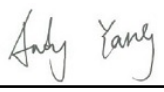
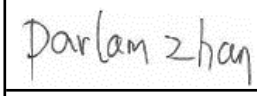
TEST REPORT

Application No.:	SHEM2504002076HS
Applicant:	BAUF HOME GmbH
Address of Applicant:	Frankfurter Straße 16, 74072 Heilbronn, Germany
Manufacturer:	BAUF HOME GmbH
Address of Manufacturer:	Frankfurter Straße 16, 74072 Heilbronn, Germany
Factory:	Ningbo AUX Electric Co., Ltd.
Address of Factory:	1166 Mingguang North Road, Jiangshan Yinzhou District, Ningbo, 315191 Zhejiang, China
Equipment Under Test (EUT):	
EUT Name:	air conditioner
Model No.:	BRAC-FM-IA1-14-R3-O, BRAC-FM-IA118-R3-O, BRAC-FM-IA1-21-R3-O, BRAC-FM-IA1-27-R3-O
Standard(s) :	EN 61000-3-3: 2013+ A1:2019+A2:2021
	EN IEC 55014-1: 2021
	EN IEC 61000-3-2: 2019+A1:2021
	EN IEC 55014-2: 2021
Date of Receipt:	2024-12-16
Date of Test:	2024-12-24 to 2024-12-26
Date of Issue:	2025-04-08
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Co-license	2025-04-08	Based on SHEM241200801101 (SHEM220700584401V01)

Authorized for issue by:				
Tested By				
		Andy Yang/Project Engineer		
Approved By				
		Parlam Zhan / Reviewer		

2 Test Summary

Emission Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	EN IEC 55014-1: 2021	CISPR 16-2-1:2014+A1:2017	Table 5	Pass
Conducted Emissions at Load Terminals and Additional Terminals		CISPR 16-2-1:2014+A1:2017	Table 5	Pass
Discontinuous Disturbance (150kHz-30MHz)		EN IEC 55014-1: 2021	Clause 4.4.2	Pass
Disturbance Power		CISPR 16-2-2:2010	Table 7 & 8	Pass
Harmonic Current Emission	EN IEC 61000-3-2: 2019+A1:2021	EN IEC 61000-3-2: 2019+A1:2021	Class A	Pass
Voltage Fluctuations and Flicker	EN 61000-3-3: 2013+ A1:2019+A2:2021	EN 61000-3-3: 2013+ A1:2019+A2:2021	Clause 5	Pass

Immunity Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Electrostatic Discharge	EN IEC 55014-2: 2021	EN 61000-4-2:2009	4kV Contact Discharge, 8kV Air Discharge	Pass
Radiated Immunity (80MHz-1GHz)		EN IEC 61000-4-3: 2020	3V/m, 80%, 1kHz Amp. Mod.	Pass
Electrical Fast Transients Burst at AC Mains Power Port		EN 61000-4-4:2012	1kV, 5/50ns Tr/Td, 5kHz Repetition Frequency	Pass
Electrical Fast Transients Burst at Signal Port		EN 61000-4-4:2012	0.5kV, 5/50ns Tr/Td, 5kHz Repetition Frequency	Pass
Surge at AC Mains Power Port		EN 61000-4-5:2014+A1:2017	1.2/50μs Tr/Td, 1kV Line to Line, 2kV Line to Ground	Pass
Conducted Immunity at AC Mains Power Port (150kHz-80MHz)		EN 61000-4-6: 2014	3Vrms (emf),80%,1kHz Amp. Mod.	Pass
Conducted Immunity at Signal Port (150kHz-80MHz)		EN 61000-4-6: 2014	1Vrms (emf),80%,1kHz Amp. Mod.	Pass
Voltage Dips and Interruptions		EN IEC 61000-4-11: 2020	For 50Hz: 0 % UT for 0.5cycle, 40 % UT for 10cycles, 70 % UT for 25cycles, UT is Supply Voltage	Pass

Note: This report was an additional report copied from the report SHEM241200801101, just changing the model name, applicant and manufacturer. Since the electrical circuit design, layout, components used and internal wiring for the model BRAC-FM-IA1-14-R3-O, BRAC-FM-IA118-R3-O, BRAC-FM-IA1-21-R3-O, BRAC-FM-IA1-27-R3-O in this report was exactly the same as the model AM4-H28/4DR3C, AM2-H14/4DR3C, AM2-H18/4DR3C, AM3-H21/4DR3C, AM3-H27/ AM2-H18/4DR3HA in the report SHEM241200801101.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	AC 220-240V~50Hz Test Voltage: AC 230V 50Hz
Maximum clock frequency:	<15MHz
Cable(s):	AC cable 1.8m Signal cable 5m

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Indoor	AUX	AMWM-H09/4R3HA(M*)	--
The EUT has been tested as an independent unit.			

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.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

4.8 EMS Monitor

Visual: 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	2024/12/18	2025/12/17
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2024/12/18	2025/12/17
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2024/12/18	2025/12/17
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2024/12/18	2025/12/17
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2026/12/18
CE test Cable	/	/	SHEM172-2	2024/12/18	2025/12/17
Passive Voltage probe	Rohde & Schwarz	ESH2-Z3	SHEM028-2	2024/12/18	2025/12/17
Capacitive Voltage Probe	SCHWARZBECK	CVP9222 B	SHEM169-1	2024/07/31	2025/07/30
Current Probe	SCHWARZBECK	SW9605	SHEM170-1	2024/07/31	2025/07/30
Test Software	ESE	e3	Version: 6.191211	N/A	N/A
3 Phase LISN	SCHWARZBECK	NNLK 8129 RC	SHME035-4	2024/09/19	2025/09/18
3 Phase LISN	Beijing Kehuan	KH3765-100	SHEM292-1	2024/03/12	2025/03/11

Conducted Emissions at Load Terminals and Additional Terminals					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2024/12/18	2025/12/17
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2024/12/18	2025/12/17
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2024/12/18	2025/12/17
Pulse limiter	Rohde & Schwarz	ESH3-Z2	SHEM029-1	2024/12/18	2025/12/17
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2026/12/18
CE test Cable	/	/	SHEM172-2	2024/12/18	2025/12/17
Passive Voltage probe	Rohde & Schwarz	ESH2-Z3	SHEM028-2	2024/12/18	2025/12/17
Capacitive Voltage Probe	SCHWARZBECK	CVP9222 B	SHEM169-1	2024/07/31	2025/07/30
Current Probe	SCHWARZBECK	SW9605	SHEM170-1	2024/07/31	2025/07/30
Test Software	ESE	e3	Version: 6.191211	N/A	N/A

Discontinuous Disturbance (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Click analyzer	SCHAFFNER	DIA1512D	SHEM013-1	2024/12/18	2025/12/17
Line impedance stabilization network	SCHWARZBECK	NSLK8127	SHEM061-1	2024/12/18	2025/12/17
Line impedance stabilization network	EMCO	3816_2	SHEM019-1	2024/12/18	2025/12/17
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2026/12/18
Test Software	SCHAFFNER	DIS9966	Version: 2.5	N/A	N/A

Disturbance Power					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMI test receiver	Rohde & Schwarz	ESR7	SHEM162-1	2024/12/18	2025/12/17
Absorbing clamp	LUTHI	MDS21	SHEM014-1	2024/12/18	2025/12/17
DE coupling clamp	LUTHI	FTC101	SHEM027-2	N/A	N/A
Attenuator	HUAXIANG	TS2-6dB-2G-B	SHEM208-1	2024/12/18	2025/12/17
Shielding Room	ZHONGYU	8*4*3M	SHEM079-2	2023/12/19	2026/12/18
DP test Cable	/	/	SHEM179-1	2024/12/18	2025/12/17
Test Software	ESE	e3	Version: 6.191211	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	2024/07/31	2025/07/30
AC Power Source 5KVA	AMETEK	5001iX	SHEM025-2	2024/07/31	2025/07/30
Test Software	AMETEK	CTS4	Version: 4.24.0	N/A	N/A
Harmonic&Flicker analyzer	EM TEST	DPA500	SHEM024-1	2024/07/31	2025/07/30
AC Power Source 6KVA	EM TEST	ACS500	SHEM025-1	2024/07/31	2025/07/30
Test Software	EM TEST	DPA	Version: 5.4.8.0	N/A	N/A
Harmonic & Flicker test system	DEWETRON	DEWE2-A4	SHEM274-1	2024/07/31	2025/07/30

Voltage Fluctuations and Flicker					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Harmonic&Flicker analyzer	AMETEK	PACS-1	SHEM024-2	2024/07/31	2025/07/30
AC Power Source 5KVA	AMETEK	5001iX	SHEM025-2	2024/07/31	2025/07/30
Test Software	AMETEK	CTS4	Version: 4.24.0	N/A	N/A
Harmonic&Flicker analyzer	EM TEST	DPA500	SHEM024-1	2024/07/31	2025/07/30
AC Power Source 6KVA	EM TEST	ACS500	SHEM025-1	2024/07/31	2025/07/30
Test Software	EM TEST	DPA	Version: 5.4.8.0	N/A	N/A
Harmonic & Flicker test system	DEWETRON	DEWE2-A4	SHEM274-1	2024/07/31	2025/07/30

Electrostatic Discharge					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Electrostatic Discharge Simulator	TESEQ	NSG 437	SHEM041-2	2024/07/31	2025/07/30
Electrostatic Discharge Simulator	3CTEST	EDS20H	SHEM199-1	2024/12/18	2025/12/17
Electrostatic discharge simulator	EM TEST	dito	SHEM289-1	2024/01/15	2025/01/14

Radiated Immunity (80MHz-1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Signal generator	Rohde & Schwarz	SMB100A	SHEM194-1	2024/12/18	2025/12/17
Power Meter	Rohde & Schwarz	NRP	SHEM057-1	2024/07/31	2025/07/30
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-4	2024/07/31	2025/07/30
Antenna	SCHWARZBECK	STLP9128D	SHEM130-1	N/A	N/A
Amplifier	MILMEGA	80RF1000-250	SHEM132-1	2024/12/18	2025/12/17
Power meter sensor	Rohde & Schwarz	NRP-Z22	SHEM136-1	2024/07/31	2025/07/30
ElectroMagnetic Field Probe	ETS-Lindgren	HI-6105	SHEM134-1	2024/08/16	2025/08/15
Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2023/05/06	2026/05/05
Test Software	Rohde & Schwarz	EMC32	Version: 10.20.01	N/A	N/A
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-5	2024/12/18	2025/12/17

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	2024/12/18	2025/12/17
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2024/07/31	2025/07/30
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2024/07/31	2025/07/30
EFT & Surge Generator	PRIMA	PRM61045TB	SHEM200-1	2024/09/27	2025/09/26
CDN for EFT & Surge	PRIMA	PRM-CDN	SHEM200-2	2024/09/27	2025/09/26

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	2024/12/18	2025/12/17
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2024/07/31	2025/07/30
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2024/07/31	2025/07/30
Capacitive Coupling Clamp	EM TEST	HFK	SHEM026-2	2024/12/18	2025/12/17
EFT & Surge Generator	PRIMA	PRM61045TB	SHEM200-1	2024/09/27	2025/09/26
CDN for EFT & Surge	PRIMA	PRM-CDN	SHEM200-2	2024/09/27	2025/09/26
Capacitive coupling clamp	PRIMA	EFT-CLAMP	SHEM200-4	2024/12/18	2025/12/17

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	2024/12/18	2025/12/17
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2024/07/31	2025/07/30
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2024/07/31	2025/07/30
EFT & Surge Generator	PRIMA	PRM61045TB	SHEM200-1	2024/09/27	2025/09/26
CDN for EFT & Surge	PRIMA	PRM-CDN	SHEM200-2	2024/09/27	2025/09/26
CDN for unsymmetrical interconnection lines (1.2/50us)	SCHAFFNER	CDN 117	SHEM224-5	2024/07/31	2025/07/30
CDN for symmetric datalines & Resistor network (Surge 1.2/50 or 10/700 us)	SCHAFFNER	CDN 118 & INA172	SHEM224-6 & SHEM224-7	2024/07/31	2025/07/30

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	2024/12/18	2025/12/17
Power Amplifier	HAEFFLY	PAMP250	SHEM023-1	2024/12/18	2025/12/17
6dB Attenuator	HUAXIANG	DTS50-6dB-1G-A	SHEM123-2	2024/12/18	2025/12/17
Power Meter	Rohde & Schwarz	NRP	SHEM057-1	2024/07/31	2025/07/30
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-4	2024/07/31	2025/07/30
Coupling and Decoupling Network (CDN)	LUTHI	L-801 M2/M3	SHEM023-6	2024/12/18	2025/12/17
Shielding Room	ZHONGYU	5*3*3M	SHEM079-6	2022/12/20	2025/12/19
Coupling and Decoupling Network	Teseq	CDN M016	SHEM168-1	2024/07/31	2025/07/30
Test Software	Rohde & Schwarz	EMC32	Version: 10.20.01	N/A	N/A
CDN	TESEQ	CDN M532	SHEM250-3	2024/12/18	2025/12/17
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-5	2024/12/18	2025/12/17
Current Injection Probe	PRANA	IP-DR250	SHEM273-1	2024/12/18	2025/12/17
Test System for Conducted Immunity	TESEQ	NSG 4070	SHEM295-1	2024/12/18	2025/12/17

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	2024/12/18	2025/12/17
Power Amplifier	HAEFFLY	PAMP250	SHEM023-1	2024/12/18	2025/12/17
6dB Attenuator	HUAXIANG	DTS50-6dB-1G-A	SHEM123-2	2024/12/18	2025/12/17
Coupling clamp	LUTHI	EM 101	SHEM027-1	2024/05/06	2025/05/05
Power Meter	Rohde & Schwarz	NRP	SHEM057-1	2024/07/31	2025/07/30
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-4	2024/07/31	2025/07/30
Coupling and Decoupling Network (CDN)	LUTHI	L-801 M2/M3	SHEM023-6	2024/12/18	2025/12/17
Shielding Room	ZHONGYU	5*3*3M	SHEM079-6	2022/12/20	2025/12/19
Coupling and Decoupling Network	Teseq	CDN M016	SHEM168-1	2024/07/31	2025/07/30
Test Software	Rohde & Schwarz	EMC32	Version: 10.20.01	N/A	N/A
Power meter sensor	Rohde & Schwarz	NRP-Z91	SHEM057-5	2024/12/18	2025/12/17
Current Injection Probe	PRANA	IP-DR250	SHEM273-1	2024/12/18	2025/12/17
Test System for Conducted Immunity	TESEQ	NSG 4070	SHEM295-1	2024/12/18	2025/12/17

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	2024/12/18	2025/12/17
Test Software	EMC-PARTNER	GENECS	Version: 3.29	N/A	N/A
Immunity Test System	TESEQ	NSG 3060	SHEM224-1	2024/07/31	2025/07/30
Coupling / Decoupling Network (CDN)	TESEQ	CDN 3061	SHEM224-3	2024/07/31	2025/07/30
Manual step transformer	TESEQ	INA 6501	SHEM224-4	2024/07/31	2025/07/30
3 phase voltage dips & interruptions simulator	LIONCEL	VDS-1132A & TGL-332	SHME143-1～SHME143-4	2024/05/06	2025/05/05

General used equipment					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Atmospheric Pressure Meter	Nanjing XiangRuiDe	DYM3	SHEM082-2	2024-01-18	2027-01-17
Temperature&humidity recorder	ShangHai weather meter work	ZJ 1-2B	SHEM042-9~10	2024-12-22	2025-12-21
Temperature&humidity recorder	ShangHai weather meter work	ZJ 1-2B	SHEM042-5	2024-07-13	2025-07-12
Digital Temperature& humidity recorder	Jianda Renke	RS-WS-N01-6J	SHEM247-1~8	2024-01-13	2025-01-12
Digital Multimeter	FLUKE	17B+	SHEM271-7	2024-07-13	2025-07-12
Autoformer regulator	Guangzhou bao de	TDGC2-5KVA	SHEM150-1	N/A	N/A
Multi-purpose tong tester	FLUKE	317	SHEM001-2	2024-10-30	2025-10-29

6 Emission Test Results

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

Test Requirement: EN IEC 55014-1: 2021

Test Method: CISPR 16-2-1:2014+A1:2017

Limit:

0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 59dB(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

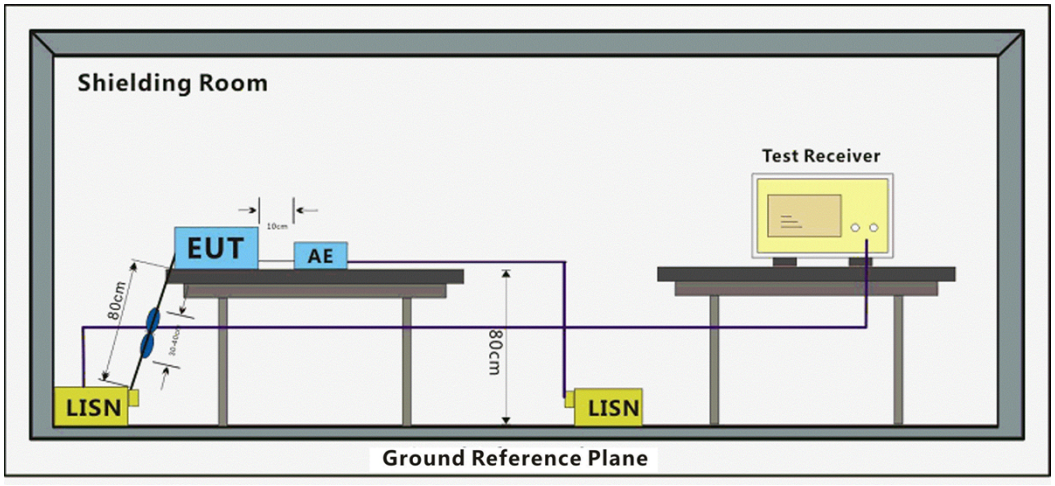
Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Pre-scan	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Pre-scan	02	Test the EUT in dehumidification mode.
Pre-scan	03	Test the EUT in fan mode, keep swinging at high speed.
Pre-scan	04	Test the EUT in idle mode.

6.1.3 Test Setup Diagram



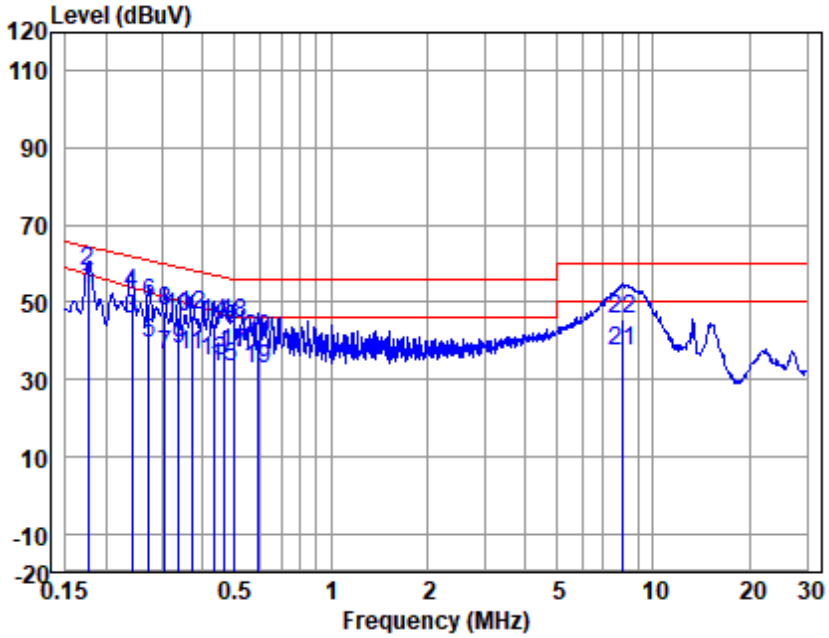
6.1.4 Measurement Procedure and Data

Frequency Range: 150kHz to 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; Line: Live line



LISN : LINE
EUT/Project No : 8011HS
Test Mode : 00

	Freq (MHz)	Read level (dBuV)	LISN Factor (dB)	Cable Loss (dB)	Emission Level (dBuV)	Limit (dBuV)	Over Limit (dB)	Remark
1	0.18	42.85	0.50	9.90	53.25	57.23	-3.98	Average
2	0.18	47.38	0.50	9.90	57.78	64.64	-6.86	QP
3	0.24	35.49	0.44	9.90	45.83	53.91	-8.08	Average
4	0.24	41.81	0.44	9.90	52.15	62.08	-9.93	QP
5	0.27	29.09	0.40	9.90	39.39	52.59	-13.20	Average
6	0.27	39.27	0.40	9.90	49.57	61.07	-11.50	QP
7	0.31	26.27	0.36	9.90	36.53	51.33	-14.80	Average
8	0.31	37.67	0.36	9.90	47.93	60.10	-12.17	QP
9	0.34	27.68	0.33	9.90	37.91	50.25	-12.34	Average
10	0.34	35.86	0.33	9.90	46.09	59.27	-13.18	QP
11	0.37	25.92	0.30	9.90	36.12	49.27	-13.15	Average
12	0.37	36.51	0.30	9.90	46.71	58.52	-11.81	QP

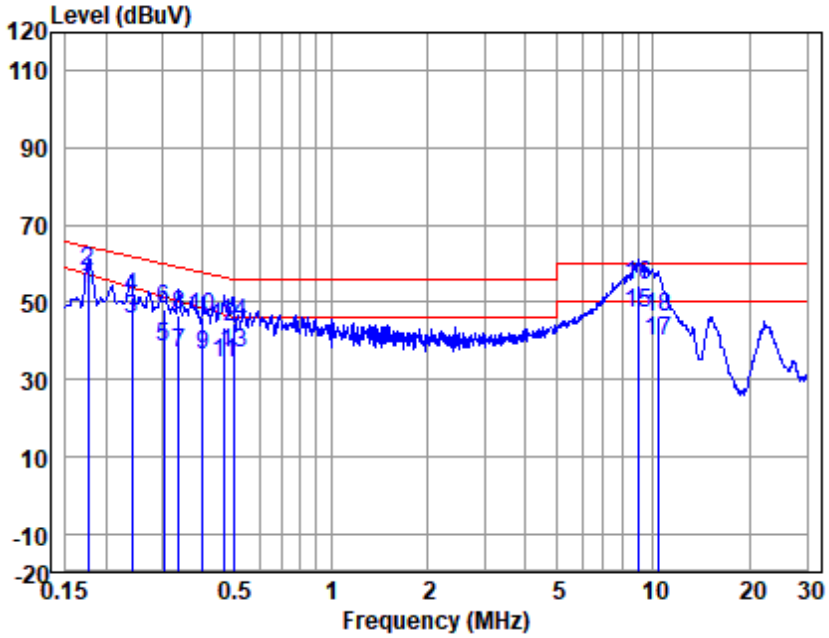
Notes: Emission Level = Read Level +LISN Factor + Cable loss

Test Mode: 00; Line: Live line

	Freq	Read level	LISN Factor	Cable Loss	Emission Level	Limit	Over Limit	Remark
	(MHz)	(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)	
13	0.43	24.80	0.25	9.90	34.95	47.56	-12.61	Average
14	0.43	34.32	0.25	9.90	44.47	57.20	-12.73	QP
15	0.47	22.85	0.22	9.90	32.97	46.76	-13.79	Average
16	0.47	32.93	0.22	9.90	43.05	56.58	-13.53	QP
17	0.50	26.73	0.20	9.90	36.83	46.07	-9.24	Average
18	0.50	34.24	0.20	9.90	44.34	56.05	-11.71	QP
19	0.59	22.48	0.20	9.90	32.58	46.00	-13.42	Average
20	0.59	30.43	0.20	9.90	40.53	56.00	-15.47	QP
21	7.98	26.76	0.44	10.34	37.54	50.00	-12.46	Average
22	7.98	34.62	0.44	10.34	45.40	60.00	-14.60	QP

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

Test Mode: 00; Line: Neutral Line



LISN : NEUTRAL
EUT/Project No : 8011HS
Test Mode : 00

	Freq	Read level	LISN Factor	Cable Loss	Emission Level	Limit	Over Limit	Remark
	(MHz)	(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.18	43.38	0.32	9.90	53.60	57.23	-3.63	Average
2	0.18	48.04	0.32	9.90	58.26	64.64	-6.38	QP
3	0.24	35.65	0.30	9.90	45.85	53.91	-8.06	Average
4	0.24	40.98	0.30	9.90	51.18	62.08	-10.90	QP
5	0.30	28.06	0.30	9.90	38.26	51.39	-13.13	Average
6	0.30	38.15	0.30	9.90	48.35	60.15	-11.80	QP
7	0.34	26.71	0.30	9.90	36.91	50.25	-13.34	Average
8	0.34	36.43	0.30	9.90	46.63	59.27	-12.64	QP
9	0.40	26.25	0.30	9.90	36.45	48.42	-11.97	Average
10	0.40	36.07	0.30	9.90	46.27	57.86	-11.59	QP
11	0.47	23.83	0.30	9.90	34.03	46.76	-12.73	Average
12	0.47	33.42	0.30	9.90	43.62	56.58	-12.96	QP

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

Test Mode: 00; Line: Neutral Line

	Freq	Read level	LISN Factor	Cable Loss	Emission Level	Limit	Over Limit	Remark
	(MHz)	(dBuV)	(dB)	(dB)	(dBuV)	(dBuV)	(dB)	
13	0.50	26.80	0.30	9.90	37.00	46.07	-9.07	Average
14	0.50	34.47	0.30	9.90	44.67	56.05	-11.38	QP
15	8.96	36.37	0.47	10.37	47.21	50.00	-2.79	Average
16	8.96	43.31	0.47	10.37	54.15	60.00	-5.85	QP
17	10.34	29.08	0.51	10.40	39.99	50.00	-10.01	Average
18	10.34	35.32	0.51	10.40	46.23	60.00	-13.77	QP

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

6.2 Conducted Emissions at Load Terminals and Additional Terminals

Test Requirement: EN IEC 55014-1: 2021
Test Method: CISPR 16-2-1:2014+A1:2017

Limit:

Disturbance voltage limits

0.15MHz – 0.5MHz	80dB(μV) quasi-peak, 70dB(μV) average
0.5MHz – 30MHz	74dB(μV) quasi-peak, 64dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15MHz to 30MHz

Disturbance current limits

0.15MHz – 0.5MHz	40dB(μA)-30dB(μA) quasi-peak
	30dB(μA)-20dB(μA) average
0.5MHz – 30MHz	30dB(μA) quasi-peak, 20dB(μA) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15MHz to 30MHz

6.2.1 E.U.T. Operation

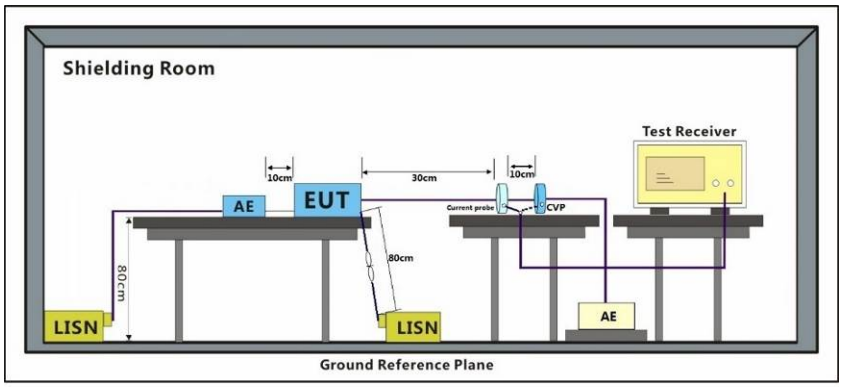
Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Pre-scan	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Pre-scan	02	Test the EUT in dehumidification mode.
Pre-scan	03	Test the EUT in fan mode, keep swinging at high speed.
Pre-scan	04	Test the EUT in idle mode.

6.2.3 Test Setup Diagram



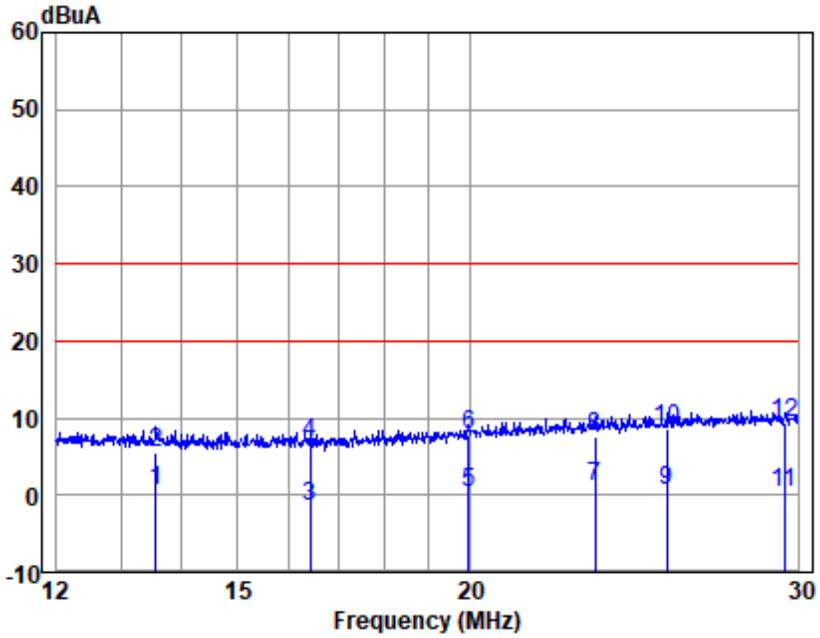
6.2.4 Measurement Procedure and Data

Frequency Range: 150kHz to 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 + Probe Factor

Test Mode: 00



Current Probe : SW 9605
EUT/Project No : 8011HS
Test Mode : 00

	Freq (MHz)	Read level (dBuV)	SW Factor (dBS)	Cable Loss (dB)	Emission Level (dBuA)	Limit (dBuA)	Over Limit (dB)	Remark
1	13.57	-10.02	0.19	10.45	0.62	20.00	-19.38	Average
2	13.57	-5.11	0.19	10.45	5.53	30.00	-24.47	QP
3	16.42	-12.21	0.24	10.50	-1.47	20.00	-21.47	Average
4	16.42	-3.87	0.24	10.50	6.87	30.00	-23.13	QP
5	19.97	-10.62	0.30	10.70	0.38	20.00	-19.62	Average
6	19.97	-3.21	0.30	10.70	7.79	30.00	-22.21	QP
7	23.34	-9.82	0.34	10.70	1.22	20.00	-18.78	Average
8	23.34	-3.45	0.34	10.70	7.59	30.00	-22.41	QP
9	25.51	-10.39	0.36	10.72	0.69	20.00	-19.31	Average
10	25.51	-2.43	0.36	10.72	8.65	30.00	-21.35	QP
11	29.51	-10.99	0.40	10.80	0.21	20.00	-19.79	Average
12	29.51	-1.93	0.40	10.80	9.27	30.00	-20.73	QP

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

6.3 Discontinuous Disturbance (150kHz-30MHz)

Test Requirement: EN IEC 55014-1: 2021
Test Method: EN IEC 55014-1: 2021

Limit:

Provision	Click Rate (N)		
1	All clicks ⩽ 20 ms	90 % click ≤ 10 ms	N≤5
2	N < 0,2	L_q [b]= L^a + 44	Clicks [c] ≤ 25% exceed L_q [b]
3	30 > N ≥ 0,2	L_q [b]= L^a + 20 lg(30/N)	Clicks [c] ≤ 25% exceed L_q [b]
[a] The limits L of Conducted Emissions apply also to discontinuous disturbances from all equipment which produce: 1) disturbances other than clicks, or 2) clicks with a click rate *N* equal to or greater than 30 [b] The click limit Lq is calculated by increasing the relevant quasi-peak limit L for continuous disturbances by certain value. The click limit applies to the disturbance assessed according to the upper quartile method [c] a quarter of the number of the clicks registered during the observation time T is allowed to exceed the click limit Lq			

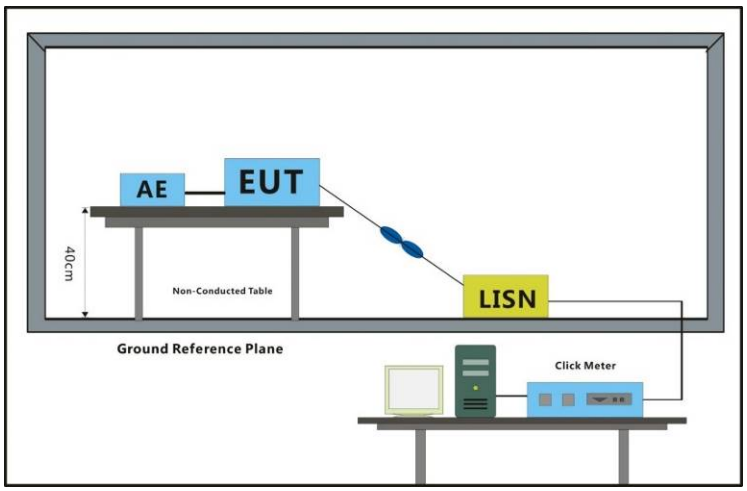
6.3.1 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Pre-scan	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Pre-scan	02	Test the EUT in dehumidification mode.
Pre-scan	03	Test the EUT in fan mode, keep swinging at high speed.
Pre-scan	04	Test the EUT in idle mode.

6.3.3 Test Setup Diagram



6.3.4 Measurement Procedure and Data

Frequency Range: 150kHz to 30MHz

Test Mode: 00

Run A Observation time T1= 120mins				
Switching Operation: -		Factor: -		
Frequency (MHz)	**150kHz**	**500kHz**	**1.4MHz**	**30MHz**
Limit value (L) (dBμV)	66	56	56	60
Short clicks	0	0	0	0
long clicks	0	0	0	0
Total (short + long) n	0	0	0	0
Click Rate:	0.00	0.00	0.00	0.00
☒EUT has a click rate N of not more than five and which has instantaneous switching (the duration of each click is less than 10ms) shall be deemed to comply the limits, independent of the amplitude of the clicks.				

6.4 Disturbance Power

Test Requirement: EN IEC 55014-1: 2021
Test Method: CISPR 16-2-2:2010

Limit:

30MHz- 300MHz:	45dB(pW)-55dB(pW) quasi-peak, 35dB(pW)-45dB(pW) average
200MHz- 300MHz:	0dB(pW)-10dB(pW) quasi-peak (reduction limit)
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30MHz to 300MHz

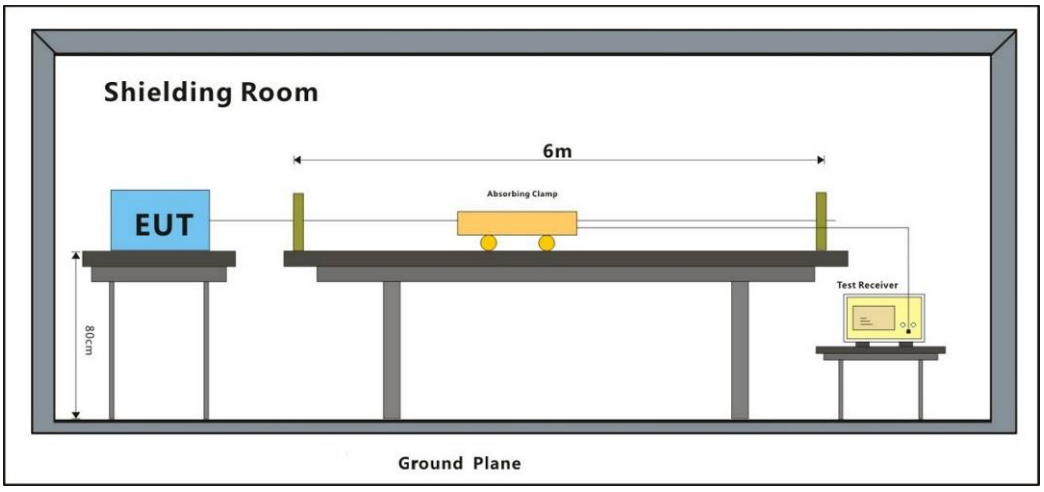
6.4.1 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

6.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Pre-scan	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Pre-scan	02	Test the EUT in dehumidification mode.
Pre-scan	03	Test the EUT in fan mode, keep swinging at high speed.
Pre-scan	04	Test the EUT in idle mode.

6.4.3 Test Setup Diagram



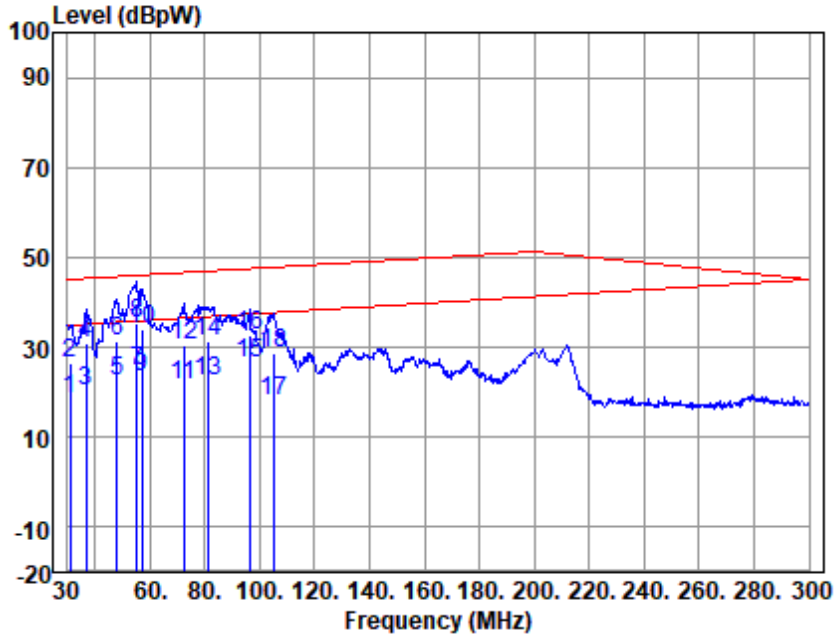
6.4.4 Measurement Procedure and Data

Frequency Range: 30MHz to 300MHz

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 + Clamp Factor

Test Mode: 00



EUT/Project No : 8011HS
Test Mode : 00

	Freq (MHz)	Read level (dBpW)	Aux Factor (dB)	Cable Loss (dB)	Emission Level (dBpW)	Limit (dBpW)	Over Limit (dB)	Remark
1	31.08	-6.56	18.62	6.62	18.68	35.05	-16.37	Average
2	31.08	1.28	18.62	6.62	26.52	45.05	-18.53	QP
3	36.75	-4.85	18.33	6.73	20.21	35.26	-15.05	Average
4	36.75	5.79	18.33	6.73	30.85	45.26	-14.41	QP
5	48.09	-0.56	16.38	6.86	22.68	35.68	-13.00	Average
6	48.09	8.13	16.38	6.86	31.37	45.68	-14.31	QP
7	55.11	0.79	17.00	6.95	24.74	35.94	-11.20	Average
8	55.11	11.58	17.00	6.95	35.53	45.94	-10.41	QP
9	57.00	-0.54	17.16	6.97	23.59	36.01	-12.42	Average
10	57.00	9.93	17.16	6.97	34.06	46.01	-11.95	QP
11	72.39	-2.45	17.17	7.12	21.84	36.58	-14.74	Average
12	72.39	6.17	17.17	7.12	30.46	46.58	-16.12	QP
13	81.30	-1.97	17.36	7.21	22.60	36.91	-14.31	Average
14	81.30	6.63	17.36	7.21	31.20	46.91	-15.71	QP

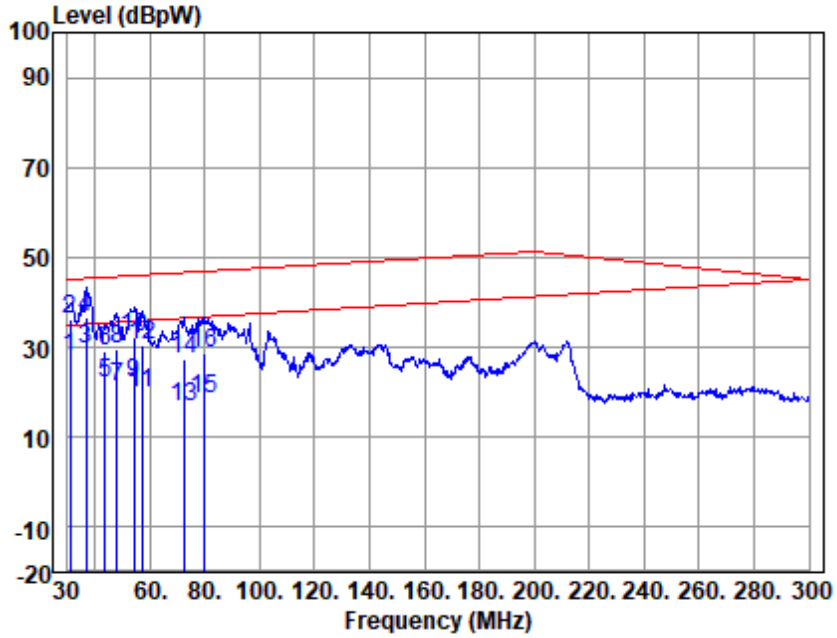
Notes: Emission Level = Read Level +Aux Factor + Cable loss

Test Mode: 00

	Freq (MHz)	Read level (dBpW)	Aux Factor (dB)	Cable Loss (dB)	Emission Level (dBpW)	Limit (dBpW)	Over Limit (dB)	Remark
15	96.15	1.90	17.16	7.36	26.42	37.46	-11.04	Average
16	96.15	8.21	17.16	7.36	32.73	47.46	-14.73	QP
17	105.06	-6.55	17.15	7.44	18.04	37.79	-19.75	Average
18	105.06	4.12	17.15	7.44	28.71	47.79	-19.08	QP

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

Test Mode: 00



EUT/Project No : 8011HS
Test Mode : 00(S)

	Freq (MHz)	Read level (dBpW)	Aux Factor (dB)	Cable Loss (dB)	Emission Level (dBpW)	Limit (dBpW)	Over Limit (dB)	Remark
1	31.08	2.38	18.62	6.62	27.62	35.05	-7.43	Average
2	31.08	10.93	18.62	6.62	36.17	45.05	-8.88	QP
3	36.75	4.67	18.33	6.73	29.73	35.26	-5.53	Average
4	36.75	11.70	18.33	6.73	36.76	45.26	-8.50	QP
5	43.77	-1.46	16.79	6.80	22.13	35.52	-13.39	Average
6	43.77	5.75	16.79	6.80	29.34	45.52	-16.18	QP
7	48.09	-2.02	16.38	6.86	21.22	35.68	-14.46	Average
8	48.09	6.28	16.38	6.86	29.52	45.68	-16.16	QP
9	54.30	-1.86	16.89	6.94	21.97	35.91	-13.94	Average
10	54.30	8.33	16.89	6.94	32.16	45.91	-13.75	QP
11	57.00	-4.06	17.16	6.97	20.07	36.01	-15.94	Average
12	57.00	6.28	17.16	6.97	30.41	46.01	-15.60	QP
13	72.39	-7.33	17.17	7.12	16.96	36.58	-19.62	Average
14	72.39	3.21	17.17	7.12	27.50	46.58	-19.08	QP

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

Test Mode: 00

	Freq (MHz)	Read level (dBpW)	Aux Factor (dB)	Cable Loss (dB)	Emission Level (dBpW)	Limit (dBpW)	Over Limit (dB)	Remark
15	79.95	-6.14	17.40	7.20	18.46	36.86	-18.40	Average
16	79.95	4.33	17.40	7.20	28.93	46.86	-17.93	QP

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

6.5 Harmonic Current Emission

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

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

6.5.1 E.U.T. Operation

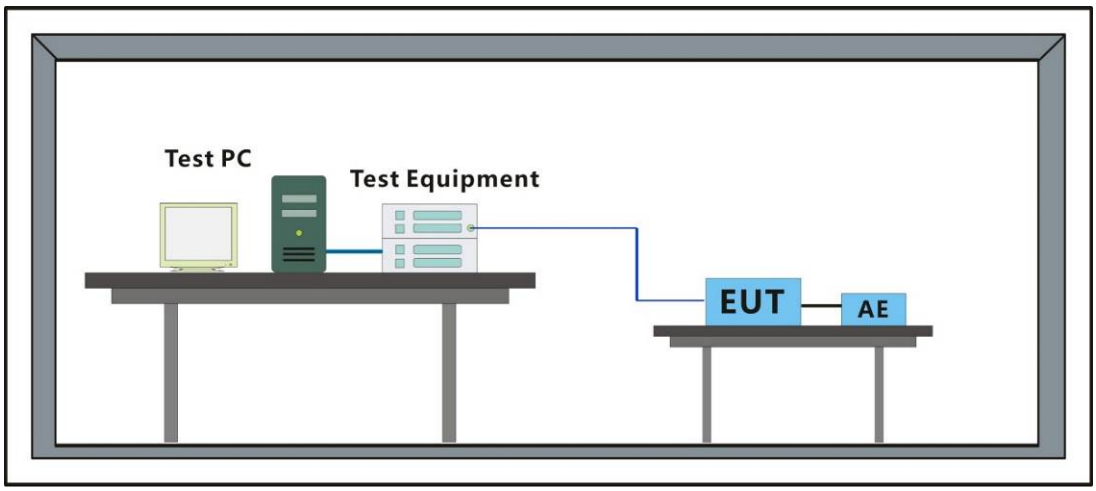
Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

6.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Pre-scan	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Pre-scan	02	Test the EUT in dehumidification mode.
Pre-scan	03	Test the EUT in fan mode, keep swinging at high speed.
Pre-scan	04	Test the EUT in idle mode.

6.5.3 Test Setup Diagram



6.5.4 Measurement Procedure and Data

Frequency Range: 100Hz to 2kHz

Test Mode: 00

Average harmonic current results

Hn	Ieff [A]	% of Limit	Limit [A]	Result
1	5.724			
2	46.869E-3	4.340	1.08	PASS
3	270.342E-3	11.754	2.30	PASS
4	10.606E-3			PASS
5	167.415E-3	14.686	1.14	PASS
6	7.694E-3			PASS
7	122.238E-3	15.875	770.00E-3	PASS
8	12.449E-3			PASS
9	132.903E-3	33.226	400.00E-3	PASS
10	15.596E-3			PASS
11	103.573E-3	31.386	330.00E-3	PASS
12	12.863E-3			PASS
13	86.859E-3	41.361	210.00E-3	PASS
14	10.083E-3			PASS
15	78.175E-3	52.117	150.00E-3	PASS
16	9.767E-3			PASS
17	49.140E-3	37.129	132.35E-3	PASS
18	10.011E-3			PASS
19	58.335E-3	49.261	118.42E-3	PASS
20	13.274E-3			PASS
21	33.688E-3			PASS
22	13.849E-3			PASS
23	42.994E-3	29.298	146.74E-3	PASS
24	13.625E-3			PASS
25	36.316E-3	26.901	135.00E-3	PASS
26	15.124E-3			PASS
27	33.923E-3			PASS
28	17.777E-3			PASS
29	44.265E-3	38.033	116.39E-3	PASS
30	29.721E-3			PASS
31	42.528E-3	39.063	108.87E-3	PASS
32	55.295E-3	96.165	57.50E-3	PASS
33	56.359E-3	55.108	102.27E-3	PASS
34	48.168E-3	89.002	54.12E-3	PASS
35	37.822E-3	39.220	96.44E-3	PASS
36	21.557E-3			PASS
37	24.518E-3			PASS
38	22.408E-3			PASS
39	25.532E-3			PASS
40	23.220E-3			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.

Maximum harmonic current results

Hn	Ieff [A]	% of Limit	Limit [A]	Result
1	5.783			
2	48.187E-3	2.974	1.62	PASS
3	272.448E-3	7.897	3.45	PASS
4	11.300E-3			PASS
5	168.484E-3	9.853	1.71	PASS
6	8.886E-3			PASS
7	123.556E-3	10.697	1.15	PASS
8	13.404E-3			PASS
9	133.999E-3	22.333	600.00E-3	PASS
10	17.387E-3			PASS
11	104.907E-3	21.193	495.00E-3	PASS
12	13.950E-3			PASS
13	89.089E-3	28.282	315.00E-3	PASS
14	10.841E-3			PASS
15	80.640E-3	35.840	225.00E-3	PASS
16	10.750E-3			PASS
17	51.314E-3	25.848	198.52E-3	PASS
18	11.183E-3			PASS
19	60.524E-3	34.073	177.63E-3	PASS
20	14.929E-3			PASS
21	35.735E-3	22.236	160.71E-3	PASS
22	15.386E-3			PASS
23	44.933E-3	30.620	146.74E-3	PASS
24	15.092E-3			PASS
25	38.183E-3	28.284	135.00E-3	PASS
26	16.683E-3			PASS
27	35.896E-3	28.718	124.99E-3	PASS
28	19.387E-3			PASS
29	46.202E-3	39.698	116.39E-3	PASS
30	37.975E-3	41.279	92.00E-3	PASS
31	46.833E-3	43.018	108.87E-3	PASS
32	58.863E-3	68.247	86.25E-3	PASS
33	60.249E-3	58.912	102.27E-3	PASS
34	51.542E-3	63.491	81.18E-3	PASS
35	40.094E-3	41.577	96.44E-3	PASS
36	23.296E-3			PASS
37	27.109E-3			PASS
38	25.333E-3			PASS
39	28.390E-3			PASS
40	26.770E-3			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.

Maximum harmonic voltage results

Hn	Ueff [V]	Ueff [%]	Limit [%]	Result
1	230.39	100.169		
2	88.61E-3	0.039	0.2	PASS
3	141.15E-3	0.061	0.9	PASS
4	19.49E-3	0.008	0.2	PASS
5	44.64E-3	0.019	0.4	PASS
6	12.75E-3	0.006	0.2	PASS
7	78.81E-3	0.034	0.3	PASS
8	18.66E-3	0.008	0.2	PASS
9	87.91E-3	0.038	0.2	PASS
10	16.87E-3	0.007	0.2	PASS
11	36.26E-3	0.016	0.1	PASS
12	21.56E-3	0.009	0.1	PASS
13	81.34E-3	0.035	0.1	PASS
14	18.47E-3	0.008	0.1	PASS
15	50.79E-3	0.022	0.1	PASS
16	19.77E-3	0.009	0.1	PASS
17	49.96E-3	0.022	0.1	PASS
18	17.02E-3	0.007	0.1	PASS
19	37.19E-3	0.016	0.1	PASS
20	20.51E-3	0.009	0.1	PASS
21	40.41E-3	0.018	0.1	PASS
22	24.60E-3	0.011	0.1	PASS
23	51.64E-3	0.022	0.1	PASS
24	27.41E-3	0.012	0.1	PASS
25	70.92E-3	0.031	0.1	PASS
26	40.19E-3	0.017	0.1	PASS
27	62.12E-3	0.027	0.1	PASS
28	35.97E-3	0.016	0.1	PASS
29	63.37E-3	0.028	0.1	PASS
30	43.92E-3	0.019	0.1	PASS
31	61.00E-3	0.027	0.1	PASS
32	47.79E-3	0.021	0.1	PASS
33	48.95E-3	0.021	0.1	PASS
34	53.27E-3	0.023	0.1	PASS
35	57.38E-3	0.025	0.1	PASS
36	45.22E-3	0.020	0.1	PASS
37	48.55E-3	0.021	0.1	PASS
38	37.39E-3	0.016	0.1	PASS
39	56.63E-3	0.025	0.1	PASS
40	37.74E-3	0.016	0.1	PASS

Power and THD results - DS: 691

True power P:	1.311kW	Apparent power S:	1.335kVA
Reactiv power Q:	252.5var	Power factor:	0.982
THD (U):	0.001	THD (I):	0.071
Crest Factor (U):	1.413	Crest Factor (I):	1.611

6.6 Voltage Fluctuations and Flicker

Test Requirement: EN 61000-3-3: 2013+ A1:2019+A2:2021

Test Method: EN 61000-3-3: 2013+ A1:2019+A2:2021

6.6.1 E.U.T. Operation

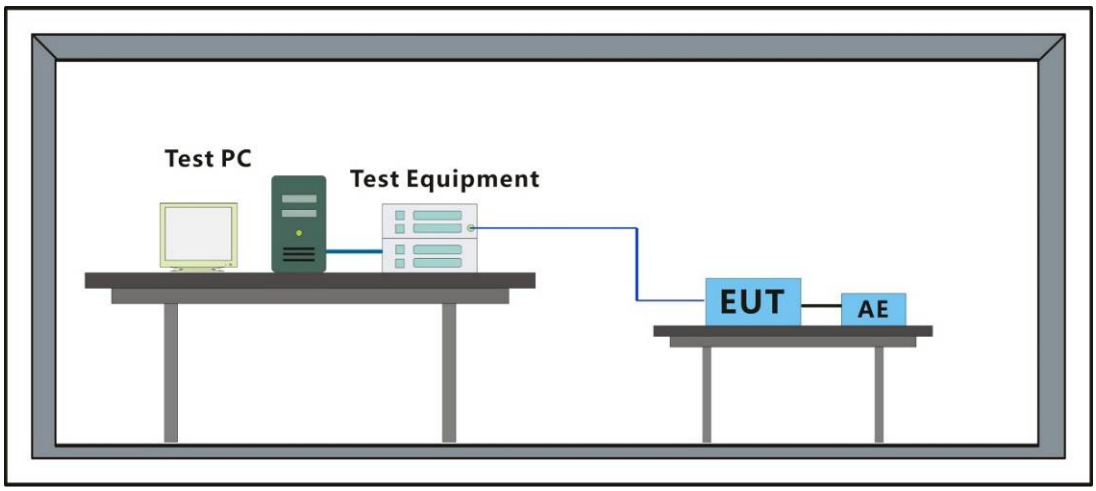
Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

6.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Pre-scan	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Pre-scan	02	Test the EUT in dehumidification mode.
Pre-scan	03	Test the EUT in fan mode, keep swinging at high speed.
Pre-scan	04	Test the EUT in idle mode.

6.6.3 Test Setup Diagram



6.6.4 Measurement Procedure and Data

Test Mode: 00

Maximum Flicker results

	EUT values	Limit	Result
Pst	0.247	1.00	PASS
Plt	0.247	0.65	PASS
dc [%]	1.039	3.30	PASS
dmax [%]	1.152	6.00	PASS
dt [s]	0.000	0.50	PASS

7 Immunity Test Results

Performance Criteria Description

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 (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

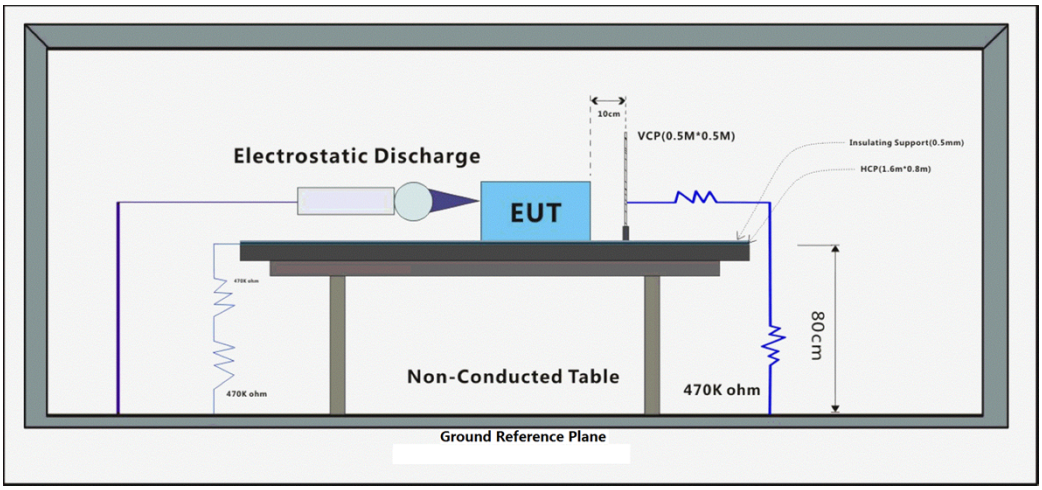
Criterion B: The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. 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, then either of these may be 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, or by any operation specified in the instructions for use.

7.1 Electrostatic Discharge

Test Requirement: EN IEC 55014-2: 2021
Test Method: EN 61000-4-2:2009

7.1.1 Test Setup Diagram



7.1.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.1.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.1.4 Test Condition and Results:

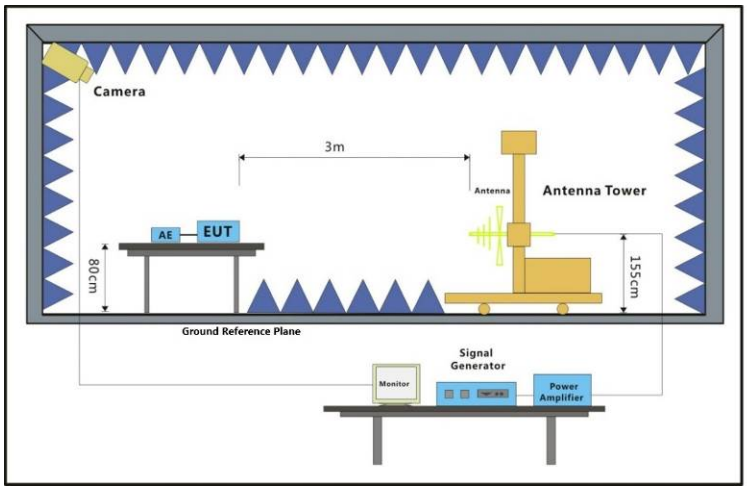
Performance Criterion: B
Discharge Impedance: 330 Ω / 150 pF
Discharge Voltage: Air Discharge: 8 kV; Contact Discharge:4 kV; VCP/HCP: 4 kV.
Polarity: Positive & Negative
Number of Discharge: Minimum 10 times at each test point
Discharge Mode: Single Discharge
Discharge Period: 1 second minimum
Test Point 1: All insulated enclosure & seams.
Test Point 2: All accessible metal parts of the enclosure.
Test Point 3: All sides.

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
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A
A: No degradation in the performance of the EUT was observed				

7.2 Radiated Immunity (80MHz-1GHz)

Test Requirement: EN IEC 55014-2: 2021
Test Method: EN IEC 61000-4-3: 2020

7.2.1 Test Setup Diagram



7.2.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.2.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Only for remote controller:Test the IR remote controller in continuously emitting mode.

7.2.4 Test Condition and Results:

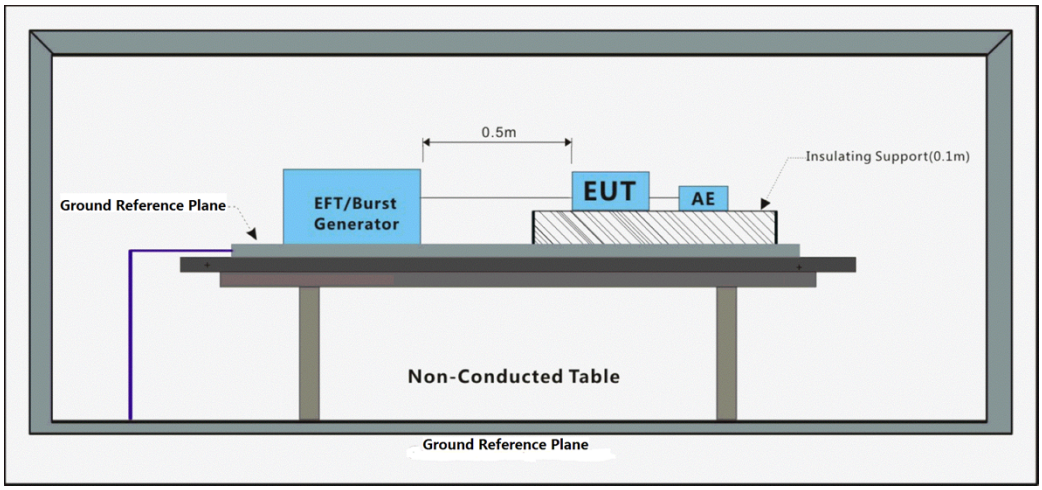
Performance Criterion: A
Frequency Range: 80MHz to 1GHz
Antenna Polarisation: Vertical and Horizontal
Modulation 1kHz, 80% Amp. Mod,1% increment

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
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 55014-2: 2021
Test Method: EN 61000-4-4:2012

7.3.1 Test Setup Diagram



7.3.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.3.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.3.4 Test Condition and Results:

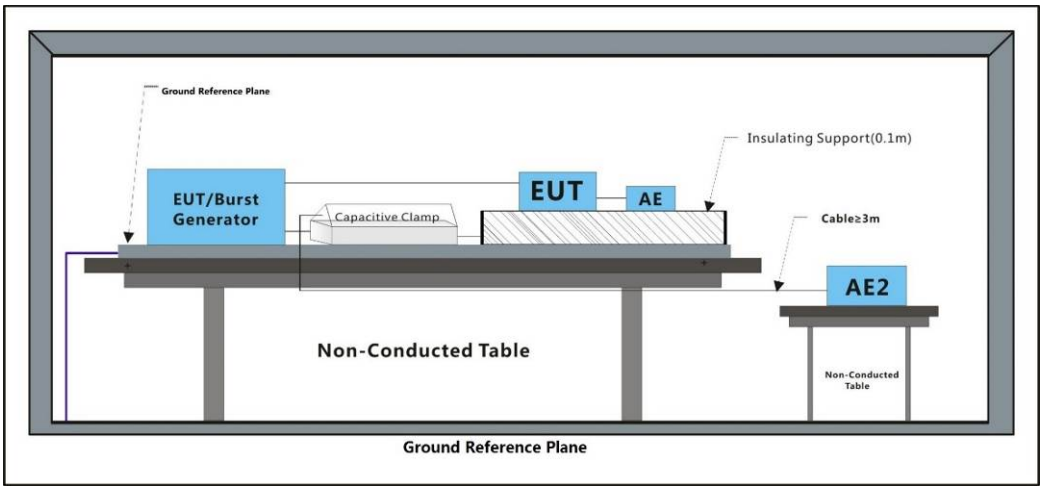
Performance Criterion: B
Repetition Frequency: 5kHz
Burst Period: 300ms
Test Duration: 2 minute per level & polarity
Test Level: 1.0kV
Polarity: Positive & Negative

Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
AC power port	1	+	CDN	A
AC power port	1	-	CDN	A
A: No degradation in the performance of the EUT was observed				

7.4 Electrical Fast Transients Burst at Signal Port

Test Requirement: EN IEC 55014-2: 2021
Test Method: EN 61000-4-4:2012

7.4.1 Test Setup Diagram



7.4.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.4.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.4.4 Test Condition and Results:

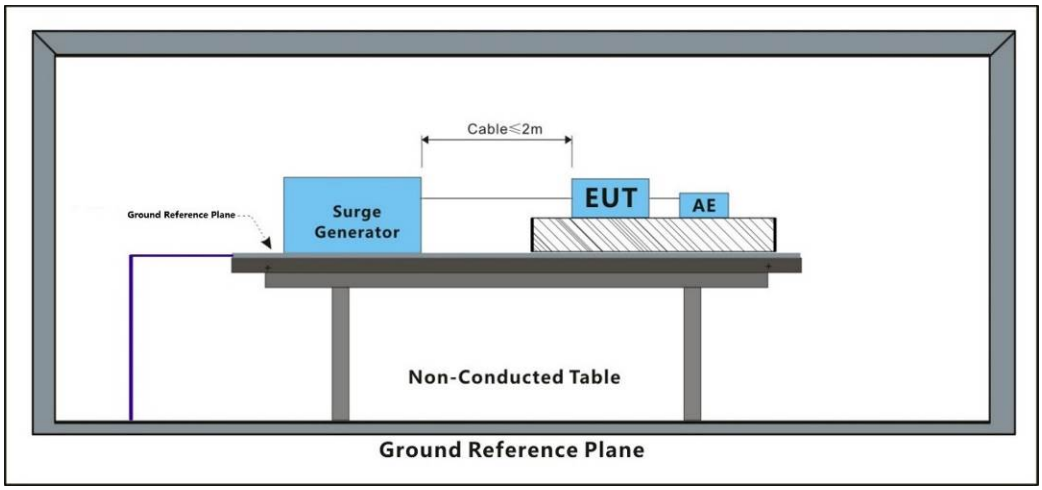
Performance Criterion: B
Repetition Frequency: 5kHz
Burst Period: 300ms
Test Duration: 2 minute per level & polarity
Test Level: 0.5kV
Polarity: Positive & Negative

Port	Level (kV)	Polarity	CDN/Clamp	Result / Observations
Signal	0.5	+	Clamp	A
Signal	0.5	-	Clamp	A
A: No degradation in the performance of the EUT was observed				

7.5 Surge at AC Mains Power Port

Test Requirement: EN IEC 55014-2: 2021
Test Method: EN 61000-4-5:2014+A1:2017

7.5.1 Test Setup Diagram



7.5.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.5.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.5.4 Test Condition and Results:

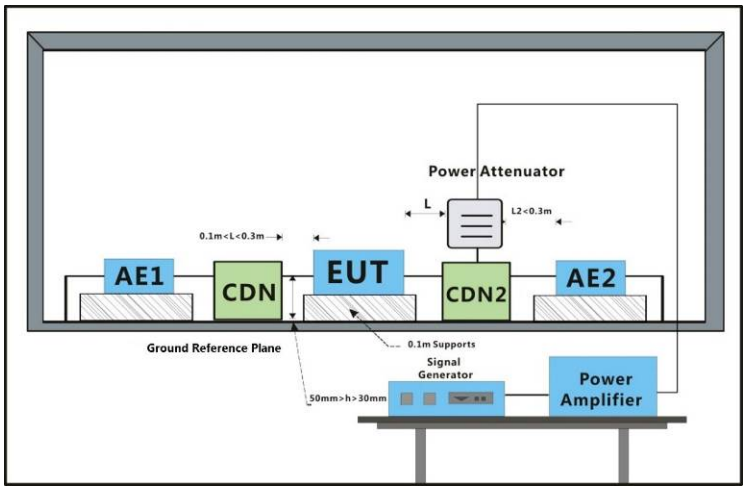
Performance Criterion: B
Interval: 60s between each surge
Test Level: ±1kV Live to Neutral; ±2kV Live, Neutral to Earth
Polarity: Positive & Negative
Generator source impedance: 2Ω
CDN coupling impedance(Line-to-ground):10Ω
Trigger Mode: Internal
No. of surges: 5 positive at 90°, 5 negative at 270°.

Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	90°	A
L-N	1	-	270°	A
L-PE	2	+	90°	A
L-PE	2	-	270°	A
N-PE	2	+	90°	A
N-PE	2	-	270°	A
A: No degradation in the performance of the EUT was observed				

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

Test Requirement: EN IEC 55014-2: 2021
Test Method: EN 61000-4-6: 2014

7.6.1 Test Setup Diagram



7.6.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.6.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.6.4 Test Condition and Results:

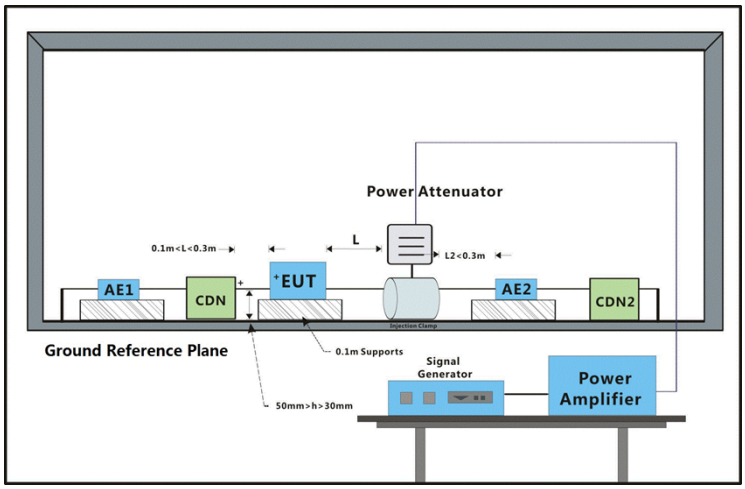
Performance Criterion: A
Step Size: 1%
Frequency Range: 0.15MHz to 80MHz
Modulation: 80%, 1kHz Amplitude Modulation

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				

7.7 Conducted Immunity at Signal Port (150kHz-80MHz)

Test Requirement: EN IEC 55014-2: 2021
Test Method: EN 61000-4-6: 2014

7.7.1 Test Setup Diagram



7.7.2 E.U.T. Operation

Operating Environment:
Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.7.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.7.4 Test Condition and Results:

Performance Criterion: A
Step Size: 1%
Frequency Range: 0.15MHz to 80MHz
Modulation: 80%, 1kHz Amplitude Modulation

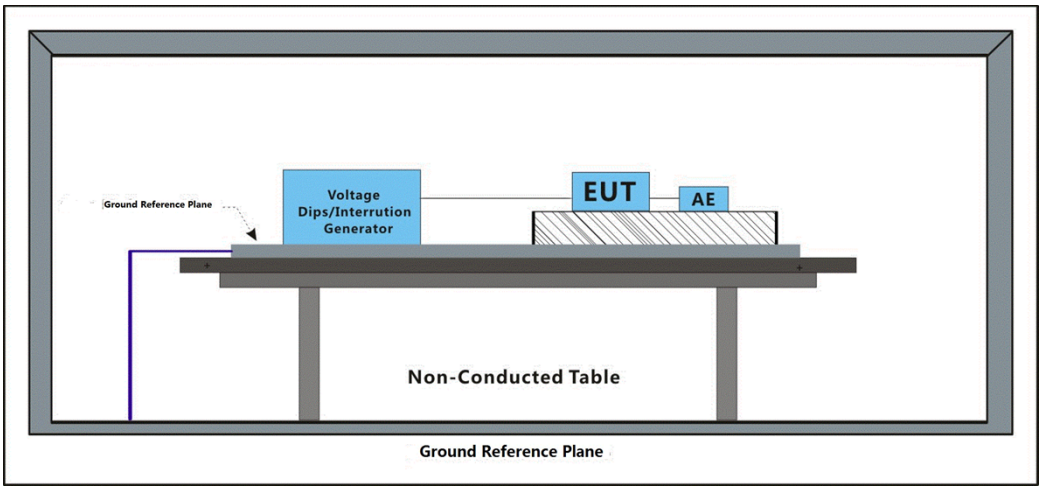
Port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
Signal Port	1	Clamp	3s	A
A: No degradation in the performance of the EUT was observed				

7.8 Voltage Dips and Interruptions

Test Requirement: EN IEC 55014-2: 2021

Test Method: EN IEC 61000-4-11: 2020

7.8.1 Test Setup Diagram



7.8.2 E.U.T. Operation

Operating Environment:

Temperature: 22 °C Humidity: 50 % RH Atmospheric Pressure: 1010 mbar

7.8.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Test the EUT in heating mode, keep swinging at high speed, and adjust the EUT temperature at the highest temperature position.
Final test	01	Test the EUT in cooling mode, keep swinging at high speed, and adjust the EUT temperature at the lowest temperature position.
Final test	02	Test the EUT in dehumidification mode.
Final test	03	Test the EUT in fan mode, keep swinging at high speed.
Final test	04	Test the EUT in idle mode.

7.8.4 Test Condition and Results:

Performance Criterion:

For 50Hz: 0% of UT (Rated Voltage) for 0.5 Cycle: C; 40% of UT for 10 Cycles: C; 70% of UT for 25 Cycles: C.

For 60Hz: 0% of UT (Rated Voltage) for 0.5 Cycle: C; 40% of UT for 12 Cycles: C; 70% of UT for 30 Cycles: C.

No. of Dips / Interruptions: 3 per Level

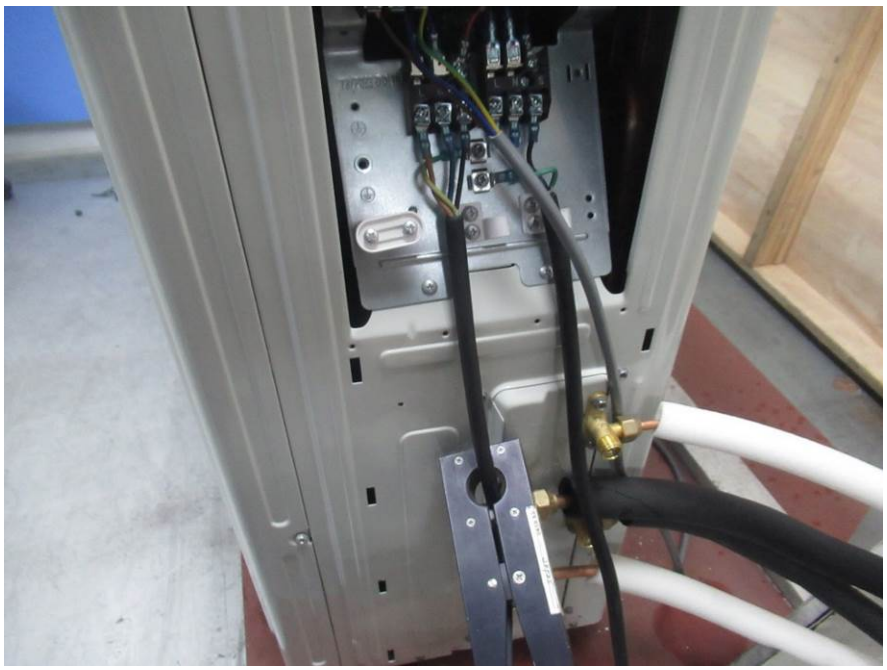
Time between dropout: 10s

Level % UT	Phase (deg)	Duration	No. of Dips / Interruptions	Result / Observations
0	0°	0.5 Cycle for 50Hz	3	A
0	180°	0.5 Cycle for 50Hz	3	A
40	0°	10 Cycles for 50Hz	3	A
40	180°	10 Cycles for 50Hz	3	A
70	0°	25 Cycles for 50Hz	3	A
70	180°	25 Cycles for 50Hz	3	A
A: No degradation in the performance of the EUT was observed				

8 Test Setup Photo

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

Conducted Emissions at Load Terminals and Additional Terminals



Discontinuous Disturbance (150kHz-30MHz)

Disturbance Power

Harmonic Current Emission

Voltage Fluctuations and Flicker

Electrostatic Discharge

Radiated Immunity (80MHz-1GHz)

Electrical Fast Transients Burst at AC Mains Power Port

Electrical Fast Transients Burst at Signal Port

Surge at AC Mains Power Port

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

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

Voltage Dips and Interruptions

9 EUT Constructional Details (EUT Photos)

- End of the Report -