1	120	Direct	N/A
L、N	±1	120	Direct	N/A
E	±1	120	Direct	N/A
L、E	±1	120	Direct	N/A
N、E	±1	120	Direct	N/A
L、N、E	±1	120	Direct	N/A

Remark: The test item is not applicable.

5.4 Surge test

5.4.1 Schematics of the test



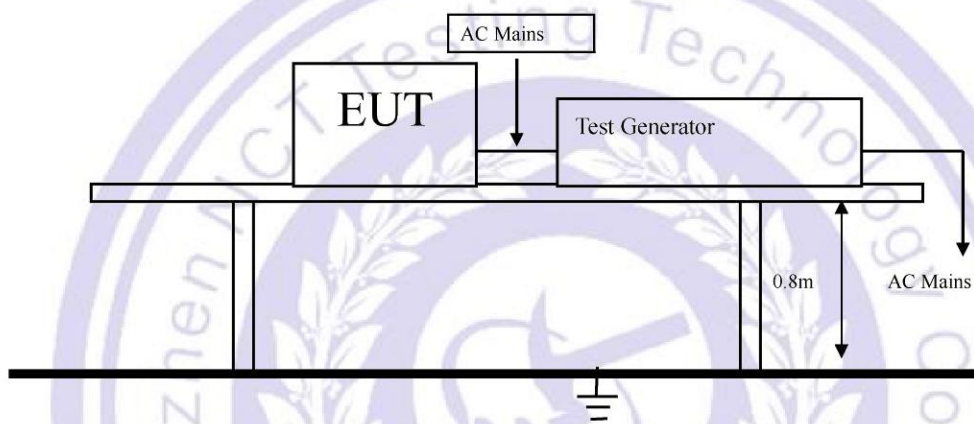
5.4.2 Test Method:

The test was performed in accordance with EN 61000-4-5

Severity: Level 2

Performance Criterion Require: B

Block diagram of Test setup



5.4.3 Test Equipment

Please refer to Section 2 this report.

5.4.4 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.4.5 Operation mode: --

5.4.6 Test Results

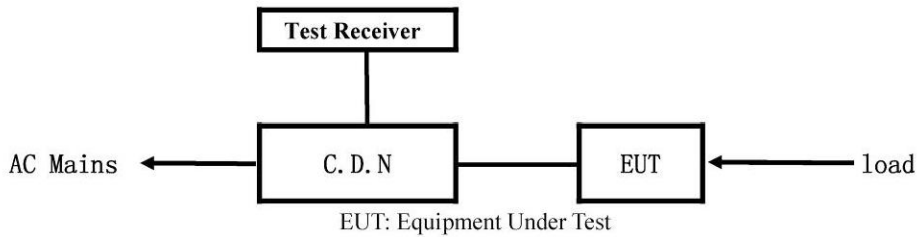
5 pulses for each polarity and test voltage, and repetition rate is 1 per min.

Location	Polarity	0°	90°	180°	270°	Results
L-N	± 1 KV	N/A	N/A	N/A	N/A	N/A
L-PE	± 2 KV	N/A	N/A	N/A	N/A	N/A
N-PE	± 2 KV	N/A	N/A	N/A	N/A	N/A

Remark: The test item is not applicable.

5.5 Conducted Immunity test

5.5.1 Schematics of the test



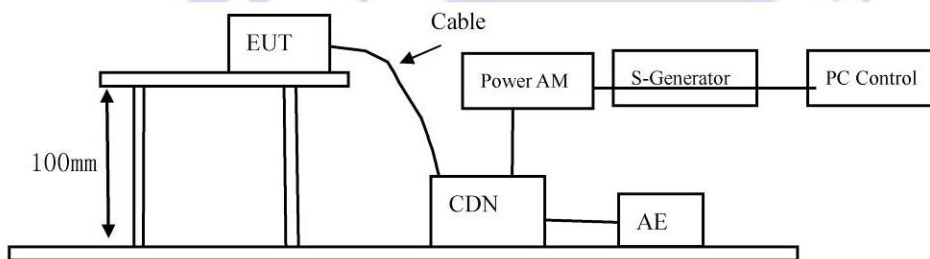
5.5.2 Test Method

The test was performed in accordance with EN 61000-4-6

Severity: Level 2 (3 V rms), 0.15MHz—80MHz

Performance Criterion Require: A

Block diagram of Test setup



5.5.3 Test Equipment

Please refer to Section 2 this report.

5.5.4 Test specification:

Environmental conditions: Temperature: 24° C Humidity: 54% Atmospheric pressure: 103kPa

5.5.5 Operation mode: --

5.5.6 Test Results:

Frequency Range (MHz)	Injected Position	Strength	Criterion	Result
0.15 - 80	AC Line	3V (rms) Unmodulated	A	N/A

Remark: The test item is not applicable.

5.6 Power-Frequency magnetic field test

5.6.1 Schematics of the test



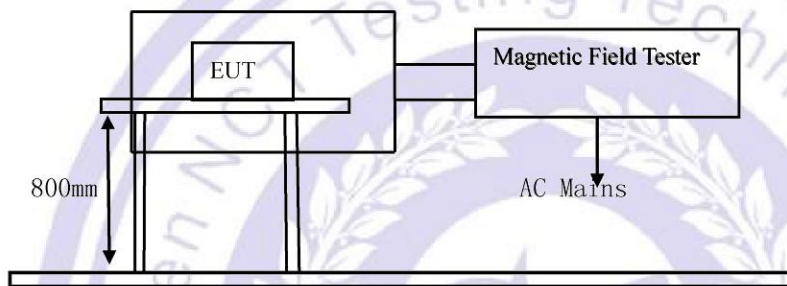
5.6.2 Test Method

The test was performed in accordance with EN 61000-4-8

Severity: Level 2 (3A/m),

Performance Criterion Require: A

Block diagram of Test setup



5.6.3 Test Equipment

Please refer to Section 2 this report.

5.6.4 Test specification:

Environmental conditions: Temperature: 22° C Humidity: 54% Atmospheric pressure: 103kPa

5.6.5 Operation mode: --

5.6.6 Test Results:

Test Level	Testing Duration	Coil Orientation	Criterion	Result
50 Hz				
3A/m	5 Mins	X	A	N/A
3A/m	5 Mins	Y	A	N/A
3A/m	5 Mins	Z	A	N/A
60 Hz				
3A/m	5 Mins	X	A	N/A
3A/m	5 Mins	Y	A	N/A
3A/m	5 Mins	Z	A	N/A

Remark: The test item is not applicable.

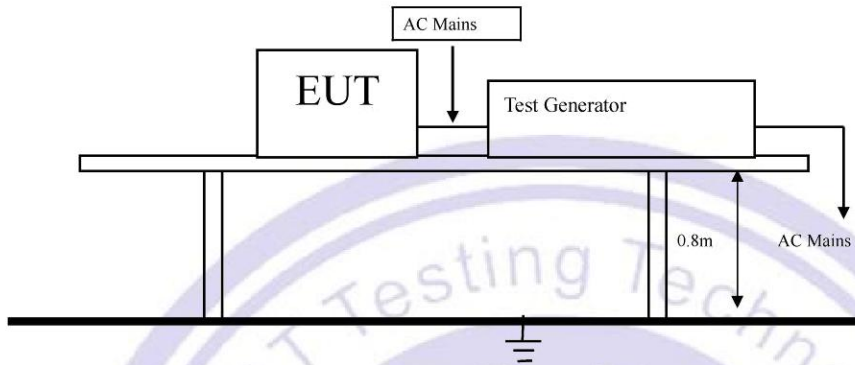
5.7 Voltage Dips/Interruptions immunity test

5.7.1 Test Method:

The test was performed in accordance with EN 61000-4-11

Performance Criterion Require: C&B

Block diagram of Test setup



5.7.2 Test Equipment

Please refer to Section 2 this report.

5.7.3 Test specification:

Environmental conditions: Temperature: 23° C Humidity: 54% Atmospheric pressure: 103kPa

5.7.4 Operation mode: --

5.7.5 Test Result:

Test Level % Ut	Reduction	Duration (periods)	Phase Angle	Meet Criterion	Result
50 Hz					
0	100	0.5	0° - 360°	B	N/A
0	100	1	0° - 360°	B	N/A
70	30	25	0° - 360°	C	N/A
0	100	250	0° - 360°	C	N/A
60 Hz					
0	100	0.5	0° - 360°	B	N/A
0	100	1	0° - 360°	B	N/A
70	30	30	0° - 360°	C	N/A
0	100	300	0° - 360°	C	N/A

Remark: The test item is not applicable.

6.0 CE Label

6.1 label specification

Text of the mark is black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing and shall be affixed at a conspicuous location on the EUT or silk-screened onto the EUT.

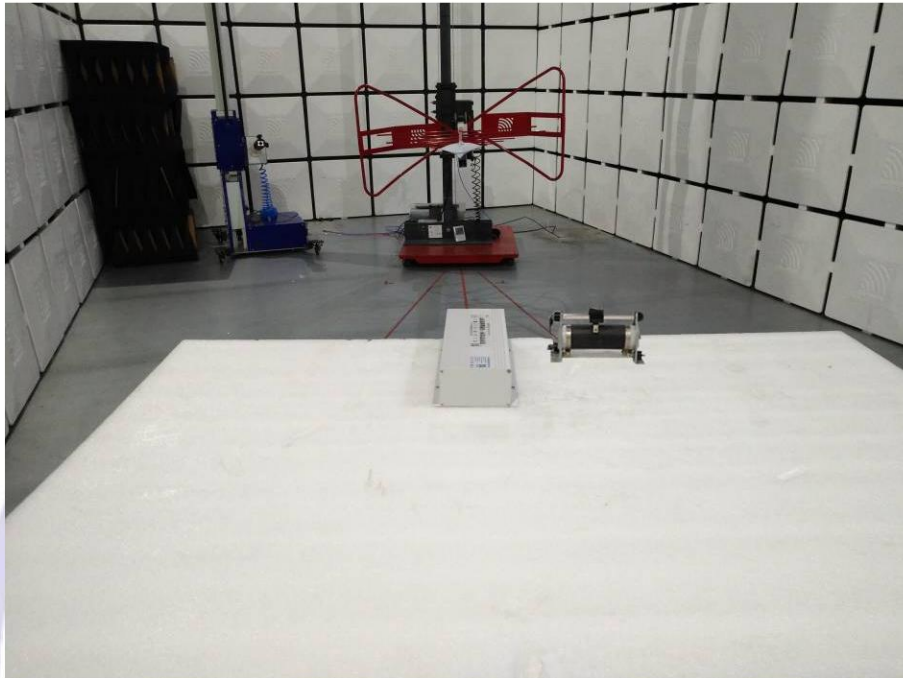
CE

6.2 Mark Location: On the product body

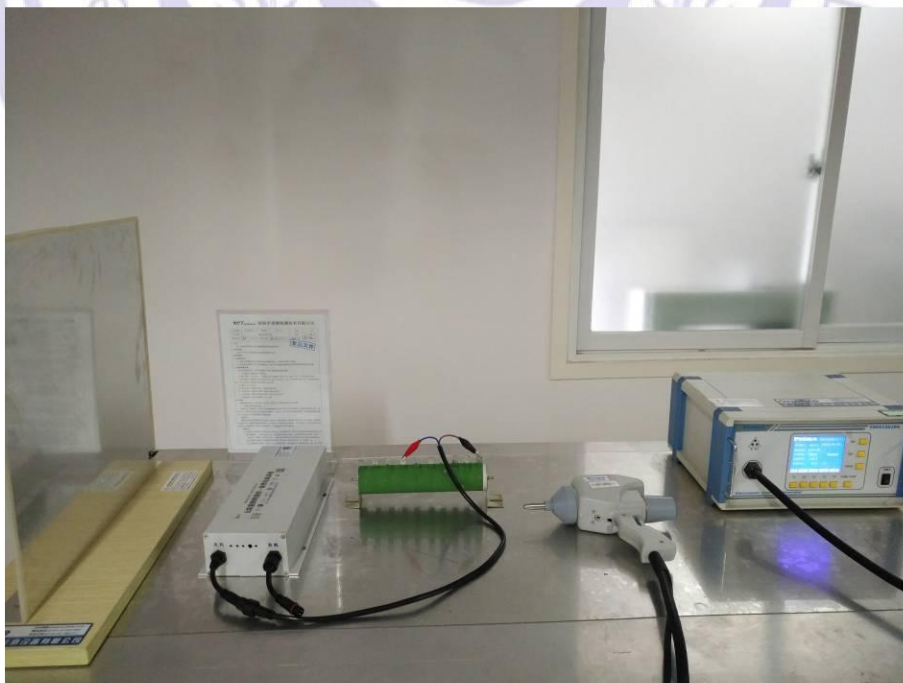


7.0 Photos of testing

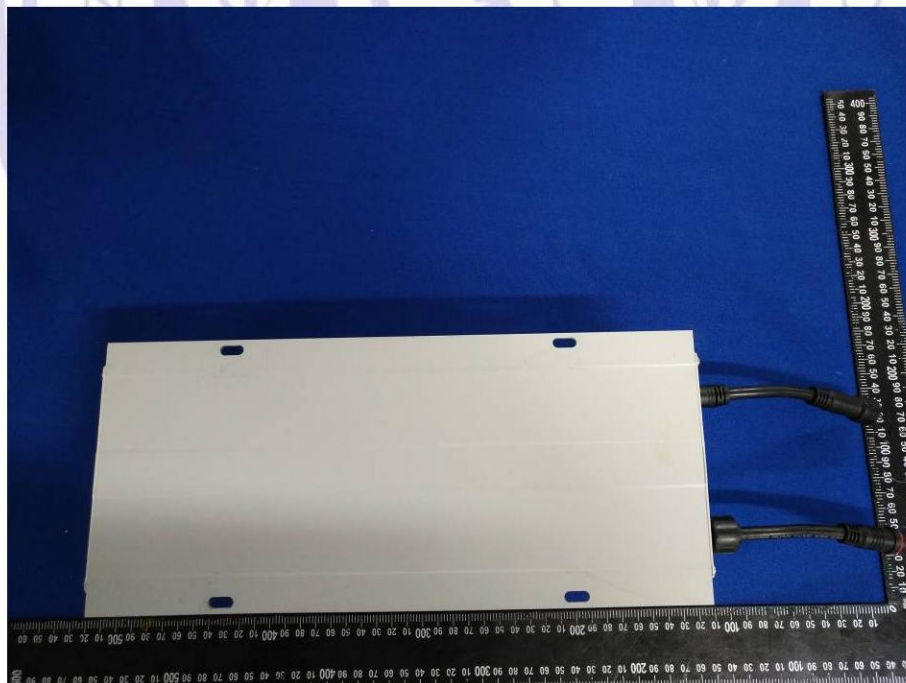
Radiated Emission Test View

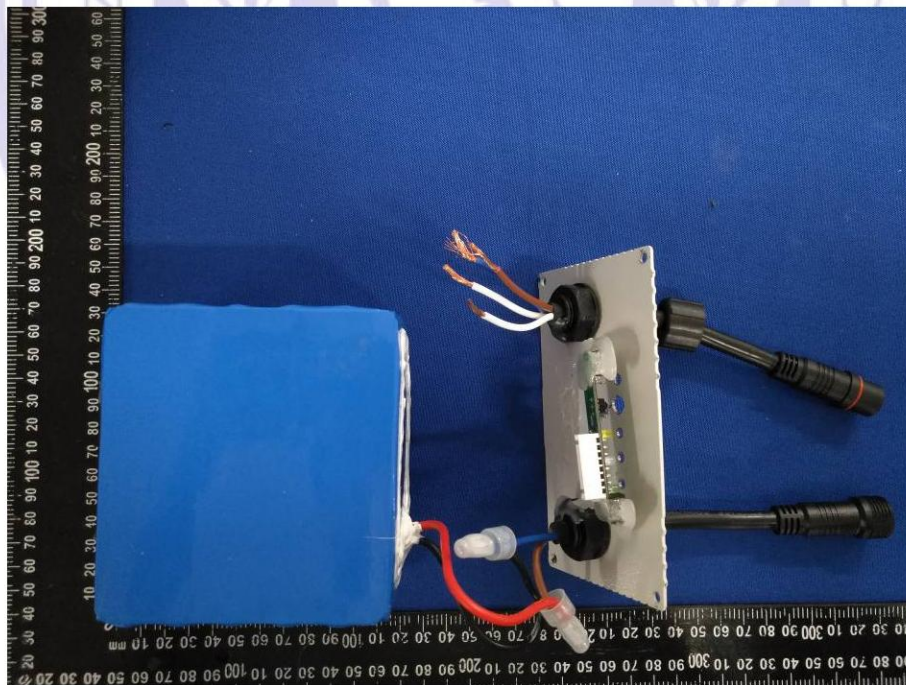
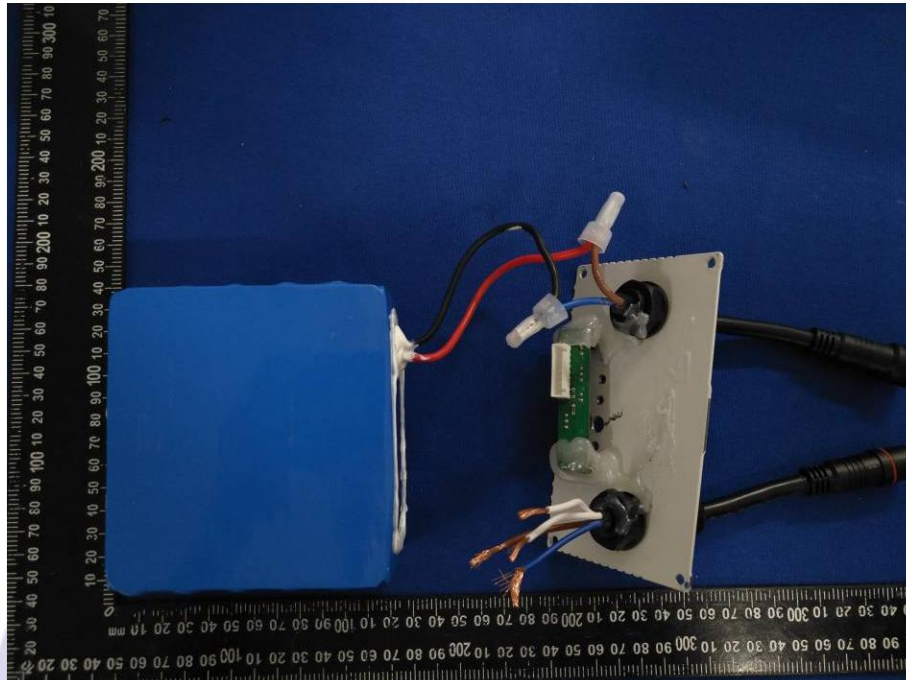


ESD Test View



8.0 Photos of the EUT





--End of the report--