EMC TEST REPORT

Applicant:	Guangzhou V-Solution Telecommunication Technology Co., Ltd.
Address of Applicant:	601,Building B2,No.162,Science Avenue,Science City,Guangzhou High-tech Industrial Development Zone,Guangdong Province, China
Manufacturer:	Guangzhou V-Solution Telecommunication Technology Co., Ltd.
Address of Manufacturer:	601,Building B2,No.162,Science Avenue,Science City,Guangzhou High-tech Industrial Development Zone,Guangdong Province, China
Product name:	GPON OLT
Model:	V1600GS
Rating(s):	AC 100-240V, 50/60Hz, 1A
Trademark:	V·SOL
Standards:	EN 55032:2015+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021
Date of Receipt:	2023-05-19
Date of Test:	2023-05-19~2023-06-05
Date of Issue:	2023-06-05
Test Result	**Pass***

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

Authorized for issue by:

Test by: ***Reviewed by:***

Jun. 05, 2023 Eleven Liang — Project Engineer

Jun. 05, 2023 Pauler Li — Project Manager

Date	Name/Position	Signature	Date	Name/Position	Signature

Testing Laboratory information:	
Testing Laboratory Name .....:	Guangzhou ITL Co., Ltd
Address .....:	1-2/F., South Block, Building A2, No.3, Keyan Road, Science City, High-Tech Industrial Development Zone, Guangzhou, Guangdong, China
Testing location .....:	Same as above
Tel.....:	0086-20-32209330
Fax.....:	/
E-mail.....:	itl@i-testlab.com

Possible test case verdicts:

- test case does not apply to the test object..: N/A
- test object does meet the requirement .....: P (Pass)
- test object does not meet the requirement..: F (Fail)

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report would be invalid test report without all the signatures of testing technician and approver.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

General product information:

/

Test Summary:

The following standards have been applied to ensure the product conforms with the protection requirements of the council directive 2014/30/EU.

Test	Test Requirement	Test Method	Class / Severity	Results
EMI				
Conducted Emission (0.15-30MHz)	EN 55032:2015 + A1:2020	EN 55032:2015 + A1:2020	Class B	PASS
Conducted Emission on Telecommunication (0.15MHz to 30MHz)	EN 55032:2015 + A1:2020	EN 55032:2015 + A1:2020	Class B	PASS
Conducted differential voltage emission	EN 55032:2015+A11:2020	EN 55032:2015+A11:2020	Class B	PASS
Radiated Emission (30-1000MHz)	EN 55032:2015 + A1:2020	EN 55032:2015 + A1:2020	Class B	PASS
Radiated Emission above 1 GHz	EN 55032:2015 + A1:2020	EN 55032:2015 + A1:2020	Class B	PASS

Harmonic Emission on AC, (100 Hz to 2 kHz)	EN IEC 61000-3-2:2019 +A1:2021	EN IEC 61000-3-2:2019 +A1:2021	Class A	N/A
Voltage fluctuation and flicker	EN 61000-3-3:2013 +A1:2019+A2:2021	EN 61000-3-3:2013 +A1:2019+A2:2021	Clause 5 of EN 61000-3-3	PASS
EMS				
Electrostatic Discharge Immunity (ESD)	EN 55035:2017+A11:2020	EN 61000-4-2:2009	Contact ±4 kV Air ±8 kV	PASS
Continuous RF electromagnetic field Disturbances immunity (80MHz to 5 GHz swept test and spot test)	EN 55035:2017+A11:2020	EN 61000-4-3:2006 +A1: 2008+A2:2010	3 V/m 80% 1kHz AM	PASS
Electrical Fast Transient (EFT) on AC	EN 55035:2017+A11:2020	EN 61000-4-4:2012	AC ±1.0 kV	PASS
Surge immunity on AC mains	EN 55035:2017+A11:2020	EN 61000-4-5: 2014+A1:2017	±1.0 kV D.M. ±2.0 kV C.M.	PASS
Surge immunity on Signal port	EN 55035:2017+A11:2020	EN 61000-4-5: 2014+A1:2017	±1.0 kV C.M.	PASS
Continuous induced RF disturbance (150kHz to 80MHz)	EN 55035:2017+A11:2020	EN 61000-4-6:2014+AC:2015	0,15 to 10 MHz: 3 V rms 10 to 30 MHz: 3-1 Vrms 30 to 80 MHz: 1 Vrms 80% 1kHz AM	PASS
Power Frequency Magnetic field	EN 55035:2017+A11:2020	EN 61000-4-8:2010	50 Hz 1 A/m	N/A
Voltage dips and interruptions on AC	EN 55035:2017+A11:2020	EN 61000-4-11:2004+ A1:2017	0%U_T * for 0.5per 0%U_T * for 250/300per 70%U_T * for25/30per	PASS

Test Location

All the tests were performed in Guangzhou ITL Co., Ltd. Which is located at 1-2/F., South Block, Building A2, No.3, Keyan Road, Science City, High-Tech Industrial Development Zone, Guangzhou, Guangdong, China

Tel: 0086-20-32209330, Fax: 0086-20-62824387

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Section 1 General Information and Equipment Used

1.1 Client Information

Applicant:	Guangzhou V-Solution Telecommunication Technology Co., Ltd.
Address of Applicant:	601,Building B2,No.162,Science Avenue,Science City,Guangzhou High-tech Industrial Development Zone,Guangdong Province, China

1.2 EUT General and Technical Descriptions

EUT Name:	GPON OLT
EUT Model:	V1600GS
EUT Trademark:	V·SOL
Input Voltage:	100-240V～
Frequency:	50/60Hz
Input Power/Current:	1A
Output rated:	/
Power Cable Description:	/
Other Cables Description:	/
I/O Ports:	GE1, GE2, PON, 10GE, CONSOLE
Function(s) Description:	/
Accessories information:	/

1.3 Support Equipment(s) and Test Configuration

1.3.1 Details of Support Equipment(s)

Description	Manufacturer	Model No.	Connection	Working state
PC	lenovo	E43	/	/

1.3.2 Working State of EUT

Power Supply of EUT:	10-20V~ 50/60Hz
EUT Status:	Test of the EUT continuous data transmission.

1.3.3 Block Diagram of Test Configuration

/

1.4 Equipment Used during Test

Conducted Emission						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-125	EMI Test receiver	R&S	ESCI	100910	2022/06/15	2023/06/14
ITL-103	Two-line v-network	R&S	ENV216	100120	2022/06/15	2023/06/14
ITL-101	Shielded Room	ETS•Lindgren	8*4*3	CT09015	2021/01/22	2024/01/21

Radiated Emission						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-100	Semi-Anechoic chamber	ETS•Lindgren	FACT3 2.0	CT09015	2022/10/14	2025/10/13
ITL-154	EMI test receiver 9kHz to 26.5GHz	R&S	ESR26	101257	2023/01/07	2024/01/06
ITL-180	Trilog-Broadband Antenna	Schwarzbeck	VULB 9164	005	2022/11/20	2024/11/19
ITL-116	Pre Amplifier	HP	8447F	3113A05905	2023/01/07	2024/01/06
ITL-117	Wideband Amplifier Super Ultra	Mini-circuits	ZVA-183-S+	469101134	2022/10/14	2023/10/13
ITL-110	Horn Antenna	A-INFOMW	JXTXLB-10180-N	J2031090612133	2022/06/17	2024/06/16

Harmonics / Flicker test						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-130	Harmonics analyzer with flicker meter	C.I.	PACS-1	72303	2022/06/15	2023/06/14
ITL-131	Power source	C.I.	5001iX+CTS-400	56049	2022/06/15	2023/06/14

Electrostatic Discharge						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-112	Electrostatic Discharge Generator	3ctest	ESD-30G	EC0281035	2023/01/07	2024/01/06

Voltage dips and Interruption						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-108	EMC Immunity Test System	Thermo Fisher Scientific	EMC Pro Plus	1006208	2023/01/07	2024/01/06

EFT, Surge						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-155	Compact Immunity Test System	3ctest	CCS600	ES080 1605	2023/01/07	2024/01/06
ITL-183	Coupling / decoupling network	3ctest	SEPN 3832T	ES0951702	2023/01/07	2024/01/06

Conducted Immunity						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-135	9k-1.1GHz signal generator	R&S	SML01	100252	2023/01/07	2024/01/06
ITL-136	150k-230MHz 30W amplifier	Schaffner	CBA9425	1019	2023/01/07	2024/01/06
ITL-137	CDN	Schaffner	CDN M016	20054	2023/01/07	2024/01/06
ITL-139	6dB/50W attenuation	Schaffner	ATN6050	16033	2023/01/07	2024/01/06

Radiated Immunity						
No.	**Test Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Last Cal.**	**Cal. Due**
ITL-153	SIGNAL GENERATOT(5k Hz-6.0GHz)	R&S	SMT06	1039.2000. 06	2022/10/14	2023/10/13
ITL-110	Horn Antenna	A-INFOMW	JXTXLB-1 0180-N	J20310906 12133	2022/06/17	2024/06/16
ITL-173	RF power Amplifier	Lingde	LDPA1G6 G100	202012132	2023/01/07	2024/01/06
ITL-174	RF power Amplifier	Lingde	LDPA80M 1G250	202011112	2023/01/07	2024/01/06
ITL-180	Trilog-Broadband Antenna	Schwarzbeck	VULB 9164	005	2022/11/20	2024/11/19
ITL-100	Full Anechoic Chamber	ETS•Lindgren	FACT3 2.0	CT09015	2022/10/14	2025/10/13
ITL-162	Electric field probe	Narda S.T.S./PMM	EP 601	811ZX0105 6	2023/01/07	2024/01/06

Section 2 Emission Test Results

2.1 Conducted Emission at Mains Terminals, 150 kHz to 30MHz

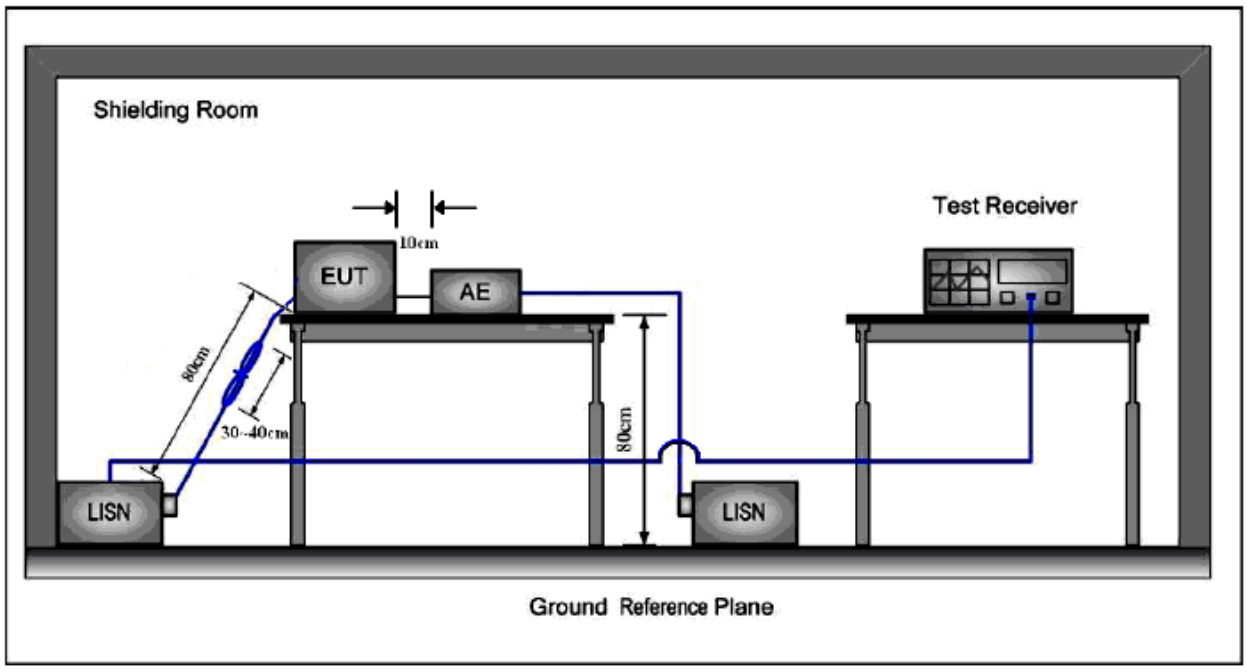
Test Requirement: EN 55032
Test Method: EN 55032
Test Voltage: 230V AC, 50Hz
Frequency Range: 150 kHz to 30MHz
Detector: Peak for pre-scan
Quasi-Peak and Average at frequency with maximum peak (9 kHz resolution bandwidth)
Uncertainty: 2Uc（V）= 2.3dB
Class / Limit: Class B

Frequency range MHz	Class B Limits dB (μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
NOTE 1 :The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. NOTE 2: The lower limit is applicable at the transition frequency.		

2.1.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 51 % RH Atmospheric Pressure: 101 kPa
EUT Operation: Test the EUT in continuous data transmission mode.

2.1.2 Test Setup and Procedure



1. The mains terminal disturbance voltage test was conducted in a shielded room.
2. The EUT was connected to nominal power supply through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH+5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

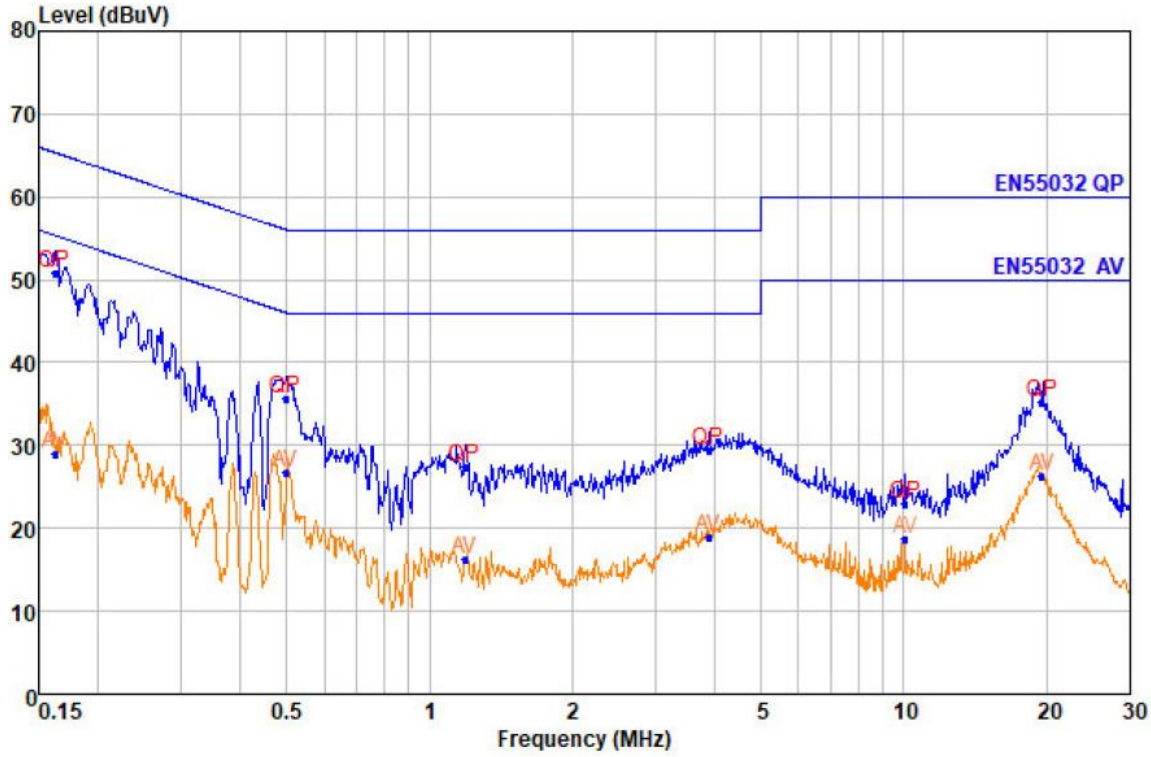
2.1.3 Measurement Data

Pre-scan was performed with peak detected on both live and neutral cable. Quasi-peak & average measurements were performed at the frequencies which maximum peak emission level was detected. Please see the attached Quasi-peak and Average test results.

Live Line:

Peak Scan:

Level (dBμV)



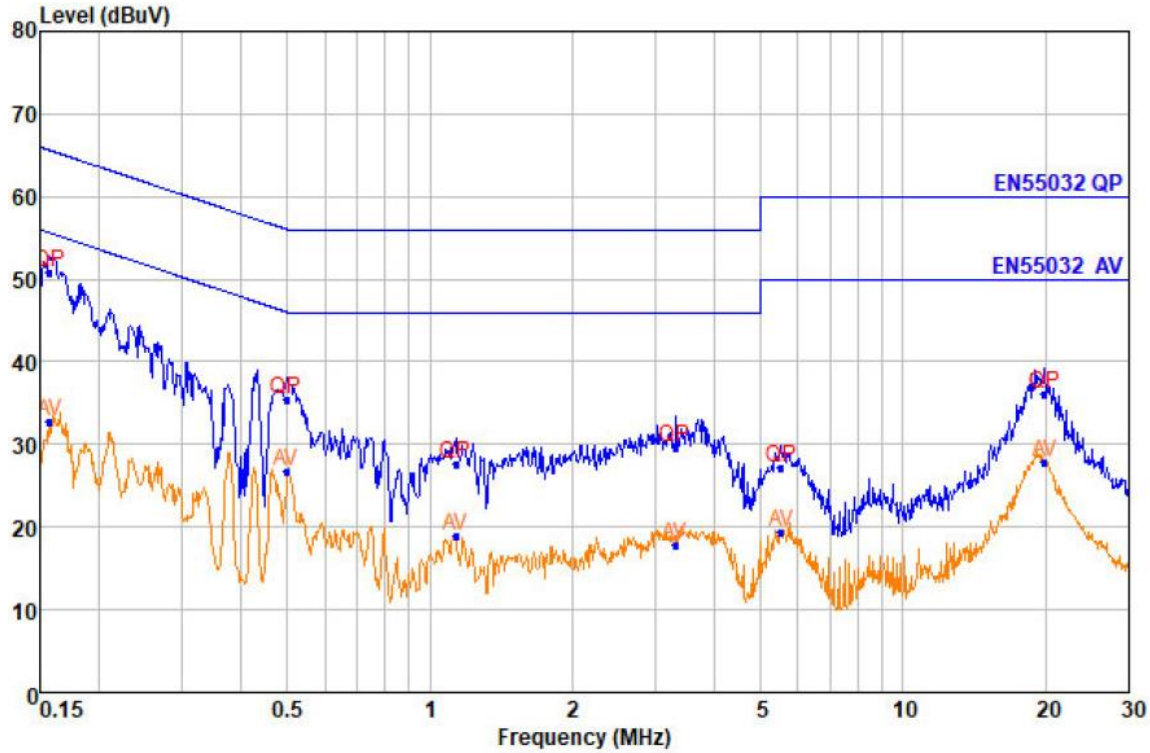
Quasi-peak and Average measurement

NO.	Freq MHz	Level dBuV	Remark	LISN Factor dB	Cable Loss dB	Limit Line dBuV	Over Limit dB
1	0.162	50.89	QP	10.16	0.20	65.36	-14.47
2	0.162	29.00	Average	10.16	0.20	55.34	-26.34
3	0.498	35.72	QP	10.01	0.27	56.03	-20.31
4	0.498	26.77	Average	10.01	0.27	46.03	-19.26
5	1.189	27.37	QP	10.01	0.32	56.00	-28.63
6	1.189	16.25	Average	10.01	0.32	46.00	-29.75
7	3.872	29.32	QP	9.91	0.38	56.00	-26.68
8	3.872	19.02	Average	9.91	0.38	46.00	-26.98
9	10.070	22.89	QP	9.96	0.44	60.00	-37.11
10	10.070	18.78	Average	9.96	0.44	50.00	-31.22
11	19.588	35.23	QP	9.35	0.48	60.00	-24.77
12	19.588	26.24	Average	9.35	0.48	50.00	-23.76

Neutral Line:

Peak Scan:

Level (dB μ V)



Quasi-peak and Average measurement

NO.	Freq MHz	Level dBuV	Remark	LISN Factor dB	Cable Loss dB	Limit Line dBuV	Over Limit dB
1	0.157	50.74	QP	10.01	0.20	65.63	-14.89
2	0.157	32.68	Average	10.01	0.20	55.60	-22.92
3	0.498	35.50	QP	9.90	0.27	56.03	-20.53
4	0.498	26.70	Average	9.90	0.27	46.03	-19.33
5	1.133	27.64	QP	9.93	0.31	56.00	-28.36
6	1.133	18.88	Average	9.93	0.31	46.00	-27.12
7	3.304	29.60	QP	9.87	0.38	56.00	-26.40
8	3.304	17.86	Average	9.87	0.38	46.00	-28.14
9	5.526	27.28	QP	9.79	0.40	60.00	-32.72
10	5.526	19.28	Average	9.79	0.40	50.00	-30.72
11	19.903	36.05	QP	9.61	0.48	60.00	-23.95
12	19.903	27.89	Average	9.61	0.48	50.00	-22.11

2.2 Conducted Emissions at Telecommunication ports, 150 kHz to 30 MHz

Test Requirement: EN 55032
Frequency Range: 150 kHz to 30MHz
Class / Limit: Class B

2.2.1 E.U.T. Operation

Operating Environment:
Temperature: 25.0 °C Humidity: 51 % RH Atmospheric Pressure: 101 kPa
EUT Operation: Test the EUT in continuous data transmission mode.

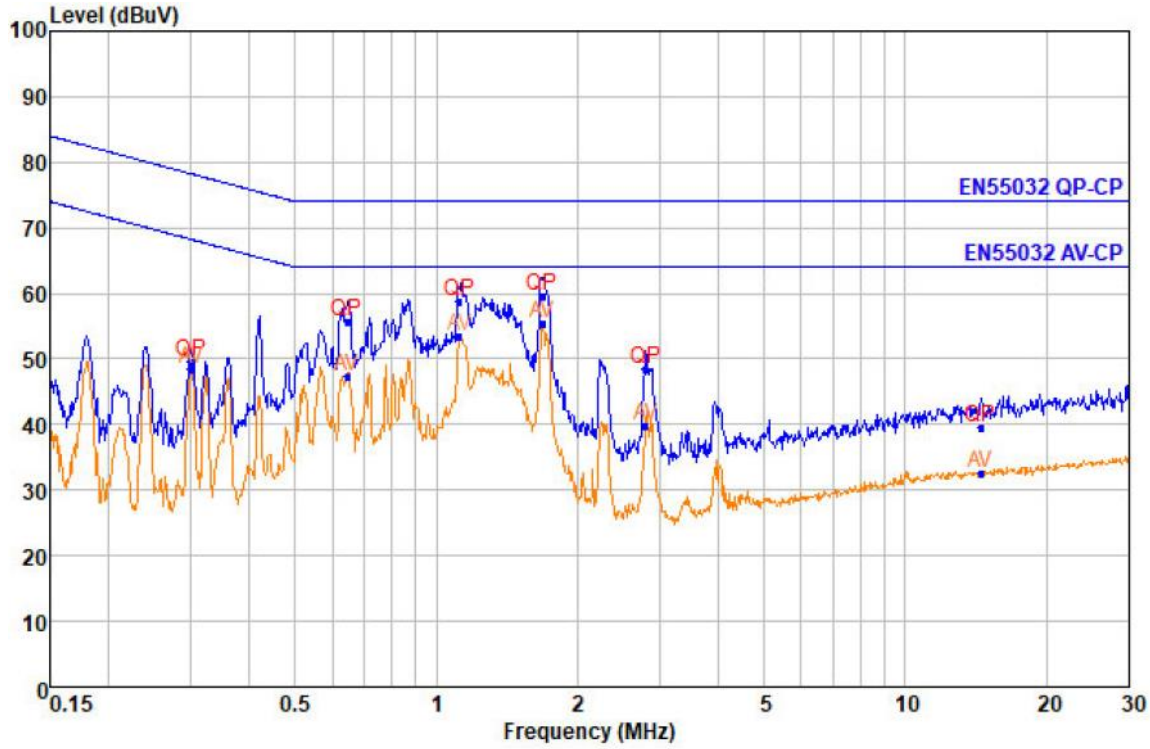
Frequency range MHz	**Class B Limits dB (μV)**	
	Quasi-peak	Average
0.15 to 0.50	84-74	74-64
0.50 to 30	74	64
NOTE 1 :The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz. NOTE 2: The lower limit is applicable at the transition frequency.		

2.2.2 Measurement Data

LAN: GE 1

Peak Scan:

Level (dBμV)



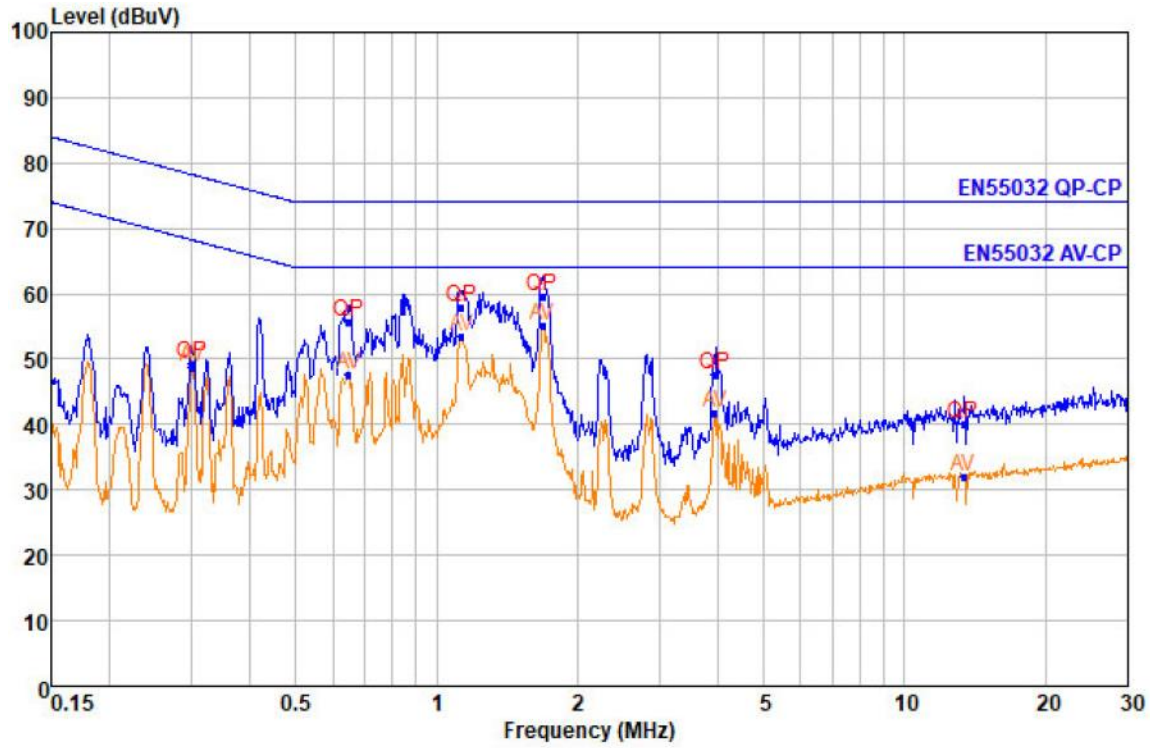
Quasi-peak and Average measurement

NO.	Freq MHz	Level dBuV	Remark	LISN Factor dB	Cable Loss dB	Limit Line dBuV	Over Limit dB
1	0.300	49.47	QP	10.03	0.24	78.24	-28.77
2	0.300	48.52	Average	10.03	0.24	68.24	-19.72
3	0.646	55.64	QP	10.01	0.28	74.00	-18.36
4	0.646	47.49	Average	10.01	0.28	64.00	-16.51
5	1.120	58.90	QP	10.01	0.31	74.00	-15.10
6	1.120	53.62	Average	10.01	0.31	64.00	-10.38
7	1.685	59.57	QP	9.99	0.34	74.00	-14.43
8	1.685	55.37	Average	9.99	0.34	64.00	-8.63
9	2.789	48.56	QP	9.95	0.37	74.00	-25.44
10	2.789	39.77	Average	9.95	0.37	64.00	-24.23
11	14.482	39.67	QP	9.60	0.46	74.00	-34.33
12	14.482	32.59	Average	9.60	0.46	64.00	-31.41

LAN: GE 2

Peak Scan:

Level (dBμV)



Quasi-peak and Average measurement

NO.	Freq MHz	Level dBuV	Remark	LISN Factor dB	Cable Loss dB	Limit Line dBuV	Over Limit dB
1	0.300	49.44	QP	10.03	0.24	78.24	-28.80
2	0.300	48.81	Average	10.03	0.24	68.24	-19.43
3	0.649	55.84	QP	10.01	0.28	74.00	-18.16
4	0.649	47.60	Average	10.01	0.28	64.00	-16.40
5	1.130	57.99	QP	10.01	0.31	74.00	-16.01
6	1.130	53.42	Average	10.01	0.31	64.00	-10.58
7	1.685	59.56	QP	9.99	0.34	74.00	-14.44
8	1.685	55.26	Average	9.99	0.34	64.00	-8.74
9	3.933	47.77	QP	9.91	0.38	74.00	-26.23
10	3.933	41.80	Average	9.91	0.38	64.00	-22.20
11	13.380	40.19	QP	9.68	0.45	74.00	-33.81
12	13.380	31.91	Average	9.68	0.45	64.00	-32.09

2.3 Radiated Emissions, 30MHz to 1GHz

Test Requirement:	EN 55032
Test Method:	EN 55032
Test Voltage:	230Vac, 50Hz
Frequency Range:	30MHz to 1GHz
Measurement Distance	3m
Detector:	Peak for pre-scan
	Quasi-Peak if maximised peak within 6dB of limit (120 kHz resolution bandwidth)
Uncertainty:	2Uc（V）= 3.35dB
Class / Limit:	Class B

Frequency range MHz	**Quasi-peak limits** dB (μV/m)
30 to 230	40
230 to 1000	47
At transitional frequencies the lower limit applies	

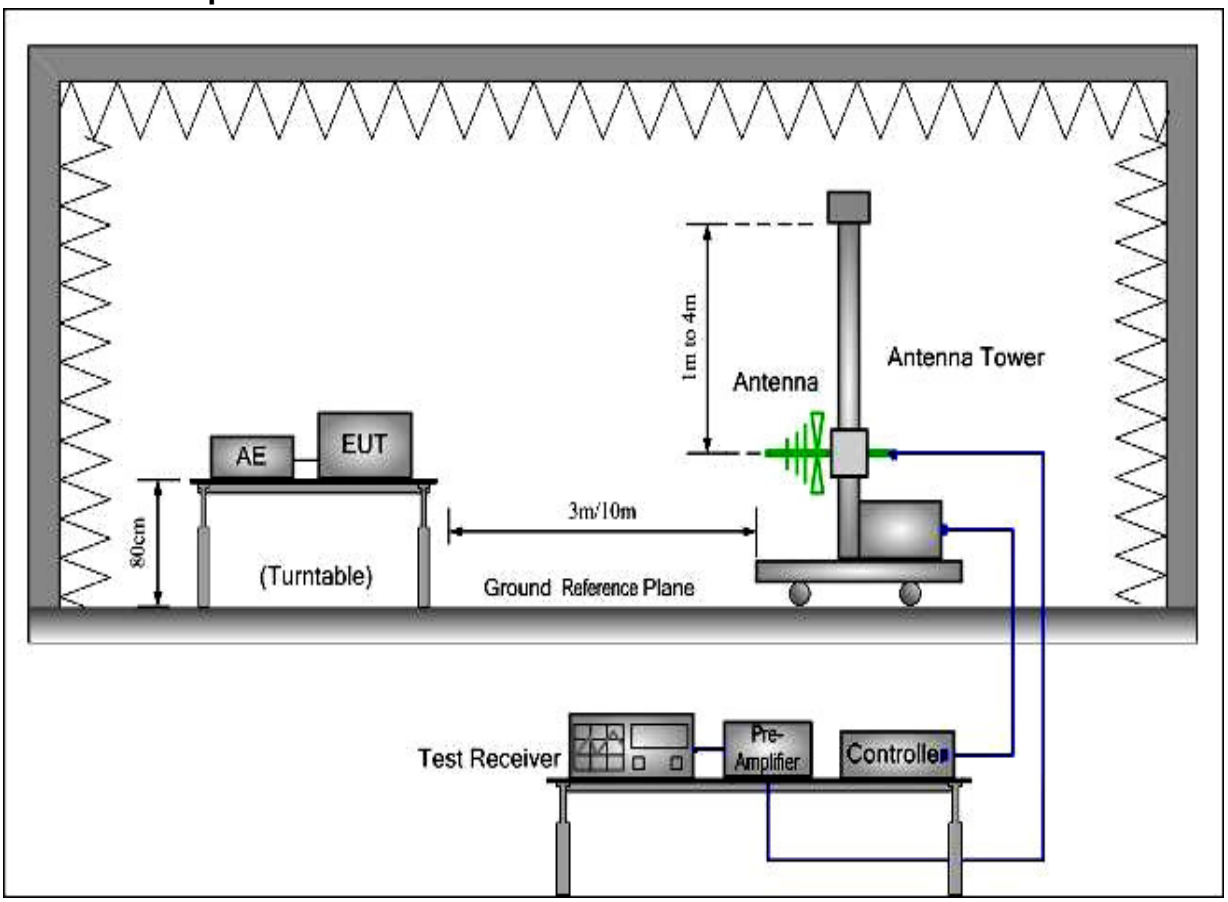
2.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 51 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

2.3.2 Test Setup and Procedure



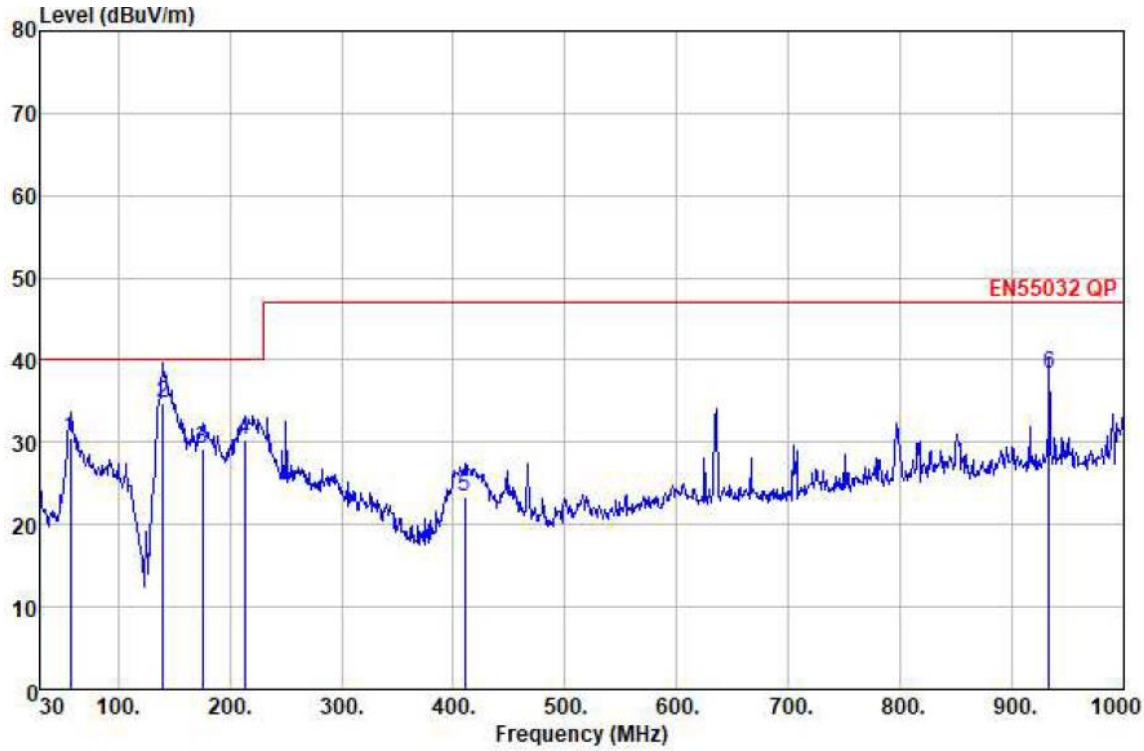
1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. Biconical and log periodic antenna was used for the frequency range from 30MHz to 1GHz
3. The EUT was connected to nominal power supply through a mains power outlet which was bonded to the ground reference plane; The mains cables were draped to the ground reference plane. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
5. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.

2.3.3 Measurement Data

Horizontal:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

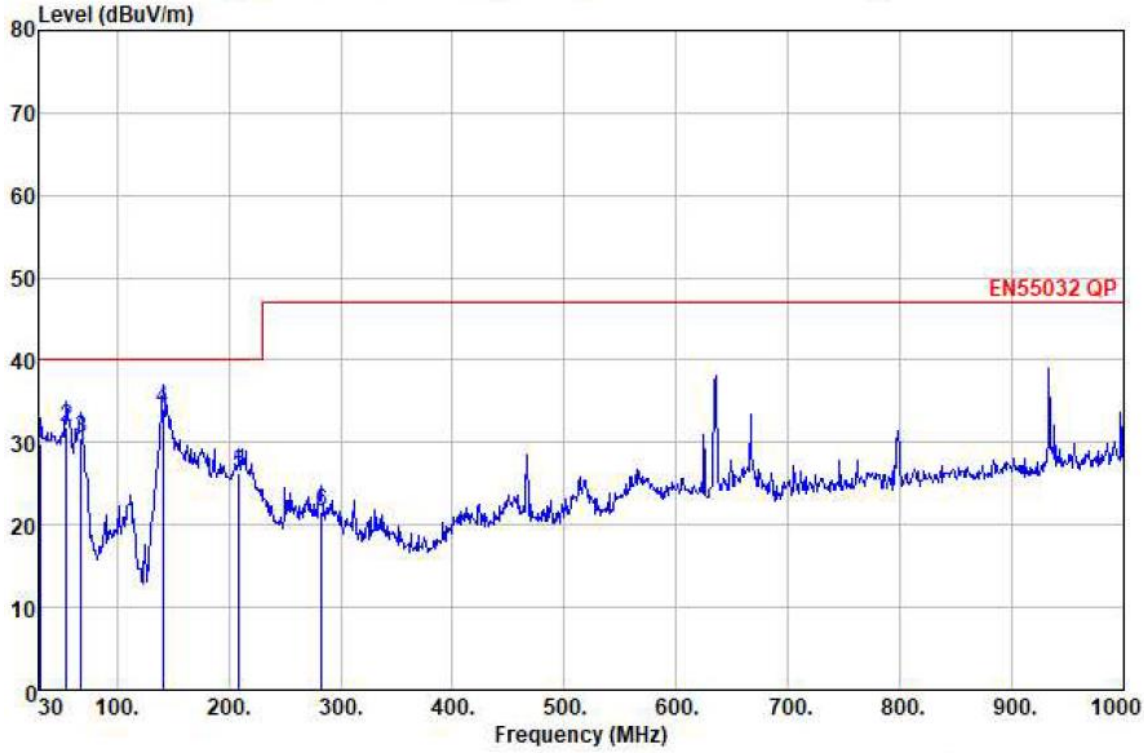
No.	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB		
1	57.160	52.70	5.31	0.87	28.31	30.57	40.00	-9.43	HORIZONTAL	QP
2	140.580	53.49	8.08	1.41	28.22	34.76	40.00	-5.24	HORIZONTAL	QP
3	175.500	46.57	9.24	1.59	28.11	29.29	40.00	-10.71	HORIZONTAL	QP
4	213.330	45.53	10.61	1.76	27.60	30.30	40.00	-9.70	HORIZONTAL	QP
5	410.240	33.28	15.74	2.49	28.16	23.35	47.00	-23.65	HORIZONTAL	QP
6	933.070	39.47	22.40	3.87	27.33	38.41	47.00	-8.59	HORIZONTAL	QP

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

Vertical:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

No.	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dB	dB	dBuV/m	dBuV/m	dB		
1	30.970	35.58	22.21	0.64	28.52	29.91	40.00	-10.09	VERTICAL	QP
2	55.220	53.70	5.80	0.85	28.38	31.97	40.00	-8.03	VERTICAL	QP
3	67.830	51.19	6.71	0.96	28.28	30.58	40.00	-9.42	VERTICAL	QP
4	141.550	52.79	8.04	1.42	28.26	33.99	40.00	-6.01	VERTICAL	QP
5	209.450	41.70	10.34	1.75	27.52	26.27	40.00	-13.73	VERTICAL	QP
6	283.170	33.98	13.23	2.06	27.64	21.63	47.00	-25.37	VERTICAL	QP

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

2.4 Radiated Emissions above 1 GHz

Test Requirement:	EN 55032
Frequency Range:	1GHz to 6GHz
Measurement Distance	3m
Class / Limit:	Class B

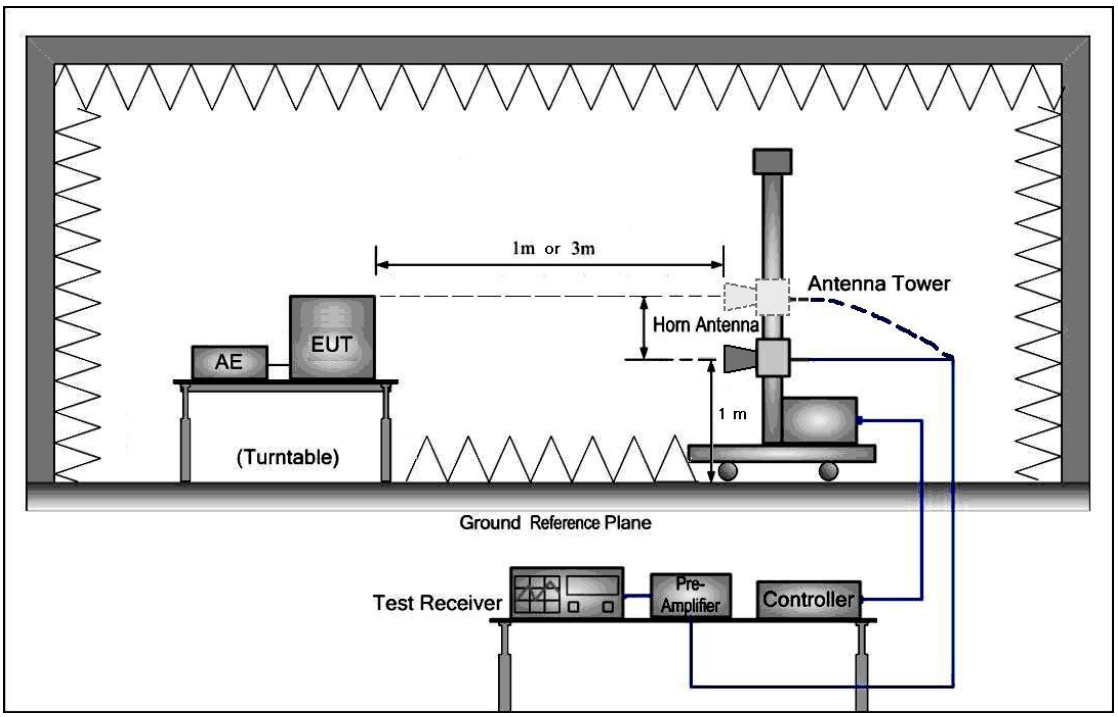
2.4.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 51 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

2.4.2 Test Setup and Procedure



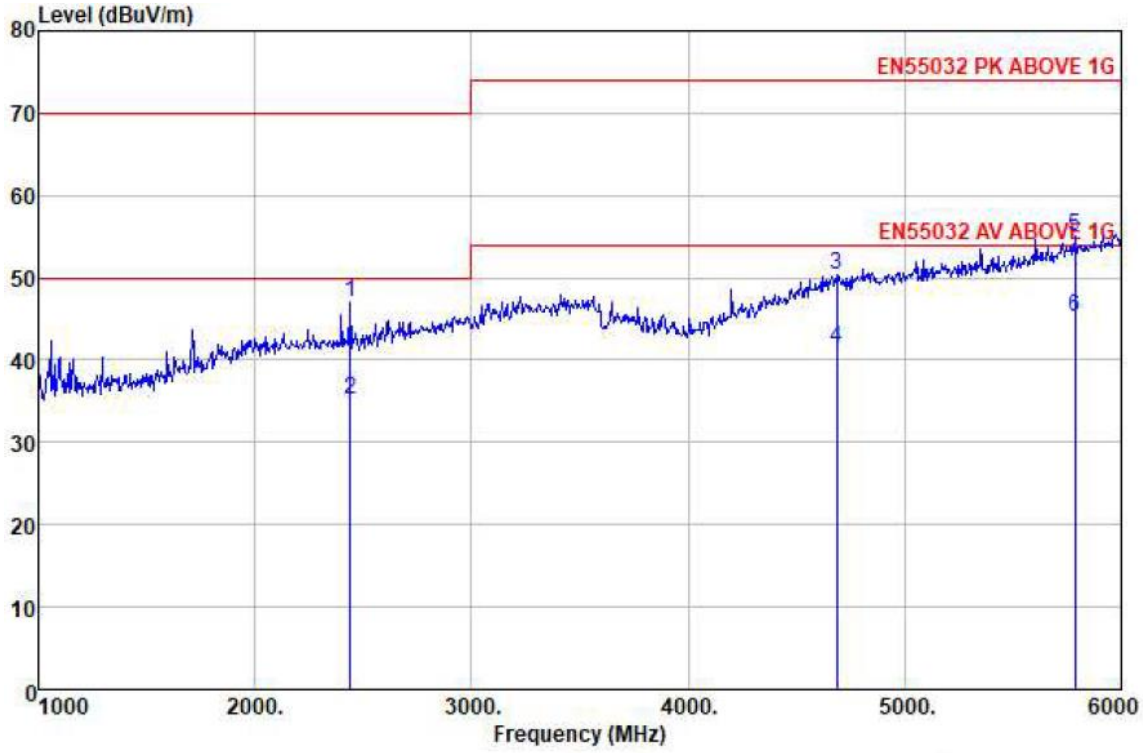
1. The radiated emissions test was conducted in a fully-anechoic chamber.
2. Horn antenna was used for the frequency above 1GHz
3. The EUT was connected to nominal power supply through a mains power outlet which was bonded to the ground reference plane; The mains cables were draped to the ground reference plane. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emission spectrum plots of the EUT.
5. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360°, and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.

2.4.3 Measurement Data

Horizontal:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

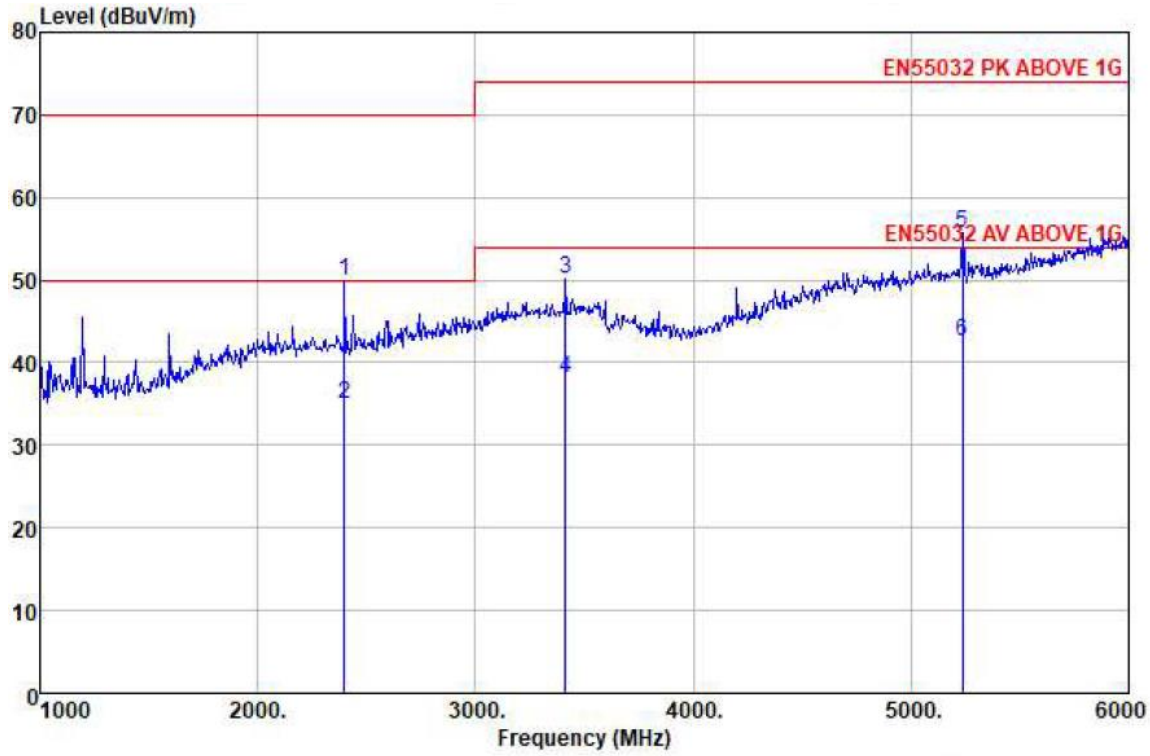
No.	Freq MHz	Read Level dBuV	Antenna Factor dB	Cable Loss dB	Preamp Factor dB	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Pol/Phase	Remark
1	2440.000	40.25	27.92	6.53	27.79	46.91	70.00	-23.09	HORIZONTAL	Peak
2	2440.000	28.63	27.92	6.53	27.79	35.29	50.00	-14.71	HORIZONTAL	Averag
3	4685.000	35.37	33.25	9.44	27.65	50.41	74.00	-23.59	HORIZONTAL	Peak
4	4685.000	26.47	33.25	9.44	27.65	41.51	54.00	-12.49	HORIZONTAL	Averag
5	5785.000	36.81	35.10	10.67	27.45	55.13	74.00	-18.87	HORIZONTAL	Peak
6	5785.000	26.96	35.10	10.67	27.45	45.28	54.00	-8.72	HORIZONTAL	Averag

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

Vertical:

Peak scan

Level (dBμV/m)



Quasi-peak measurement

No.	Freq MHz	Read Level dBuV	Antenna Factor dB	Cable Loss dB	Preamp Factor dB	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	Pol/Phase	Remark
1	2400.000	43.24	27.94	6.46	27.78	49.86	70.00	-20.14	VERTICAL	Peak
2	2400.000	28.37	27.94	6.46	27.78	34.99	50.00	-15.01	VERTICAL	Averag
3	3415.000	38.99	31.11	7.88	27.83	50.15	74.00	-23.85	VERTICAL	Peak
4	3415.000	26.86	31.11	7.88	27.83	38.02	54.00	-15.98	VERTICAL	Averag
5	5235.000	39.61	33.69	10.06	27.54	55.82	74.00	-18.18	VERTICAL	Peak
6	5235.000	26.40	33.69	10.06	27.54	42.61	54.00	-11.39	VERTICAL	Averag

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

2.5 Harmonics Test Results

Test Requirement:	EN IEC 61000-3-2
Frequency Range:	100Hz to 2kHz
Measurement Time:	3 min
Class / Limit:	Class A
Test Date:	**N/A: See Remark Below**

Remark:

There is no need for Harmonics test to be performed on this product (rated power is less than 75W) in accordance with EN IEC 61000-3-2

For further details, please refer to EN IEC 61000-3-2 which states:

"For the following categories of equipment limits are not specified in this edition of the standard.

Note 1: Equipment with a rated power of 75W or less, other than lighting equipment."

2.6 Flicker Test Results

Test Requirement:	EN 61000-3-3
Test Method:	EN 61000-3-3
Test Voltage:	230V AC 50Hz
Test Date:	2021-07-30
Measurement Time	10 mins
Class / Limit:	Clause 5 of EN 61000-3-3

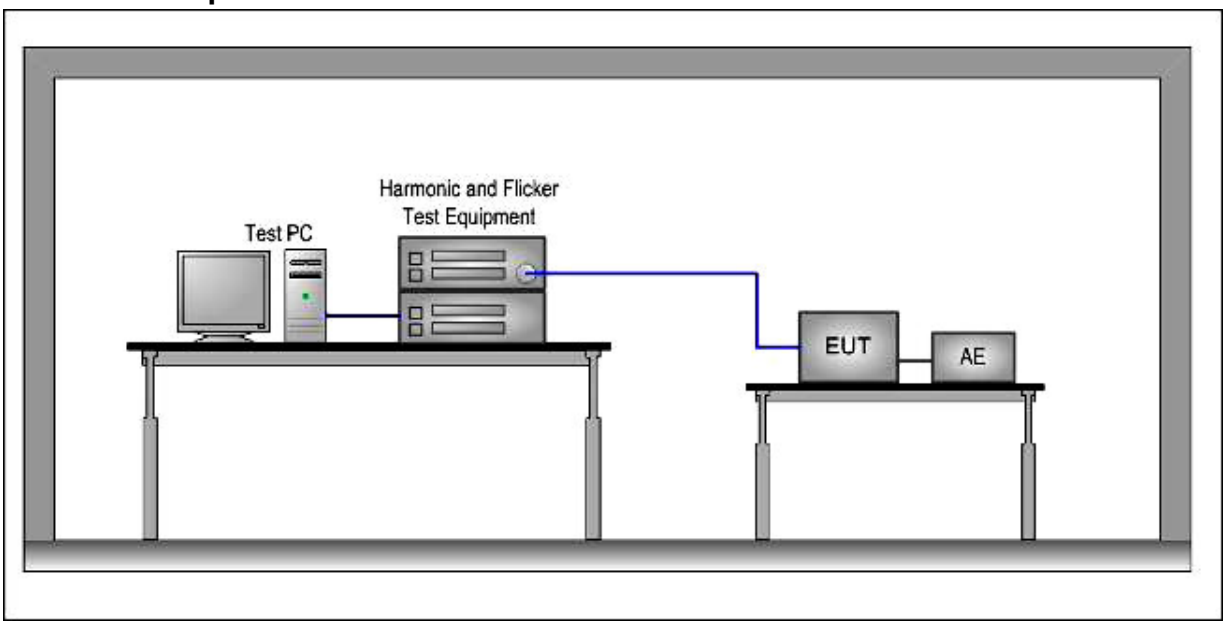
2.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 50 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

2.6.2 Test Setup and Procedure



1. The test supply voltage (open-circuit voltage) was the rated voltage of the EUT. The test voltage was maintained within ±2 % of the nominal value. The frequency was 50 Hz ±0.5 %.
2. The voltage fluctuations and flicker were measured at the supply terminals of the EUT.
3. The observation period, Tp, for the assessment of flicker values by flicker measurement, flicker simulation, or analytical method was:

¡ ª —for Pst, Tp = 10 min;

¡ ª —for Plt, Tp = 2 h.

The observation period included that part of the whole operation cycle in which the EUT produces the most unfavorable sequence of voltage changes.

2.6.3 Measurement Data

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

Test Result: Pass **Status: Test Completed**

Pst_i and limit line **European Limits**

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**229.68**			
Highest dt (%):	**0.00**	**Test limit (%):**	**N/A**	**N/A**
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.11**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.064**	**Test limit:**	**1.000**	**Pass**

Section 3 Immunity Test Results

3.1 Performance Criteria Description in EN 55035

Criterion A:	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 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:	After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena 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. During the test, degradation of performance is allowed. However, no change of operating state or stored data is allowed to persist after the test. 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 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. Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

3.2 ESD

Test Requirement:	EN 55035
Test Method:	EN 61000-4-2
Test Voltage:	230V AC 50Hz
Criterion Required:	B
Discharge Impedance:	330 Ω / 150 pF
Discharge Voltage:	Air Discharge: 8 kV
	VCP, HCP: 4 kV
	Contact Discharge: 4 kV
Polarity:	Positive & Negative
Number of Discharge:	Minimum 50 times at each test point
Discharge Mode:	Single Discharge
Discharge Period:	1 second minimum

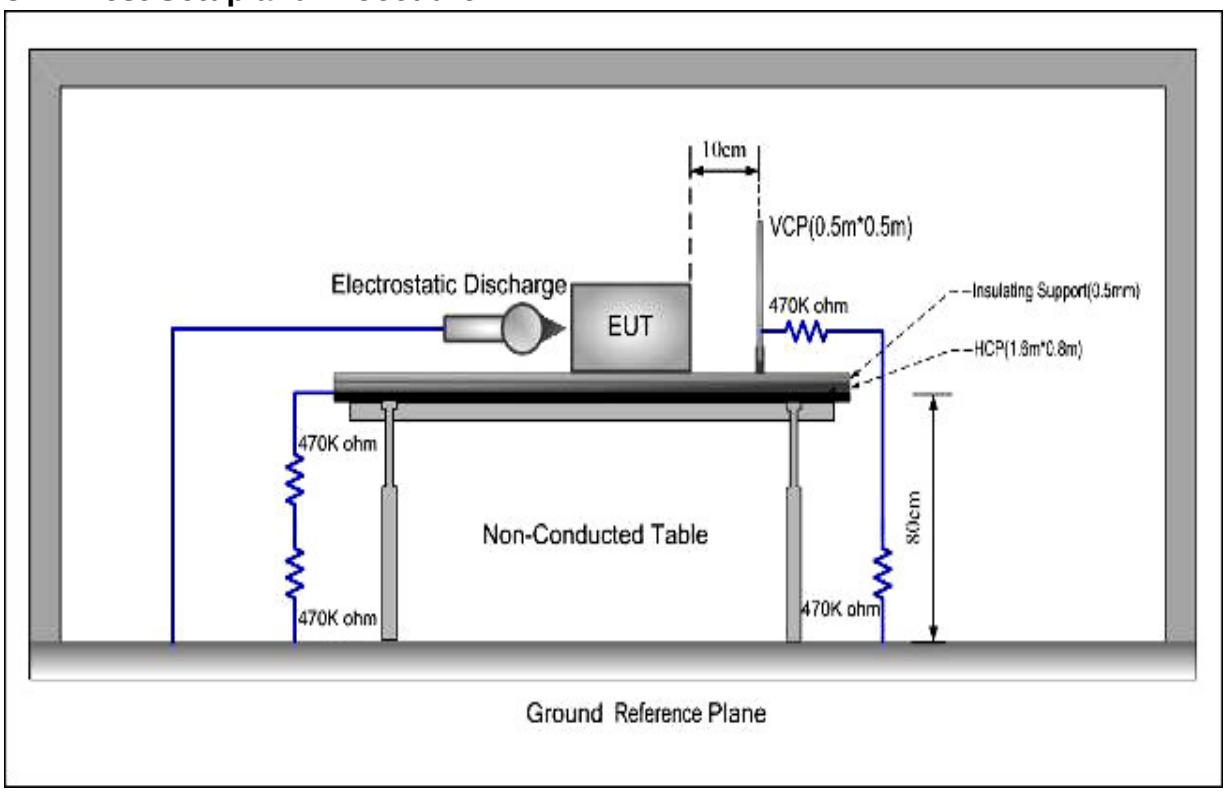
3.2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 50 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.2.2 Test Setup and Procedure



1. Contact discharges to the conductive surfaces and to coupling planes:

The EUT was exposed to at least 200 discharges, 100 each at negative and positive polarity, at a minimum of four test points (a minimum of 50 discharges at each point). One of the test points was subjected to at least 50 indirect discharges (contact) to the centre of the front edge of the horizontal coupling plane. The remaining three test points shall each receive at least 50 direct contact discharges. If no direct contact test points were available, then at least 200 indirect discharges were applied in the indirect mode. Tests were performed at a maximum repetition rate of one discharge per second.

Air discharge at slots and apertures, and insulating surfaces:

On those parts of the EUT where it was not possible to perform contact discharge testing, the equipment was investigated to identify user accessible points where breakdown may occur. This investigation was restricted to those areas normally handled by the user. A minimum of 10 single air discharges were applied to the selected test point for each such area.

The application of electrostatic discharges to the contacts of open connectors was not required by this standard.

2. The EUT was put on a 0.8m high wooden table for table-top equipment or 0.1m high for floor standing equipment standing on the ground reference plane (GRP).
3. A horizontal coupling plane (HCP) 1.6m by 0.8m in size was placed on the table, and the EUT with its cables were isolated from the HCP by an insulating support thick than 0.5mm. The VCP 0.5m by 0.5m in size while HCP were constructed from the same material type and thickness as that of the GRP, and connected to the GRP via a 470kΩ resistor at each end. The distance between EUT and any of the other metallic surface excepted the GRP, HCP and VCP was greater than 1m.
4. During the contact discharges, the tip of the discharge electrode was touched the EUT before the discharge switch is operated. During the air discharges, the round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT.
5. After each discharge, the ESD generator was removed from the EUT, the generator was then retriggered for a new single discharge. For ungrounded product, a discharge cable with two resistances was used after each discharge to remove remnant electrostatic voltage. 10 times of each polarity single discharge were applied to HCP and VCP.

3.2.3 Test Results

- **Direct Application Test Results**

Observations: Test Point: 1. All insulated enclosure & seams.
2. All accessible metal parts of the enclosure with discharge resistor used.

Direct Application			Test Results	
Discharge Level (kV)	**Polarity (+/-)**	**Test Point**	**Contact Discharge**	**Air Discharge**
2, 4, 8	+/-	1	N/A	A
4	+/-	2	A	N/A

- **Indirect Application Test Results**

Observations: Test Point: 1. All sides.

Indirect Application			Test Results	
Discharge Level (kV)	**Polarity (+/-)**	**Test Point**	**Horizontal Coupling**	**Vertical Coupling**
4	+/-	1	A	A

Remarks:

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

N/A: Not Applicable (not required by Standard).

The EUT does meet the Electric-Static Discharge requirements of Standard.

3.3 Radiated Immunity

Test Requirement:	EN 55035
Test Method:	EN 61000-4-3
Test Voltage:	230V AC 50Hz
Criterion Required:	A
Frequency Range:	80MHz to 1GHz，1 800MHz (±1 %)，2 600 MHz (±1 %), 3 500 MHz (±1 %), 5 000 MHz (±1 %)
Antenna Polarization:	Horizontal & Vertical
Test level:	3 V/m on enclosure
Modulation:	80 %, 1 kHz Amplitude Modulation

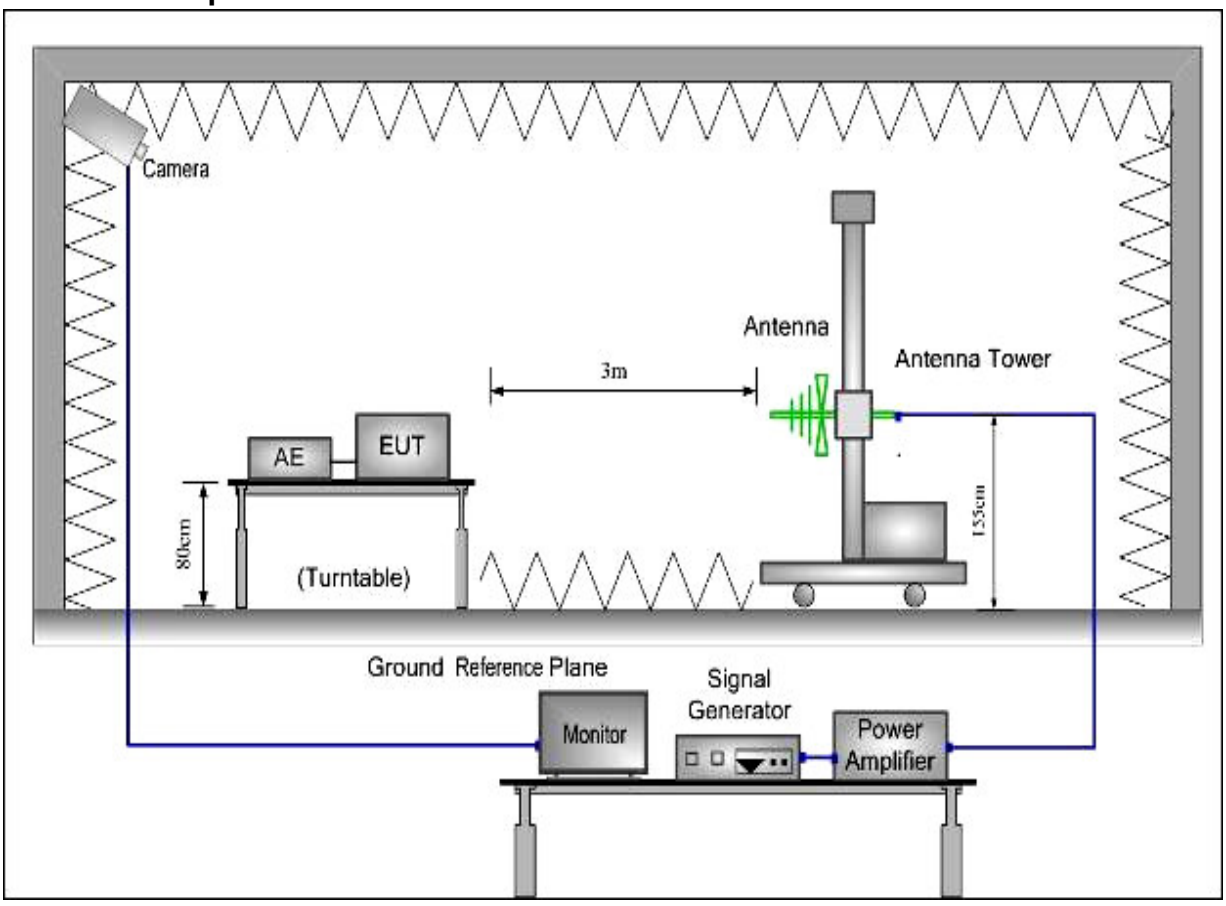
3.3.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 49 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.3.2 Test Setup and Procedure



1. For table-top equipment, the EUT was placed in the chamber on a non-conductive table 0.8m high. For arrangement of floor-standing equipment, the EUT was mounted on a non-conductive support 0.1m above the supporting plane. For human body-mounted equipment, the EUT may be tested in the same manner as table top items.
2. If possible, a minimum of 1 m of cable is exposed to the electromagnetic field. Excess length of cables interconnecting units of the EUT shall be bundled low-inductively in the approximate center of the cable to form a bundle 30 cm to 40 cm in length.
3. The EUT was initially placed with one face coincident with the calibration plane. The EUT face being illuminated was contained within the UFA (Uniform Field Area).
4. The frequency ranges to be considered were swept with the signal modulated and pausing to adjust the RF signal level or to switch oscillators and antennas as necessary. Here the frequency range was swept incrementally, the step size was not exceed 1 % of the preceding frequency value.
5. The dwell time of the amplitude modulated carrier at each frequency was not be less than the time necessary for the EUT to be exercised and to respond, and was not less than 0.5 s.
6. The test normally was performed with the generating antenna facing each side of the EUT.
7. The polarization of the field generated by each antenna necessitates testing each selected side twice, once with the antenna positioned vertically and again with the antenna positioned horizontally.
8. The EUT was performed in a configuration to actual installation conditions, a video camera and/or a audio monitor were used to monitor the performance of the EUT.

3.3.3 Test Results

Frequency	Level	Modulation	Antenna Polarization	EUT Face	Result / Observations
80 MHz-1 GHz, 1800MHz (±1 %), 2600 MHz (±1 %), 3500MHz(±1 %), 5000MHz (±1 %)	3 V/m	1 kHz, 80%Amp.Mod, 1% increment	V	Front	A
			H		A
			V	Rear	A
			H		A
			V	Left	A
			H		A
			V	Right	A
			H		A
			V	Top	A
			H		A
			V	Bottom	A
			H		A

Remarks:

Front: the front of the EUT faces to transmitting antenna (refer to Radiated Immunity test setup photo)

A: No degradation in the performance of the E.U.T. was observed.

The EUT does meet the Radiated Immunity requirements of Standard.

3.4 Electrical Fast Transients (EFT)

Test Requirement:	EN 55035
Test Method:	EN 61000-4-4
Test Voltage:	230V AC 50Hz
Criterion Required:	B
Test Level:	±1.0 kV on AC ±0.5 kV on Telecommunication ports
Polarity:	Positive & Negative
Repetition Frequency:	5kHz
Burst Duration:	300ms
Test Duration:	2 minute per level & polarity

3.4.1 E.U.T. Operation

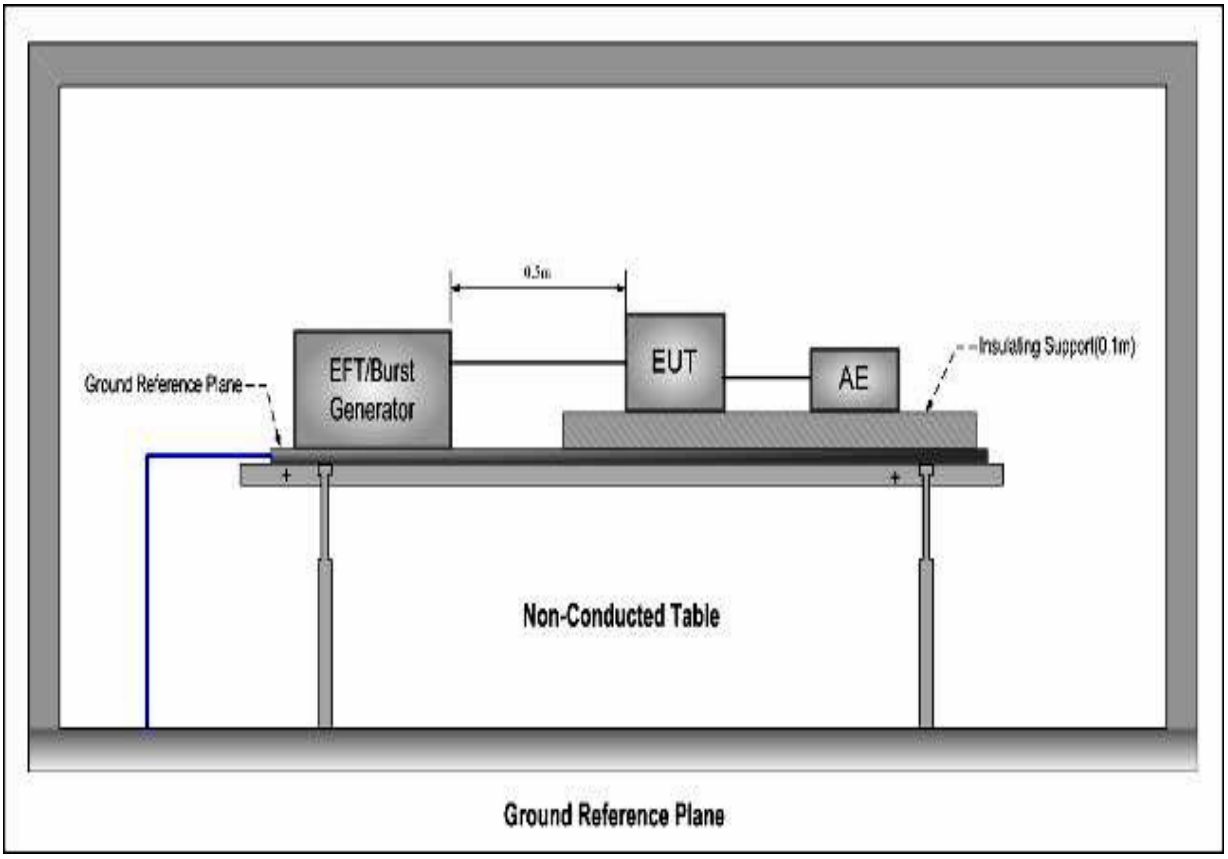
Operating Environment:

Temperature: 25.0 °C Humidity: 49 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.4.2 Test Setup and Procedure

For AC port:



1. The EUT was placed on a ground reference plane (GRP) insulated by an insulating support 0.1 m thick and the GRP was placed on a 0.8m high wooden table for table-top equipment. For floor standing equipment, the EUT was placed on a 0.1m high wooden support above the GRP.
2. The GRP shall project beyond the EUT and the clamp by at least 0.1m on all sides. The distance between the EUT and any other of the metallic surface except the GRP was greater than 0.5m. All cables to the EUT were placed on the insulation support 0.1m above GRP. Cables not subject to EFT were routed as far as possible from cable under test to minimize the coupling between the cables.
3. The length of signal and power cable between the EUT and EFT generator was 0.5m. If the cable is a non-detachable supply cable more than 0.5m, the excess length of this cable shall be folded to avoid a flat coil and situated at a distance of 0.1m above the GRP.
4. The EUT was conducted the below specified level voltage test for line to neutral or line to neutral to earth(for clamp coupling is for the signal line), 120 seconds duration.
5. If the equipment contains identical ports, only one was tested; multiconductor cables, such as a 50-pair telecommunication cable, were tested as a single cable. Cables did not be split or divided into groups of conductors for this test; interface ports, which were intended by the manufacturer to be connected to data cables not longer than 3 m, did not be tested.

3.4.3 Test Results

Lead under Test	Level (±kV)	Coupling Direct/Clamp	EUT operating mode	Observations (Performance Criterion)
Live	±1.0	Direct	All mode	(A)
Neutral	±1.0	Direct	All mode	(A)
PE	±1.0	Direct	All mode	(A)
Live+ Neutral+PE	±1.0	Direct	All mode	(A)
Telecommunication ports	±0.5	Clamp	All mode	(A)

Remark:

A: No degradation in the performance of the E.U.T. was observed.

The EUT does meet the Electrical Fast Transients requirements of Standard.

3.5 Surge

Test Requirement:	EN 55035
Test Method:	EN 61000-4-5
Test Voltage:	230V AC 50Hz
Criterion Required:	B
Test Level:	±1.0 kV Live to Neutral
Polarity:	Positive & Negative
Generator source impedance:	2 Ω/12Ω
Trigger Mode:	Internal
No. of surges:	5 positive, 5 negative at 90°, 270°

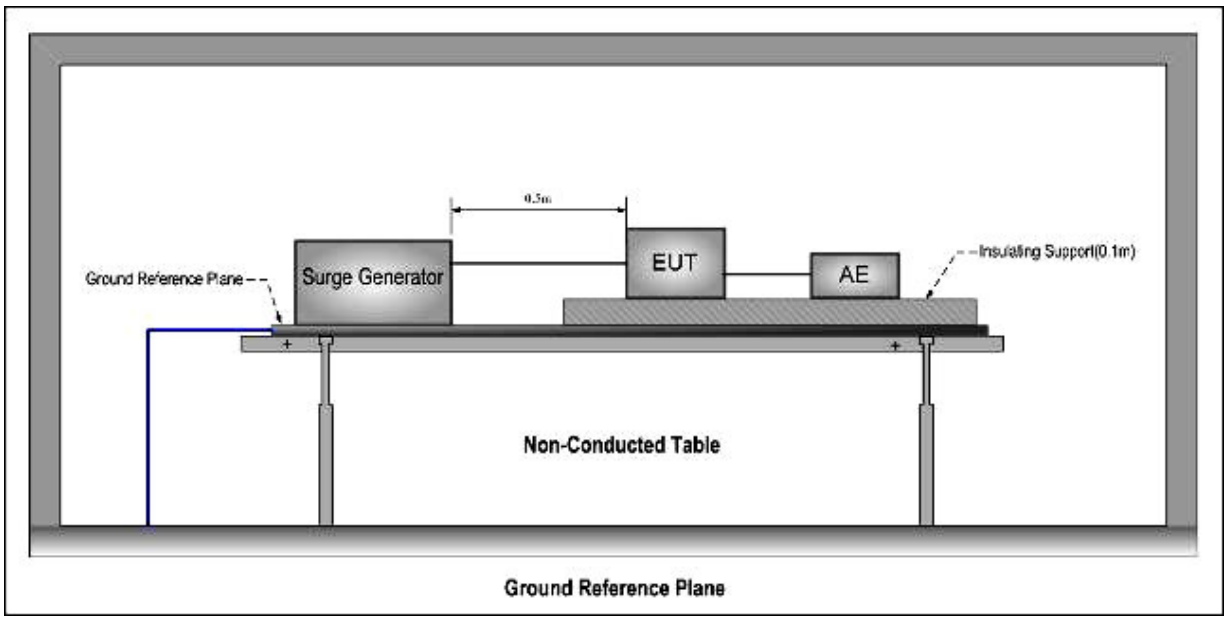
3.5.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 50 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.5.2 Test Setup and Procedure



1. The EUT was placed on a ground reference plane (GRP) insulated by an insulating support 0.1 m thick and the GRP was placed on a 0.8m high wooden table for table-top equipment. For floor standing equipment, the EUT was placed on a 0.1m high wooden support above the GRP.
2. The 1,2/50 μ s surge was to be applied to the EUT power supply terminals via the capacitive coupling network. Decoupling networks were required in order to avoid possible adverse effects on equipment not under test that may be powered by the same lines and to provide sufficient decoupling impedance to the surge wave so that the specified wave may be applied on the lines under test.
3. The power cord between the EUT and the coupling/decoupling network was not exceeding 2 m in length. The interconnection line between the EUT and the coupling/ decoupling network shall not exceed 2 m in length.
4. The EUT was conducted 1kV test voltage for line to Line and line to neutral and conducted 2kV test voltage for line to earth and neutral to earth, five positive pulses and five negative pulses each at 0°, 90°, 180° and 270°for a.c. power ports and five positive pulses and five negative surge pulses for d.c. power ports. The test levels were applied on the EUT with a 2Ω source impedance for power supply terminals and 40Ω output impedance for interconnection lines. The tests were done at repetition rate one per minute.

3.5.3 Test Results

Pulse No	Coupling	Level (kV)	Surge Interval	Phase (deg)	Observation (Performance Criterion)
1-5	L-N	+0.5	60s	90°	(A)
6-10	L-N	-0.5	60s	270°	(A)
11-15	L-N	+1	60s	90°	(A)
16-20	L-N	-1	60s	270°	(A)
21-25	L-PE	+2	60s	90°	(A)
26-30	L-PE	-2	60s	270°	(A)
31-35	N-PE	+2	60s	90°	(A)
36-40	N-PE	-2	60s	270°	(A)

Remarks:

A: No degradation in the performance of the E.U.T. was observed.

The EUT does meet the Surge immunity on AC requirements of Standard.

3.6 Surge Immunity on telecommunication port

Test Requirement:	EN 55035
Criterion Required:	B
Test Level:	±1.0 kV
Polarity:	Telecommunication port
Trigger Mode:	Internal
No. of surges:	5

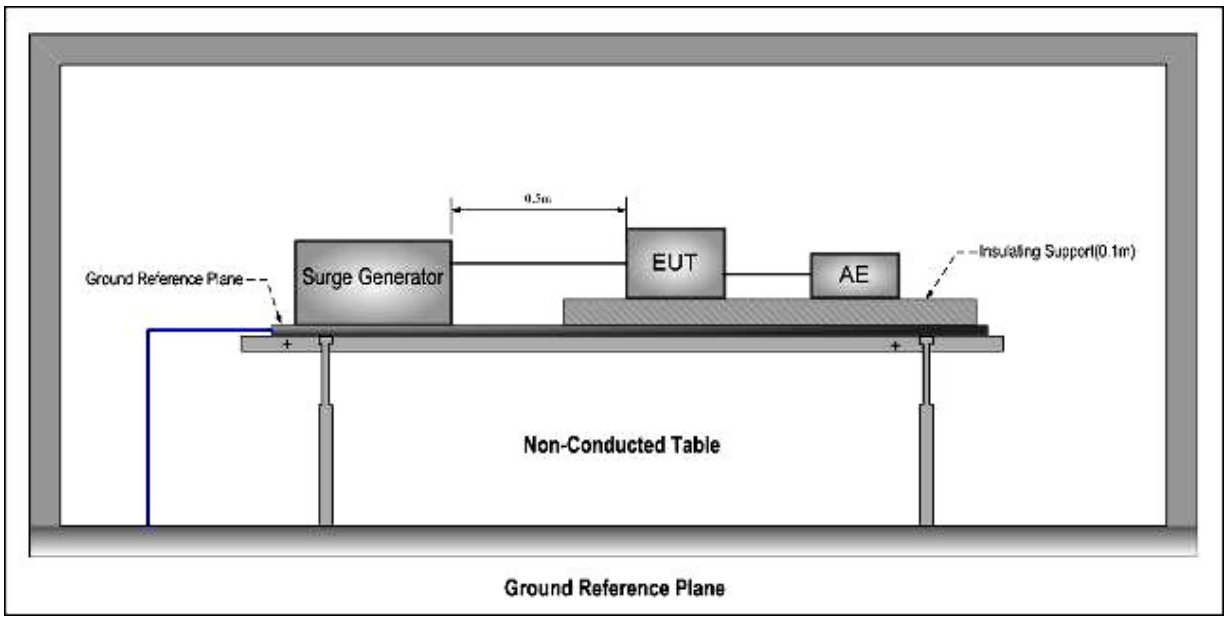
3.6.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 50 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.6.2 Test Setup and Procedure



1. The EUT was placed on a ground reference plane (GRP) insulated by an insulating support 0.1 m thick and the GRP was placed on a 0.8m high wooden table for table-top equipment. For floor standing equipment, the EUT was placed on a 0.1m high wooden support above the GRP.
2. For ports where primary protection is intended, surges are applied at 1 kV test level is applied without primary protection in place.
3. Test applied to all lines simultaneously to earth (ground).
4. The power cord between the EUT and the coupling/decoupling network was not exceeding 2 m in length. The interconnection line between the EUT and the coupling/ decoupling network shall not exceed 2 m in length.
5. Where the coupling network for the 10/700 μs waveform affects the functioning of high speed data ports.
6. The EUT was conducted 1kV test voltage for telecommunication port, five positive pulses and five negative pulses. The tests were done at repetition rate one per minute.

3.6.3 Test Results

Pulse No	Coupling	Level (kV)	Surge Interval	Observation (Performance Criterion)
1-5	Telecommunication port	±1.0	60s	(A)

Remarks:

A: No degradation in the performance of the E.U.T. was observed.

The EUT does meet the Surge immunity on AC requirements of Standard.

3.7 Conducted Immunity 0.15 MHz to 80 MHz

Test Requirement:	EN 55035
Test Method:	EN 61000-4-6
Test Voltage:	230V AC 50Hz
Criterion Required:	A
Frequency Range:	0.15MHz to 80MHz
Test level:	0,15 to 10 MHz: 3 V rms 10 to 30 MHz: 3-1 Vrms 30 to 80 MHz: 1 Vrms
Modulation:	80%, 1kHz Amplitude Modulation

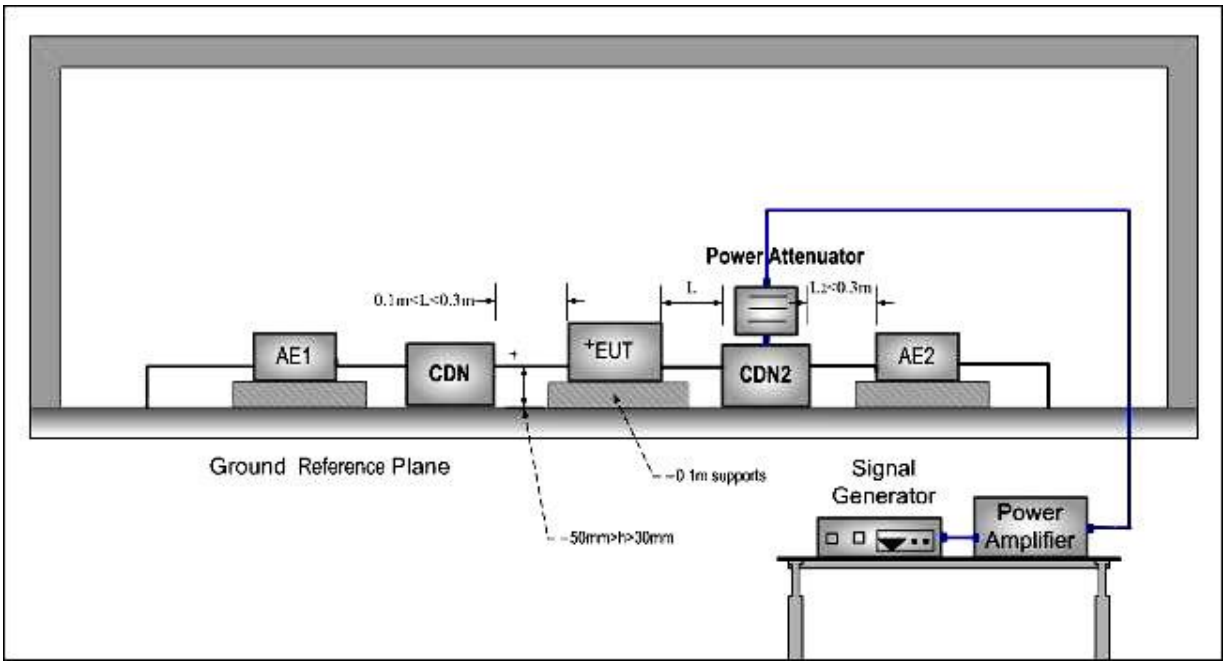
3.7.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 50 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.7.2 Test Setup and Procedure



1. The EUT was placed on an insulating support of 0.1m height above a ground reference Plane, arranged and connected to satisfy its functional requirement. All cables exiting the EUT was supported at a height of at least 30 mm above the ground reference plane.
2. The coupling and decoupling devices were required, they were located between 0.1 m and 0.3 m from the EUT. This distance was to be measured horizontally from the projection of the EUT on to the ground reference plane to the coupling and decoupling device.
3. Each AE, used with clamp injection, shall be placed on an insulating support 0.1 m above the ground reference plane. A decoupling network shall be installed on each cable between the EUT and AE except the cable under test. All cables connected to each AE, other than those being connected to the EUT, shall be provided with decoupling networks. The decoupling networks connected to each AE (except those on cables between the EUT and AE) shall be applied no further than 0.3 m from the AE. The cable(s) between the AE and the decoupling network (s) or in between the AE and the injection clamp shall not be bundled nor wrapped and shall be kept between 30 mm and 50 mm above the ground reference plane.
4. The frequency range was swept from 150 kHz to 80 MHz, using the signal levels established during the setting process, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave, pausing to adjust the RF signal level or to change coupling devices as necessary. Where the frequency was swept incrementally, the step size did not exceed 1 % of the preceding frequency value. The dwell time of the amplitude modulated carrier at each frequency was not less than the time necessary for the EUT to be exercised and to respond, and was not less than 0.5 s.

3.7.3 Test Results

Frequency	Line	Test Level	Modulation	Step Size	Observation (Performance Criterion)
0,15 to 10 MHz	3 Wires AC Supply Cable	3 Vrms	80 %, 1 kHz Amp. Mod.	1%	(A)
10 to 30 MHz	3 Wires AC Supply Cable	3-1 Vrms	80 %, 1 kHz Amp. Mod.	1%	(A)
30 to 80 MHz	3 Wires AC Supply Cable	1 Vrms	80 %, 1 kHz Amp. Mod.	1%	(A)

Frequency	Line	Test Level	Modulation	Step Size	Observation (Performance Criterion)
0,15 to 10 MHz	Telecommunication ports	3 Vrms	80 %, 1 kHz Amp. Mod.	1%	(A)
10 to 30 MHz	Telecommunication ports	3-1 Vrms	80 %, 1 kHz Amp. Mod.	1%	(A)
30 to 80 MHz	Telecommunication ports	1 Vrms	80 %, 1 kHz Amp. Mod.	1%	(A)

Remarks:

A: No degradation in the performance of the E.U.T. was observed.

The EUT does meet the Conducted Immunity requirements of Standard.

3.8 Power Frequency Magnetic Field Immunity

Test Requirement: EN 55035

Criterion Required: A

Test Date: **N/A: See Remark Below**

Remark:

There is no need for Power Frequency Magnetic Field Immunity test to be performed on this product in accordance with EN 55035 because this product does not contain any devices susceptible to magnetic fields

3.9 Voltage Dips and Interruptions

Test Requirement:	EN 55035
Test Method:	EN 61000-4-11
Test Voltage:	100V/240V AC 50/60Hz
Criterion Required:	>95%VD, 0.5period: B;
	>95%VD, 250/300periods: C;
	30%VD, 25/30periods: C
Test level:	0% of U_T (Supply Voltage) for 0.5 Periods
	0% of U_T (Supply Voltage) for 250/300 Periods
	70% of U_T (Supply Voltage) for 25/30 Periods
No. of Dips / Interruptions:	3 per Level

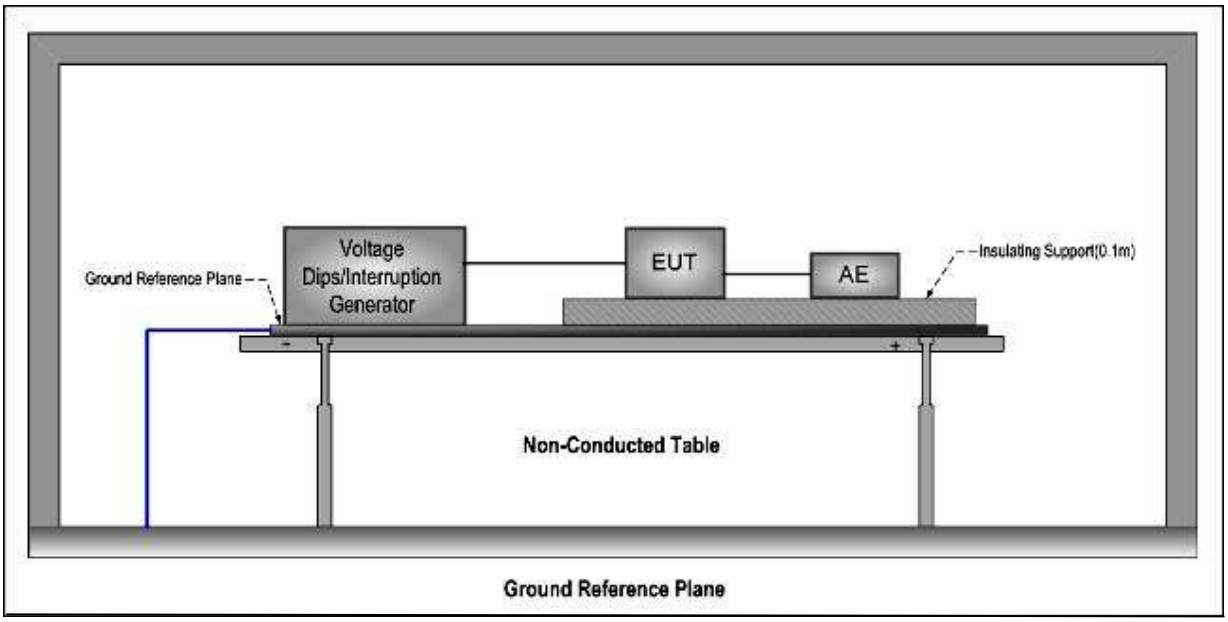
3.9.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C Humidity: 50 % RH Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in continuous data transmission mode.

3.9.2 Test Setup and Procedure



1. The EUT was placed on a ground reference plane(GRP) insulated by an insulating support 0,1 m thick and the GRP was placed on a 0.8m high wooden table for table-top equipment. For floor standing equipment, the EUT was placed on a 0.1m high wooden support above the GRP.
2. The test was performed with the EUT connected to the test generator with the shortest power supply cable as specified by the EUT manufacturer.
3. The EUT was tested for each selected combination of test level and duration with a sequence of three dips /interruptions with intervals of 10s minimum. Each representative mode of operation was tested.
4. For EUT with more than one power cord, each power cord was tested individually.

3.9.3 Test Results

100V 50/60Hz

Test Level %U_T	Phase	Duration of drop out in Periods		No of drop out	Time between drop out	Observations (Performance Criterion)
0	0°	0.5		3	10s	(A)
0	0°	50Hz	250	3	10s	(B)
		60Hz	300			
70	0°	50Hz	25	3	10s	(A)
		60Hz	30			

240V 50/60Hz

Test Level %U_T	Phase	Duration of drop out in Periods		No of drop out	Time between drop out	Observations (Performance Criterion)
0	0°	0.5		3	10s	(A)
0	0°	50Hz	250	3	10s	(B)
		60Hz	300			
70	0°	50Hz	25	3	10s	(A)
		60Hz	30			

Remark:

$\mathbf{U_T}$ = the nominal supply voltage

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

B: The EUT was shut down during test, however, it could recover by automatically after test.

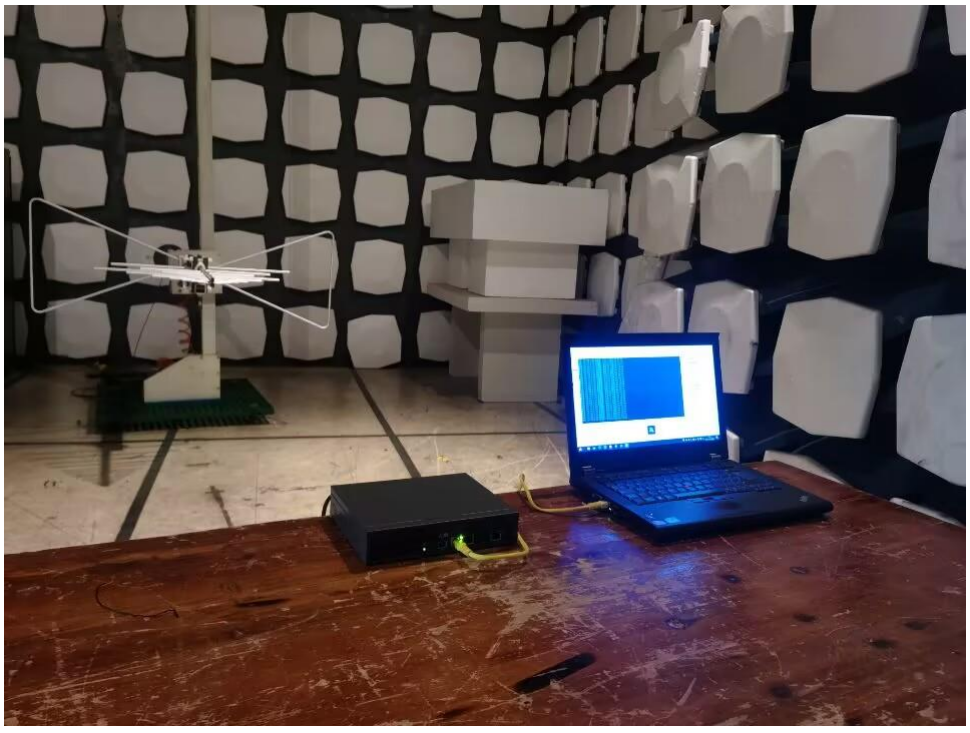
Performance B is within the acceptable criterion for Voltage Dips and Interruption test.

The EUT does meet the Voltage Dips and Interruptions requirements of Standard.

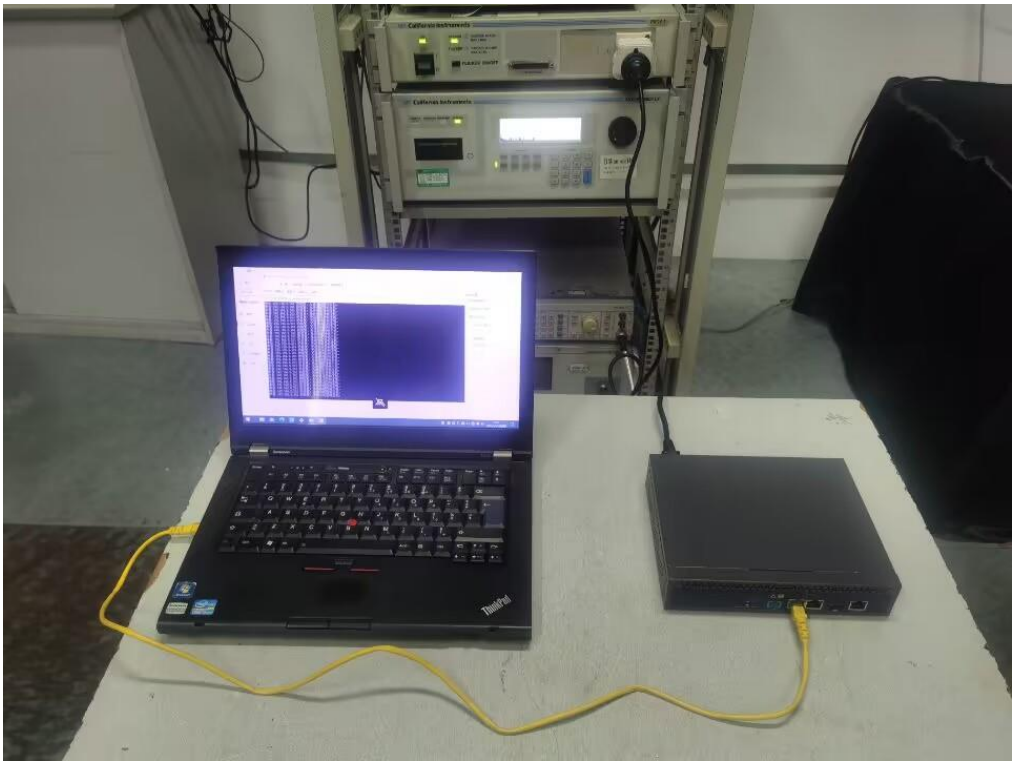
Section 4 Photographs

4.1 Conducted Emissions Mains Terminals Test Setup

4.2 Radiated Emissions, 30MHz to 1GHz Test Setup



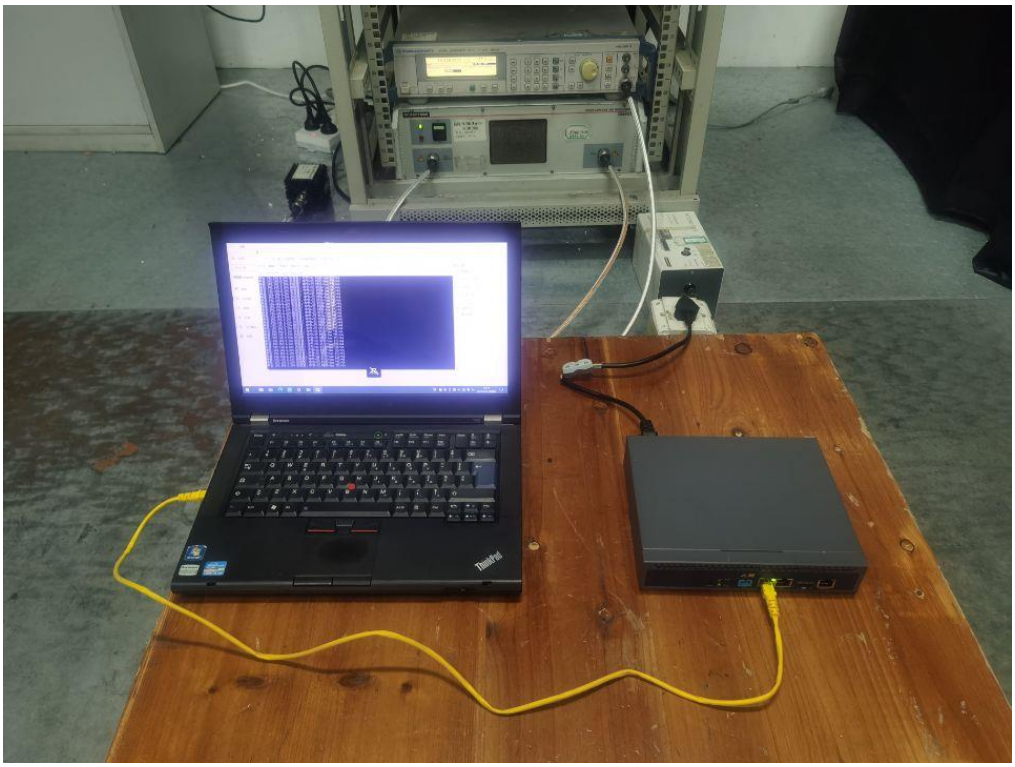
4.3 Harmonics and Flicker Test Setup



4.4 ESD Test Setup

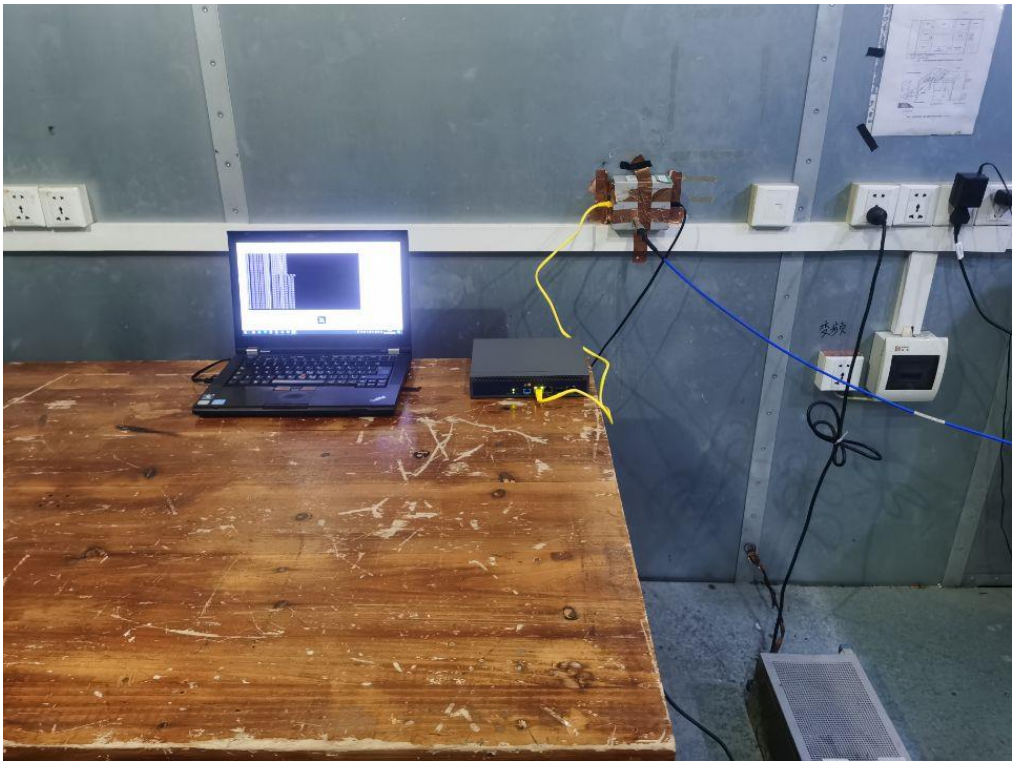
4.5 EFT, Surge on AC Test Setup

4.6 CS Test Setup

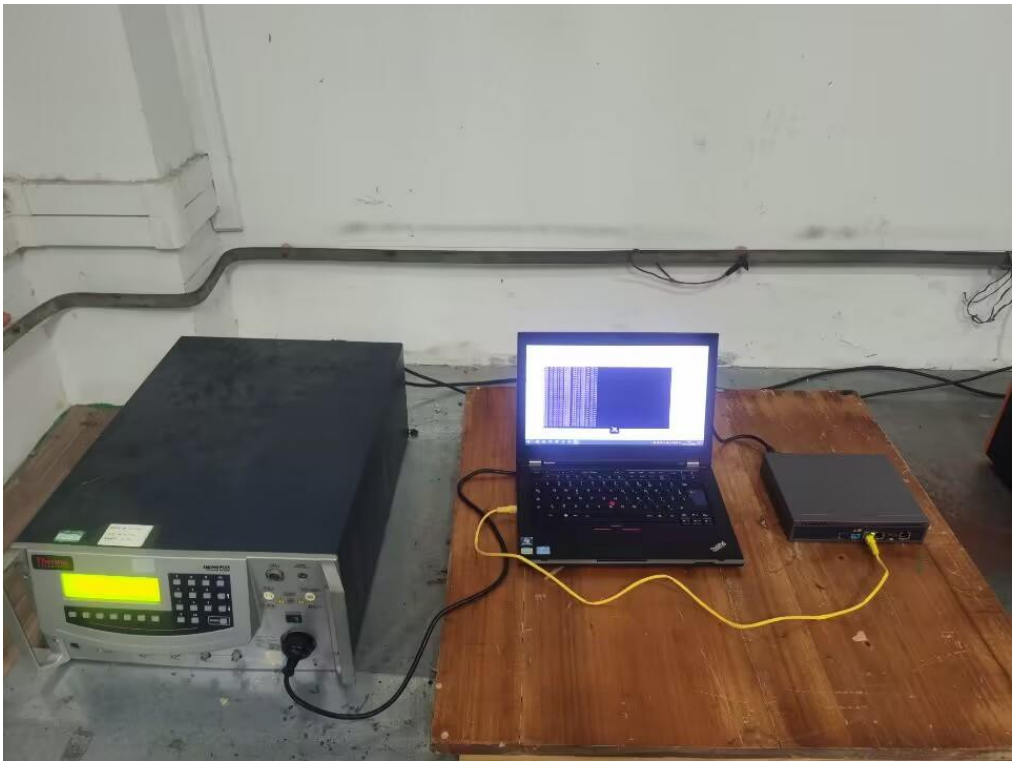


4.7 RS Test Setup

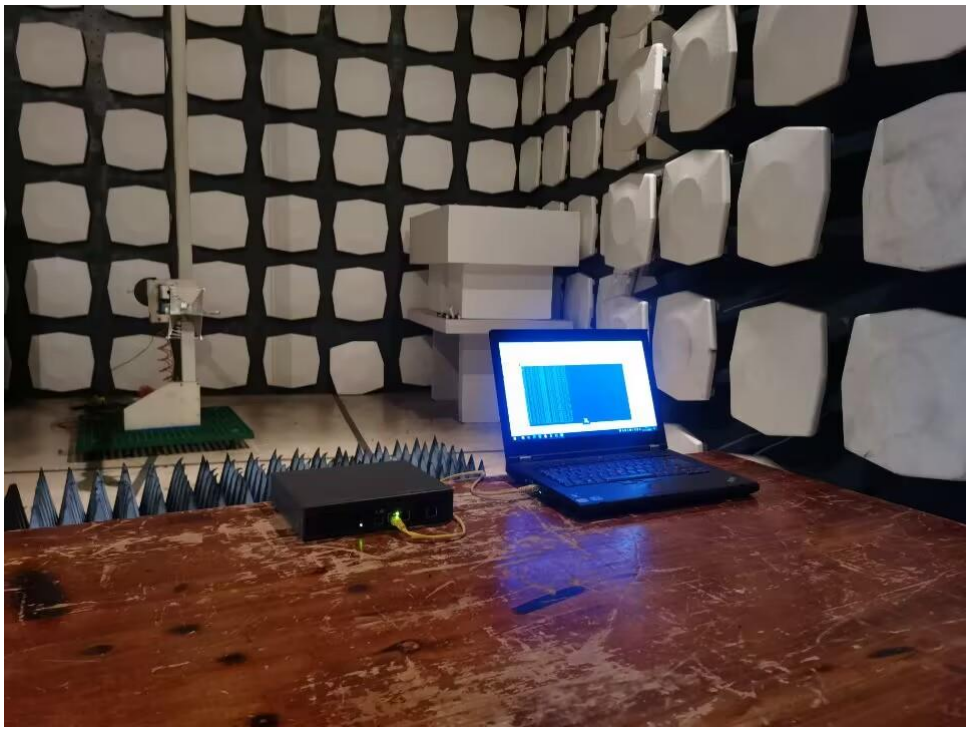
4.8 Conducted Emissions at Telecommunication ports Test Setup



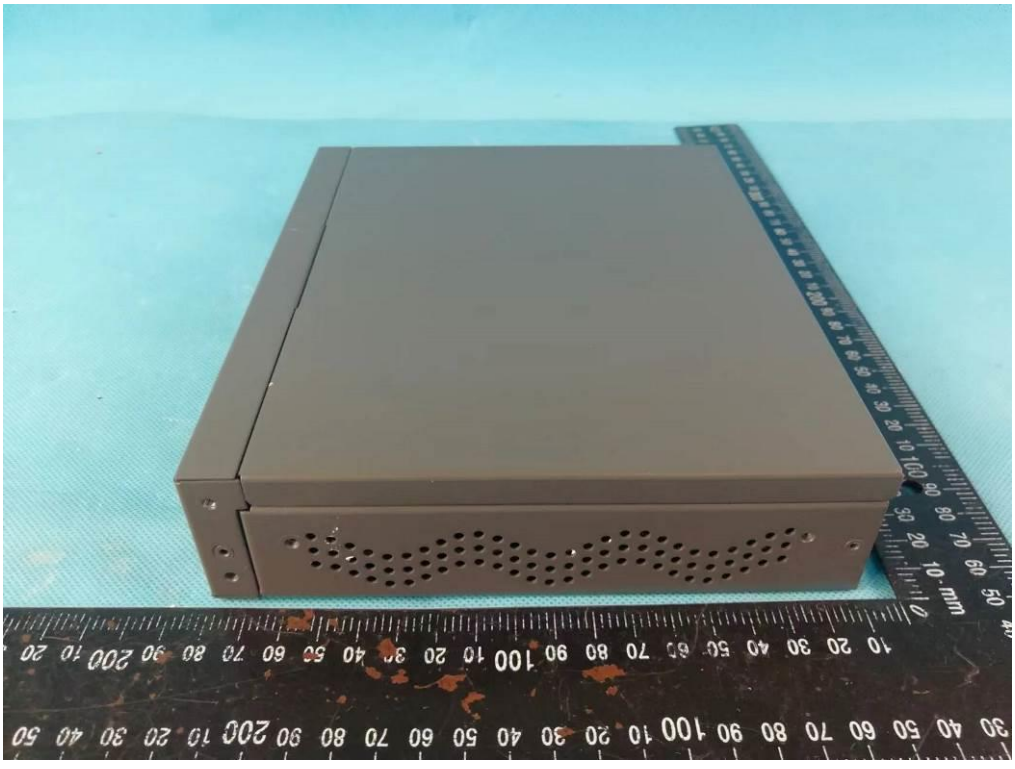
4.9 Voltage Dips and Interruptions on AC Test Setup

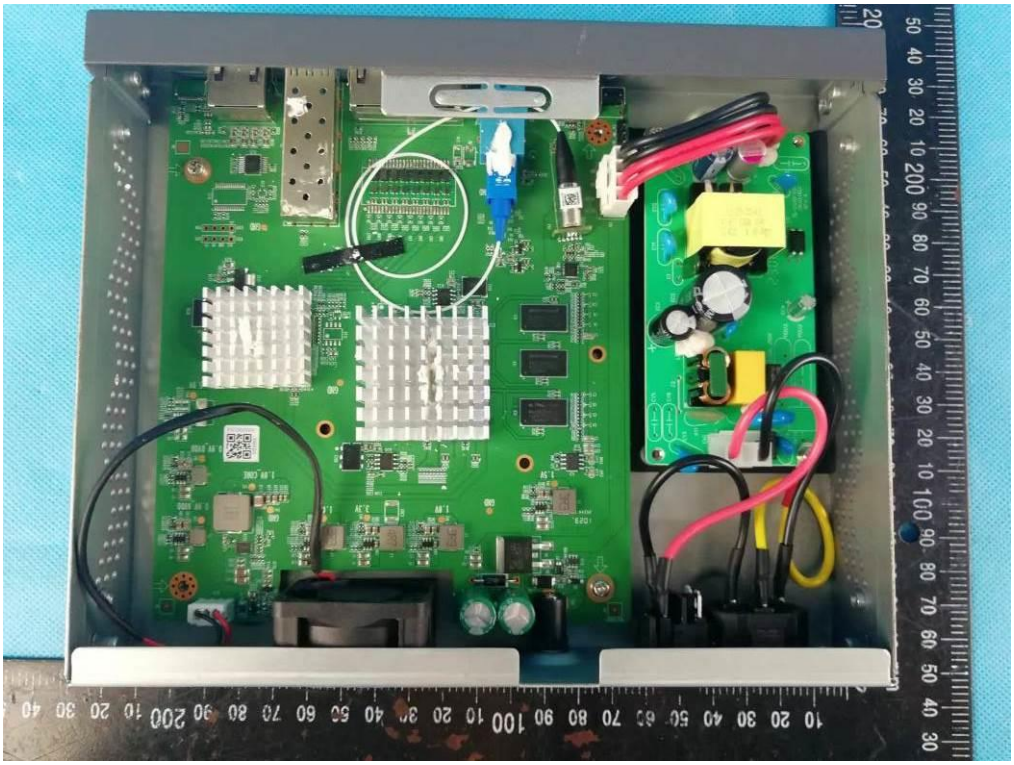


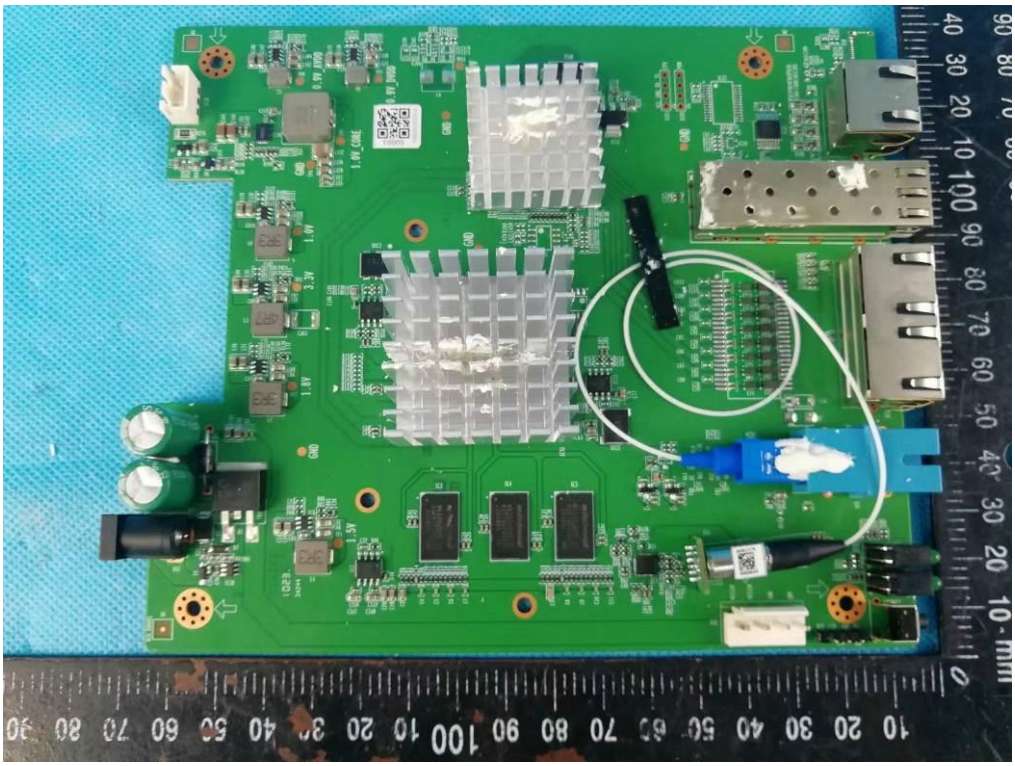
4.10 Radiated Emissions, above 1GHz Test Setup

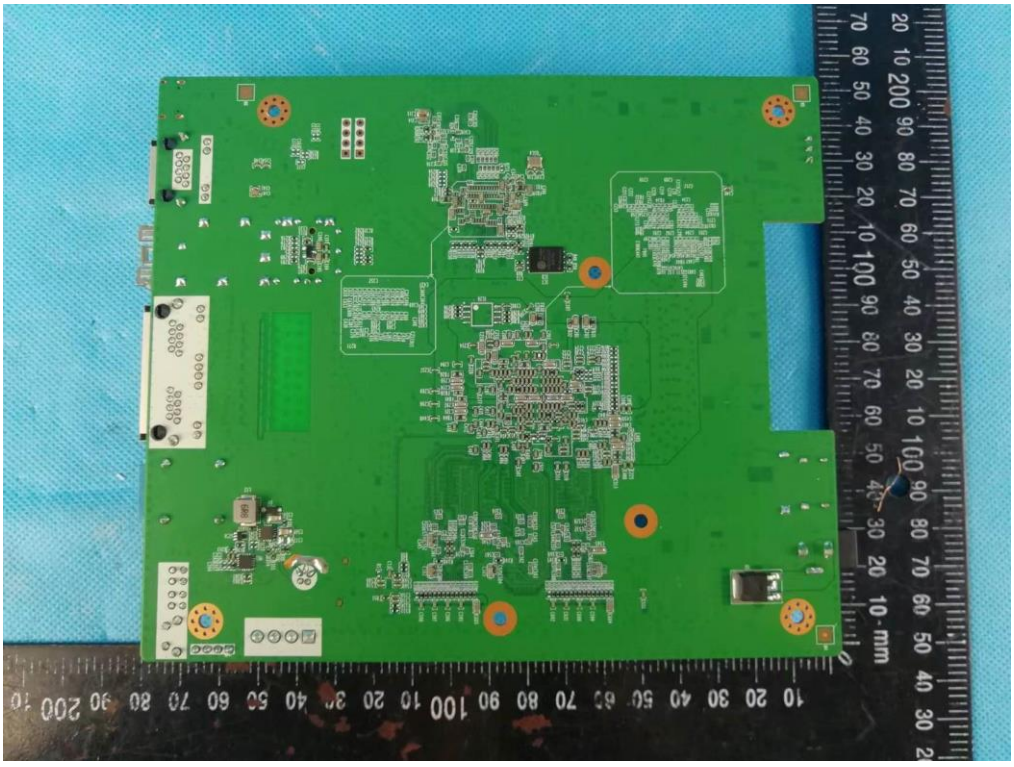


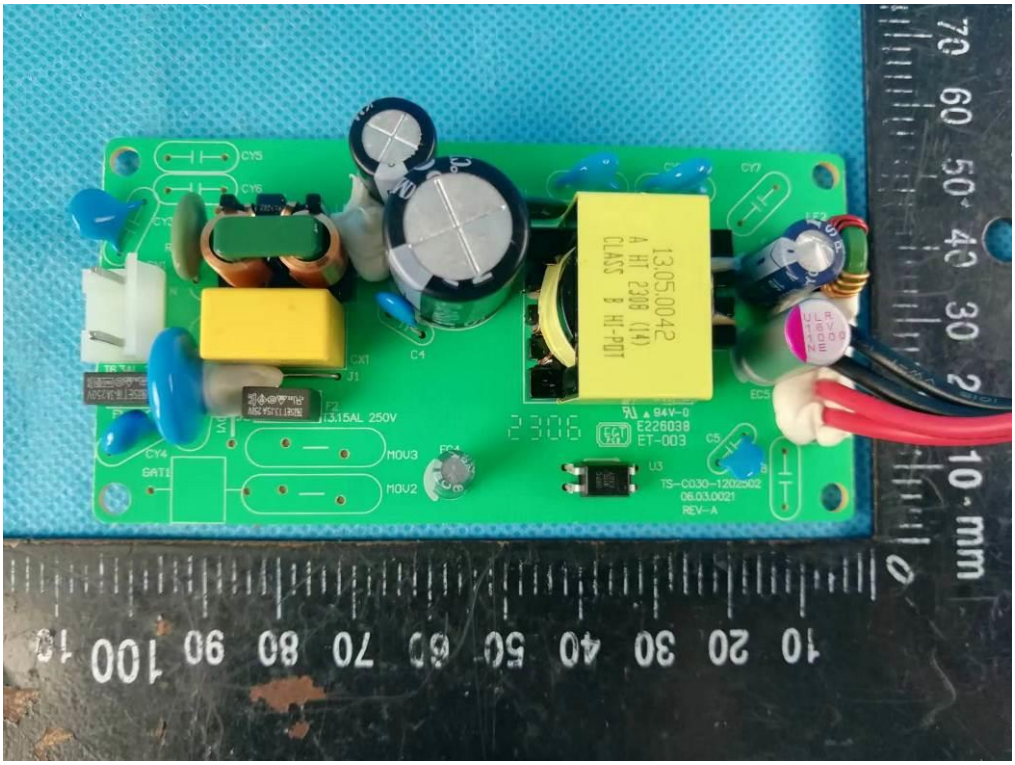
4.11 EUT Constructional Details

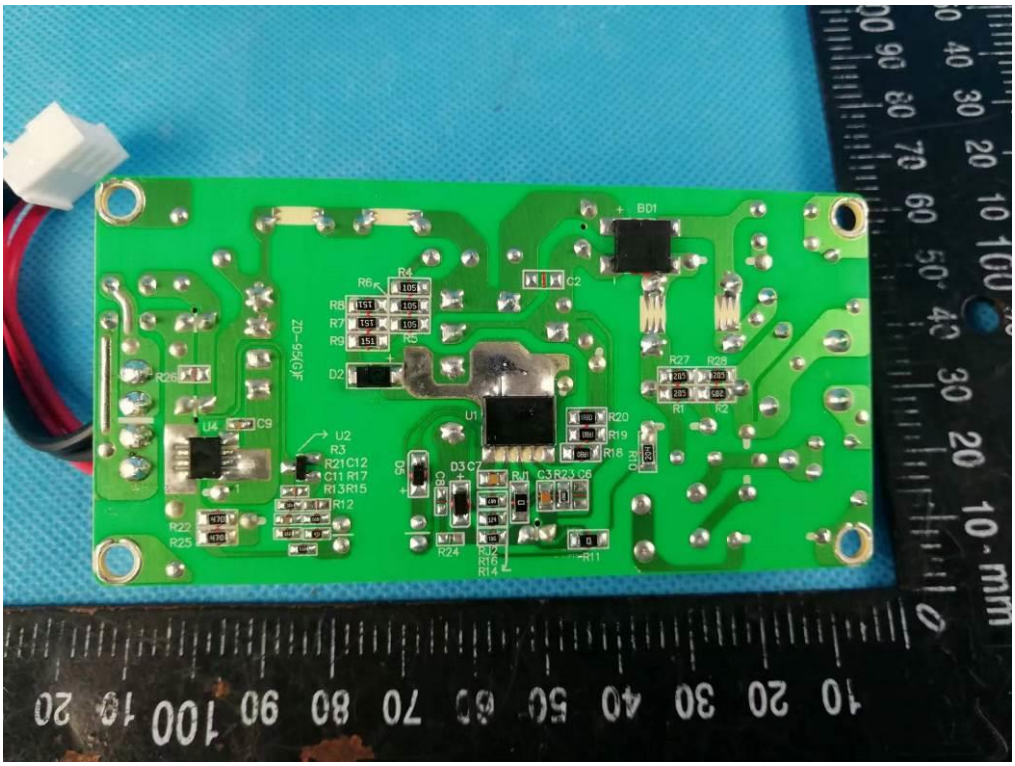












END OF THE TEST REPORT