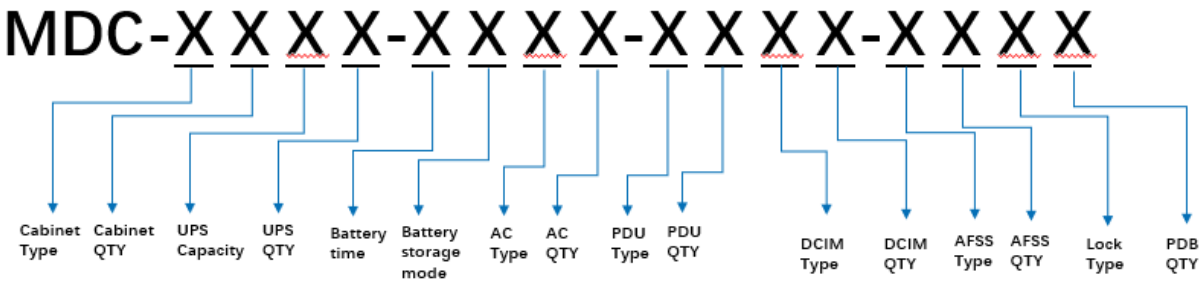
TEST REPORT

Application No.:	KSEM2307001726AT
Applicant:	PROSE Technologies Co., Ltd
Address of Applicant:	No.6 Shen'an Road, Dianshanhu, Kunshan city, Jiangsu China
Manufacturer:	PROSE Technologies Co., Ltd
Address of Manufacturer:	No.6 Shen'an Road, Dianshanhu, Kunshan city, Jiangsu China
Equipment Under Test (EUT):	
EUT Name:	Khipu MDC
Model No.:	Refer to Page 2 ♣
♣	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standard(s) :	EN 55032: 2015+A11:2020+A1:2020
	EN 61000-3-3: 2013+ A1:2019+A2:2021
	EN IEC 61000-3-2: 2019+A1:2021
	EN 55035: 2017+A11:2020
Date of Receipt:	2023-07-28
Date of Test:	2023-08-28 to 2023-08-29
Date of Issue:	2023-09-01
Test Result:	**Pass***

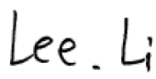
* In the configuration tested, the EUT complied with the standards specified above.

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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.

Model No.:
MDC-9121-1111-R241-1151, MDC-XXXX-XXXX-XXXX-XXXX



Revision Record			
Version	**Description**	***Date***	***Remark***
00	Original	2023-09-01	/

Authorized for issue by:				
Tested By				
		Lee Li /Project Engineer		
Approved By				
		Terry Hou /Reviewer		

2 Test Summary

Emission Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at Mains Power Port (150kHz-30MHz)	EN 55032: 2015+A11:2020+A1:2020	EN 55032: 2015+A11:2020+A1:2020	Class A	Pass
Asymmetric Mode Conducted Emissions(150kHz-30MHz)		EN 55032: 2015+A11:2020+A1:2020	Class A	Pass
Radiated Emissions (30MHz-1GHz)		EN 55032: 2015+A11:2020+A1:2020	Class A	Pass
Radiated Emissions (Above 1GHz)		EN 55032: 2015+A11:2020+A1:2020	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
Harmonic Current Emission	EN IEC 61000-3-2: 2019+A1:2021	EN IEC 61000-3-2: 2019+A1:2021	Class A	Pass

Immunity Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Electrostatic Discharge	EN 55035: 2017+A11:2020	EN 61000-4-2: 2009	±4kV Contact Discharge; ±2kV, ±4kV,±8kV Air Discharge	Pass
Radiated Immunity (80MHz-1GHz,1800MHz,2600MHz,3500MHz,5000MHz)		EN IEC 61000-4-3: 2020	3V/m, 80%, 1kHz Amp. Mod.	Pass
Electrical Fast Transients & Burst at AC 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 Power Port		EN 61000-4-5: 2014 +A1: 2017	1,2/50μs Tr/Td; 1KV Line to Line; 2kV Line to Ground	Pass
Surge at Signal Port		EN 61000-4-5: 2014 +A1: 2017	1,2/50μs Tr/Td; 1 kV Lines to Ground	Pass
Conducted Immunity at AC Power Port (150kHz-80MHz)		EN 61000-4-6: 2014	0,15 to 10MHz 3Vrms (emf), 10 to 30MHz 3V to 1Vrms(emf), 30 to 80MHz 1Vrms(emf), 80%,1kHz Amp. Mod.	Pass

Immunity Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Immunity at Signal Port (150kHz-80MHz)		EN 61000-4-6: 2014	0,15 to 10MHz 3Vrms (emf), 10 to 30MHz 3V to 1Vrms(emf), 30 to 80MHz 1Vrms(emf), 80%,1kHz Amp. Mod.	Pass
Power Frequency Magnetic Field		EN 61000-4-8: 2010	50 or 60Hz, 1 A/m	Pass
Voltage Dips and Interruptions		EN IEC 61000-4-11:2020	<5% residual voltage for 0,5cycle, 70% residual voltage for 25cycles, <5% residual voltage for 250cycles	Pass

Declaration of EUT Family Grouping:

There are series models mentioned in this report and they are the Identical in electrical and electronic characters. Only the model MDC-9121-1111-R241-1151 was tested since their differences were the model number and appearance.

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4 General Information

4.1 Details of E.U.T.

Power supply:	Input: AC 100-240V, 50/60Hz

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--
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	2.4dB (9kHz to 150kHz)	3.8dB (9kHz to 150kHz)
		2.2dB (150kHz to 30MHz)	3.4dB (150kHz to 30MHz)
2	Conducted Emission at telecommunication port using AAN	4.0 dB (150kHz to 30MHz)	5.0dB (150kHz to 30MHz)
3	Radiated Power	3.2dB	4.5dB (30MHz to 300MHz)
4	Radiated Emission (10m)	4.1 dB	6.3dB (30MHz-1GHz)
5	Radiated Emission (3m)	4.6 dB (30MHz-1GHz)	6.3dB (30MHz-1GHz)
		5.0dB (1GHz-6GHz)	5.2dB (1GHz-6GHz)
		5.2dB (6GHz-18GHz)	5.5dB (6GHz-18GHz)
		5.3dB (18GHz-40GHz)	N/A

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.

• For immunity testing no decision rule is applicable.

4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

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).

4.5 Test Facility

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

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at Mains Power Port (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMI TEST RECEIVER	R&S	ESCI	KS301101	02/03/2023	02/02/2024
TWO-LINE V-NETWORK	R&S	ENV216	KS301197	01/17/2023	01/16/2024
V (V-LISN)	SCHWARZBECK	NNLK 8129	KS301091	01/17/2023	01/16/2024
Pulse LIMITER	R&S	ESH3-Z2	KUS1902E001	01/17/2023	01/16/2024
Software	Faratronic	EZ_EMC-v 3A1	N/A	N/A	N/A

Asymmetric Mode Conducted Emissions(150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMI TEST RECEIVER	R&S	ESCI	KS301101	02/03/2023	02/02/2024
TWO-LINE V-NETWORK	R&S	ENV216	KS301197	01/17/2023	01/16/2024
V (V-LISN)	SCHWARZBECK	NNLK 8129	KS301091	01/17/2023	01/16/2024
Pulse LIMITER	R&S	ESH3-Z2	KUS1902E001	01/17/2023	01/16/2024
CISPR22 FOUR BALANCED TELECOM PARIS ISN	FCC	FCC-TLISN-T2-02	KS301144	01/17/2023	01/16/2024
COUPLING AND DECOUPLING NETWORK	TESEQ	ISN ST08	KS301171	01/17/2023	01/16/2024
IMPEDANCE STABILIZATION NETWORK	TESEQ	ISN T800	KS301185	01/17/2023	01/16/2024
IMPEDANCE STABILIZATION NETWORK	TESEQ	ISN T8-CAT6	KS301285	01/17/2023	01/16/2024
RF CURRENT PROBE	FCC	F-65A	CZ301012	01/17/2023	01/16/2024
Software	Faratronic	EZ_EMC-v 3A1	N/A	N/A	N/A

Radiated Emissions (30MHz-1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMI Test Receiver	R&S	ESCI	KS301044	02/03/2023	02/02/2024
EMI Test Receiver	R&S	ESCI	KS301195	08/24/2023	08/23/2024
Bilog Antenna	Sunol	JB1	CZ301033	02/27/2023	02/26/2024
Bilog Antenna	Sunol	JB1	KS301013	04/07/2023	04/06/2024
Pre-Amplifier	Sonoma	310N	KS610098	03/31/2023	03/30/2024
Pre-Amplifier	Sonoma	310N	CZ301013	03/31/2023	03/30/2024
Software	Faratronic	EZ_EMC-v 3A1	N/A	N/A	N/A

Radiated Emissions (Above 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Spectrum Analyzer	R&S	FSU26	KS301206	03/16/2023	03/15/2024
Preamplifier	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-2	01/17/2023	01/16/2024
Horn-antenna	SCHWARZBECK	BBHA9120D	KS301079	04/02/2022	04/01/2024
Software	Faratronic	EZ_EMC-v 3A1	N/A	N/A	N/A

Voltage Fluctuations and Flicker					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Harmonic & Flicker Tester	SCHAFFNER	CCN 1000-1	KS301033	08/24/2023	08/23/2024
AC Power Source	SCHAFFNER	NSG 1007	KS301087	08/24/2023	08/23/2024
Software	TESEQ	CTS4-v 4.24.0	N/A	N/A	N/A
Harmonic/Flicker Analyzer	KIKUSUI	KHA3000	KUS2009M002-1	03/31/2023	03/30/2024
Line Impedance Network	KIKUSUI	SPEC71116	KUS2009M002-1	03/31/2023	03/30/2024
Switcher	KIKUSUI	SPEC71092	KUS2009M002-2	03/31/2023	03/30/2024
AC Power Supply(Master)	KIKUSUI	PCR24000WE2	KUS2009M002-3	03/16/2023	03/15/2024
AC Power Supply(Slave)	KIKUSUI	PCR24000WE2	KUS2009M002-4	03/16/2023	03/15/2024
Software	KIKUSUI	HarmoCapture 3-vv 2.5.2.00	N/A	N/A	N/A

Harmonic Current Emission					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Harmonic & Flicker Tester	SCHAFFNER	CCN 1000-1	KS301033	08/24/2023	08/23/2024
AC Power Source	SCHAFFNER	NSG 1007	KS301087	08/24/2023	08/23/2024
Software	TESEQ	CTS4-v 4.24.0	N/A	N/A	N/A
Harmonic/Flicker Analyzer	KIKUSUI	KHA3000	KUS2009M002-1	03/31/2023	03/30/2024
Line Impedance Network	KIKUSUI	SPEC71116	KUS2009M002-1	03/31/2023	03/30/2024
Switcher	KIKUSUI	SPEC71092	KUS2009M002-2	03/31/2023	03/30/2024
AC Power Supply(Master)	KIKUSUI	PCR24000WE2	KUS2009M002-3	03/16/2023	03/15/2024
AC Power Supply(Slave)	KIKUSUI	PCR24000WE2	KUS2009M002-4	03/16/2023	03/15/2024
Software	KIKUSUI	HarmoCapture 3-vv 2.5.2.00	N/A	N/A	N/A

Electrostatic Discharge					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
ESD Simulator	EM TEST	DITO 509030	KS301147	02/06/2023	02/05/2024

Radiated Immunity (80MHz-1GHz,1800MHz,2600MHz,3500MHz,5000MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Synthesized Signal Generator	AGILENT	83732B	KS301183	02/03/2023	02/02/2024
Laser probe interface	AR Worldwide	FI7000	KS301193-2	03/21/2023	03/20/2024
E-Field Sensor	AR Worldwide	FL7006 100K-6G	KS301193-1	03/21/2023	03/20/2024
Amplifier Research (80~1000MHz 150w)	AR Worldwide	150W1000M1	KS301139	08/24/2023	08/23/2024
Amplifier Research (1~6GHz 50w)	AR Worldwide	50S1G6M1	KS301231	08/24/2023	08/23/2024
Dual Directional Coupler (1-11G)	AR Worldwide	C1-A47NFNF 35dB	KS301193-5	N.C.R	N.C.R
Dual Directional Coupler (80~1000MHz 400w)	AR Worldwide	DC6180	KS301193-6	N.C.R	N.C.R
RF POWER METER	BOONTON	4232A-01	KS301022	02/03/2023	02/02/2024
POWER SENSOR	BOONTON	51085	H3010235-1	02/03/2023	02/02/2024
POWER SENSOR	BOONTON	51085	H3010235-2	02/03/2023	02/02/2024
Antenna	AR Worldwide	TP1000A	CZ301029	N.C.R	N.C.R
Software	AR	emc ware-v 3.2.0.4	N/A	N/A	N/A

Electrical Fast Transients & Burst at AC Power Port					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMC Immunity Tester	EMC PARTNER	Transient2000	KS301188-1	08/24/2023	08/23/2024
Burst Generator	SANKI	EFT-0404S	KUS2009M002-7	03/31/2023	03/30/2024
Coupling and Decoupling Network	SANKI	CDN-4350	KUS2009M002-8	08/11/2023	08/10/2024

Electrical Fast Transients & Burst at Signal Port					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMC Immunity Tester	EMC PARTNER	Transient2000	KS301188-1	08/24/2023	08/23/2024
Coupling Network	EMC PARTNER	CN-EFT1000	KS301188-3	08/24/2023	08/23/2024
Burst Generator	SANKI	EFT-0404S	KUS2009M002-7	03/31/2023	03/30/2024
Coupling and Decoupling Network	SANKI	CDN-4350	KUS2009M002-8	08/11/2023	08/10/2024

Surge at AC Power Port					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMC Immunity Tester	EMC PARTNER	TRA2006	KS301188-1	08/24/2023	08/23/2024
Surge Generator	SANKI	LSG-0506S	KUS2009M002-5	08/11/2023	08/10/2024
Coupling and Decoupling Network	SANKI	CDN-5350	KUS2009M002-6	08/11/2023	08/10/2024

Surge at Signal Port					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMC Immunity Tester	EMC PARTNER	TRA2006	KS301188-1	08/24/2023	08/23/2024
Coupling and Decoupling Network	EMC PARTNER	CDN-UTP8	KS301188-2	08/24/2023	08/23/2024
Surge Generator	SANKI	LSG-0506S	KUS2009M002-5	08/11/2023	08/10/2024
Coupling and Decoupling Network	SANKI	CDN-5350	KUS2009M002-6	08/11/2023	08/10/2024

Conducted Immunity at AC Power Port (150kHz-80MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Test System for Conducted and Radiated Immunity	TESEQ	NSG 4070B	KSZ201705E003	02/03/2023	02/02/2024
Amplifier	TESEQ	SCCXE75	KSZ201705E004	02/03/2023	02/02/2024
EM-Koppelzange	SCHAFFNER	KEMZ 801	CZ301002	02/03/2023	02/02/2024
Attenuator	EURO MC	7860 ORGEVAL	CZ301084	03/16/2023	03/15/2024
Directional Coupler	HIGH POWER	C21A8	CZ750021	08/24/2023	08/23/2024
CDN（Coupling and Decoupling Network)	SCHAFFNER	CDN M216	CZ301085	03/16/2023	03/15/2024
CDN（Coupling and Decoupling Network)	SCHAFFNER	CDN M316	CZ301025	03/16/2023	03/15/2024
CDN（Coupling and Decoupling Network)	TESEQ	CDN M116	KS301184-1	03/16/2023	03/15/2024
CDN	TESEQ	CDN M432	KUS2003M001-1	02/03/2023	02/02/2024
CDN	TESEQ	CDN M432-3LN	KUS2003M001-2	02/03/2023	02/02/2024
CDN	TESEQ	CDN M532	KUS2003M001-3	02/03/2023	02/02/2024
CDN	TESEQ	CDN M232	KSZ201706E001	03/16/2023	03/15/2024
CDN	TESEQ	CDN M332	KSZ201706E0	03/16/2023	03/15/2024

			02		
Software	TESEQ	NSG 4070-v 1.3.0.1	N/A	N/A	N/A

Conducted Immunity at Signal Port (150kHz-80MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Test System for Conducted and Radiated Immunity	TESEQ	NSG 4070B	KSZ201705E003	02/03/2023	02/02/2024
Amplifier	TESEQ	SCCXE75	KSZ201705E004	02/03/2023	02/02/2024
EM-Koppelzange	SCHAFFNER	KEMZ 801	CZ301002	02/03/2023	02/02/2024
Attenuator	EURO MC	7860 ORGEVAL	CZ301084	03/16/2023	03/15/2024
Directional Coupler	HIGH POWER	C21A8	CZ750021	08/24/2023	08/23/2024
CDN	TESEQ	CDN T2-10S	KS301286	03/16/2023	03/15/2024
CDN	TESEQ	CDN T4-10S	KS301287	03/16/2023	03/15/2024
CDN	3Ctest	CDNRJ45	KS301288	08/11/2023	08/10/2024
Current Clamp	TESEQ	IP-DR250	KS201703E001	02/03/2023	02/02/2024
Software	TESEQ	NSG 4070-v 1.3.0.1	N/A	N/A	N/A

Power Frequency Magnetic Field					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMC Immunity Tester	EMC PARTNER	TRA2006	KS301188-1	08/24/2023	08/23/2024
Inductive Standard Coil	EMC PARTNER	MF1000-1	KS301188-4	08/24/2023	08/23/2024

Voltage Dips and Interruptions					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
EMC Immunity Tester	EMC PARTNER	TRA2006	KS301188-1	08/24/2023	08/23/2024
Switcher	KIKUSUI	SPEC71092	KUS2009M002-2	03/31/2023	03/30/2024
AC Power Supply(Master)	KIKUSUI	PCR24000WE2	KUS2009M002-3	03/16/2023	03/15/2024
AC Power Supply(Slave)	KIKUSUI	PCR24000WE2	KUS2009M002-4	03/16/2023	03/15/2024
Software	KIKUSUI	Quick Immunity Sequencer 2-v 4.0.3.02	N/A	N/A	N/A

General used equipment					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Digital Pressure Meter	Mengde	DYM3	CZ750023	01/31/2023	01/30/2024
Temperature & Humidity Recorder	Anymetre	TH603	CZ720001-1 CZ720001-2 CZ720001-3 CZ720001-4 CZ720001-5 CZ720001-6 CZ720001-7	10/13/2022	10/12/2023

6 Emission Test Results

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

Test Requirement: EN 55032: 2015+A11:2020+A1:2020

Test Method: EN 55032: 2015+A11:2020+A1:2020

Limit:

0.15MHz-0.5MHz	79dB(μV) quasi-peak, 66dB(μV) average
0.5MHz-30MHz	73dB(μV) quasi-peak, 60dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

6.1.1 E.U.T. Operation

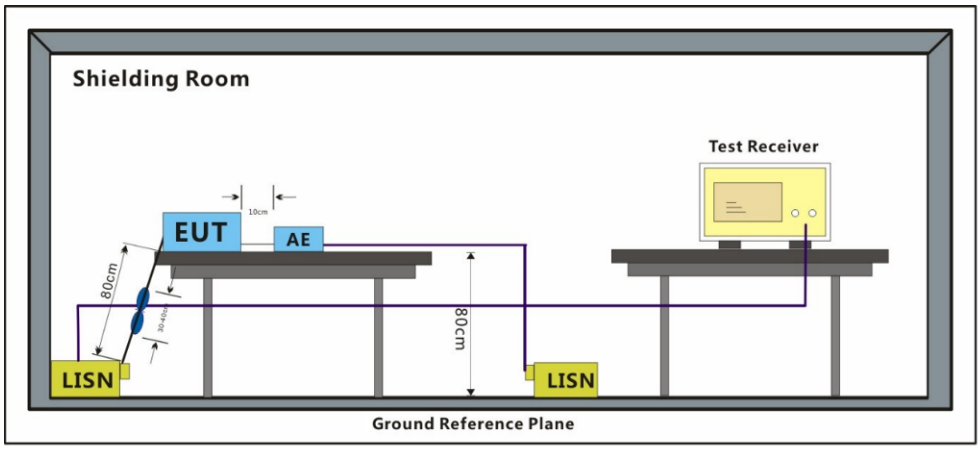
Operating Environment:

Temperature: 26.3 °C Humidity: 47.6 % RH Atmospheric Pressure: 1010 mbar

6.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

6.1.3 Test Setup Diagram

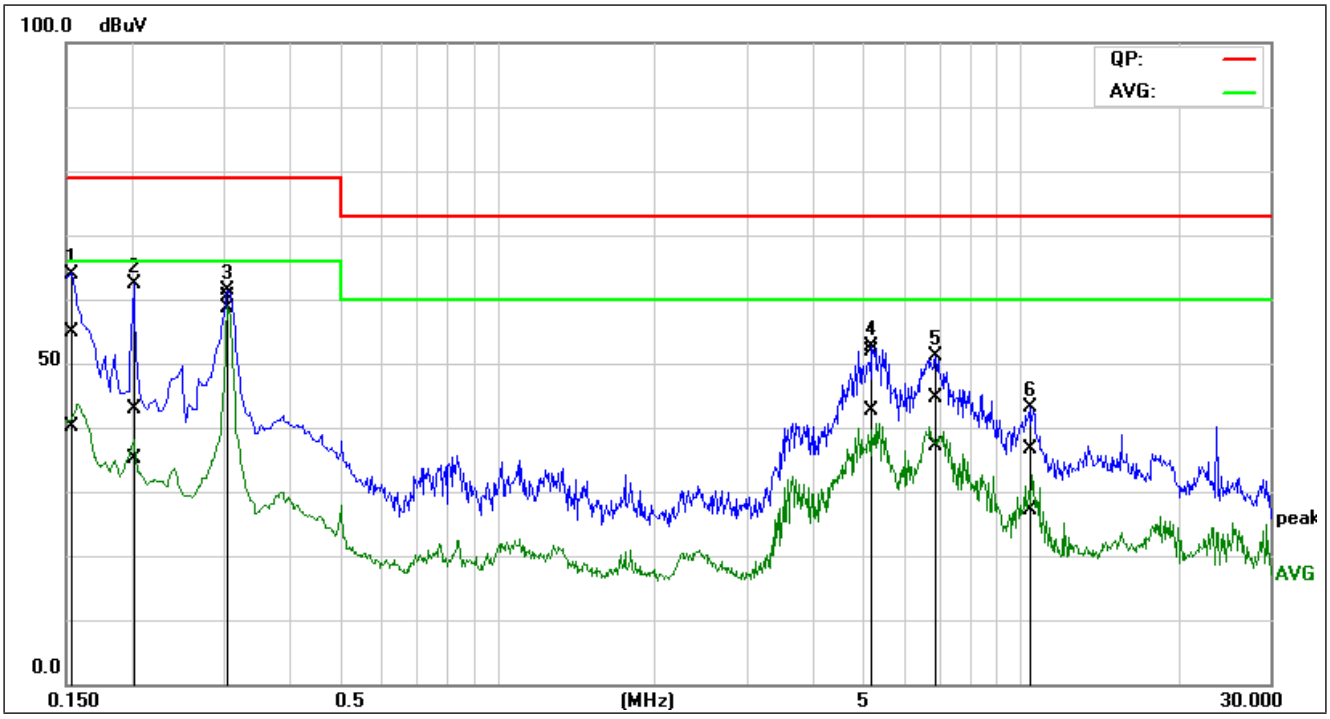


6.1.4 Measurement Procedure and Data

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.

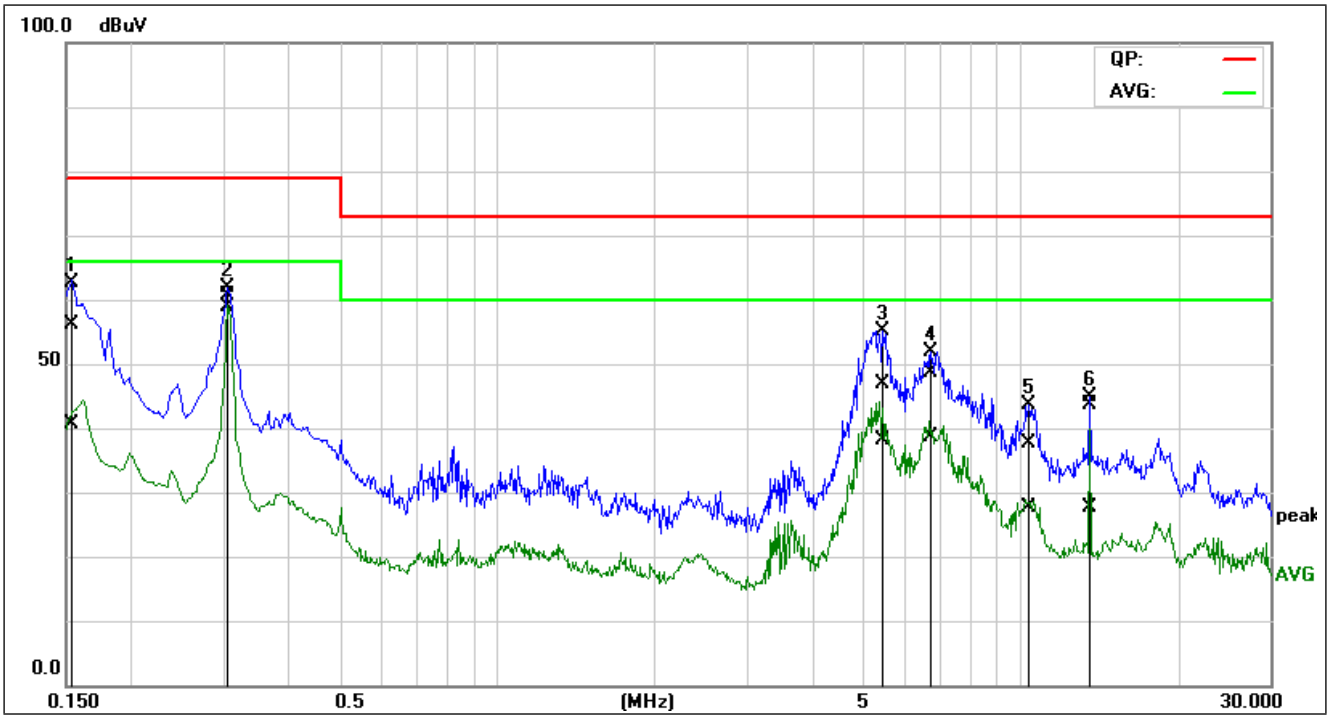
Remark: Level= Read Level+ Cable Loss+ LISN Factor

Test Mode: 00; Line: Live line



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1515	34.67	19.95	20.19	54.86	40.14	79.00	66.00	-24.14	-25.86	Pass
2	0.2036	22.94	15.11	20.02	42.96	35.13	79.00	66.00	-36.04	-30.87	Pass
3*	0.3063	40.44	38.73	20.02	60.46	58.75	79.00	66.00	-18.54	-7.25	Pass
4	5.2111	31.86	22.73	19.97	51.83	42.70	73.00	60.00	-21.17	-17.30	Pass
5	6.8952	24.55	16.98	20.09	44.64	37.07	73.00	60.00	-28.36	-22.93	Pass
6	10.3619	16.65	7.24	19.99	36.64	27.23	73.00	60.00	-36.36	-32.77	Pass

Test Mode: 00; Line: Neutral Line



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1506	35.96	20.48	20.26	56.22	40.74	79.00	66.00	-22.78	-25.26	Pass
2*	0.3064	40.43	38.62	20.15	60.58	58.77	79.00	66.00	-18.42	-7.23	Pass
3	5.4649	27.08	18.27	19.91	46.99	38.18	73.00	60.00	-26.01	-21.82	Pass
4	6.7428	28.74	18.61	19.99	48.73	38.60	73.00	60.00	-24.27	-21.40	Pass
5	10.3633	17.59	7.62	19.97	37.56	27.59	73.00	60.00	-35.44	-32.41	Pass
6	13.5611	23.59	7.66	19.98	43.57	27.64	73.00	60.00	-29.43	-32.36	Pass

6.2 Asymmetric Mode Conducted Emissions(150kHz-30MHz)

Test Requirement: EN 55032: 2015+A11:2020+A1:2020

Test Method: EN 55032: 2015+A11:2020+A1:2020

Limit:

0.15MHz – 0.5MHz	97dB(μV)-87dB(μV) quasi-peak, 84(μV)-74dB(μV) average
0.5MHz – 30MHz	87dB(μV) quasi-peak, 74dB(μV) average
Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

6.2.1 E.U.T. Operation

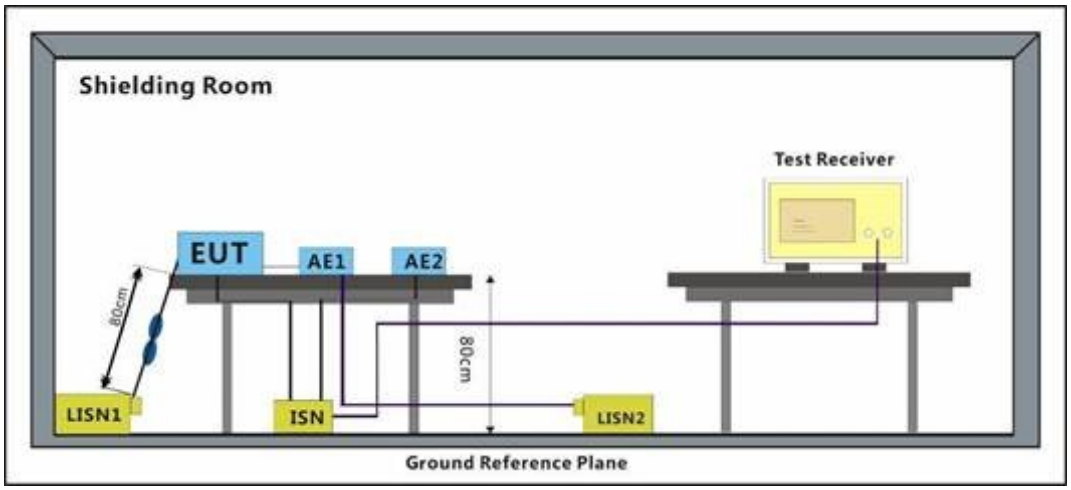
Operating Environment:

Temperature: 26.3 °C Humidity: 47.6 % RH Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

6.2.3 Test Setup Diagram

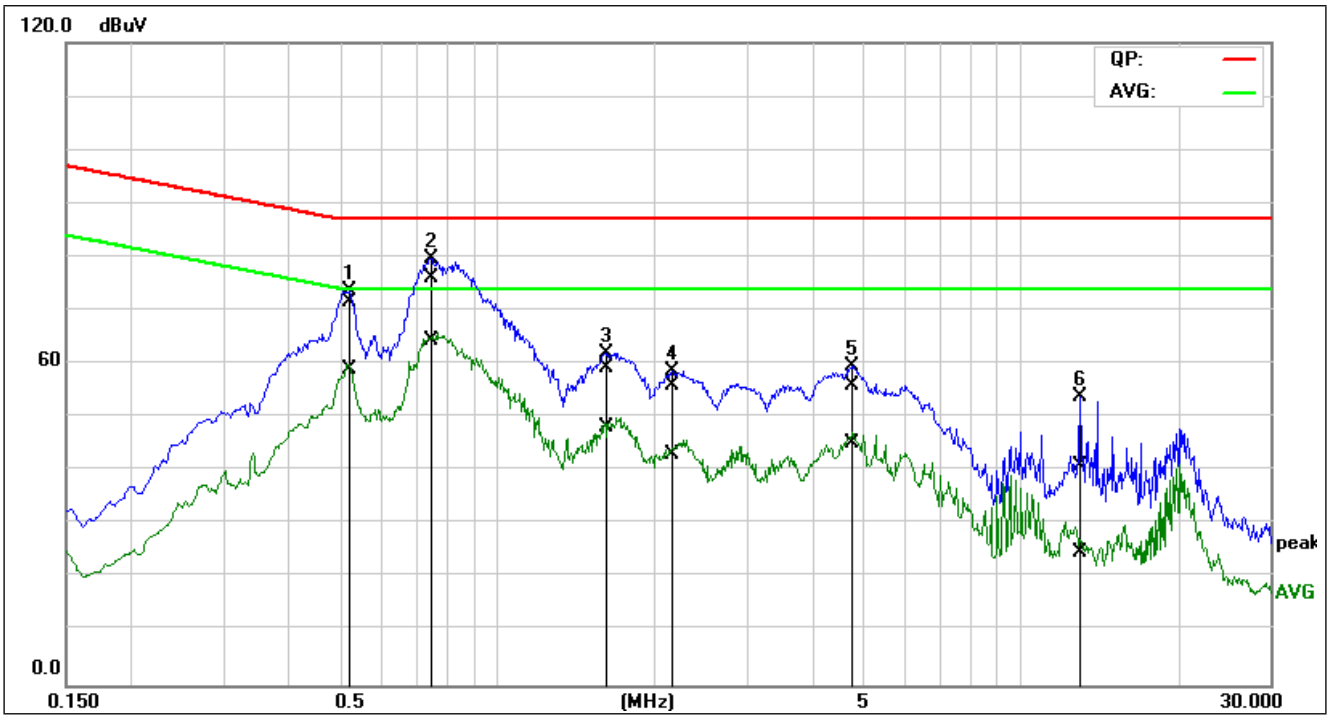


6.2.4 Measurement Procedure and Data

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.

Remark: Level= Read Level+ Cable Loss+ LISN Factor

Test Mode: 00



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.5169	51.69	38.94	19.95	71.64	58.89	87.00	74.00	-15.36	-15.11	Pass
2*	0.7508	56.08	44.40	20.03	76.11	64.43	87.00	74.00	-10.89	-9.57	Pass
3	1.5925	39.23	28.18	20.00	59.23	48.18	87.00	74.00	-27.77	-25.82	Pass
4	2.1603	36.01	23.03	20.04	56.05	43.07	87.00	74.00	-30.95	-30.93	Pass
5	4.7517	35.90	25.16	20.09	55.99	45.25	87.00	74.00	-31.01	-28.75	Pass
6	13.0041	20.71	4.46	20.21	40.92	24.67	87.00	74.00	-46.08	-49.33	Pass

6.3 Radiated Emissions (30MHz-1GHz)

Test Requirement: EN 55032: 2015+A11:2020+A1:2020

Test Method: EN 55032: 2015+A11:2020+A1:2020

Measurement Distance: 10m

Limit:

30MHz-230MHz:	40 dB(μV/m) quasi-peak
230MHz-1GHz:	47 dB(μV/m) quasi-peak
Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz

6.3.1 E.U.T. Operation

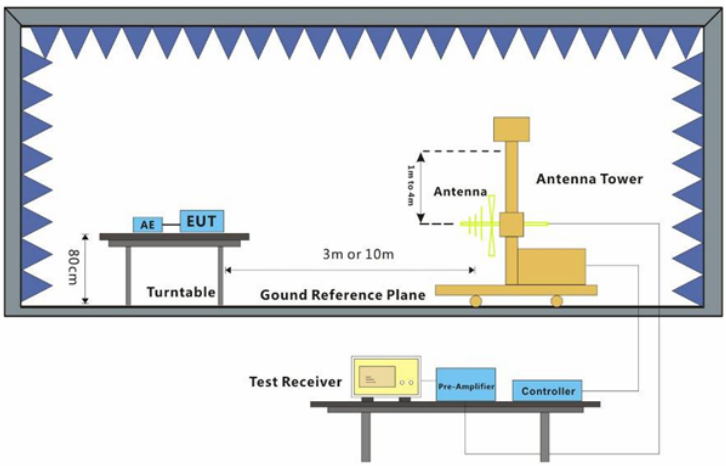
Operating Environment:

Temperature: 25.2 °C Humidity: 49.8 % RH Atmospheric Pressure: 1010 mbar

6.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

6.3.3 Test Setup Diagram



6.3.4 Measurement Procedure and Data

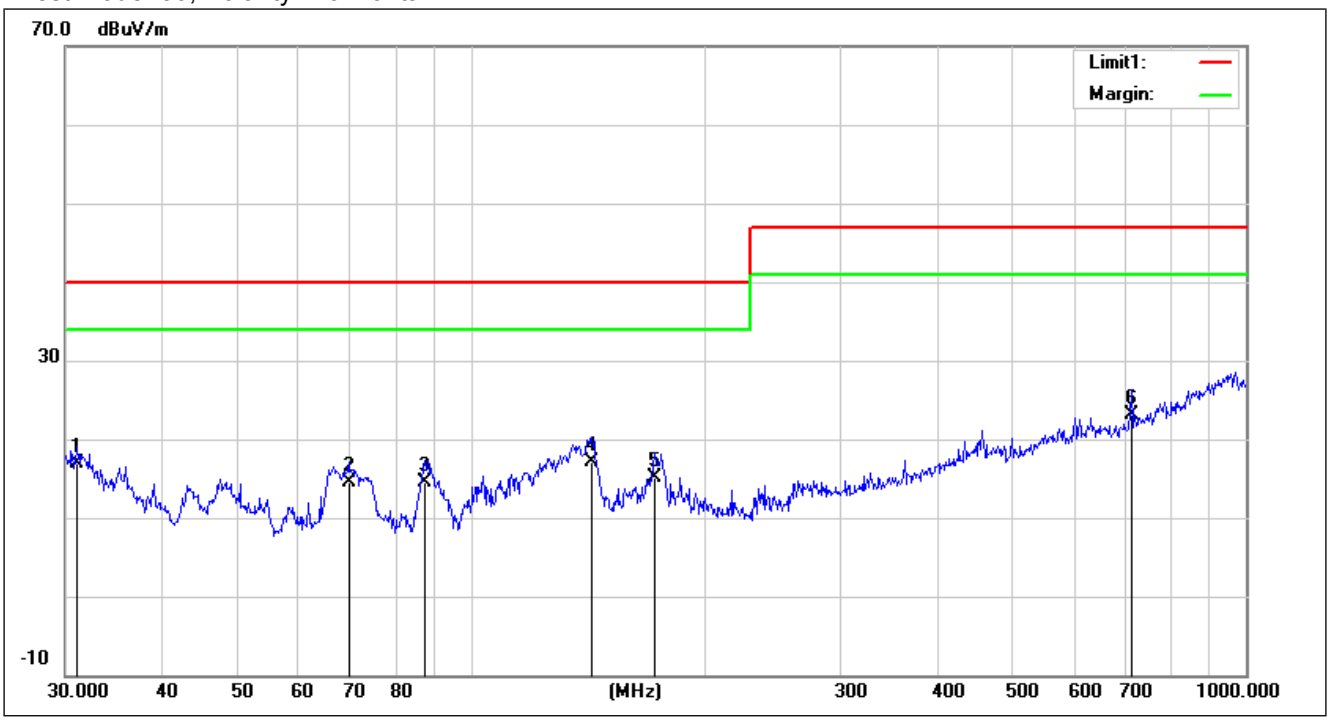
Frequency range: 30MHz-1GHz

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.

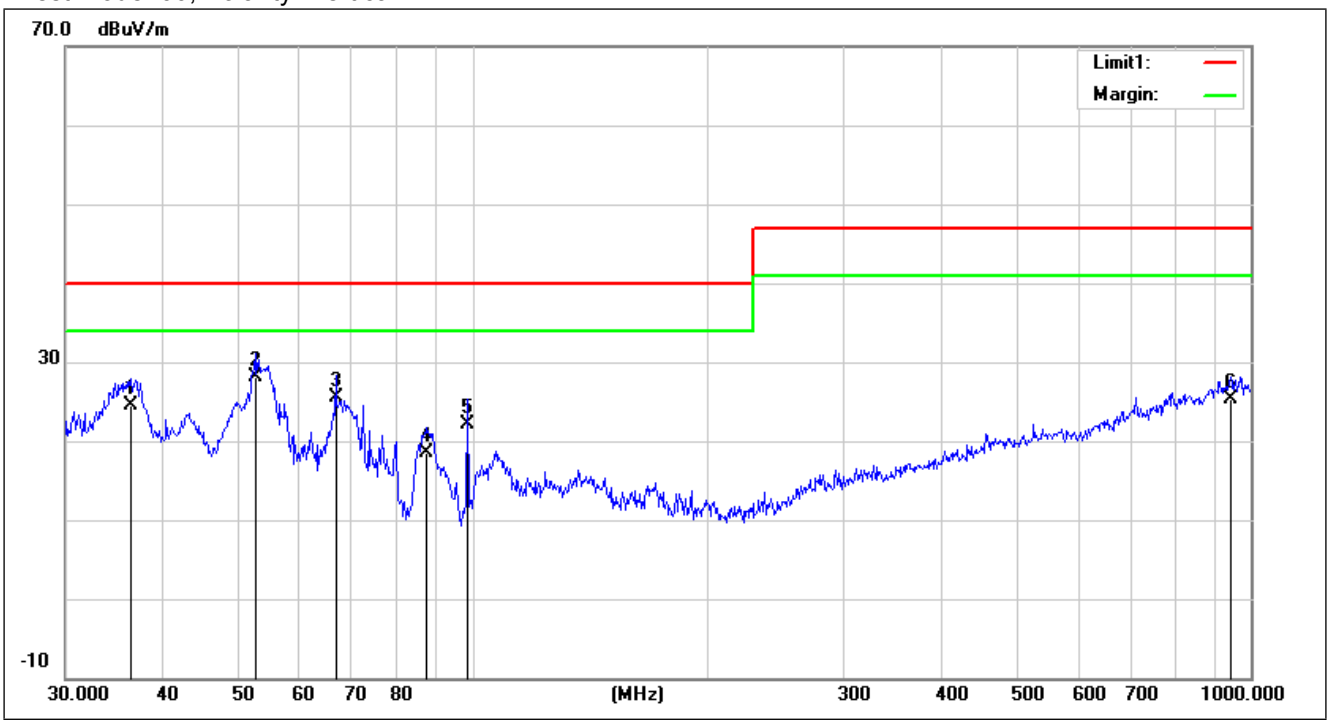
Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg)	
1	31.0706	27.00	-10.11	16.89	40.00	-23.11	200	252	QP
2	69.6005	35.73	-21.20	14.53	40.00	-25.47	200	274	QP
3	87.4177	35.34	-20.84	14.50	40.00	-25.50	200	336	QP
4	143.3261	32.61	-15.45	17.16	40.00	-22.84	200	29	QP
5	172.5988	31.86	-16.66	15.20	40.00	-24.80	200	360	QP
6	711.6734	29.74	-6.57	23.17	47.00	-23.83	200	113	QP

Test Mode: 00; Polarity: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg)	
1	36.3814	35.55	-11.06	24.49	40.00	-15.51	100	306	QP
2	52.5753	47.82	-19.65	28.17	40.00	-11.83	100	33	QP
3	66.7325	44.99	-19.56	25.43	40.00	-14.57	100	331	QP
4	87.4177	37.58	-19.10	18.48	40.00	-21.52	200	143	QP
5	98.4866	38.86	-16.77	22.09	40.00	-17.91	100	313	QP
6	942.1305	25.10	0.28	25.38	47.00	-21.62	100	137	QP

6.4 Radiated Emissions (Above 1GHz)

Test Requirement: EN 55032: 2015+A11:2020+A1:2020

Test Method: EN 55032: 2015+A11:2020+A1:2020

Measurement Distance: 3m

Limit:

1000MHz-6000MHz: 80 dB(μV/m) peak; 60 dB(μV/m) average

Detector: Peak for pre-scan (1000kHz resolution bandwidth) 1000MHz to 6000MHz

6.4.1 E.U.T. Operation

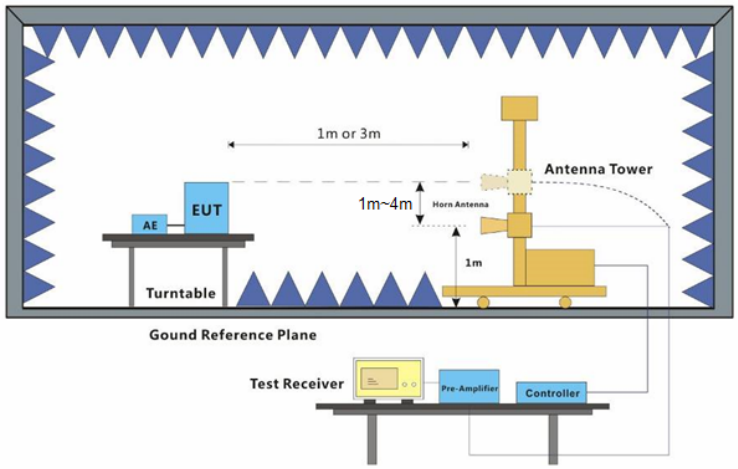
Operating Environment:

Temperature: 25.2 °C Humidity: 52.3 % RH Atmospheric Pressure: 1010 mbar

6.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

6.4.3 Test Setup Diagram



6.4.4 Measurement Procedure and Data

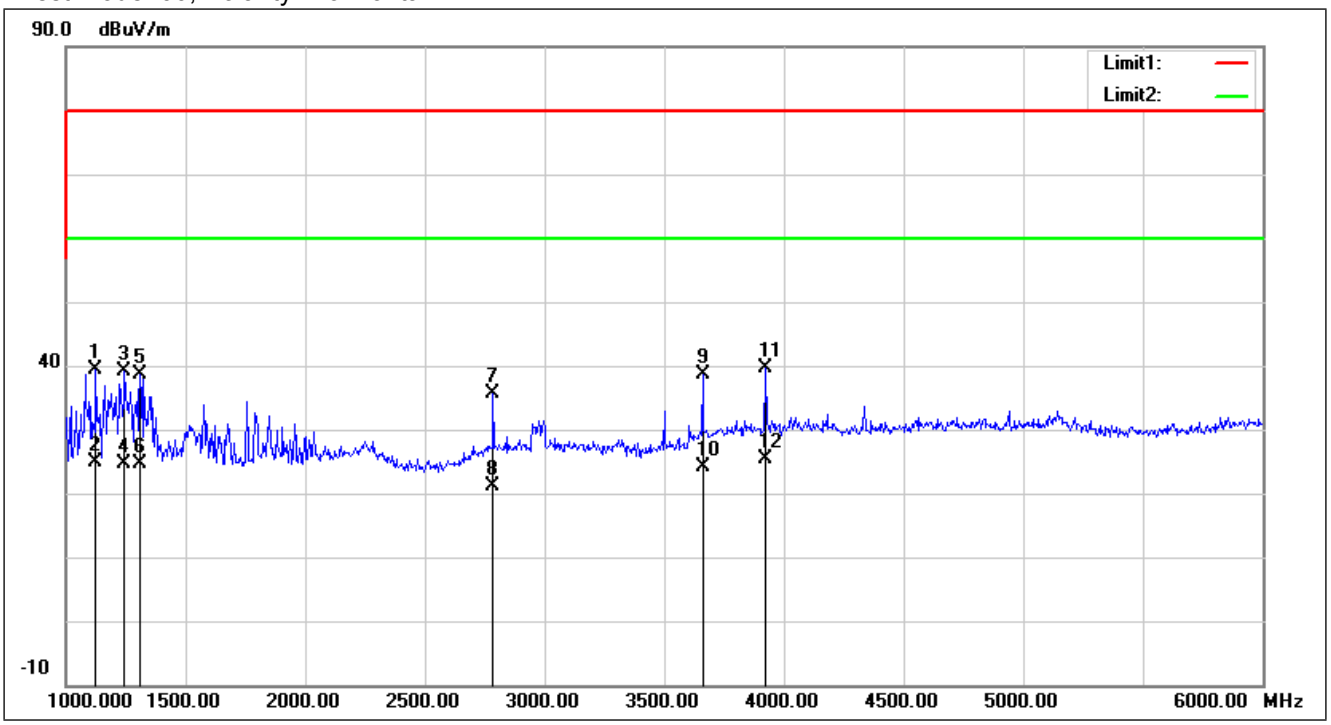
Frequency range: Above 1GHz

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 EUT was measured by Horn antenna with 2 orthogonal polarities.

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

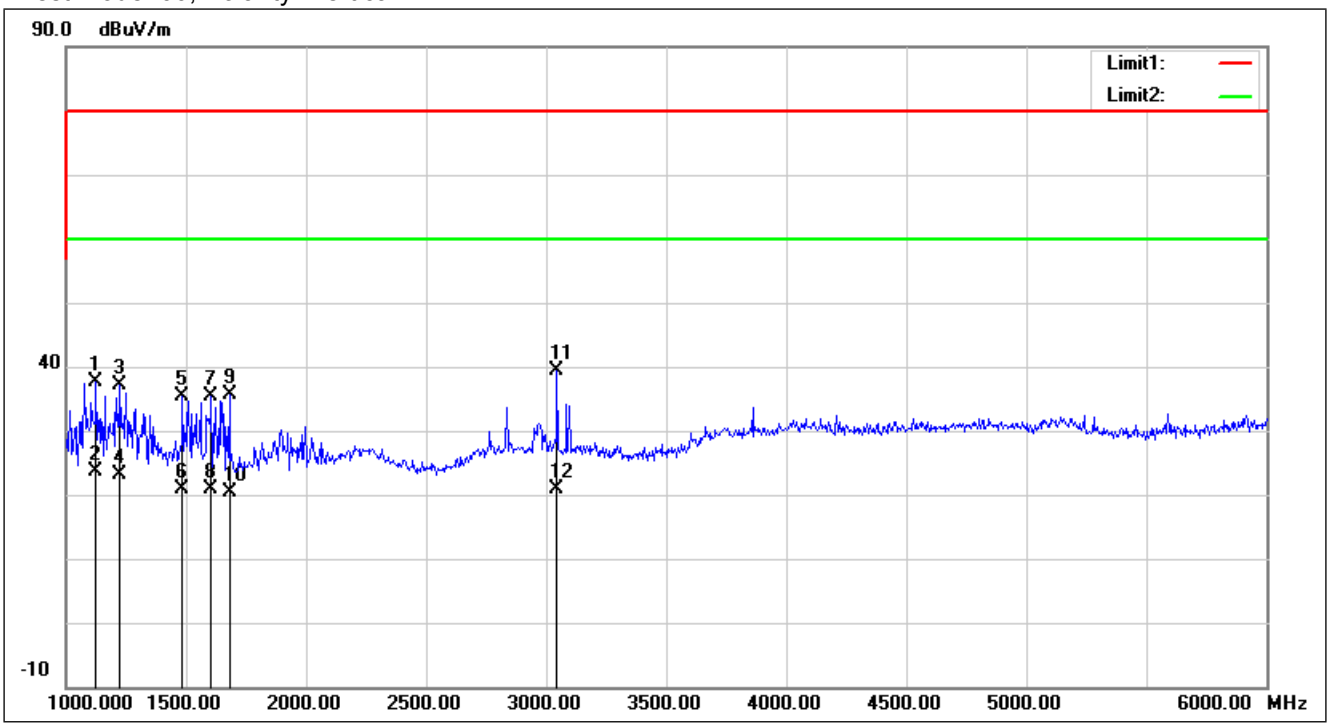
Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Test Mode: 00; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1125.000	61.97	-22.48	39.49	80.00	-40.51	100	225	peak
2	1125.000	47.32	-22.48	24.84	60.00	-35.16	100	225	AVG
3	1245.000	60.69	-21.59	39.10	80.00	-40.90	100	360	peak
4	1245.000	46.21	-21.59	24.62	60.00	-35.38	100	360	AVG
5	1310.000	60.18	-21.52	38.66	80.00	-41.34	100	211	peak
6	1310.000	46.03	-21.52	24.51	60.00	-35.49	100	211	AVG
7	2785.000	53.48	-17.93	35.55	80.00	-44.45	100	14	peak
8	2785.000	39.01	-17.93	21.08	60.00	-38.92	100	14	AVG
9	3660.000	54.70	-16.12	38.58	80.00	-41.42	100	88	peak
10	3660.000	40.25	-16.12	24.13	60.00	-35.87	100	88	AVG
11	3925.000	54.58	-14.85	39.73	80.00	-40.27	100	269	peak
12	3925.000	40.24	-14.85	25.39	60.00	-34.61	100	269	AVG

Test Mode: 00; Polarity: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1125.000	60.07	-22.48	37.59	80.00	-42.41	100	59	peak
2	1125.000	45.99	-22.48	23.51	60.00	-36.49	100	59	AVG
3	1225.000	58.98	-21.76	37.22	80.00	-42.78	100	360	peak
4	1225.000	44.87	-21.76	23.11	60.00	-36.89	100	360	AVG
5	1485.000	57.19	-21.93	35.26	80.00	-44.74	100	287	peak
6	1485.000	42.90	-21.93	20.97	60.00	-39.03	100	287	AVG
7	1605.000	57.49	-22.18	35.31	80.00	-44.69	100	49	peak
8	1605.000	43.15	-22.18	20.97	60.00	-39.03	100	49	AVG
9	1680.000	57.74	-22.18	35.56	80.00	-44.44	100	118	peak
10	1680.000	42.65	-22.18	20.47	60.00	-39.53	100	118	AVG
11	3045.000	56.62	-17.24	39.38	80.00	-40.62	100	59	peak
12	3045.000	38.10	-17.24	20.86	60.00	-39.14	100	59	AVG

6.5 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

6.5.1 E.U.T. Operation

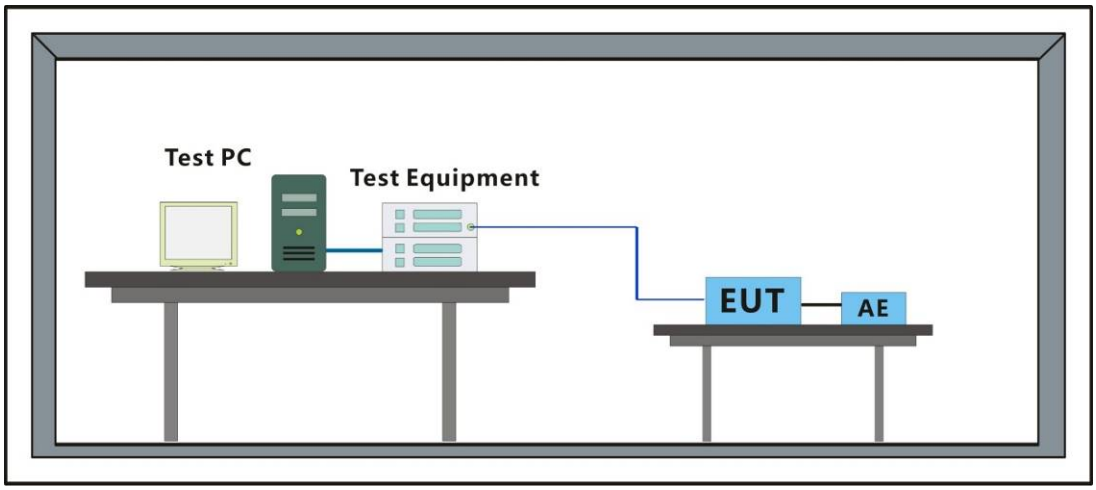
Operating Environment:

Temperature: 26.3 °C Humidity: 53.4 % RH Atmospheric Pressure: 1010 mbar

6.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

6.5.3 Test Setup Diagram



6.5.4 Measurement Procedure and Data

Test Mode: 00

Test Data of L1 Voltage Fluctuation and Flicker

Segment	Pst	dmax[%]	dc[%]	Tmax[ms]	Judge
Limit	1.000	4.000	3.300	500	
Seg. 1	0.187	0.017	0.000	0	Pass

Plt	Value	Judge
Limit	0.650	
Measurement	0.082	Pass

6.6 Harmonic Current Emission

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

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

6.6.1 E.U.T. Operation

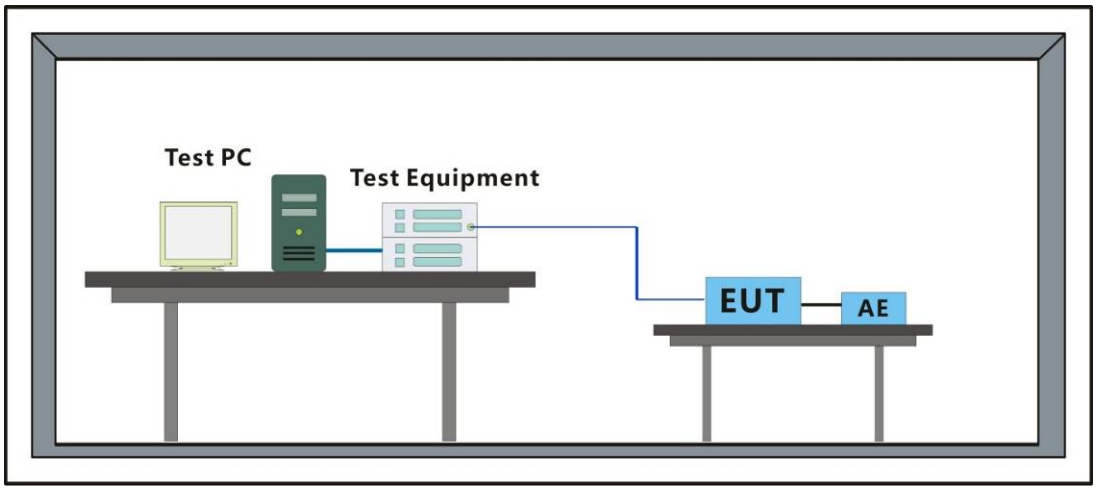
Operating Environment:

Temperature: 26.3 °C Humidity: 53.4 % RH Atmospheric Pressure: 1010 mbar

6.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

6.6.3 Test Setup Diagram



6.6.4 Measurement Procedure and Data

Frequency Range: 100Hz to 2kHz

Test Mode: 00

Voltage (max)	229.90 V	THC (max)	0.427 A
Current (max)	1.257 A	POHC (max) / Limit	0.041 A / ----- *4
Power (max)	0.1032 kW	Apparent Power (max)	0.2889 kVA
Power Factor (max)	0.3593	Reactive Power (max)	-0.2698 kvar
Fundamental Current (max)	1.167 A	THD (max)	36.91 %

Order	Limit1[A rms]	Limit2[A rms]	Ave[A rms]	Max[A rms]	LimitOver[s]	Judge
1	-----	-----	1.162	1.167	-----	N/A
2	1.0800	2.1600	0.015	0.017	0.0	Pass
3	2.3000	4.6000	0.369	0.370	0.0	Pass
4	0.4300	0.8600	0.020	0.021	0.0	Pass
5	1.1400	2.2800	0.181	0.183	0.0	Pass
6	0.3000	0.6000	0.029	0.030	0.0	Pass
7	0.7700	1.5400	0.066	0.067	0.0	Pass
8	0.2300	0.4600	0.004	0.004	0.0	N/A
9	0.4000	0.8000	0.016	0.017	0.0	Pass
10	0.1840	0.3680	0.025	0.026	0.0	Pass
11	0.3300	0.6600	0.018	0.019	0.0	Pass
12	0.1533	0.3067	0.010	0.011	0.0	Pass
13	0.2100	0.4200	0.012	0.012	0.0	Pass
14	0.1314	0.2629	0.011	0.012	0.0	Pass
15	0.1500	0.3000	0.012	0.013	0.0	Pass
16	0.1150	0.2300	0.010	0.011	0.0	Pass
17	0.1324	0.2647	0.025	0.026	0.0	Pass
18	0.1022	0.2044	0.013	0.014	0.0	Pass
19	0.1184	0.2368	0.022	0.024	0.0	Pass
20	0.0920	0.1840	0.015	0.016	0.0	Pass
21	0.1071	0.2143	0.008	0.009	0.0	Pass
22	0.0836	0.1673	0.009	0.012	0.0	Pass
23	0.0978	0.1957	0.011	0.013	0.0	Pass
24	0.0767	0.1533	0.011	0.012	0.0	Pass
25	0.0900	0.1800	0.014	0.016	0.0	Pass
26	0.0708	0.1415	0.006	0.007	0.0	N/A
27	0.0833	0.1667	0.009	0.010	0.0	Pass
28	0.0657	0.1314	0.013	0.014	0.0	Pass
29	0.0776	0.1552	0.016	0.018	0.0	Pass
30	0.0613	0.1227	0.016	0.017	0.0	Pass
31	0.0726	0.1452	0.016	0.017	0.0	Pass
32	0.0575	0.1150	0.010	0.011	0.0	Pass
33	0.0682	0.1364	0.015	0.016	0.0	Pass
34	0.0541	0.1082	0.015	0.016	0.0	Pass
35	0.0643	0.1286	0.015	0.016	0.0	Pass
36	0.0511	0.1022	0.012	0.013	0.0	Pass
37	0.0608	0.1216	0.007	0.009	0.0	Pass
38	0.0484	0.0968	0.015	0.017	0.0	Pass
39	0.0577	0.1154	0.014	0.016	0.0	Pass
40	0.0460	0.0920	0.007	0.008	0.0	Pass

7 Immunity Test Results

General Performance Criteria Description in EN 55035: 2017+A11:2020

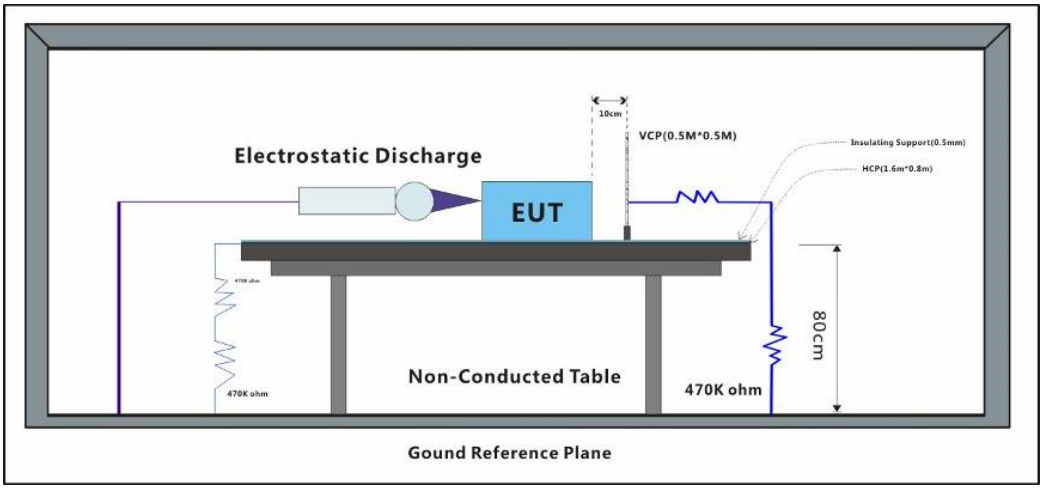
Criterion A	The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level 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, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
Criterion B	During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test. After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment 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), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
Criterion C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

7.1 Electrostatic Discharge

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-2: 2009

7.1.1 Test Setup Diagram



7.1.2 E.U.T. Operation

Operating Environment:

Temperature: 24.6 °C Humidity: 50.6 % RH Atmospheric Pressure: 1010 mbar

7.1.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.1.4 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 & seams.

Test Point 2: All accessible metal parts of the enclosure.

Test Point 3: All sides.

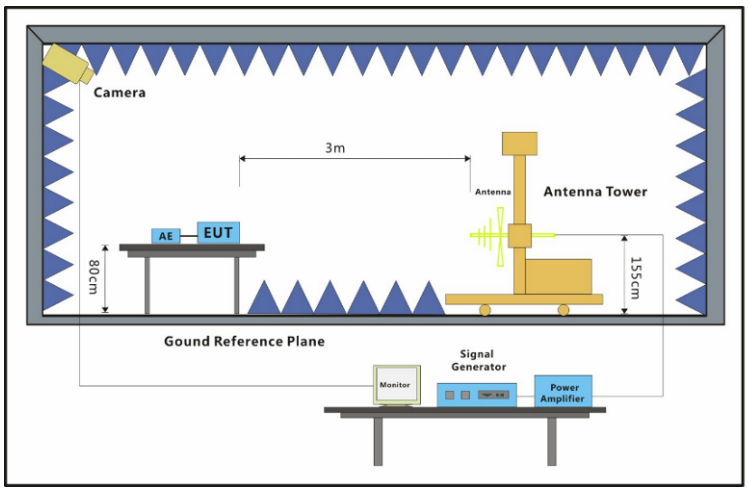
Discharge type	Level (kV)	Polarity	Test Point	Result / Observations
Air Discharge	2,4,8	+	1	A
Air Discharge	2,4,8	-	1	A
Contact Discharge	4	+	2	A
Contact Discharge	4	-	2	A
Horizontal Coupling	4	+	3	A
Horizontal Coupling	4	-	3	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A
A: No degradation in the performance of the EUT was observed				

7.2 Radiated Immunity (80MHz-1GHz,1800MHz,2600MHz,3500MHz,5000MHz)

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN IEC 61000-4-3: 2020

7.2.1 Test Setup Diagram



7.2.2 E.U.T. Operation

Operating Environment:

Temperature: 25.3 °C Humidity: 53.4 % RH Atmospheric Pressure: 1010 mbar

7.2.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.2.4 Test Condition and Results:

Performance Criterion: A

Frequency Range: 80MHz to 1GHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz

Antenna Polarisation: Vertical and Horizontal

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

Test Distance:3m

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
1800MHz	3	Front	3s	A
1800MHz	3	Back	3s	A
1800MHz	3	Left	3s	A
1800MHz	3	Right	3s	A
1800MHz	3	Top	3s	A
1800MHz	3	Underside	3s	A
2600MHz	3	Front	3s	A
2600MHz	3	Back	3s	A

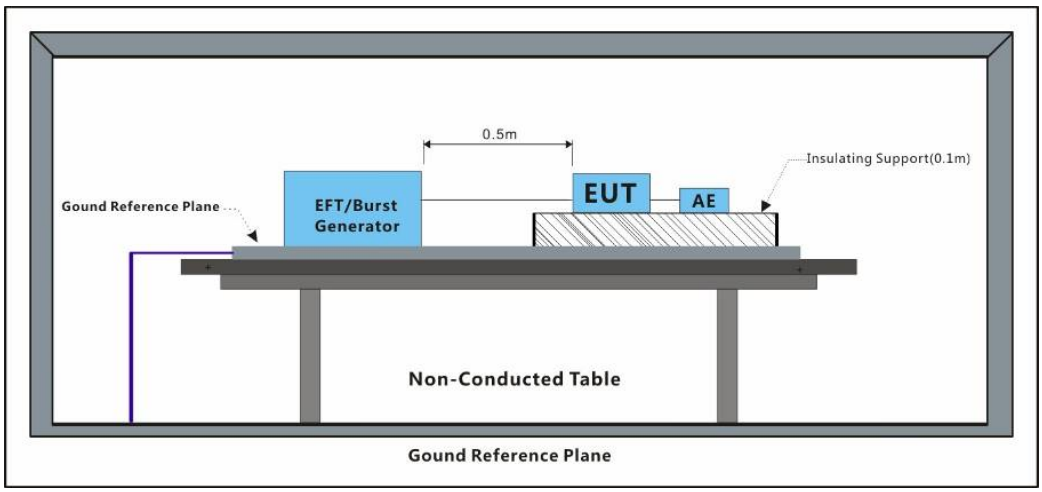
2600MHz	3	Left	3s	A
2600MHz	3	Right	3s	A
2600MHz	3	Top	3s	A
2600MHz	3	Underside	3s	A
3500MHz	3	Front	3s	A
3500MHz	3	Back	3s	A
3500MHz	3	Left	3s	A
3500MHz	3	Right	3s	A
3500MHz	3	Top	3s	A
3500MHz	3	Underside	3s	A
5000MHz	3	Front	3s	A
5000MHz	3	Back	3s	A
5000MHz	3	Left	3s	A
5000MHz	3	Right	3s	A
5000MHz	3	Top	3s	A
5000MHz	3	Underside	3s	A
A: No degradation in the performance of the EUT was observed				

7.3 Electrical Fast Transients & Burst at AC Power Port

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-4: 2012

7.3.1 Test Setup Diagram



7.3.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.3.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.3.4 Test Condition and Results:

Performance Criterion: B

Repetition Frequency: 5kHz

Burst Period: 300ms

Test Duration: 2 minute per level & polarity

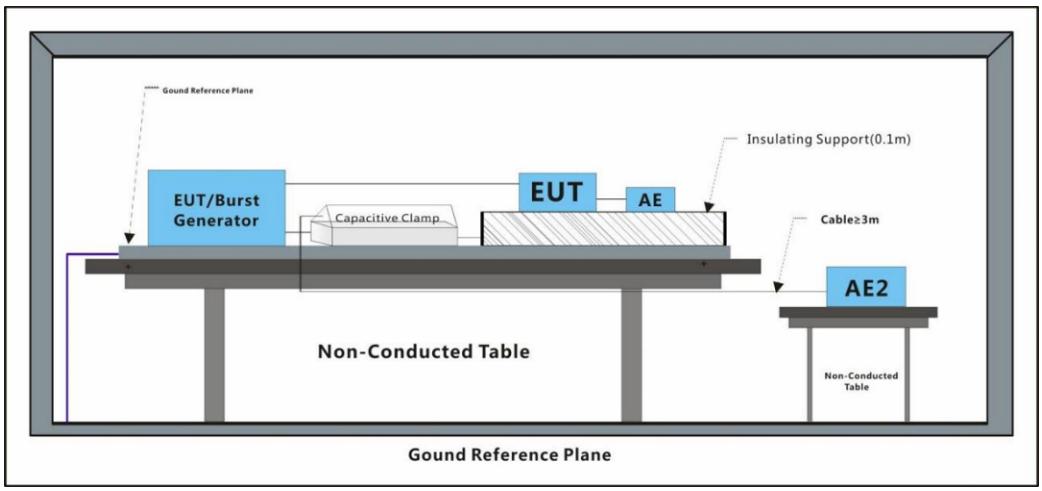
Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
AC power port	1	+	CDN	A
AC power port	1	-	CDN	A
A: No degradation in the performance of the EUT was observed				

7.4 Electrical Fast Transients & Burst at Signal Port

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-4: 2012

7.4.1 Test Setup Diagram



7.4.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.4.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.4.4 Test Condition and Results:

Performance Criterion: B

Repetition Frequency: 5kHz

Burst Period: 300ms

Test Duration: 2 minute per level & polarity

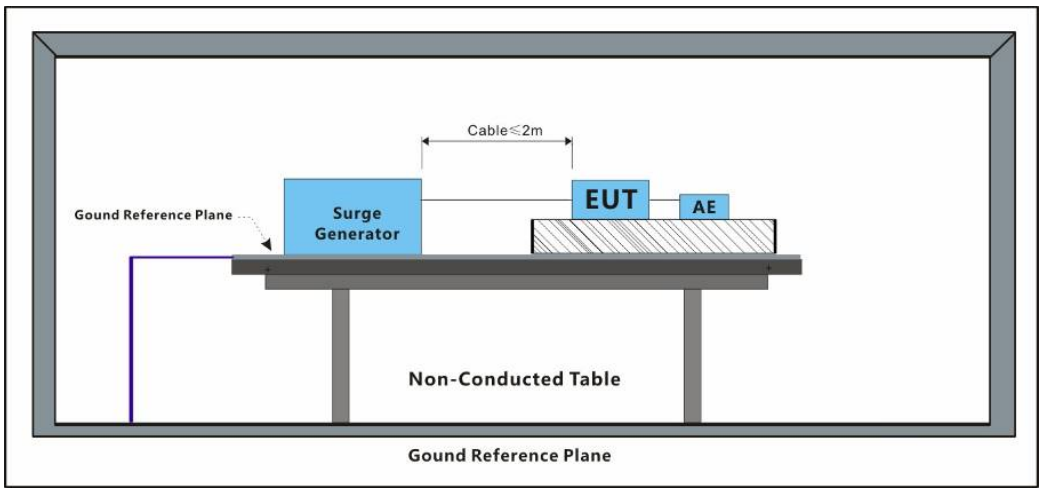
Port	Level (kV)	Polarity	CDN/Clamp	Result / Observations
Signal port	0.5	+	Clamp	A
Signal port	0.5	-	Clamp	A
A: No degradation in the performance of the EUT was observed				

7.5 Surge at AC Power Port

Test Requirement: EN 55035: 2017+A11:2020

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: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.5.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.5.4 Test Condition and Results:

Performance Criterion: B

Interval: 60s between each surge

Generator source impedance: 2Ω

CDN coupling impedance(Line-to-ground):10Ω

No. of surges:

Five positive pulses line-to-neutral at 90° phase

Five negative pulses line-to-neutral at 270° phase

Five positive pulses line-to-earth at 90° phase

Five negative pulses line-to-earth at 270° phase

Five negative pulses neutral-to-earth at 90° phase

Five positive pulses neutral-to-earth at 270° phase

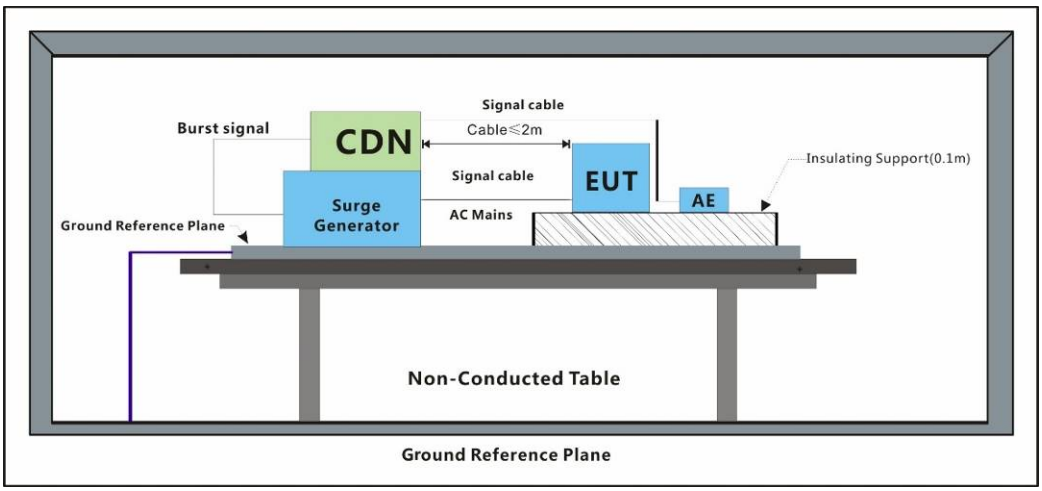
Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	90°	A
L-N	1	-	270°	A
L-PE	2	+	90°	A
L-PE	2	-	270°	A
N-PE	2	-	90°	A
N-PE	2	+	270°	A
A: No degradation in the performance of the EUT was observed				

7.6 Surge at Signal Port

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-5: 2014 +A1: 2017

7.6.1 Test Setup Diagram



7.6.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.6.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.6.4 Test Condition and Results:

Performance Criterion: B

Interval: 60s between each surge

Generator source impedance: 2Ω

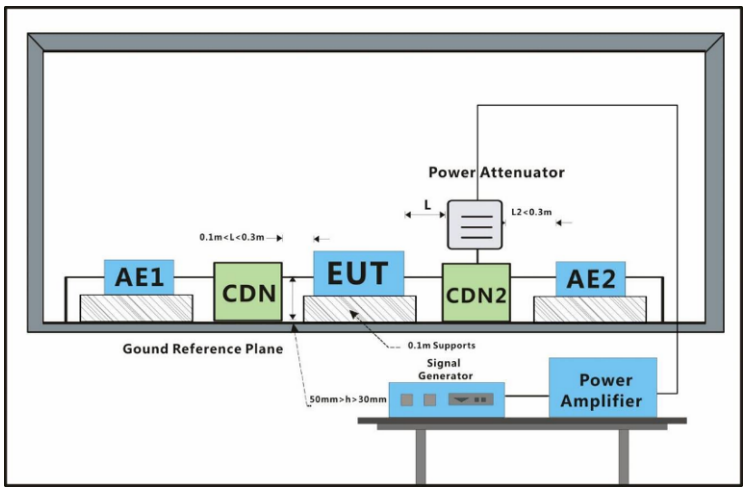
Port	Line	Waveform(μs)	Level (kV)	Polarity	Result / Observations
Signal port	Line-Ground	1,2/50 (8/20)	0.5, 1	+	A
Signal port	Line-Ground	1,2/50 (8/20)	0.5, 1	-	A
A: No degradation in the performance of the EUT was observed					

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

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-6: 2014

7.7.1 Test Setup Diagram



7.7.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.7.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.7.4 Test Condition and Results:

Performance Criterion: A

Frequency Range: 0.15MHz to 80MHz

Modulation: 80%, 1kHz Amplitude Modulation

Step Size: 1%

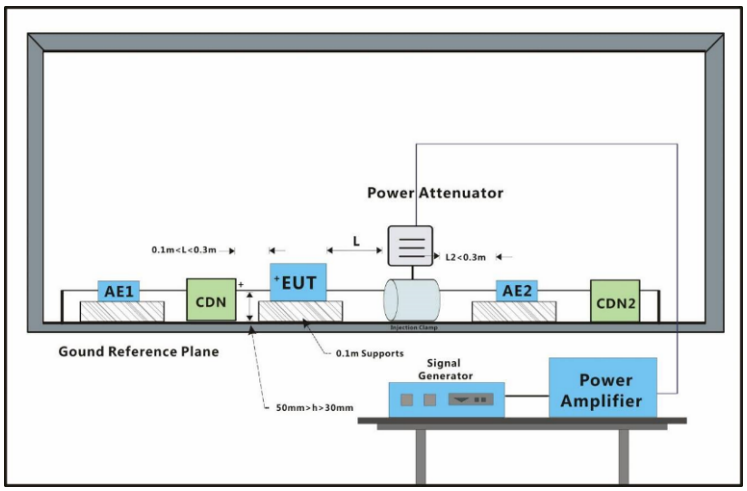
Cable port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
AC power port	3(0.15MHz-10MHz)	CDN	3s	A
AC power port	3 to 1(10MHz-30MHz, Lines)	CDN	3s	A
AC power port	1(30MHz-80MHz)	CDN	3s	A
A: No degradation in the performance of the EUT was observed				

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

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-6: 2014

7.8.1 Test Setup Diagram



7.8.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.8.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.8.4 Test Condition and Results:

Performance Criterion: A

Frequency Range: 0.15MHz to 80MHz

Modulation: 80%, 1kHz Amplitude Modulation

Step Size: 1%

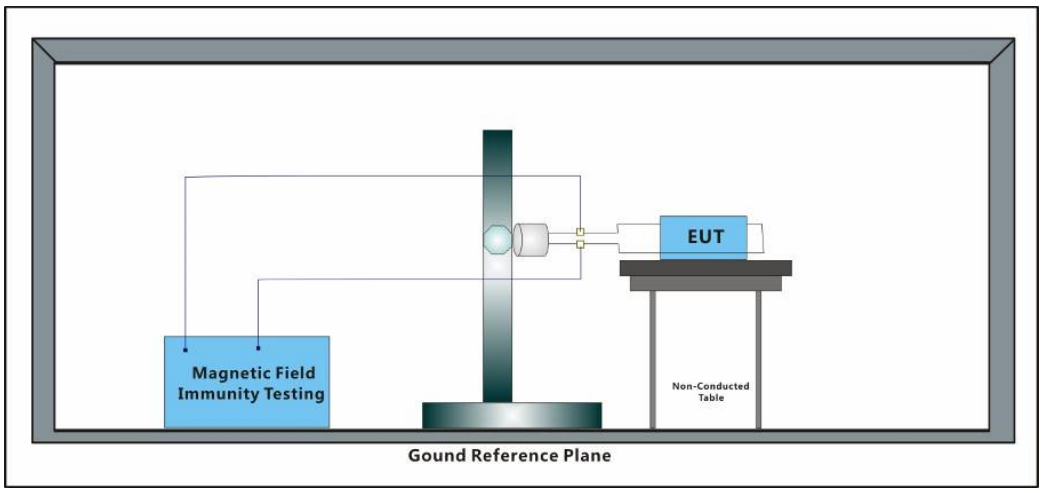
Port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
Signal port	3(0.15MHz-10MHz)	Clamp	3s	A
Signal port	3 to 1(10MHz-30MHz, Lines)	Clamp	3s	A
Signal port	1(30MHz-80MHz)	Clamp	3s	A
A: No degradation in the performance of the EUT was observed				

7.9 Power Frequency Magnetic Field

Test Requirement: EN 55035: 2017+A11:2020

Test Method: EN 61000-4-8: 2010

7.9.1 Test Setup Diagram



7.9.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.9.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.9.4 Test Condition and Results:

Performance Criterion: A

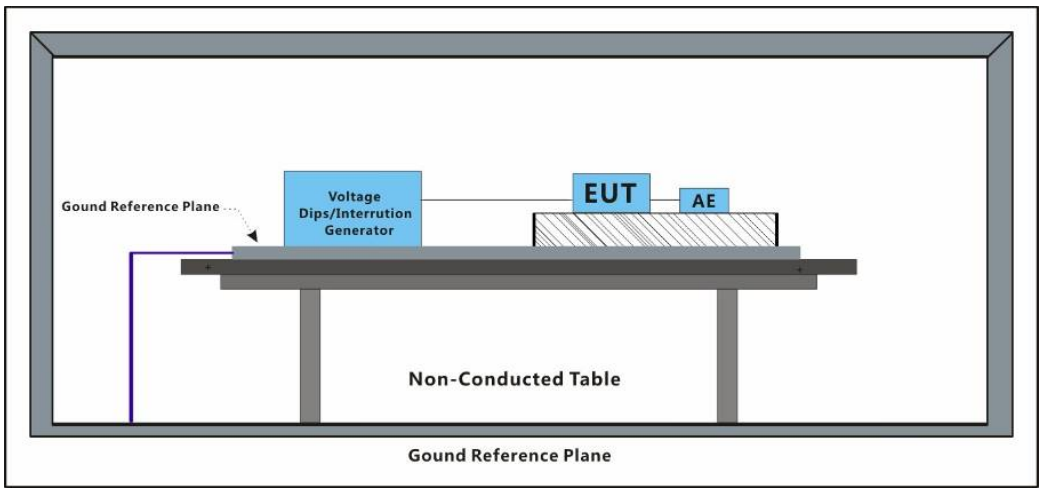
Frequency	Level (A/m)	Axial	Magnetic Field Type	Result / Observations
50Hz	1	X	Continuous filed	A
50Hz	1	Y	Continuous filed	A
50Hz	1	Z	Continuous filed	A
A: No degradation in the performance of the EUT was observed				

7.10 Voltage Dips and Interruptions

Test Requirement: EN 55035: 2017+A11:2020

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

7.10.1 Test Setup Diagram



7.10.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 51.3 % RH Atmospheric Pressure: 1010 mbar

7.10.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Keep EUT working continuously

7.10.4 Test Condition and Results:

Performance Criterion:

<5% residual voltage for 0.5 Cycle: B

70% residual voltage for 25 Cycles: C

<5% residual voltage for 250 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 Cycles	3	A
0	0°	250 Cycles	3	B
70	0°	25 Cycles	3	A
A: No degradation in the performance of the EUT was observed B: During the test,the EUT working abnormally. After the test,the EUT recovering working normally.				

8 Test Setup Photo

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



Asymmetric Mode Conducted Emissions(150kHz-30MHz)



Radiated Emissions (30MHz-1GHz)



Radiated Emissions (Above 1GHz)



Voltage Fluctuations and Flicker



Harmonic Current Emission



Radiated Immunity (80MHz-1GHz,1800MHz,2600MHz,3500MHz,5000MHz)



Electrical Fast Transients & Burst at AC Power Port



Electrical Fast Transients & Burst at Signal Port



Surge at AC Power Port



Surge at Signal Port



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



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



Power Frequency Magnetic Field



Voltage Dips and Interruptions



9 EUT Constructional Details (EUT Photos)









- End of the Report -