

TEST REPORT

Application No.: SHCR2311002377EV
Applicant: CSE Energy&Technology Co.,Ltd
Address of Applicant: Building S4, No.777, Sizhuan Road, Shanghai, China
Manufacturer: CSE Energy&Technology Co.,Ltd
Address of Manufacturer: Building S4, No.777, Sizhuan Road, Shanghai, China
Equipment Under Test (EUT):
EUT Name: AC charging pile of electric vehicle
Model No.: CSE-BCG-AT32-K01-1-CE, CSG-BCG-AT32/K03-3-CE, CSE-BCG-AT32-K01-3-CE, CSE-BCG-AT16-K01-3-CE, CSG-BCG-AT16/K03-3-CE, CSG-BCG-AT16/K04-3-CE, CSE-BCG-AT16-K01-1-CE
Remark: Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark: CSE, power4 Homeby cse
Standard(s) : EN IEC 61851-21-2:2021
Date of Receipt: 2023-10-10
Date of Test: 2023-10-30 to 2023-11-01
Date of Issue: 2023-11-21

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



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Revision Record			
Version	Description	Date	Remark
00	Co-license	2023-11-21	Base on SHCR231000208801

Authorized for issue by:			
Tested By		Bill Wu	
		Bill Wu/Project Engineer	
Approved By		Parlam Zhan	
		Parlam Zhan / Reviewer	

2 Test Summary

Emission Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	EN IEC 61851-21-2:2021	EN IEC 61851-21-2:2021	Class B	Pass
Conducted Emissions at AC CPT Port (150kHz-30MHz)	EN IEC 61851-21-2:2021	EN IEC 61851-21-2:2021	Class B	Pass
Radiated disturbances (2kHz-185kHz)	EN IEC 61851-21-2:2021	EN IEC 61851-21-2:2021 Annex B	Annex B.4	Pass
Radiated Emissions (30MHz-1GHz)	EN IEC 61851-21-2:2021	EN IEC 61851-21-2:2021	Class B	Pass
Radiated Emissions (Above 1GHz)	EN IEC 61851-21-2:2021	EN IEC 61851-21-2:2021	Class B	Pass
Harmonic Current Emission	EN IEC 61851-21-2:2021	EN IEC 61000-3-2:2019+A1:2021	Class A	Pass
Voltage Fluctuations and Flicker	EN IEC 61851-21-2:2021	EN 61000-3-3: 2013+A1:2019+A2:2021	Clause 5	Pass

Immunity Part				
Item	Standard	Method	Requirement	Result
Conducted Immunity at AC Mains Power Port (150kHz-80MHz)	EN IEC 61851-21-2:2021	IEC 61000-4-6:2013	3Vrms (emf),80%,1kHz Amp. Mod.	Pass
Conducted Immunity at CPT Port (150kHz-80MHz)	EN IEC 61851-21-2:2021	IEC 61000-4-6:2013	3Vrms (emf),80%,1kHz Amp. Mod.	Pass
Electrical Fast Transients Burst at AC Mains Power Port	EN IEC 61851-21-2:2021	IEC 61000-4-4:2012	2kV 5/50ns Tr/Td 5kHz Repetition Frequency	Pass
Electrical Fast Transients/Burst at CPT Port	EN IEC 61851-21-2:2021	IEC 61000-4-4:2012	2kV 5/50ns Tr/Td 5kHz Repetition Frequency	Pass
Electrostatic Discharge	EN IEC 61851-21-2:2021	IEC 61000-4-2:2008	4kV Contact Discharge 8kV Air Discharge	Pass
Radiated Immunity(80MHz-2.7GHz)	EN IEC 61851-21-2:2021	IEC 61000-4-3:2006 and IEC 61000-4-3:2006/AMD1:2007 and IEC 61000-4-3:2006/AMD2:2010	80MHz-1GHz: 3V/m, 1.4GHz-2GHz: 3V/m, 2.0GHz-2.7GHz: 3V/m, 80%, 1kHz Amp. Mod.	Pass
Surge at AC Mains Power Port	EN IEC 61851-21-2:2021	IEC 61000-4-5:2014	1.2/50µs Tr/Td 1kV Line to Line 2kV Line to Ground	Pass

Immunity Part				
Item	Standard	Method	Requirement	Result
Surge at CPT Port	EN IEC 61851-21-2:2021	IEC 61000-4-5:2014	1.2/50 μ s Tr/Td 1kV Line to Line 2kV Line to Ground	Pass
Voltage Dips and Interruptions	EN IEC 61851-21-2:2021	IEC 61000-4-34:2005 and IEC 61000-4-34:2005/AMD1:2009 (> 16 A)	For 50Hz: 40 % UT for 10per 70 % UT for 25per 0 % UT for 1per 0 % UT for 250per For 60Hz: 40 % UT for 12per 70 % UT for 30per 0 % UT for 1per 0 % UT for 300per	Pass
Power Frequency Magnetic Field	EN IEC 61851-21-2:2021	IEC 61000-4-8:2009	50Hz, 60Hz (for systems \leq 32A) 30A/m, (for systems >32A) 100A/m	Pass

Note1: There are series models mentioned in this report, and they are the similar in electrical and electronic characters. Only the model CSE-BCG-AT32-K01-3-CE was tested since their differences were the model number and appearance.

Note2: This report was an additional report copied from the report SHCR231000208801, just changing the model name, company information and trade mark. Since the electrical circuit design, layout, components used and internal wiring for the model CSE-BCG-AT32-K01-3-CE in this report was exactly the same as the model CSG-BCG-AT32-K01-3-CE in the report SHCR231000208801.

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4 General Information

4.1 Details of E.U.T.

Power supply:	AC 380V/50Hz
Test Voltage:	AC 380V/50Hz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
load	By SGS	N/A	N/A

4.3 Measurement Uncertainty & Decision Rule

Measurement Uncertainty

No.	Item	Measurement Uncertainty (U_{Lab})	U_{CISPR}
1	Conducted Emission at mains port using AMN	3.4dB (9kHz to 150kHz)	3.8dB (9kHz to 150kHz)
		2.9dB (150kHz to 30MHz)	3.4dB (150kHz to 30MHz)
2	Conducted Emission at mains port using VP	2.2dB (9kHz to 30MHz)	2.9dB (9kHz to 30MHz)
3	Conducted Emission at telecommunication port using AAN	4.6dB (150kHz to 30MHz)	5.0dB (150kHz to 30MHz)
4	Radiated Power	3.4dB (30MHz to 300MHz)	4.5dB (30MHz to 300MHz)
5	Radiated emission	5.7dB (30MHz-1GHz)	6.3dB (30MHz-1GHz)
		4.8dB (1GHz-6GHz)	5.2dB (1GHz-6GHz)
		5.0dB (6GHz-18GHz)	5.5dB (6GHz-18GHz)
6	Radiated disturbance (disturbance current in a LLAS)	2.6dB (9kHz to 30MHz)	3.3dB (9kHz to 30MHz)

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Decision Rule:

- CISPR 16-4-2 for emission measurements is as below described.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.

U_{LAB} less than U_{CISPR} , therefore:

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

- 1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
- 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.5 Test Facility

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

• **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

• **FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

• **ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.
Company Number: 8617A

• **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

None

4.6 Abnormalities from Standard Conditions

None

4.7 EMS Monitor

Other: Monitoring the working status of EUT.

5 Equipment List

Conducted Emissions at AC Mains Power Port (150kHz-30MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2022/12/20	2023/12/19
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2022/12/20	2023/12/19
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2022/12/20	2023/12/19
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2022/12/20	2023/12/19
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2020/12/20	2023/12/19
CE test Cable	/	/	SHEM172-1	2022/12/20	2023/12/19
Test Software	ESE	e3	Version: 6.111221a	N/A	N/A

Radiated Emissions (2kHz-185kHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
loop antenna	SCHWARZBECK	FESP-5133-F	SHEM284-1	2023/06/27	2024/06/26

Radiated Emissions (30MHz-1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESU40	SHEM051-1	2022/12/20	2023/12/19
EMI test receiver	Rohde & Schwarz	ESR7	SHEM201-1	2023/8/01	2024/7/31
CONTROLLER	INNCO	CO2000	SHEM047-1	N/A	N/A
ANTENNA MAST	INNCO	MA400-EP	SHEM047-2	N/A	N/A
TURN DEVICE	INNCO	DE 3600-RH	SHEM047-3	N/A	N/A
Broadband UHF-VHF ANTENNA	SCHWARZBECK	VULB9168	SHEM048-1	2023/9/3	2025/9/2
Broadband UHF-VHF ANTENNA	SCHWARZBECK	VULB9168	SHEM202-1	2023/4/17	2025/4/16
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023/5/6	2026/5/5
Pre-amplifier	HP	8447D	SHEM236-1	2022/12/22	2023/12/21
Pre-amplifier	HP	8447D	SHEM143-1	2022/12/20	2023/12/19
RE test Cable	/	/	SHEM217-2	2023/5/9	2024/5/8
Test Software	ESE	e3	Version: 6.191211	N/A	N/A
Semi/Fully Anechoic	TIANDE	9*6*6M	SHEM198-1	2021/05/27	2024/05/26

Radiated Emissions (Above 1GHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
EMI test receiver	Rohde & Schwarz	ESU40	SHEM051-1	2022/12/20	2023/12/19
CONTROLLER	INNCO	CO2000	SHEM047-1	N/A	N/A
ANTENNA MAST	INNCO	MA400-EP	SHEM047-2	N/A	N/A
TURN DEVICE	INNCO	DE 3600-RH	SHEM047-3	N/A	N/A
Horn Antenna (1-18GHz)	Schwarzbeck	BBHA9120D	SHEM050-1	2023/9/3	2025/9/2

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Pre-amplifier (1-18GHz)	Schwarzbeck	SCU-F0118-G40-BZ4-CSS(F)	SHEM050-2	2022/12/20	2023/12/19
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023/5/6	2026/5/5
Test Software	ESE	e3	Version: 6.191211	N/A	N/A
Semi/Fully Anechoic	TIANDE	9*6*6M	SHEM198-1	2021/05/27	2024/05/26

Voltage Fluctuations and Flicker

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Harmonic&Flicker analyzer	AMETEK	PACS-1	SHEM024-2	2023/8/01	2024/7/31
AC Power Source 5KVA	AMETEK	5001iX	SHEM025-2	2023/8/01	2024/7/31
Test Software	AMETEK	CTS4	Version: 4.24.0	N/A	N/A

Harmonic Current Emission

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Harmonic&Flicker analyzer	AMETEK	PACS-1	SHEM024-2	2023/8/01	2024/7/31
AC Power Source 5KVA	AMETEK	5001iX	SHEM025-2	2023/8/01	2024/7/31
Test Software	AMETEK	CTS4	Version: 4.24.0	N/A	N/A

Radiated Immunity (80MHz-6GHz)

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Signal generator	Rohde & Schwarz	SMB100A	SHEM194-1	2022/12/20	2023/12/19
Power Meter	Rohde & Schwarz	NRP	SHEM057-1	2023/8/01	2024/7/31
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-3	2023/8/01	2024/7/31
Antenna	SCHWARZBECK	STLP9128D	SHEM130-1	N/A	N/A
Antenna	SCHWARZBECK	STLP9149	SHEM131-1	N/A	N/A
Amplifier	MILMEGA	AS0840-55-55	SHEM133-1	2022/12/20	2023/12/19
Amplifier	MILMEGA	80RF1000-250	SHEM132-1	2022/12/20	2023/12/19
Amplifier	Rohde & Schwarz	BBA150-E60	SHEM171-1	2022/12/20	2023/12/19
Power meter sensor	Rohde & Schwarz	NRP-Z22	SHEM136-1	2023/8/01	2024/7/31
ElectroMagnetic Field Probe	ETS-Lindgren	HI-6105	SHEM134-1	2023/8/24	2024/8/23
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023/5/6	2026/5/5
Test Software	Rohde & Schwarz	EMC32	Version: 10.20.01	N/A	N/A

Surge at AC Mains Power Port

Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2022/12/20	2023/12/19
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2023/8/01	2024/7/31
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2023/8/01	2024/7/31



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Conducted Immunity at AC Mains Power Port (150kHz-80MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Signal generator	Rohde & Schwarz	SMB100A	SHEM194-1	2022/12/20	2023/12/19
Power Amplifier	HAEFFLY	PAMP250	SHEM023-1	2022/12/20	2023/12/19
6dB Attenuator	HUAXIANG	DTS50-6dB-1G-A	SHEM123-2	2022/12/20	2023/12/19
Coupling clamp	LUTHI	EM 101	SHEM027-1	2023/06/05	2024/06/04
Coupling and Decoupling Network (CDN)	LUTHI	L-801 M1	SHEM023-5	2022/12/20	2023/12/19
Coupling and Decoupling Network (CDN)	LUTHI	L-801 M2/M3	SHEM023-6	2022/12/20	2023/12/19
Shielding Room	ZHONGYU	5*3*3M	SHEM079-6	2022/12/20	2025/12/19
RF Generator	SCHAFFNER	NSG 2070	SHEM221-1	2022/8/02	2024/8/01
Test Software	Rohde & Schwarz	EMC32	Version: 10.20.01	N/A	N/A

Conducted Immunity at Signal Port (150kHz-80MHz)					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Signal generator	Rohde & Schwarz	SMB100A	SHEM194-1	2022/12/20	2023/12/19
Power Amplifier	HAEFFLY	PAMP250	SHEM023-1	2022/12/20	2023/12/19
6dB Attenuator	HUAXIANG	DTS50-6dB-1G-A	SHEM123-2	2022/12/20	2023/12/19
Coupling clamp	LUTHI	EM 101	SHEM027-1	2023/06/05	2024/06/04
Coupling and Decoupling Network (CDN)	LUTHI	L-801 M1	SHEM023-5	2022/12/20	2023/12/19
Coupling and Decoupling Network (CDN)	LUTHI	L-801 M2/M3	SHEM023-6	2022/12/20	2023/12/19
Shielding Room	ZHONGYU	5*3*3M	SHEM079-6	2022/12/20	2025/12/19
Coupling and Decoupling Network	Teseq	CDN M016	SHEM168-1	2023/8/01	2024/7/31
RF Generator	SCHAFFNER	NSG 2070	SHEM221-1	2022/8/02	2024/8/01
Test Software	Rohde & Schwarz	EMC32	Version: 10.20.01	N/A	N/A

Voltage Dips and Interruptions					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2022/12/20	2023/12/19
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2023/8/01	2024/7/31
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2023/8/01	2024/7/31
Manual step transformer	TESEQ	INA 6501	SHEM224-4	2023/8/01	2024/7/31



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Electrostatic Discharge					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Electrostatic Discharge Simulator	TESEQ	NSG 437	SHEM041-2	2023/8/01	2024/7/31

Electrical Fast Transients Burst at AC Mains Power Port					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2022/12/20	2023/12/19
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2023/8/01	2024/7/31
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2023/8/01	2024/7/31

Electrical Fast Transients Burst at Signal Port					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Immunity Test System	EMC PARTNER	TRA3000 F-S-D-V	SHEM163-1	2022/12/20	2023/12/19
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2023/8/01	2024/7/31
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2023/8/01	2024/7/31
Capacitive Coupling Clamp	EM TEST	HFK	SHEM026-2	2022/12/20	2023/12/19

General used equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Digital pressure meter	YONGZHI	DYM3-01	SHEM082-1	2021-01-22	2024-01-21
Temperature&humidity recorder	ShangHai weather meter work	ZJ 1-2B	SHEM042-9~10	2022-12-31	2023-12-30
Temperature&humidity recorder	ShangHai weather meter work	ZJ 1-2B	SHEM042-5	2023-07-23	2024-07-22
Digital Temperature& humidity recorder	Jianda Renke	RS-WS-N01-6J	SHEM247-1~8	2023-01-13	2024-01-12
Digital Multimeter	FLUKE	17B+	SHEM271-1	2023-07-19	2024-07-18
Autoformer regulator	Guangzhou bao de	TDGC2-5KVA	SHEM150-1	N/A	N/A
Multi-purpose tong tester	FLUKE	317	SHEM001-2	2022-11-14	2023-11-13

6 Emission Test Results

6.1 Conducted Emissions at AC Mains Power Port (150kHz-30MHz)

Test Requirement: EN IEC 61851-21-2:2021

Test Method: EN IEC 61851-21-2:2021

Limit:

0.15M-0.5MHz 66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average

0.5M-5MHz 56dB(μV) quasi-peak, 46dB(μV) average

5M-30MHz 60dB(μV) quasi-peak, 50dB(μV) average

Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 19.9 °C

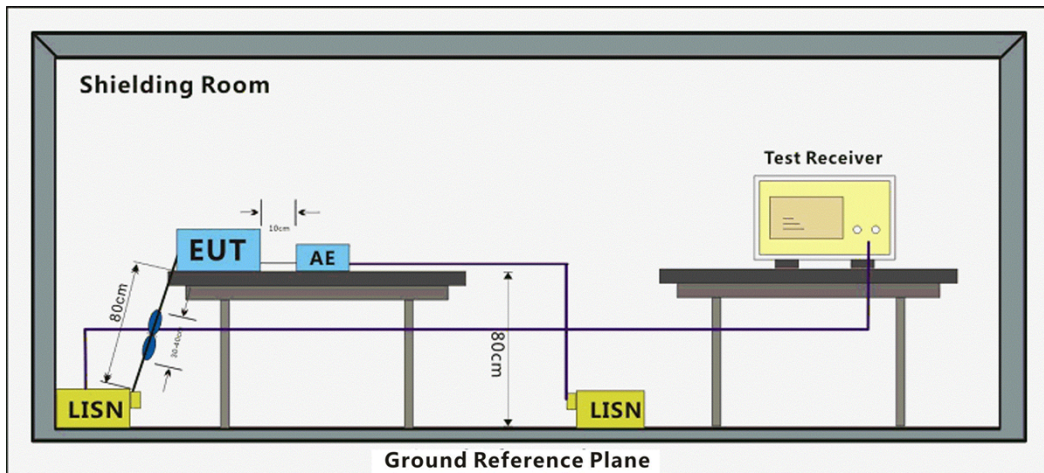
Humidity: 41.3 % RH

Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Pre-scan	01	Charging mode: Keep EUT charging continuously with 80% rated power.

6.1.3 Test Setup Diagram



6.1.4 Measurement Procedure and Data

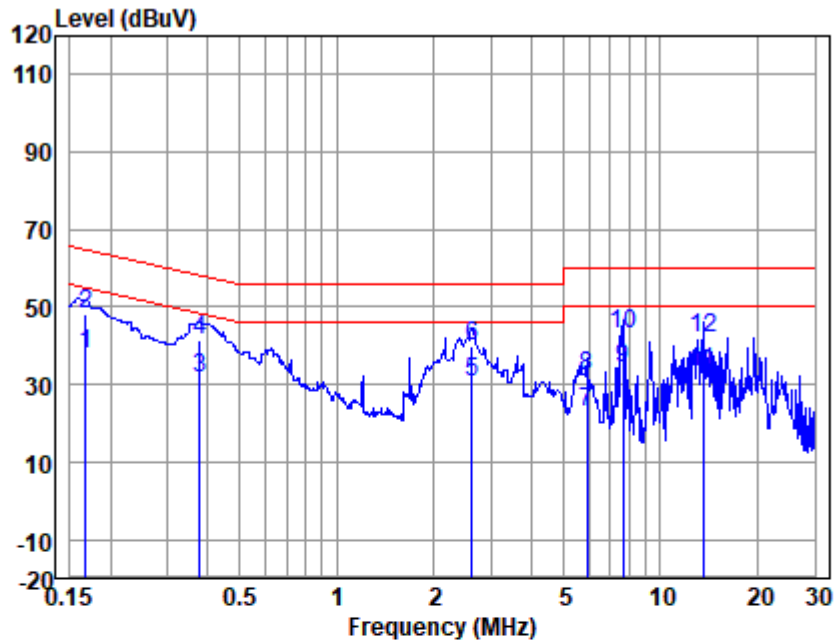
Frequency range: 150KHz-30MHz

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

The red line show in graphic is the limit in standard used in this section.

Measured Level = Read level + Cable Loss + LISN Factor

Test Mode: 00; L1

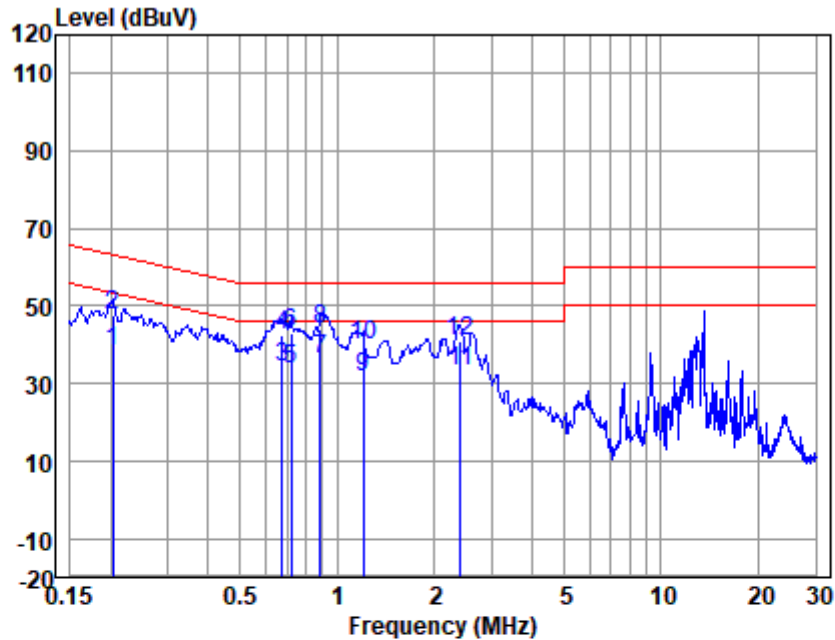


LISN : LINE
 EUT/Project No : 02088EV
 Test Mode : L1

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.17	27.42	0.40	9.87	37.69	55.08	-17.39	Average
2	0.17	37.76	0.40	9.87	48.03	65.08	-17.05	QP
3	0.38	21.66	0.26	9.87	31.79	48.34	-16.55	Average
4	0.38	31.16	0.26	9.87	41.29	58.34	-17.05	QP
5	2.62	20.58	0.23	9.87	30.68	46.00	-15.32	Average
6	2.62	30.01	0.23	9.87	40.11	56.00	-15.89	QP
7	5.93	12.41	0.35	9.97	22.73	50.00	-27.27	Average
8	5.93	21.73	0.35	9.97	32.05	60.00	-27.95	QP
9	7.65	23.73	0.40	9.98	34.11	50.00	-15.89	Average
10	7.65	32.47	0.40	9.98	42.85	60.00	-17.15	QP
11	13.55	22.49	0.47	10.02	32.98	50.00	-17.02	Average
12	13.55	31.47	0.47	10.02	41.96	60.00	-18.04	QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss

Test Mode: 00; L2

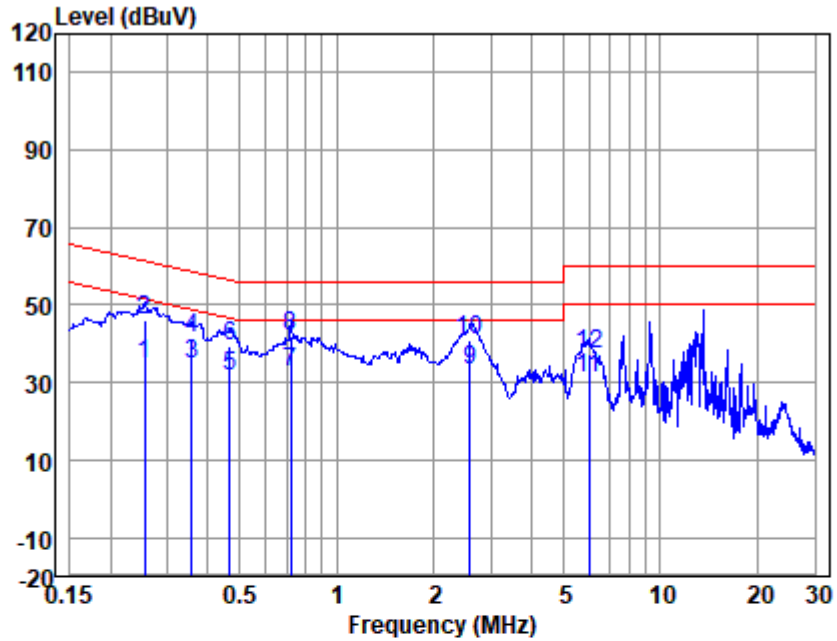


LISN : LINE
 EUT/Project No : 02088EV
 Test Mode : L2

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.20	27.87	0.40	9.87	38.14	53.49	-15.35	Average
2	0.20	37.35	0.40	9.87	47.62	63.49	-15.87	QP
3	0.68	24.40	0.20	9.86	34.46	46.00	-11.54	Average
4	0.68	32.52	0.20	9.86	42.58	56.00	-13.42	QP
5	0.72	23.56	0.20	9.86	33.62	46.00	-12.38	Average
6	0.72	33.20	0.20	9.86	43.26	56.00	-12.74	QP
7	0.89	26.38	0.20	9.86	36.44	46.00	-9.56	Average
8	0.89	34.02	0.20	9.86	44.08	56.00	-11.92	QP
9	1.20	21.74	0.20	9.86	31.80	46.00	-14.20	Average
10	1.20	29.69	0.20	9.86	39.75	56.00	-16.25	QP
11	2.40	23.07	0.22	9.86	33.15	46.00	-12.85	Average
12	2.40	31.07	0.22	9.86	41.15	56.00	-14.85	QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss

Test Mode: 00; L3

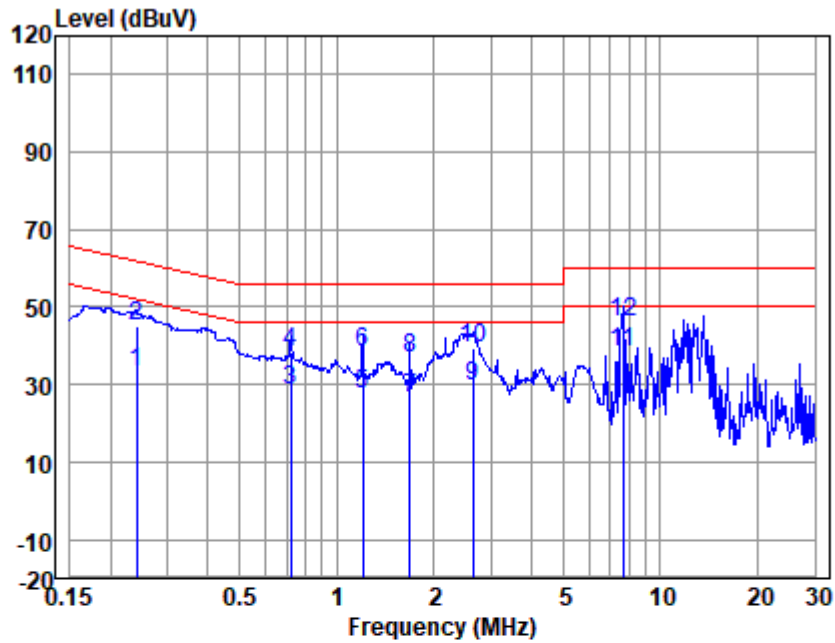


LISN : LINE
 EUT/Project No : 02088EV
 Test Mode : L3

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.25	24.69	0.35	9.87	34.91	51.60	-16.69	Average
2	0.25	35.73	0.35	9.87	45.95	61.60	-15.65	QP
3	0.36	24.86	0.27	9.87	35.00	48.78	-13.78	Average
4	0.36	31.40	0.27	9.87	41.54	58.78	-17.24	QP
5	0.47	21.56	0.21	9.86	31.63	46.58	-14.95	Average
6	0.47	29.40	0.21	9.86	39.47	56.58	-17.11	QP
7	0.72	22.62	0.20	9.86	32.68	46.00	-13.32	Average
8	0.72	31.82	0.20	9.86	41.88	56.00	-14.12	QP
9	2.58	22.93	0.23	9.87	33.03	46.00	-12.97	Average
10	2.58	31.09	0.23	9.87	41.19	56.00	-14.81	QP
11	6.02	21.03	0.35	9.97	31.35	50.00	-18.65	Average
12	6.02	27.20	0.35	9.97	37.52	60.00	-22.48	QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss

Test Mode: 00; Line: Neutral Line



LISN : NEUTRAL
 EUT/Project No : 02088EV
 Test Mode : N

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.24	23.24	0.30	9.87	33.41	52.08	-18.67	Average
2	0.24	35.07	0.30	9.87	45.24	62.08	-16.84	QP
3	0.72	18.55	0.30	9.86	28.71	46.00	-17.29	Average
4	0.72	28.27	0.30	9.86	38.43	56.00	-17.57	QP
5	1.20	17.30	0.30	9.86	27.46	46.00	-18.54	Average
6	1.20	28.27	0.30	9.86	38.43	56.00	-17.57	QP
7	1.68	16.27	0.30	9.86	26.43	46.00	-19.57	Average
8	1.68	26.56	0.30	9.86	36.72	56.00	-19.28	QP
9	2.64	19.36	0.36	9.87	29.59	46.00	-16.41	Average
10	2.64	29.27	0.36	9.87	39.50	56.00	-16.50	QP
11	7.65	27.96	0.37	9.98	38.31	50.00	-11.69	Average
12	7.65	35.73	0.37	9.98	46.08	60.00	-13.92	QP

Notes: Emission Level = Read Level + LISN Factor + Cable loss

6.2 Radiated Emissions (2kHz-185kHz)

Test Requirement: EN IEC 61851-21-2:2021

Test Method: EN IEC 61851-21-2:2021

Limit:

Frequency (kHz)	Limit value/peak value dB (µA/m)
2 to 10	62 to 60 ^{a)}
10 to 30	60
30 to 75	60 to 95 ^{b)}
75 to 120	95 to 55 ^{a)}
120 to 140	55
140 to 185	55 to 95 ^{b)}

^{a)} The limit decreases linearly with frequency.
^{b)} The limit increases linearly with frequency.

Detector: Peak for pre-scan (200Hz resolution bandwidth) 2K-185KHz

6.2.1 E.U.T. Operation

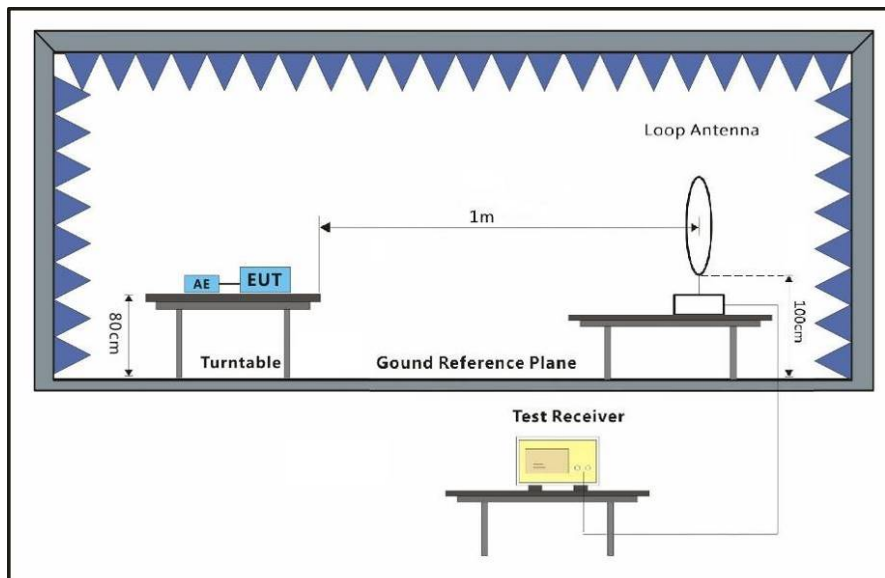
Operating Environment:

Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Pre-scan	01	Charging mode: Keep EUT charging continuously with 80% rated power.

6.2.3 Test Setup Diagram



6.2.4 Measurement Procedure and Data

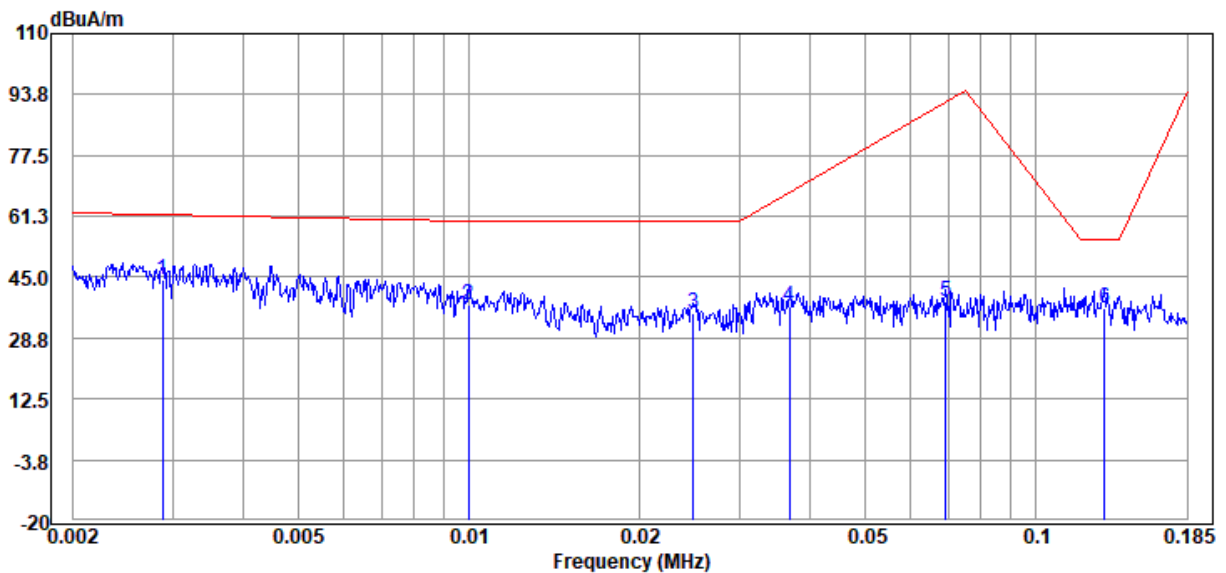
An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

Notes: 1. Result (dBuV/m) = Reading(dBuV) + Correction Factor (dB/m)

2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier (dB)

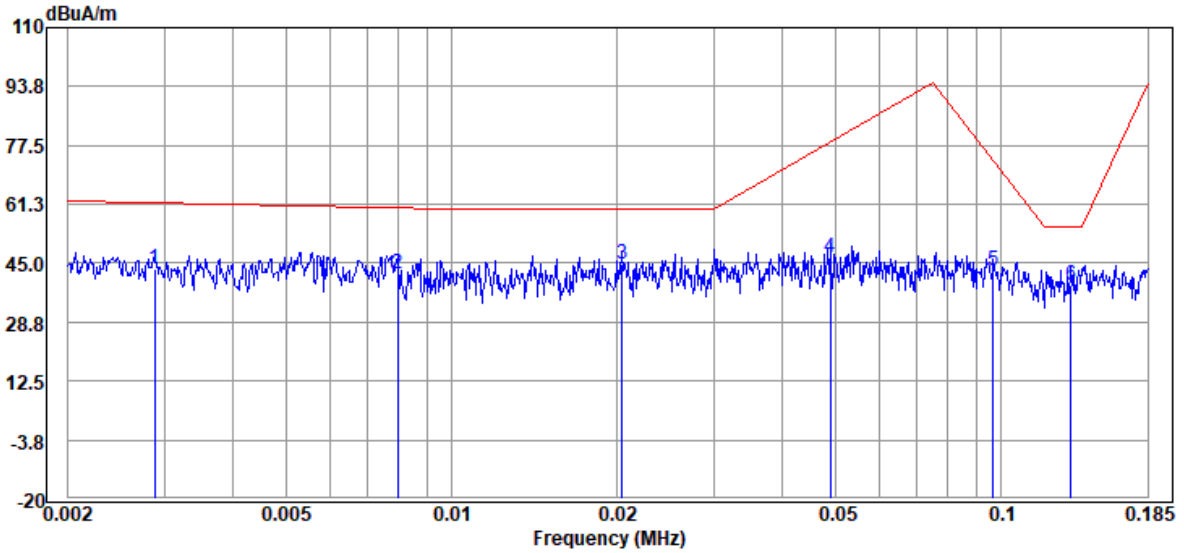
3. pre-scan was at 0°, 90°, 180°, 270°, the worst data were recored in this report: 0°

Test Mode: 00; Polarity: X



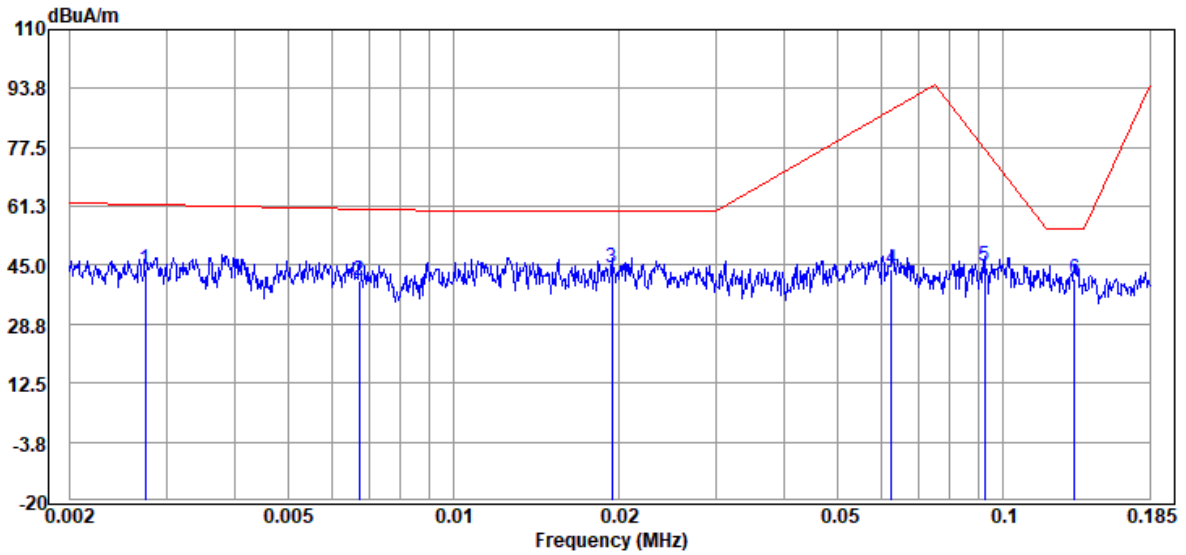
Item	Freq.	Read Level	AUX Factor	Result Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
1	0.003	2.01	42.49	44.50	61.55	-17.05	QP
2	0.010	4.80	32.85	37.65	60.00	-22.35	QP
3	0.025	7.70	27.48	35.18	60.00	-24.82	QP
4	0.037	10.80	26.20	37.00	67.75	-30.75	QP
5	0.069	13.80	24.91	38.71	91.96	-53.25	QP
6	0.132	13.43	23.50	36.93	55.00	-18.07	QP

Test Mode: 00; Polarity: Y



Item	Freq.	Read Level	AUX Factor	Result Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)	
1	0.003	0.81	42.49	43.30	61.55	-18.25	QP
2	0.008	7.71	34.46	42.17	60.28	-18.11	QP
3	0.020	16.38	28.50	44.88	60.00	-15.12	QP
4	0.049	20.92	25.51	46.43	78.65	-32.22	QP
5	0.097	18.91	24.06	42.97	73.26	-30.29	QP
6	0.134	15.50	23.48	38.98	55.00	-16.02	QP

Test Mode: 00; Polarity: Z



Item	Freq.	Read Level	AUX Factor	Result Level	Limit Line	Over Limit	Detector
(Mark)	(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)	
1	0.003	1.10	42.73	43.83	61.61	-17.78	QP
2	0.007	5.18	35.74	40.92	60.49	-19.57	QP
3	0.019	15.52	28.61	44.13	60.00	-15.87	QP
4	0.063	18.92	25.12	44.04	88.16	-44.12	QP
5	0.093	20.50	24.17	44.67	77.11	-32.44	QP
6	0.135	17.92	23.47	41.39	55.00	-13.61	QP

6.3 Radiated Emissions (30MHz-1GHz)

Test Requirement: EN IEC 61851-21-2:2021
 Test Method: EN IEC 61851-21-2:2021
 Limit:
 Test Distance: 3m
 30MHz-230MHz 40 dB(μV/m) quasi-peak
 230MHz-1GHz 47 dB(μV/m) quasi-peak
 Detector: Peak for pre-scan (120kHz resolution bandwidth) 30MHz to 1000MHz

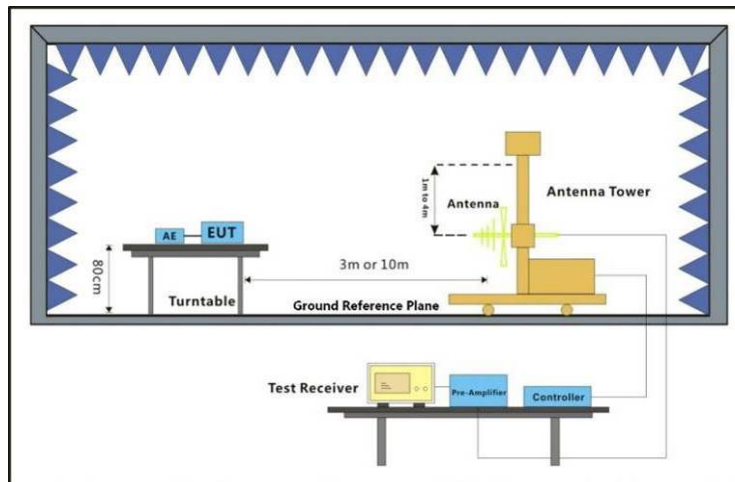
6.3.1 E.U.T. Operation

Operating Environment:
 Temperature: 24 °C Humidity: 48 % RH Atmospheric Pressure: 1010 mbar

6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Pre-scan	01	Charging mode: Keep EUT charging continuously with 80% rated power.

6.3.3 Test Setup Diagram



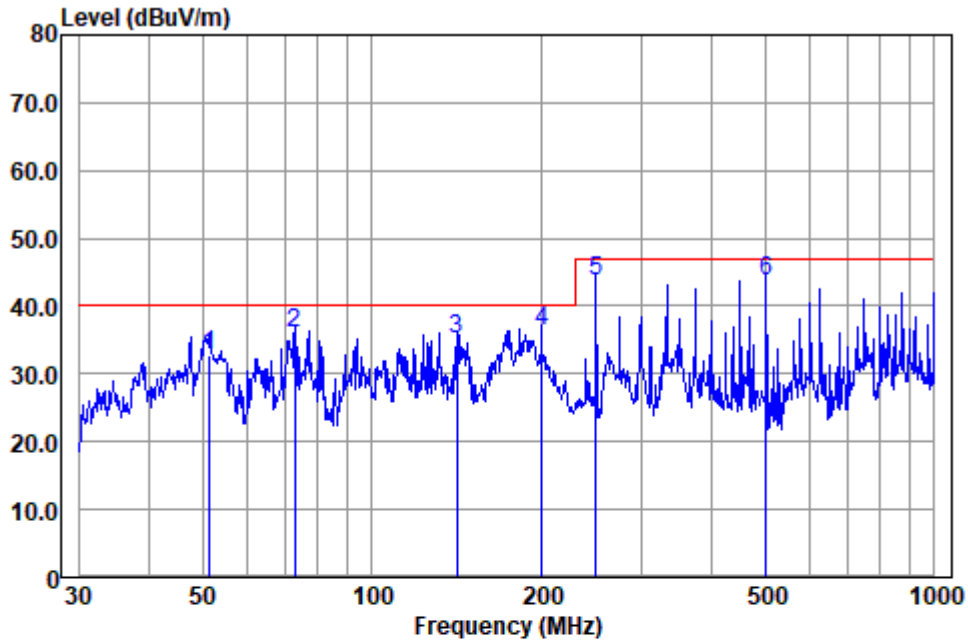
6.3.4 Measurement Procedure and Data

Frequency range: 30MHz-1GHz

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. The red line show in graphic is the limit in standard used in this section.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal

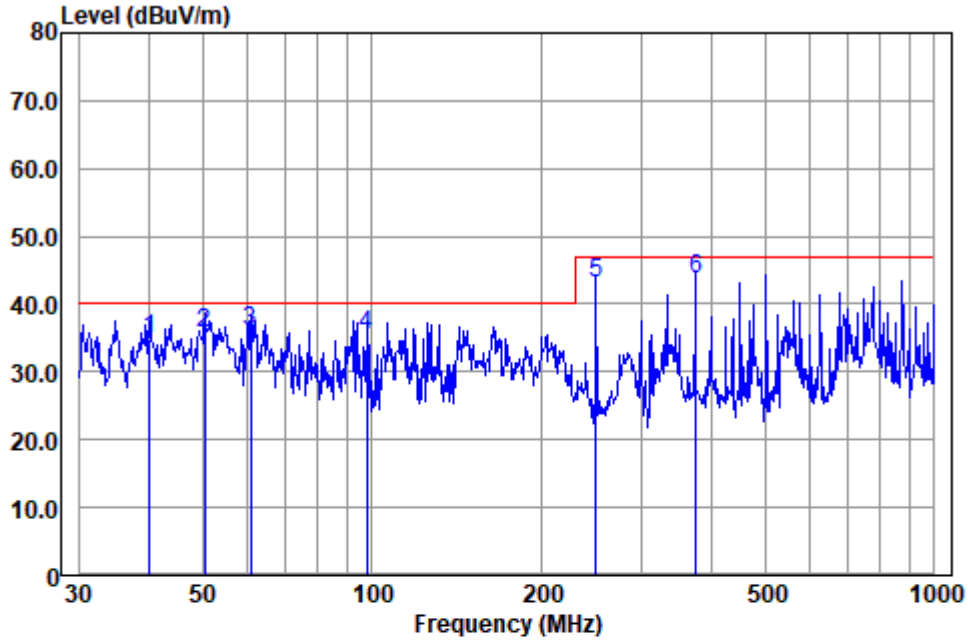


Antenna Polarity :HORIZONTAL
 EUT/Project :2088EV
 Test mode :00

	Read Freq	Antenna Cable	Preamp	Emission	Limit	Over	Remark
	MHz	Factor	Factor	Level	Line	Limit	
		dB/m	dB	dBuV/m	dBuV/m	dB	
1	51.301	13.81	1.25	32.65	40.00	-7.35	QP
2	72.847	11.19	1.47	35.91	40.00	-4.09	QP
3	141.330	12.84	2.05	35.14	40.00	-4.86	QP
4	199.986	10.11	2.53	36.30	40.00	-3.70	QP
5	250.301	11.89	2.71	43.65	47.00	-3.35	QP
6	501.179	17.94	3.95	43.82	47.00	-3.18	QP

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical



Antenna Polarity :VERTICAL
 EUT/Project :2088EV
 Test mode :00

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	40.276	46.40	13.39	1.13	26.20	34.72	40.00	-5.28 QP
2	50.409	46.72	13.83	1.23	26.20	35.58	40.00	-4.42 QP
3	60.704	47.86	13.14	1.28	26.20	36.08	40.00	-3.92 QP
4	97.798	52.19	8.60	1.72	26.95	35.56	40.00	-4.44 QP
5	250.301	55.31	11.89	2.71	26.90	43.01	47.00	-3.99 QP
6	375.939	52.07	15.24	3.30	26.98	43.63	47.00	-3.37 QP

Note: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

6.4 Radiated Emissions (Above 1GHz)

Test Requirement: EN IEC 61851-21-2:2021

Test Method: EN IEC 61851-21-2:2021

Limit:

Frequency range (MHz)	Radiated emissions limit(dBμV/m)	
	Peak	Average
1000-3000	70	50
3000-6000	74	54

6.4.1 E.U.T. Operation

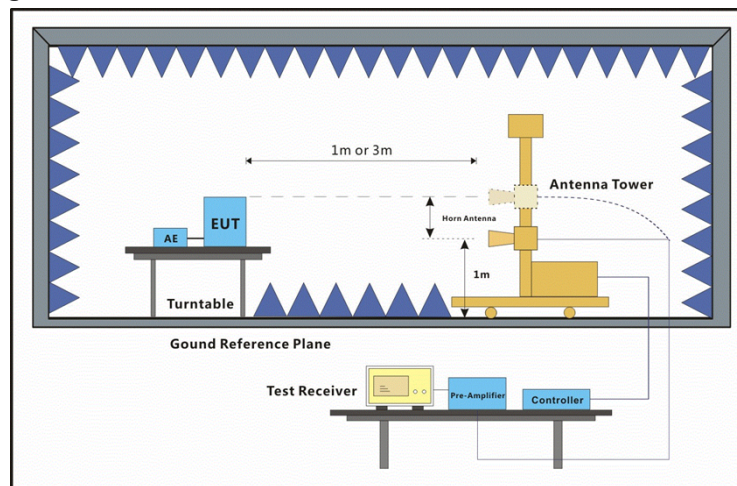
Operating Environment:

Temperature: 20.4 °C Humidity: 43.2 % RH Atmospheric Pressure: 1010 mbar

6.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Pre-scan	01	Charging mode: Keep EUT charging continuously with 80% rated power.

6.4.3 Test Setup Diagram



6.4.4 Measurement Procedure and Data

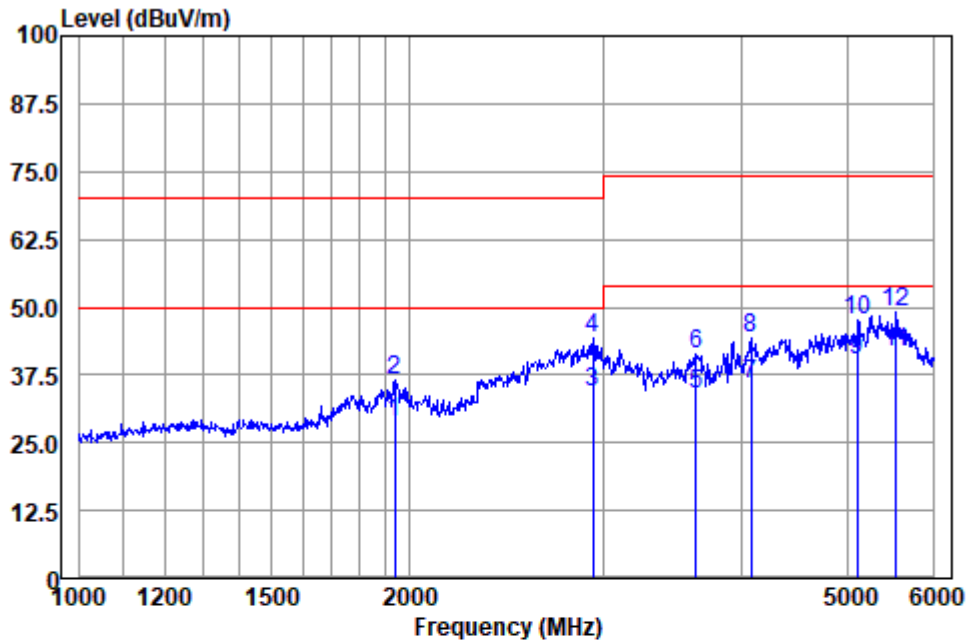
Frequency range: Above 1GHz

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The red line show in graphic is the limit in standard used in this section.

The EUT was measured by Horn antenna with 2 orthogonal polarities.

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal

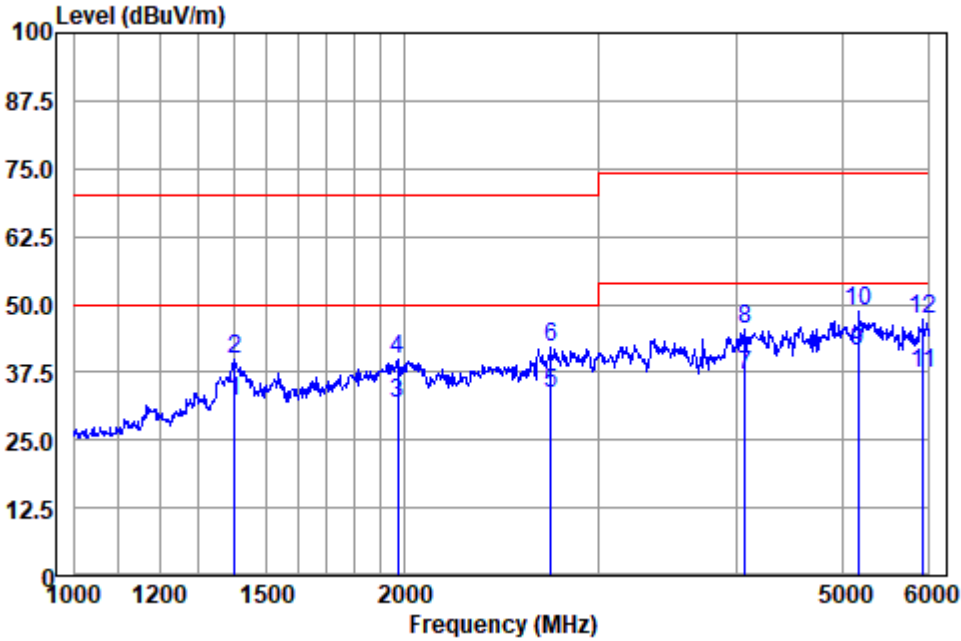


Antenna Polarity :HORIZONTAL
 EUT/Project :2088EV
 Test mode :00

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1940.510	40.77	24.10	4.98	41.12	28.73	50.00	-21.27	Average
2	1940.510	48.45	24.10	4.98	41.12	36.41	70.00	-33.59	Peak
3	2935.411	43.23	27.40	6.09	42.30	34.42	50.00	-15.58	Average
4	2935.411	52.92	27.40	6.09	42.30	44.11	70.00	-25.89	Peak
5	3646.072	40.87	28.60	6.90	42.33	34.04	54.00	-19.96	Average
6	3646.072	48.29	28.60	6.90	42.33	41.46	74.00	-32.54	Peak
7	4089.092	41.60	29.20	7.23	42.39	35.64	54.00	-18.36	Average
8	4089.092	50.26	29.20	7.23	42.39	44.30	74.00	-29.70	Peak
9	5106.433	42.69	31.43	8.22	42.28	40.06	54.00	-13.94	Average
10	5106.433	50.12	31.43	8.22	42.28	47.49	74.00	-26.51	Peak
11	5535.214	43.85	31.63	8.52	42.21	41.79	54.00	-12.21	Average
12	5535.214	51.28	31.63	8.52	42.21	49.22	74.00	-24.78	Peak

Note:Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 00; Polarity: Vertical



Antenna Polarity :VERTICAL
 EUT/Project :2088EV
 Test mode :00

	Read	Antenna	Cable	Preamp	Emission	Limit	Over	
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1403.042	45.71	23.40	4.13	41.20	32.04	50.00	-17.96 Average
2	1403.042	53.47	23.40	4.13	41.20	39.80	70.00	-30.20 Peak
3	1972.056	43.36	24.37	5.00	41.11	31.62	50.00	-18.38 Average
4	1972.056	51.64	24.37	5.00	41.11	39.90	70.00	-30.10 Peak
5	2717.743	43.25	26.90	5.87	42.30	33.72	50.00	-16.28 Average
6	2717.743	51.45	26.90	5.87	42.30	41.92	70.00	-28.08 Peak
7	4081.772	42.70	29.23	7.23	42.39	36.77	54.00	-17.23 Average
8	4081.772	51.23	29.23	7.23	42.39	45.30	74.00	-28.70 Peak
9	5170.883	43.75	31.50	8.24	42.27	41.22	54.00	-12.78 Average
10	5170.883	51.13	31.50	8.24	42.27	48.60	74.00	-25.40 Peak
11	5925.216	38.36	32.47	8.66	42.38	37.11	54.00	-16.89 Average
12	5925.216	48.63	32.47	8.66	42.38	47.38	74.00	-26.62 Peak

Note: Emission Level = Read Level + Antenna Factor + Cable loss - Preamp Factor

6.5 Harmonic Current Emission

Test Requirement: EN IEC 61851-21-2:2021
 Test Method: EN IEC 61000-3-2: 2019+A1:2021

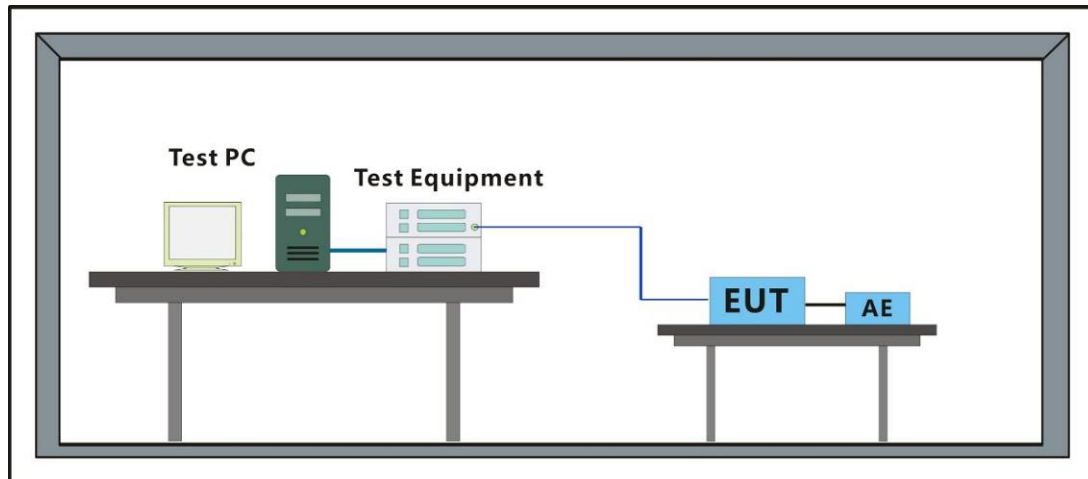
6.5.1 E.U.T. Operation

Operating Environment:
 Temperature: 21.9 °C Humidity: 61.3 % RH Atmospheric Pressure: 1010 mbar

6.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Pre-scan	01	Charging mode: Keep EUT charging continuously with 80% rated power.

6.5.3 Test Setup Diagram



6.5.4 Measurement Procedure and Data



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Highest parameter values during test:

POWER/0

	相1		相2		相3		三相总和	
U_tRMS	227.51	V	227.62	V	231.29	V	228.81	V
I_tRMS	3.8079	A	2.8287	A	2.7931	A	3.1432	A
P_t	713.82	W	533.61	W	525.72	W	1.7732	kW
Q_t	490.91	var	360.26	var	375.41	var	1.2268	kvar
S_t	866.34	VA	643.85	VA	646.01	VA	2.1562	kVA
PF_t	0.8239		0.8288		0.8138		0.8224	
F_fund							50.009	Hz
U_fundRMS	225.88	V	225.93	V	229.73	V	227.18	V
I_fundRMS	3.3814	A	2.4982	A	2.4301	A	2.7699	A
P_fund	728.16	W	543.78	W	536.67	W	1.8086	kW
Q_fund	-230.50	var	-151.15	var	-153.74	var	-535.39	var
S_fund	763.79	VA	564.41	VA	558.26	VA	1.8865	kVA



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Phase 1

Harm#	Harms(avg)(A)	100%Limit	%of Limit	Status	Harms(max)(A)	150%Limit	%of Limit	Status
2	1.242E-02	1.08	0.01	PASS	1.950E-02	1.62	0.01	PASS
3	9.416E-01	2.30	0.41	PASS	1.478E+00	3.45	0.43	PASS
4	1.126E-02	0.43	0.03	PASS	1.768E-02	0.65	0.03	PASS
5	7.245E-01	1.14	0.64	PASS	1.137E+00	1.71	0.67	PASS
6	1.147E-02	0.30	0.04	PASS	1.801E-02	0.45	0.04	PASS
7	7.174E-01	0.77	0.93	PASS	1.126E+00	1.16	0.98	PASS
8	8.940E-03	0.23	0.04	PASS	1.403E-02	0.35	0.04	PASS
9	1.490E-01	0.40	0.37	PASS	2.340E-01	0.60	0.39	PASS
10	8.650E-03	0.18	0.05	PASS	1.358E-02	0.28	0.05	PASS
11	3.026E-01	0.33	0.92	PASS	4.751E-01	0.50	0.96	PASS
12	7.450E-03	0.15	0.05	PASS	1.170E-02	0.23	0.05	PASS
13	1.925E-01	0.21	0.92	PASS	3.022E-01	0.32	0.96	PASS
14	1.028E-02	0.13	0.08	PASS	1.614E-02	0.20	0.08	PASS
15	1.026E-01	0.15	0.68	PASS	1.611E-01	0.23	0.72	PASS
16	7.580E-03	0.12	0.07	PASS	1.190E-02	0.17	0.07	PASS
17	1.028E-01	0.13	0.78	PASS	1.613E-01	0.20	0.81	PASS
18	7.560E-03	0.10	0.07	PASS	1.187E-02	0.15	0.08	PASS
19	1.024E-01	0.12	0.87	PASS	1.607E-01	0.18	0.90	PASS
20	7.170E-03	0.09	0.08	PASS	1.126E-02	0.14	0.08	PASS
21	9.068E-02	0.11	0.85	PASS	1.424E-01	0.16	0.88	PASS
22	7.350E-03	0.08	0.09	PASS	1.154E-02	0.13	0.09	PASS
23	7.123E-02	0.10	0.73	PASS	1.118E-01	0.15	0.76	PASS
24	9.310E-03	0.08	0.12	PASS	1.462E-02	0.12	0.13	PASS
25	6.369E-02	0.09	0.71	PASS	9.998E-02	0.14	0.74	PASS
26	8.990E-03	0.07	0.13	PASS	1.411E-02	0.11	0.13	PASS
27	5.531E-02	0.08	0.67	PASS	8.683E-02	0.13	0.69	PASS
28	6.030E-03	0.07	0.09	PASS	9.466E-03	0.10	0.10	PASS
29	4.783E-02	0.08	0.61	PASS	7.509E-02	0.12	0.65	PASS
30	6.780E-03	0.06	0.11	PASS	1.064E-02	0.09	0.12	PASS
31	6.561E-02	0.07	0.90	PASS	1.030E-01	0.11	0.94	PASS
32	6.100E-03	0.06	0.11	PASS	9.576E-03	0.09	0.11	PASS
33	4.201E-02	0.07	0.62	PASS	6.595E-02	0.10	0.65	PASS
34	6.340E-03	0.05	0.12	PASS	9.953E-03	0.08	0.12	PASS
35	4.113E-02	0.06	0.64	PASS	6.457E-02	0.10	0.67	PASS
36	6.530E-03	0.05	0.13	PASS	1.025E-02	0.08	0.13	PASS
37	3.632E-02	0.06	0.60	PASS	5.702E-02	0.09	0.63	PASS
38	7.640E-03	0.05	0.16	PASS	1.199E-02	0.07	0.16	PASS
39	4.628E-02	0.06	0.80	PASS	7.265E-02	0.09	0.84	PASS
40	5.640E-03	0.05	0.12	PASS	8.854E-03	0.07	0.13	PASS

Harmonic currents less than 0.6% of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.



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Phase 2

Harm#	Harms(avg)(A)	100%Limit	%of Limit	Status	Harms(max)(A)	150%Limit	%of Limit	Status
2	1.455E-02	1.08	0.01	PASS	2.284E-02	1.62	0.01	PASS
3	3.612E-02	2.30	0.02	PASS	5.670E-02	3.45	0.02	PASS
4	4.450E-03	0.43	0.01	PASS	6.986E-03	0.65	0.01	PASS
5	6.772E-01	1.14	0.59	PASS	1.063E+00	1.71	0.62	PASS
6	4.200E-03	0.30	0.01	PASS	6.593E-03	0.45	0.01	PASS
7	4.324E-01	0.77	0.56	PASS	6.787E-01	1.16	0.59	PASS
8	4.800E-03	0.23	0.02	PASS	7.535E-03	0.35	0.02	PASS
9	8.422E-02	0.40	0.21	PASS	1.322E-01	0.60	0.22	PASS
10	5.370E-03	0.18	0.03	PASS	8.430E-03	0.28	0.03	PASS
11	2.255E-01	0.33	0.68	PASS	3.540E-01	0.50	0.72	PASS
12	5.410E-03	0.15	0.04	PASS	8.493E-03	0.23	0.04	PASS
13	1.938E-01	0.21	0.92	PASS	3.042E-01	0.32	0.97	PASS
14	6.120E-03	0.13	0.05	PASS	9.608E-03	0.20	0.05	PASS
15	1.329E-01	0.15	0.89	PASS	2.087E-01	0.23	0.93	PASS
16	6.290E-03	0.12	0.05	PASS	9.874E-03	0.17	0.06	PASS
17	1.138E-01	0.13	0.86	PASS	1.787E-01	0.20	0.90	PASS
18	5.430E-03	0.10	0.05	PASS	8.524E-03	0.15	0.06	PASS
19	1.053E-01	0.12	0.89	PASS	1.653E-01	0.18	0.93	PASS
20	5.350E-03	0.09	0.06	PASS	8.399E-03	0.14	0.06	PASS
21	6.534E-02	0.11	0.61	PASS	1.026E-01	0.16	0.64	PASS
22	8.370E-03	0.08	0.10	PASS	1.314E-02	0.13	0.11	PASS
23	7.549E-02	0.10	0.77	PASS	1.185E-01	0.15	0.81	PASS
24	8.510E-03	0.08	0.11	PASS	1.336E-02	0.12	0.12	PASS
25	6.704E-02	0.09	0.74	PASS	1.052E-01	0.14	0.78	PASS
26	6.210E-03	0.07	0.09	PASS	9.749E-03	0.11	0.09	PASS
27	6.749E-02	0.08	0.81	PASS	1.059E-01	0.13	0.85	PASS
28	6.630E-03	0.07	0.10	PASS	1.041E-02	0.10	0.11	PASS
29	6.885E-02	0.08	0.88	PASS	1.081E-01	0.12	0.93	PASS
30	5.970E-03	0.06	0.10	PASS	9.372E-03	0.09	0.10	PASS
31	2.803E-02	0.07	0.38	PASS	4.400E-02	0.11	0.40	PASS
32	5.430E-03	0.06	0.09	PASS	8.524E-03	0.09	0.10	PASS
33	5.517E-02	0.07	0.81	PASS	8.661E-02	0.10	0.85	PASS
34	5.120E-03	0.05	0.09	PASS	8.038E-03	0.08	0.10	PASS
35	4.668E-02	0.06	0.73	PASS	7.328E-02	0.10	0.76	PASS
36	6.330E-03	0.05	0.12	PASS	9.937E-03	0.08	0.13	PASS
37	4.558E-02	0.06	0.75	PASS	7.155E-02	0.09	0.79	PASS
38	6.380E-03	0.05	0.13	PASS	1.002E-02	0.07	0.14	PASS
39	4.714E-02	0.06	0.81	PASS	7.400E-02	0.09	0.85	PASS
40	5.640E-03	0.05	0.12	PASS	8.854E-03	0.07	0.13	PASS

Harmonic currents less than 0.6% of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.

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Phase 3

Harm#	Harms(avg)(A)	100%Limit	%of Limit	Status	Harms(max)(A)	150%Limit	%of Limit	Status
2	6.260E-03	1.08	0.01	PASS	9.827E-03	1.62	0.01	PASS
3	9.870E-02	2.30	0.04	PASS	1.549E-01	3.45	0.04	PASS
4	4.100E-03	0.43	0.01	PASS	6.436E-03	0.65	0.01	PASS
5	7.628E-01	1.14	0.67	PASS	1.197E+00	1.71	0.70	PASS
6	3.540E-03	0.30	0.01	PASS	5.557E-03	0.45	0.01	PASS
7	4.208E-01	0.77	0.55	PASS	6.605E-01	1.16	0.57	PASS
8	5.310E-03	0.23	0.02	PASS	8.336E-03	0.35	0.02	PASS
9	5.962E-02	0.40	0.15	PASS	9.359E-02	0.60	0.16	PASS
10	5.630E-02	0.18	0.31	PASS	8.838E-02	0.28	0.32	PASS
11	3.021E-01	0.33	0.92	PASS	4.742E-01	0.50	0.96	PASS
12	4.540E-03	0.15	0.03	PASS	7.127E-03	0.23	0.03	PASS
13	1.925E-01	0.21	0.92	PASS	3.022E-01	0.32	0.96	PASS
14	7.180E-03	0.13	0.05	PASS	1.127E-02	0.20	0.06	PASS
15	4.085E-02	0.15	0.27	PASS	6.413E-02	0.23	0.29	PASS
16	5.390E-03	0.12	0.05	PASS	8.462E-03	0.17	0.05	PASS
17	1.030E-01	0.13	0.78	PASS	1.616E-01	0.20	0.82	PASS
18	5.770E-03	0.10	0.06	PASS	9.058E-03	0.15	0.06	PASS
19	1.036E-01	0.12	0.88	PASS	1.627E-01	0.18	0.91	PASS
20	8.360E-03	0.09	0.09	PASS	1.312E-02	0.14	0.10	PASS
21	5.165E-02	0.11	0.48	PASS	8.108E-02	0.16	0.50	PASS
22	6.230E-03	0.08	0.07	PASS	9.780E-03	0.13	0.08	PASS
23	9.259E-02	0.10	0.94	PASS	1.454E-01	0.15	0.99	PASS
24	5.600E-03	0.08	0.07	PASS	8.791E-03	0.12	0.08	PASS
25	8.137E-02	0.09	0.90	PASS	1.277E-01	0.14	0.95	PASS
26	9.010E-03	0.07	0.13	PASS	1.414E-02	0.11	0.13	PASS
27	6.223E-02	0.08	0.75	PASS	9.769E-02	0.13	0.78	PASS
28	6.400E-03	0.07	0.10	PASS	1.005E-02	0.10	0.10	PASS
29	7.127E-02	0.08	0.91	PASS	1.119E-01	0.12	0.96	PASS
30	6.320E-03	0.06	0.10	PASS	9.922E-03	0.09	0.11	PASS
31	6.627E-02	0.07	0.91	PASS	1.040E-01	0.11	0.95	PASS
32	8.900E-03	0.06	0.15	PASS	1.397E-02	0.09	0.16	PASS
33	3.513E-02	0.07	0.52	PASS	5.515E-02	0.10	0.54	PASS
34	5.980E-03	0.05	0.11	PASS	9.388E-03	0.08	0.12	PASS
35	4.143E-02	0.06	0.65	PASS	6.504E-02	0.10	0.68	PASS
36	6.290E-03	0.05	0.12	PASS	9.874E-03	0.08	0.13	PASS
37	4.159E-02	0.06	0.68	PASS	6.529E-02	0.09	0.72	PASS
38	6.810E-03	0.05	0.14	PASS	1.069E-02	0.07	0.15	PASS
39	3.018E-02	0.06	0.52	PASS	4.738E-02	0.09	0.54	PASS
40	5.070E-03	0.05	0.11	PASS	7.959E-03	0.07	0.12	PASS

Harmonic currents less than 0.6% of the input current measured under the test conditions, or less than 5 mA, whichever is greater, are disregarded.



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Phase 1

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	7.00E-02	0.46	15.18	OK
3	4.29E-01	2.07	20.68	OK
4	5.20E-02	0.46	11.21	OK
5	5.60E-02	0.92	6.03	OK
6	1.80E-02	0.46	3.81	OK
7	3.90E-02	0.69	5.63	OK
8	1.40E-02	0.46	2.94	OK
9	3.90E-02	0.46	8.50	OK
10	1.50E-02	0.46	3.28	OK
11	1.50E-02	0.23	6.49	OK
12	1.30E-02	0.23	5.64	OK
13	9.00E-03	0.23	3.91	OK
14	7.00E-03	0.23	2.87	OK
15	1.10E-02	0.23	4.72	OK
16	6.00E-03	0.23	2.72	OK
17	5.00E-03	0.23	2.36	OK
18	7.00E-03	0.23	2.93	OK
19	8.00E-03	0.23	3.36	OK
20	1.10E-02	0.23	4.79	OK
21	6.00E-03	0.23	2.66	OK
22	5.00E-03	0.23	2.01	OK
23	6.00E-03	0.23	2.50	OK
24	3.00E-03	0.23	1.34	OK
25	8.00E-03	0.23	3.52	OK
26	3.00E-03	0.23	1.39	OK
27	8.00E-03	0.23	3.56	OK
28	2.00E-03	0.23	1.03	OK
29	6.00E-03	0.23	2.59	OK
30	3.00E-03	0.23	1.48	OK
31	4.00E-03	0.23	1.85	OK
32	3.00E-03	0.23	1.11	OK
33	5.00E-03	0.23	2.11	OK
34	2.00E-03	0.23	0.92	OK
35	3.00E-03	0.23	1.25	OK
36	2.00E-03	0.23	0.80	OK
37	3.00E-03	0.23	1.44	OK
38	2.00E-03	0.23	0.84	OK
39	3.00E-03	0.23	1.39	OK
40	6.00E-03	0.23	2.49	OK



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Phase 2

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	3.60E-02	0.46	7.87	OK
3	5.24E-01	2.07	25.29	OK
4	1.90E-02	0.46	4.12	OK
5	7.50E-02	0.92	8.20	OK
6	8.00E-03	0.46	1.63	OK
7	6.40E-02	0.69	9.33	OK
8	8.00E-03	0.46	1.83	OK
9	5.10E-02	0.46	11.14	OK
10	1.70E-02	0.46	3.76	OK
11	3.00E-02	0.23	12.88	OK
12	1.00E-02	0.23	4.43	OK
13	2.40E-02	0.23	10.42	OK
14	7.00E-03	0.23	2.82	OK
15	2.50E-02	0.23	11.00	OK
16	5.00E-03	0.23	2.28	OK
17	1.70E-02	0.23	7.58	OK
18	6.00E-03	0.23	2.47	OK
19	1.50E-02	0.23	6.43	OK
20	7.00E-03	0.23	2.89	OK
21	1.40E-02	0.23	5.96	OK
22	4.00E-03	0.23	1.93	OK
23	1.30E-02	0.23	5.58	OK
24	3.00E-03	0.23	1.33	OK
25	1.20E-02	0.23	5.17	OK
26	4.00E-03	0.23	1.64	OK
27	9.00E-03	0.23	4.01	OK
28	7.00E-03	0.23	3.25	OK
29	1.30E-02	0.23	5.50	OK
30	9.00E-03	0.23	3.71	OK
31	9.00E-03	0.23	3.98	OK
32	4.00E-03	0.23	1.67	OK
33	1.00E-02	0.23	4.23	OK
34	3.00E-03	0.23	1.46	OK
35	1.00E-02	0.23	4.45	OK
36	3.00E-03	0.23	1.39	OK
37	9.00E-03	0.23	3.90	OK
38	4.00E-03	0.23	1.68	OK
39	9.00E-03	0.23	3.81	OK
40	4.00E-03	0.23	1.91	OK



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Phase 3

Harm#	Harmonics V-rms	Limit V-rms	% of Limit	Status
2	8.10E-02	0.46	17.53	OK
3	4.87E-01	2.07	23.52	OK
4	7.70E-02	0.46	16.61	OK
5	3.70E-02	0.92	4.03	OK
6	2.40E-02	0.46	5.27	OK
7	6.40E-02	0.69	9.31	OK
8	2.30E-02	0.46	5.01	OK
9	3.50E-02	0.46	7.58	OK
10	1.80E-02	0.46	3.89	OK
11	1.90E-02	0.23	8.21	OK
12	1.50E-02	0.23	6.68	OK
13	1.40E-02	0.23	5.88	OK
14	8.00E-03	0.23	3.65	OK
15	1.20E-02	0.23	5.24	OK
16	9.00E-03	0.23	3.95	OK
17	1.10E-02	0.23	4.58	OK
18	9.00E-03	0.23	3.81	OK
19	8.00E-03	0.23	3.67	OK
20	1.30E-02	0.23	5.85	OK
21	9.00E-03	0.23	3.75	OK
22	4.00E-03	0.23	1.90	OK
23	8.00E-03	0.23	3.61	OK
24	4.00E-03	0.23	1.90	OK
25	8.00E-03	0.23	3.27	OK
26	3.00E-03	0.23	1.19	OK
27	8.00E-03	0.23	3.55	OK
28	3.00E-03	0.23	1.31	OK
29	8.00E-03	0.23	3.52	OK
30	3.00E-03	0.23	1.21	OK
31	6.00E-03	0.23	2.51	OK
32	3.00E-03	0.23	1.15	OK
33	6.00E-03	0.23	2.81	OK
34	2.00E-03	0.23	1.02	OK
35	6.00E-03	0.23	2.75	OK
36	3.00E-03	0.23	1.30	OK
37	5.00E-03	0.23	2.38	OK
38	3.00E-03	0.23	1.27	OK
39	5.00E-03	0.23	2.02	OK
40	8.00E-03	0.23	3.39	OK

6.6 Voltage Fluctuations and Flicker

Test Requirement: EN IEC 61851-21-2:2021
 Test Method: EN 61000-3-3: 2013+ A1:2019+A2:2021

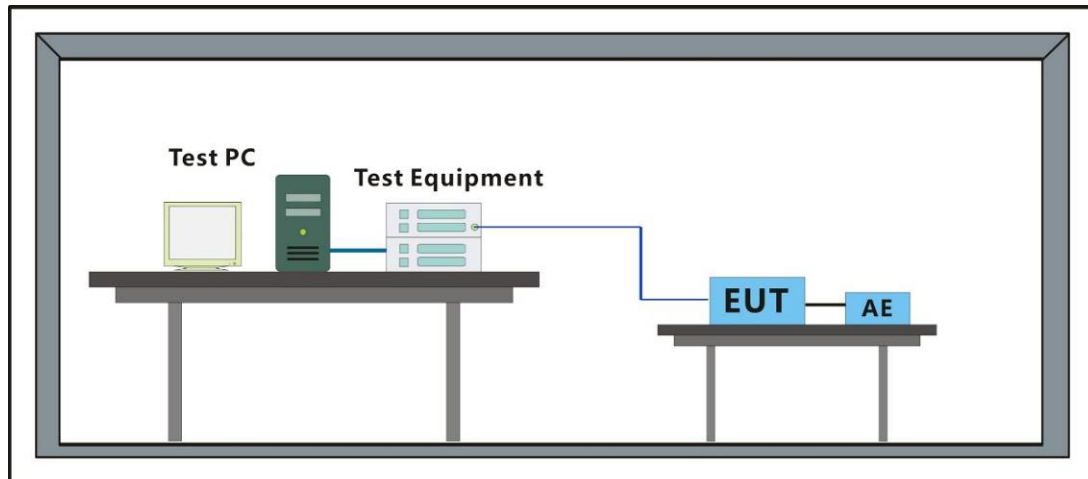
6.6.1 E.U.T. Operation

Operating Environment:
 Temperature: 21.9 °C Humidity: 61.3 % RH Atmospheric Pressure: 1010 mbar

6.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Pre-scan	01	Charging mode: Keep EUT charging continuously with 80% rated power.

6.6.3 Test Setup Diagram



6.6.4 Measurement Procedure and Data

Maximum Flicker results

	L1	L2	L3	Limit	Result
Pst	0.188	0.167	0.185	1.00	PASS
Plt	0.158	0.149	0.180	0.65	PASS
dc [%]	0.008	0.009	0.007	3.30	PASS
dmax [%]	0.867	0.888	0.834	6.00	PASS
dt [s]	0.000	0.000	0.000	0.50	PASS

7 Immunity Test Results

Performance Criteria Description in EN IEC 61851-21-2:2021

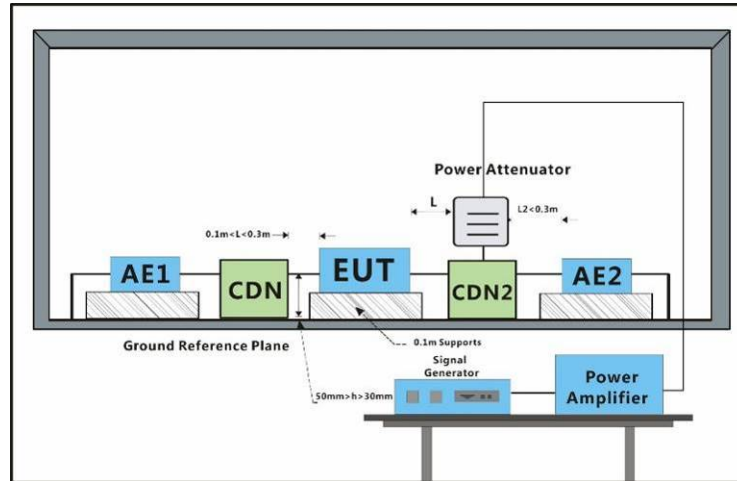
- Criterion A** The apparatus shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and 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, when the apparatus is used as intended. The performance level may be replaced by a permissible loss of performance. During the test, degradation of performance is however allowed. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and 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.

7.1 Conducted Immunity at AC Mains Power Port (150kHz-80MHz)

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-6:2013

7.1.1 Test Setup Diagram



7.1.2 E.U.T. Operation

Operating Environment:

Temperature: 18.4 °C

Humidity: 54.2 % RH

Atmospheric Pressure: 1010 mbar

7.1.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.1.4 Test Condition and Results:

Performance Criterion: A

Frequency Range: 0.15MHz to 80MHz

Modulation: 80%, 1kHz Amplitude Modulation

Step Size: 1%

Cable port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
AC power port	3	CDN	3s	A

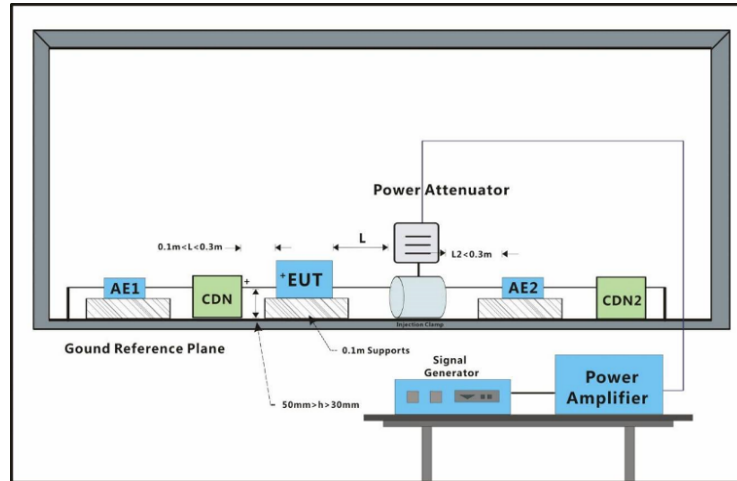
A: No degradation in the performance of the EUT was observed

7.2 Conducted Immunity at CPT Port (150kHz-80MHz)

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-6:2013

7.2.1 Test Setup Diagram



7.2.2 E.U.T. Operation

Operating Environment:

Temperature: 18.4 °C

Humidity: 54.2 % RH

Atmospheric Pressure: 1010 mbar

7.2.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.2.4 Test Condition and Results

Performance Criterion: A

Frequency Range: 0.15MHz to 80MHz

Modulation: 80%, 1kHz Amplitude Modulation

Step Size: 1%

Cable port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
AC power port	3	CDN	3s	A

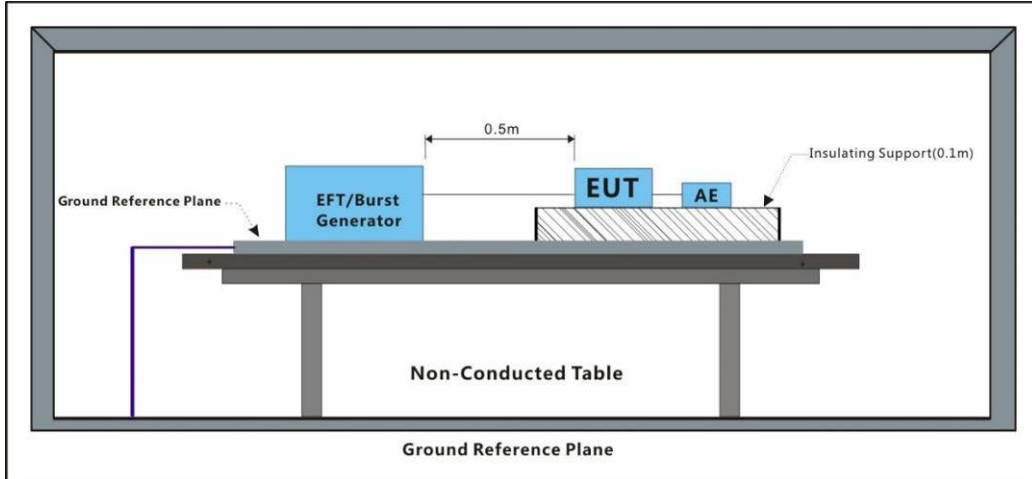
A: No degradation in the performance of the EUT was observed

7.3 Electrical Fast Transients Burst at AC Mains Power Port

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-4:2012

7.3.1 Test Setup Diagram



7.3.2 E.U.T. Operation

Operating Environment:

Temperature: 18.5 °C

Humidity: 52.4 % RH

Atmospheric Pressure: 1010 mbar

7.3.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.3.4 Test Condition and Results:

Performance Criterion: B

Repetition Frequency: 5kHz

Burst Period: 300ms

Test Duration: 2 minute per level & polarity

Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
AC power port	2	+	CDN	A
AC power port	2	-	CDN	A

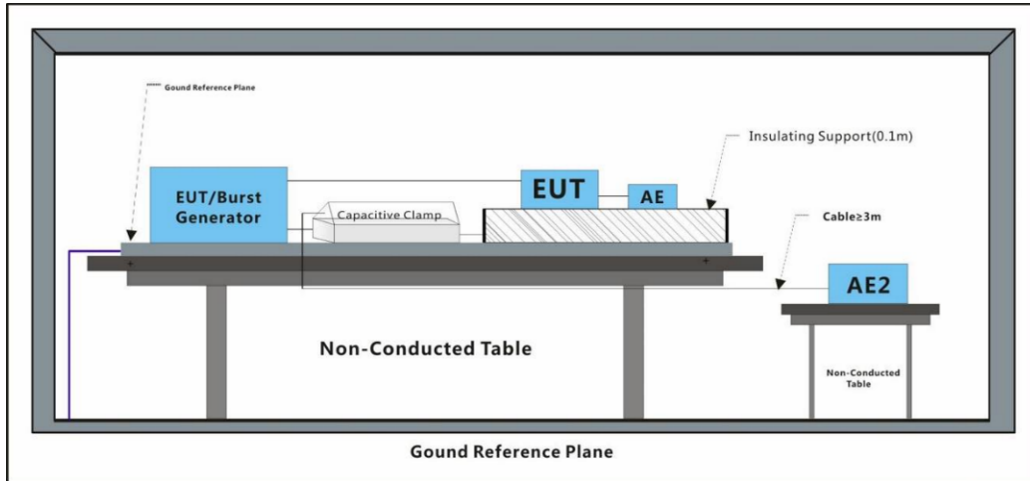
A: No degradation in the performance of the EUT was observed

7.4 Electrical Fast Transients & Burst at CPT Port

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-4:2012

7.4.1 Test Setup Diagram



7.4.2 E.U.T. Operation

Operating Environment:

Temperature: 18.5 °C

Humidity: 52.4 % RH

Atmospheric Pressure: 1010 mbar

7.4.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.4.4 Test Condition and Results

Performance Criterion: B

Repetition Frequency: 5kHz

Burst Period: 300ms

Test Duration: 2 minute per level & polarity

Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
AC power port	2	+	CDN	A
AC power port	2	-	CDN	A

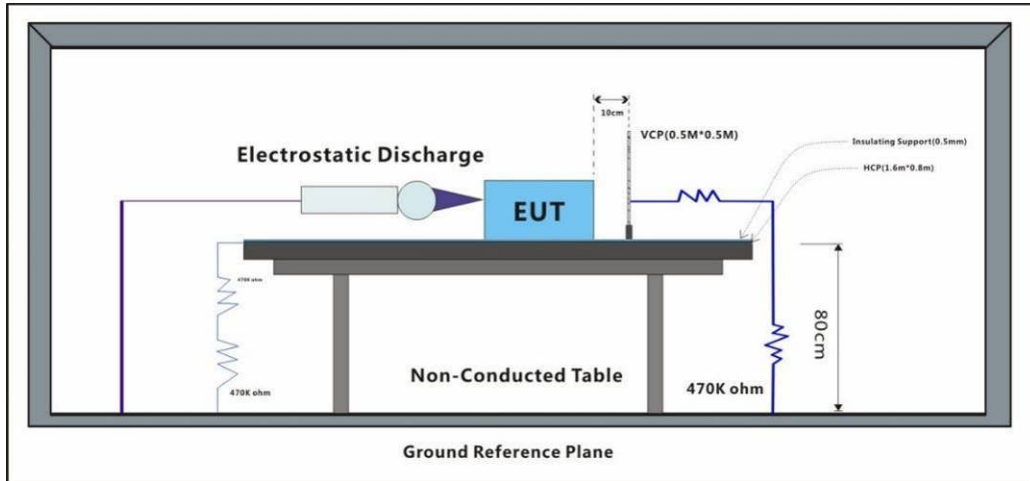
A: No degradation in the performance of the EUT was observed

7.5 Electrostatic Discharge

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-2:2008

7.5.1 Test Setup Diagram



7.5.2 E.U.T. Operation

Operating Environment:

Temperature: 24 °C

Humidity: 68 % RH

Atmospheric Pressure: 1010 mbar

7.5.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.5.4 Test Condition and Results:

Performance Criterion: B

Discharge Impedance: 330Ω/150pF

Number of Discharge: Minimum 10 times at each test point

Discharge Mode: Single Discharge

Discharge Period: 1 second minimum

Test Point: 1. All insulated enclosure and seams.

2. All accessible metal parts of the enclosure.

3. All side



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Discharge type	Level (kV)	Polarity	Test Point	Result / Observations
Air Discharge	8	+	1	A
Air Discharge	8	-	1	A
Contact Discharge	4	+	2	A
Contact Discharge	4	-	2	A
Horizontal Coupling	4	+	3	A
Horizontal Coupling	4	-	3	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A

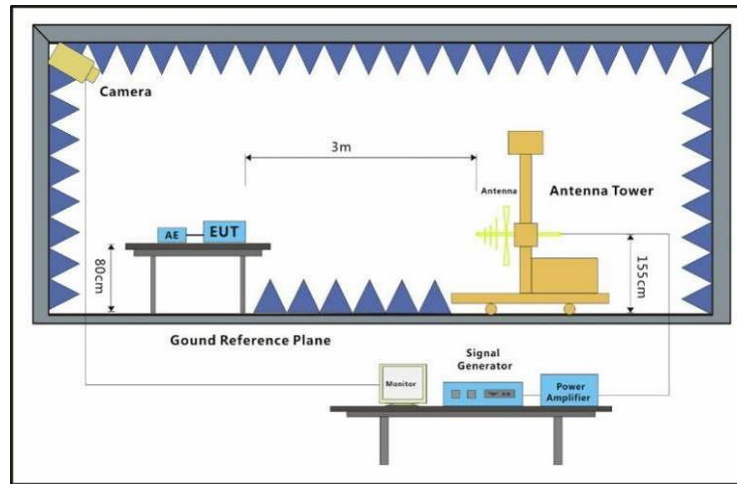
A: No degradation in the performance of the EUT was observed

7.6 Radiated Immunity (80MHz-2.7GHz)

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-3:2006 and IEC 61000-4-3:2006/AMD1:2007 and IEC 61000-4-3:2006/AMD2:2010

7.6.1 Test Setup Diagram



7.6.2 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 43.3 % RH Atmospheric Pressure: 1010 mbar

7.6.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.6.4 Test Condition and Results:

Performance Criterion:A

Antenna Polarisation:Vertical and Horizontal

Modulation:1kHz,80% Amp. Mod,1% increment

Frequency Range:80MHz to 1GHz, 1.4GHz to 2.7GHz

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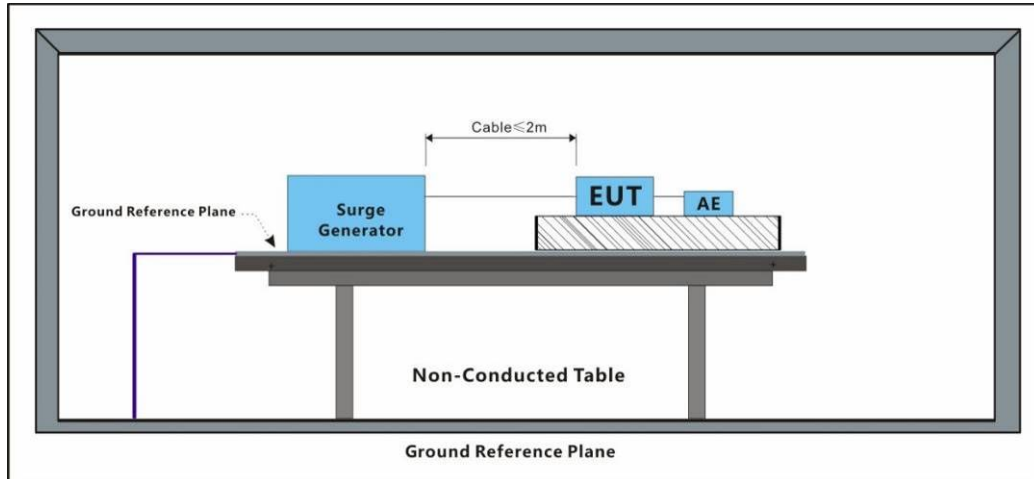
Frequency	Level (V/m)	EUT Face	Dwell time	Result / Observations
80MHz-1GHz	3	Front	3s	A
80MHz-1GHz	3	Back	3s	A
80MHz-1GHz	3	Left	3s	A
80MHz-1GHz	3	Right	3s	A
80MHz-1GHz	3	Top	3s	A
80MHz-1GHz	3	Underside	3s	A
1.4GHz-2GHz	3	Front	3s	A
1.4GHz-2GHz	3	Back	3s	A
1.4GHz-2GHz	3	Left	3s	A
1.4GHz-2GHz	3	Right	3s	A
1.4GHz-2GHz	3	Top	3s	A
1.4GHz-2GHz	3	Underside	3s	A
2GHz-2.7GHz	3	Front	3s	A
2GHz-2.7GHz	3	Back	3s	A
2GHz-2.7GHz	3	Left	3s	A
2GHz-2.7GHz	3	Right	3s	A
2GHz-2.7GHz	3	Top	3s	A
2GHz-2.7GHz	3	Underside	3s	A
A: No degradation in the performance of the EUT was observed				

7.7 Surge at AC Mains Power Port

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-5:2014

7.7.1 Test Setup Diagram



7.7.2 E.U.T. Operation

Operating Environment:

Temperature: 18.5 °C

Humidity: 52.4 % RH

Atmospheric Pressure: 1010 mbar

7.7.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.7.4 Test Condition and Results:

Performance Criterion: B

Interval: 60s between each surge

No. of surges: 5 positive, 5 negative at 0°, 90°, 180°, 270°.

Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L1-L2, L1-L3, L2-L3	2	+/-	0°, 90°, 180°, 270°	A
L1-N, L2-N, L3-N	2	+/-	0°, 90°, 180°, 270°	A
L1-PE, L2-PE, L3-PE	4	+/-	0°, 90°, 180°, 270°	A
N-PE	4	+/-	0°, 90°, 180°, 270°	A

Results:

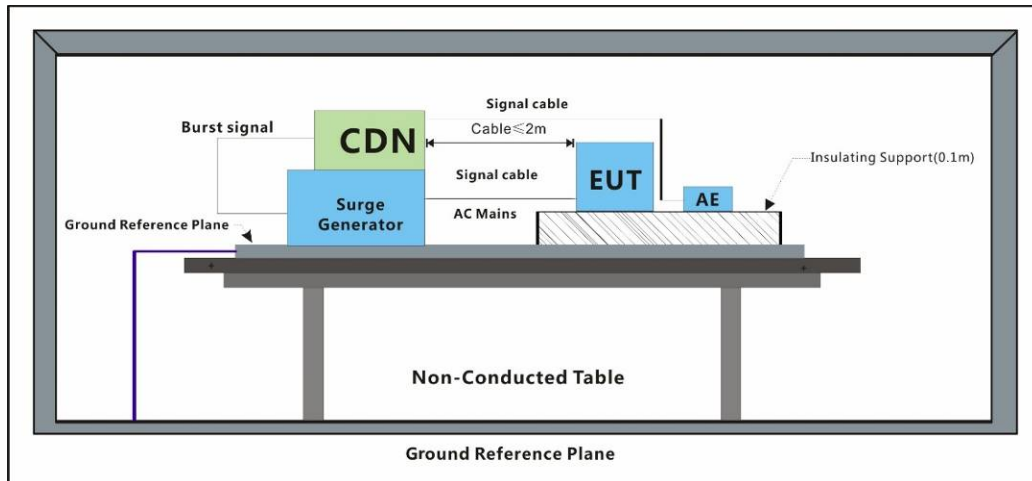
A: No degradation in the performance of the EUT was observed.

7.8 Surge at CPT Port

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-5:2014

7.8.1 Test Setup Diagram



7.8.2 E.U.T. Operation

Operating Environment:

Temperature: 18.5 °C

Humidity: 52.4 % RH

Atmospheric Pressure: 1010 mbar

7.8.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.8.4 Test Condition and Results:

Performance Criterion: B

Interval: 60s between each surge

Generator source impedance: 2Ω

Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	0°	A
L-N	1	-	0°	A
L-N	1	+	90°	A
L-N	1	-	90°	A
L-N	1	+	180°	A
L-N	1	-	180°	A
L-N	1	+	270°	A
L-N	1	-	270°	A
L-PE	2	+	0°	A
L-PE	2	-	0°	A
L-PE	2	+	90°	A
L-PE	2	-	90°	A
L-PE	2	+	180°	A
L-PE	2	-	180°	A
L-PE	2	+	270°	A
L-PE	2	-	270°	A
N-PE	2	+	0°	A
N-PE	2	-	0°	A
N-PE	2	+	90°	A
N-PE	2	-	90°	A
N-PE	2	+	180°	A
N-PE	2	-	180°	A
N-PE	2	+	270°	A
N-PE	2	-	270°	A

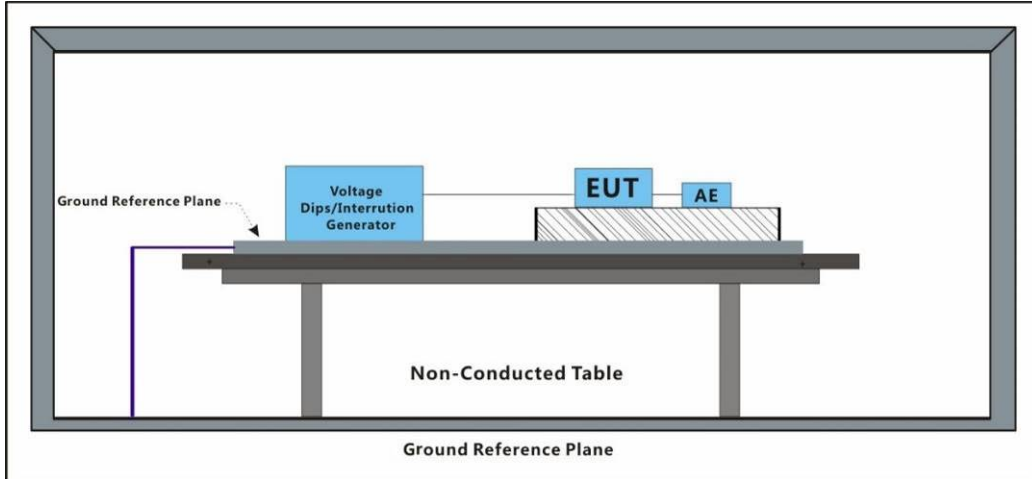
A: No degradation in the performance of the EUT was observed

7.9 Voltage Dips and Interruptions

Test Requirement: EN IEC 61851-21-2:2021

Test Method: IEC 61000-4-34:2005 and IEC 61000-4-34:2005/AMD1:2009 (> 16 A)

7.9.1 Test Setup Diagram



7.9.2 E.U.T. Operation

Operating Environment:

Temperature: 18.5 °C

Humidity: 52.4 % RH

Atmospheric Pressure: 1010 mbar

7.9.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charging mode: Keep EUT charging continuously with 20% rated power.
Final test	01	Waiting mode: Keep EUT standby and waiting.

7.9.4 Test Condition and Results:

Performance Criterion:

40% of UT (Supply Voltage) for 10/12 Cycle:B;

70% of UT for 25/30 Cycles:C;

No. of Dips / Interruptions: 3 per Level

Time between dropout 10s

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Level % UT	Phase (deg)	Duration	No. of Dips / Interruptions	Result / Observations
40	0°	10 Cycles	3	A
40	180°	10 Cycles	3	A
40	0°	12 Cycles	3	A
40	180°	12 Cycles	3	A
70	0°	25 Cycles	3	C
70	180°	25 Cycles	3	C
70	0°	30 Cycles	3	C
70	180°	30 Cycles	3	C

A: No degradation in the performance of the EUT was observed

C: During the test EUT stop working when power supply drop, After the test by manual operation can work normally.

8 Test Setup Photo

Conducted Emissions at Mains Terminals (150kHz-30MHz) Test Setup



Radiated Disturbances (2kHz-185kHz)



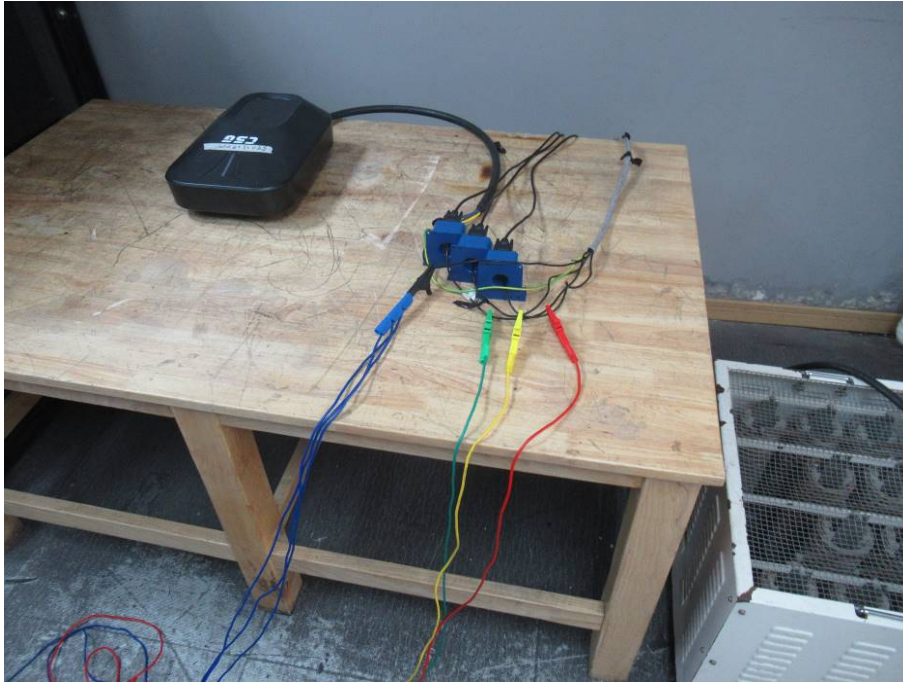
Radiated Emissions (30MHz - 1GHz)



Radiated Emissions (above 1GHz)



Harmonic & Voltage Fluctuations and Flicker



Electrostatic Discharge



Radiated Immunity(80MHz-2.7GHz)



Electrical Fast Transients/Burst at Power Port



Surge at Power Port



Conducted Immunity at Power Port (150kHz-80MHz)



Conducted Immunity at CPT Port (150kHz-80MHz)



Power Frequency Magnetic Field

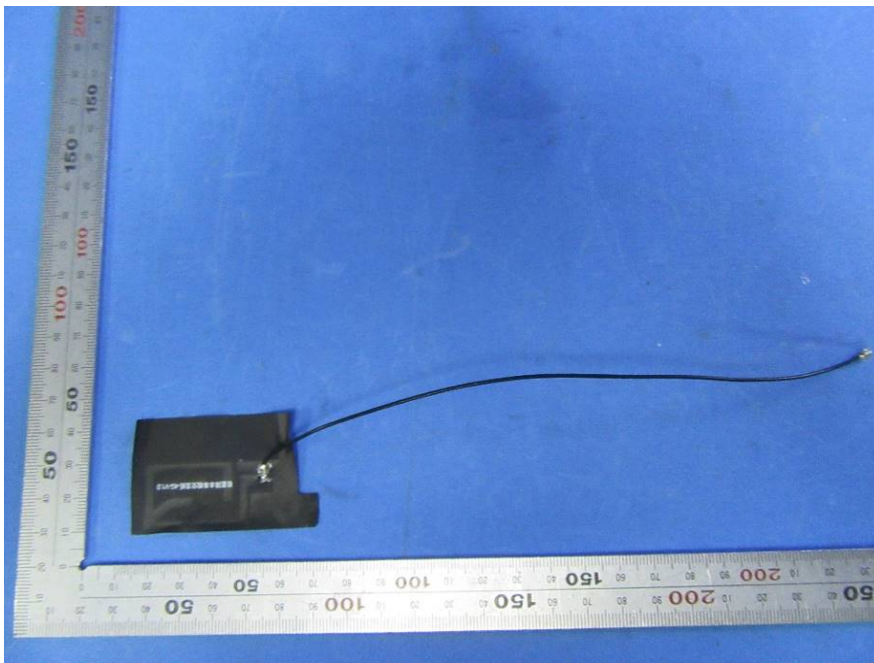
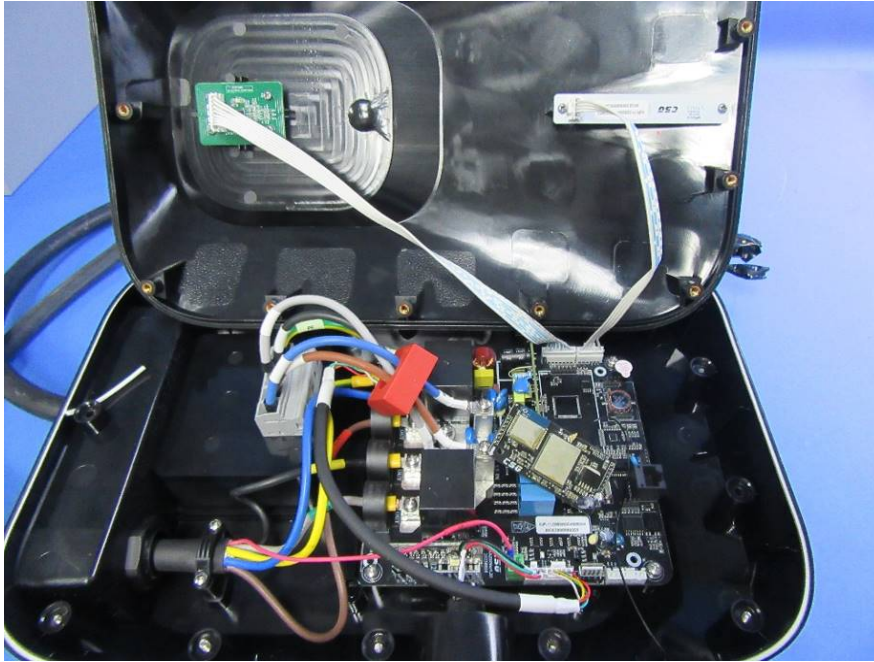


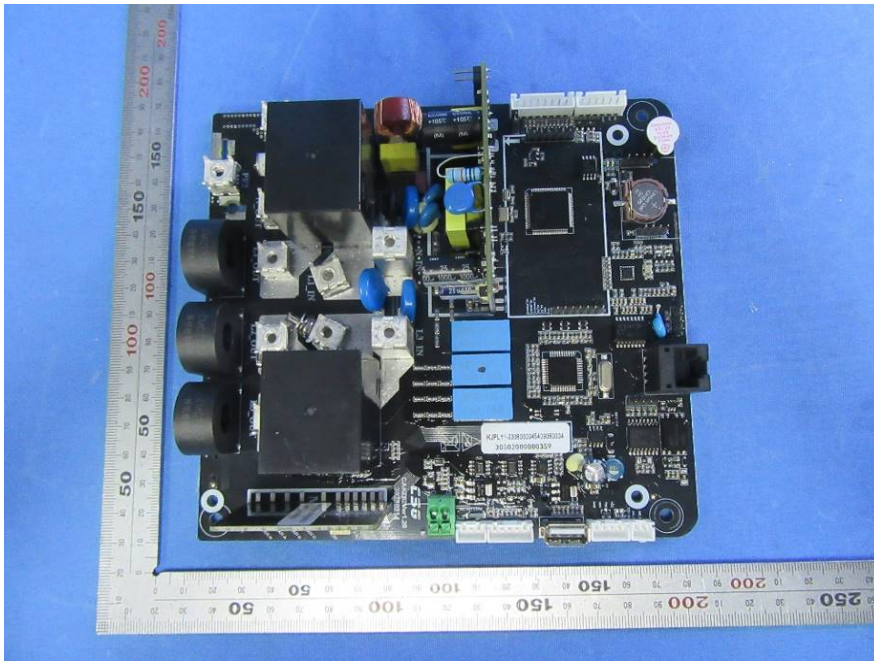
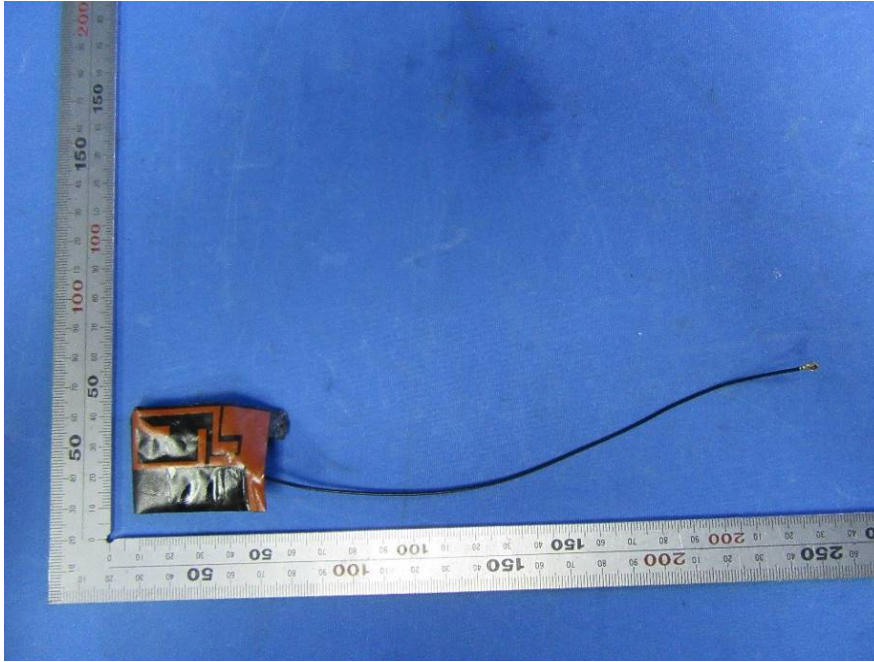
Voltage Dips and Interruptions

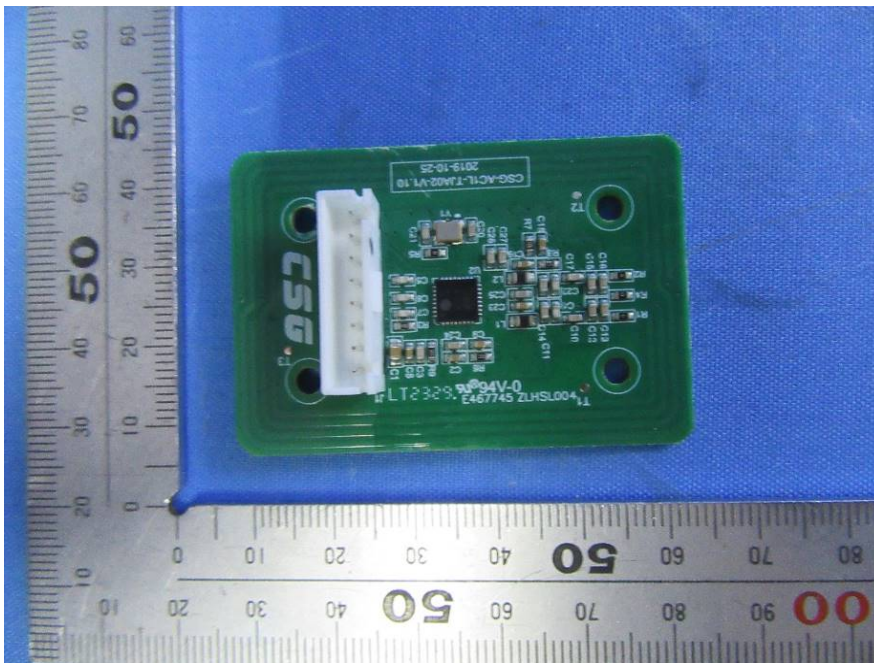
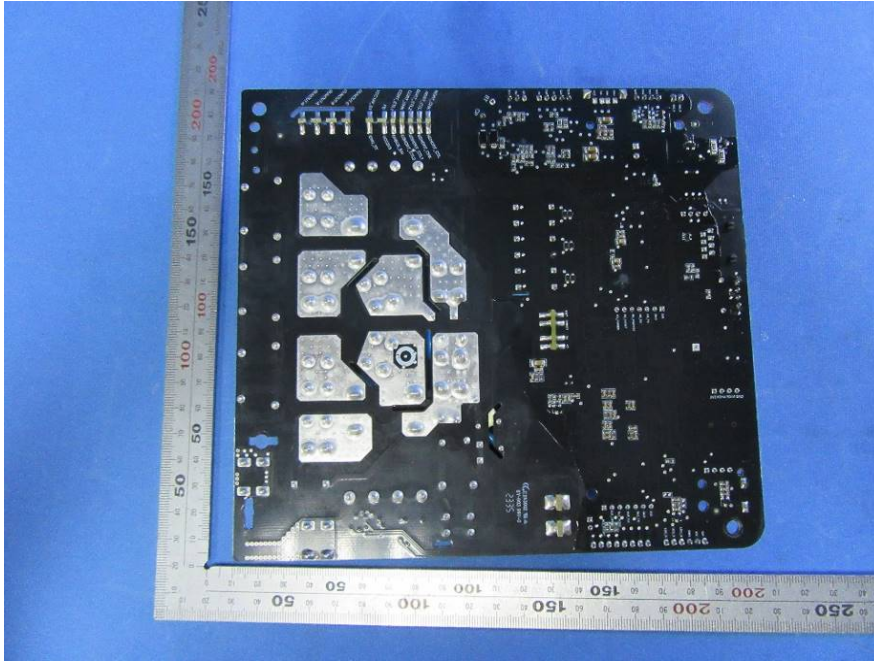


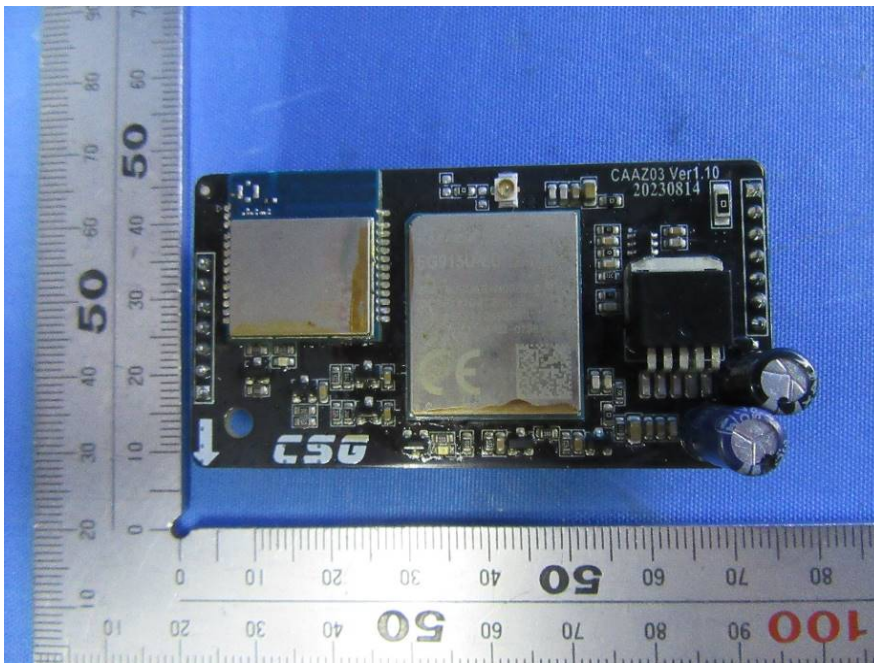
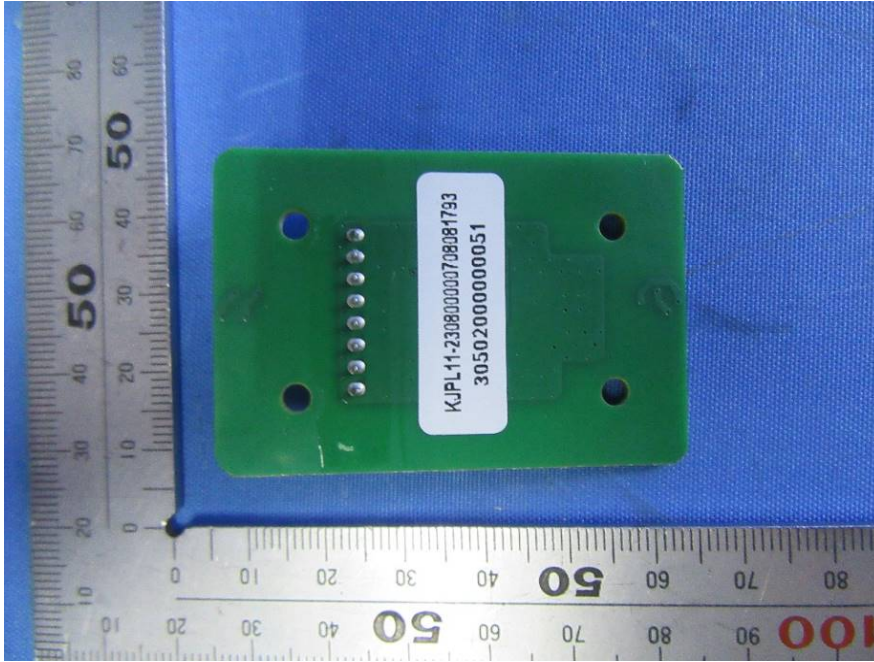
9 EUT Constructional Details (EUT Photos)

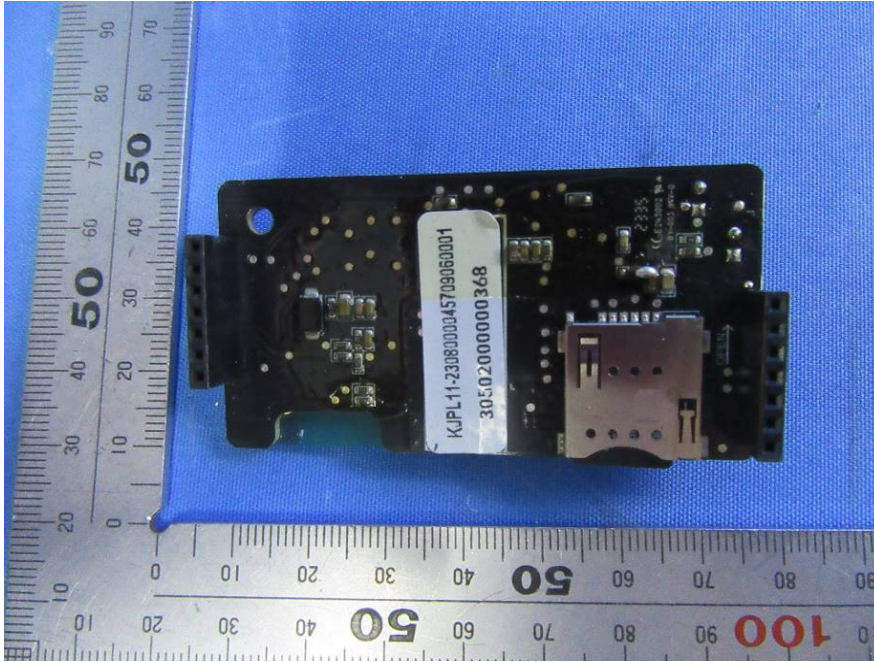












- End of the Report -