EMC TEST REPORT

Product Name: Minimalist Tabel Lamp

Trade mark: MINISO

Model No.: OT373

S/N: /

Report No.: CTB240516093EX(REV1)

Applicant: XXXXXXXXXXXX

Address: China

Manufacturer: Xxxxxxxxxxx

Address: , China

Prepared by: xxxxxxxxxxxx.

Address: xxxxxxxxx

xxxxxxxxx, China

Date of Receipt: May 06, 2024

Date of Test(s): May 07, 2024 ~ May 15, 2024

Date of Issue: May 27, 2024

Test Standard(s): EN IEC 55015:2019+A11:2020, EN IEC 61547:2023

Test Result: Pass

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

Compiled by:	Reviewed by:	Approved by:
Blake Cai	Bin Mei	Rita Xiao

Note: If there is any objection to the inspection results in this report, please submit a written report to the company within 15 days from the date of receiving the report. The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen CTB Testing Technology Co., Ltd. this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client. " " indicates the testing items were fulfilled by subcontracted lab. " " indicates the items are not in CNAS accreditation scope.

Table of Contents

1. Description of version

Report No.	Issue Date	Description	Approved
CTB240516093EX	May 22, 2024	Original	Invalid
CTB240516093EX(REV1)	May 27, 2024	Revision	Valid
This report is the product name and model and trademark modified by the original report CTB240516093EX.			

2. Test summary

Emission		
Test Item	Test Method	Result
Conducted disturbance	EN IEC 55015	PASS
Radiated disturbance		PASS
Magnetic field strength		PASS
Immunity (EN IEC 61547)		
Test Item	Test Method	Result
Electrostatic discharges	IEC 61000-4-2	PASS
Fast transients	IEC 61000-4-4	N/A[1]
Injected currents	IEC 61000-4-6	N/A[1]
Radio frequency electromagnetic field	IEC 61000-4-3	PASS
Power frequency magnetic fields	IEC 61000-4-8	N/A[2]
Surges	IEC 61000-4-5	N/A[1]
Voltage dips and short interruptions	IEC 61000-4-11	N/A[1]

Note: N/A is abbreviation for Not Applicable.

1. The Product is powered by USB power, this test items is not applicable.
2. The Product doesn't contain any device susceptible to magnetic fields.

3. Measurement uncertainty

The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %

Test Item	Frequency	Expanded Uncertainty (U_{Lab})
Conducted disturbance	150 kHz to 30 MHz	±3.1 dB
Magnetic field strength	9 kHz-30 MHz	±2.3 dB
Radiated disturbance	30 MHz to 1000 MHz	±4.1 dB

4. General information

4.1. Description of EUT

Product name	Minimalist Tabel Lamp
Trade Mark	MINISO
Model No.	OT373
Serial Model No.	/
Model Difference	/
Rated Power	/
Rated Voltage& current	DC 5V from Adapter or DC 3.7V from battery
Configuration	☒ Table-top ☐ Floor-standing
Adapter Information	/

Note: The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

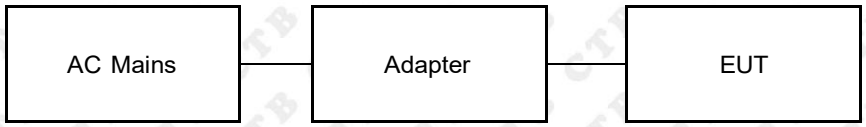
4.2. Description of Accessory Device

No.	Device Type	Brand	Model	Specification	Note
1.	ADAPTER	JIYIN	JY-05100C	/	/

4.3. Test conditions

Temperature: 15-25 ℃
Relative Humidity: 30-60 %
Atmospheric pressure: 800hPa-1060hPa

4.4. Block diagram of EUT configuration



4.5. Operating condition of EUT

Operating condition	Mode 1*	Charging+Working	Test Voltage	AC 230V/50Hz
	Mode 2	Working	Test Voltage	DC 3.7V
Note:This test covers all possible operating modes of the device, only the worst data are list in report. The worst data are shows (*)is the nearest standard limit which were recorded in this report.				

5. List of test and measurement instruments

Continuous disturbance					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	843 Shield Room	C/ R/ T	843	/	2024/8/11
2	AMN	ROHDE&SCHWARZ	ESH3-Z5	831551852	2024/7/04
3	Pulse limiter	ROHDE&SCHWARZ	ESH3Z2	357881052	2024/7/04
4	EMI TEST RECEIVER	R&S	ESCI	100428	2024/7/04
5	Coaxial cable	ZDECL	Z302S	18091904	2024/7/04
6	ISN	Schwarzbeck	NTFM8158	183	2024/7/07
7	Voltage sensor	Schwarzbeck	TK 9420	01189	2024/11/16
8	EZ-EMC	Frad	EMC-con3A1.1	/	/

Radiated emission(No.1 Chamber)					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	966 Chamber	C/ R/ T	966	/	2024/8/11
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	1911	2026/7/07
3	TRILOG Broadband Antenna	Schwarzbeck	VULB 9168	869	2024/7/07
4	Amplifier	Agilent	8449B	3008A01838	2024/7/04
5	Amplifier	HP	8447E	2945A02747	2024/7/04
6	EMI TEST RECEIVER	ROHDE&SCHWARZ	ESPI	100362	2024/7/04
7	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	2024/7/04
8	Coaxial cable	ETS	RFC-SNS-100-NMS-80 NI	/	2024/7/04
9	Coaxial cable	ETS	RFC-SNS-100-NMS-20 NI	/	2024/7/04
10	Coaxial cable	ETS	RFC-SNS-100-SMS-20 NI	/	2024/7/04
11	Coaxial cable	ETS	RFC-NNS-100 -NMS-300 NI	/	2024/7/04
12	EMI test software	Frad	EZ-EMC	Ver/ EMC-con3A1/1	/

Radiated emission(No.2 Chamber)					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	966 Chamber	C/ R/ T	966	/	2026/11/14
2	Double Ridged Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	1911	2026/7/07
3	Broadband Antenna	Schwarzbeck	VULB 9168	1471	2024/11/17
4	Amplifier	Agilent	8449B	3008A01838	2024/7/04
5	Preamplifier	Schwarzbeck	BBV 9744	/	2024/6/12
6	EMI TEST RECEIVER	R&S	ESCI7	100362	2024/11/27
7	Spectrum Analyzer	KEYSIGHT	N9020A	MY51289897	2024/7/04
8	EMI test software	Farad	EZ-EMC	Ver. FARAD-3A1+	/
9	Coaxial cable	Rosenberg	8m	/	2024/11/27
10	Coaxial cable	Times	2m	/	2024/11/27
11	Coaxial cable	Times	2m	/	2024/11/27
12	Coaxial cable	Times	1m	/	2024/11/27

Electrostatic discharges					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	ESD Simulator	TESTQ	NSG437	329	2024/7/07

Magnetic field strength					
No.	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
1	3-loop antenna	Beijing Daze	ZN30900A	GTS534	2024/7/04
2	EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCS30	834115/006	2024/7/04
3	EZ-EMC	Frad	EMC-con3A1.1	/	/

Radio frequency electromagnetic field					
No.	Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	966 Chamber	C/ R/ T	966	/	2024/8/11
2	Signal Generator	Agilent	N5181A	MY50140365	2024/7/04
3	Stacked Double Log.-Per. Antenna	SKET	STLP 9129 Plus	2106070106	/
4	Switch Controller	SKET	RFSU-DC18G -4C	RFSU-DC18G-4 C	/
5	RF Power Meter	Agilent	E9304A	MY41490462	2024/7/04
6	RF Power Meter	Agilent	E9301A	MY41495675	2024/7/04
7	E-Field Probe	Narda	EP-601	811ZX10305	2024/7/06
8	Power Amplifier	SKET	HAP-80M01G-250W	2106070103	2024/7/04/
9	Power Amplifier	SKET	HAP-01G 06G-75W	2106070104	2024/7/04
10	Audio Analysis	R&S	UPV	ATS 1-41152	2024/7/04
11	Audio Output Matching Network	SKET	RCO Network	/	2024/7/04
12	EMC-S Test software	SKET	V2.0.0.19	/	/

6. Emission

6.1. Conducted disturbance

6.1.1. Limit

Conducted disturbance limits at mains terminals		
Frequency range	Limits (dBμV) [a]	
	Quasi-peak	Average
9KHz to 50KHz	110	--
50KHz to 150KHz	90 ~ 80[b]	--
150KHz to 0.5MHz	66 ~ 56[b]	56 ~ 46[b]
0.5MHz to 5MHz	56 [c]	46[c]
5.0MHz to 30MHz	60	50

a. At the transition frequency, the lower limit applies.
b. The limit decreases linearly with the logarithm of the frequency in the ranges 50 kHz to 150 kHz and 150 kHz to 0,5 MHz.
c. For electrodeless lamps and luminaires, the limit in the frequency range of 2,51 MHz to 3,0 MHz is 73 dB(μV) quasi-peak and 63 dB(μV) average.

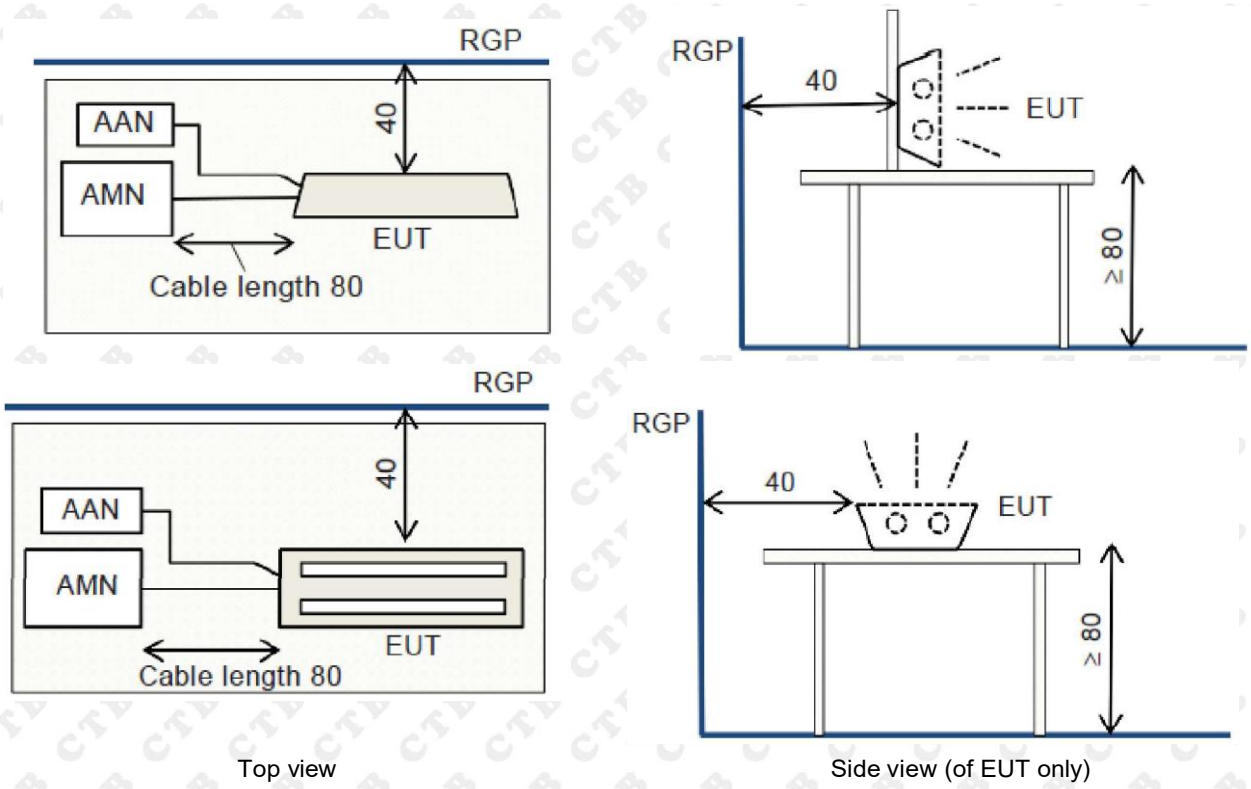
Conducted disturbance limits at control terminals		
Frequency range MHz	Limits (dBμV) [a]	
	Quasi-peak	Average
0,15 to 0,5	80	70
0,5 to 30	74	64

a. At the transition frequency, the lower limit applies.

Conducted disturbance limits at control terminals		
Frequency range MHz	Limits (dBμV) [a]	
	Quasi-peak	Average
0,15 to 0,5	80 to 74	74 to 64
0,5 to 30	74	64

NOTE 1 The limits decrease linearly with the logarithm of the frequency in the range 0,15 MHz to 0,5 MHz.
NOTE 2 The voltage disturbance limits are derived for use with an Asymmetric Artificial Network (AAN) which presents a common mode (asymmetric mode) impedance of 150 Ω to the control terminal.

6.1.2. Block diagram of test setup



Top view

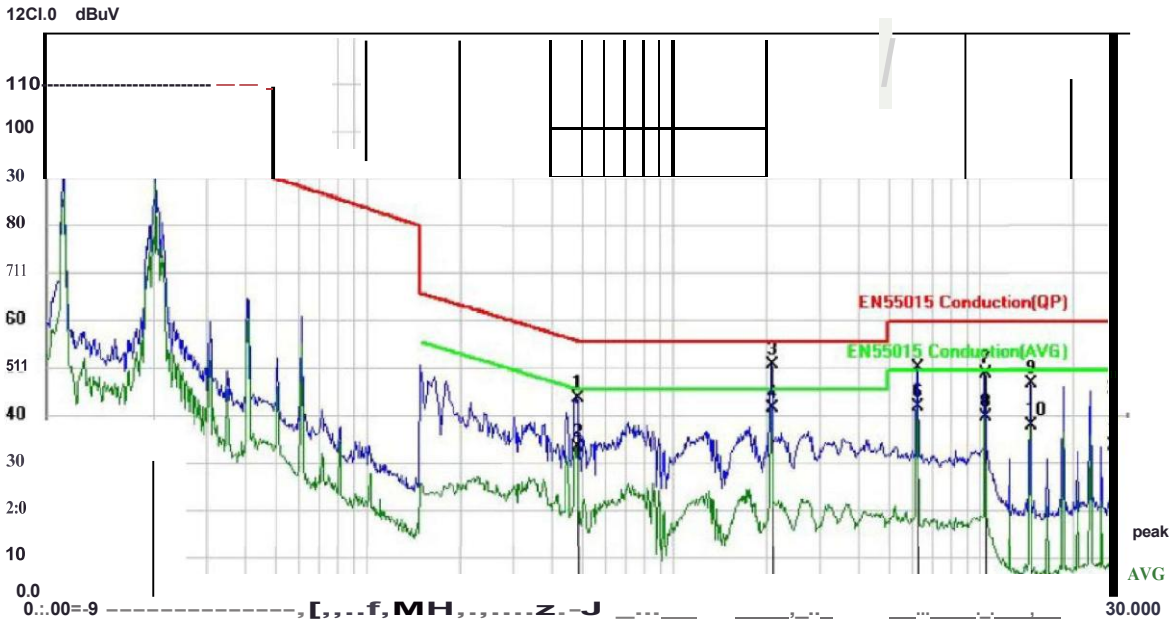
Side view (of EUT only)

6.1.3. Test procedure

1. Measurement was performed in shielded room, and instruments used were followed CISPR 16-2-1 clause7.
2. Detailed test procedure was following clause 7 of CISPR 16-2-1.
3. Frequency range 9kHz to 30MHz was checked and EMI receiver measurement bandwidth was set to 200Hz (9 to 150kHz), 9kHz (150kHz to 30MHz).

6.1.4. Test results

Temperature:	23℃	Relative Humidity:	54 %
Pressure:	101kPa	Phase :	Line
Test Voltage :	AC 230V/50Hz	Test Mode:	Mode 1

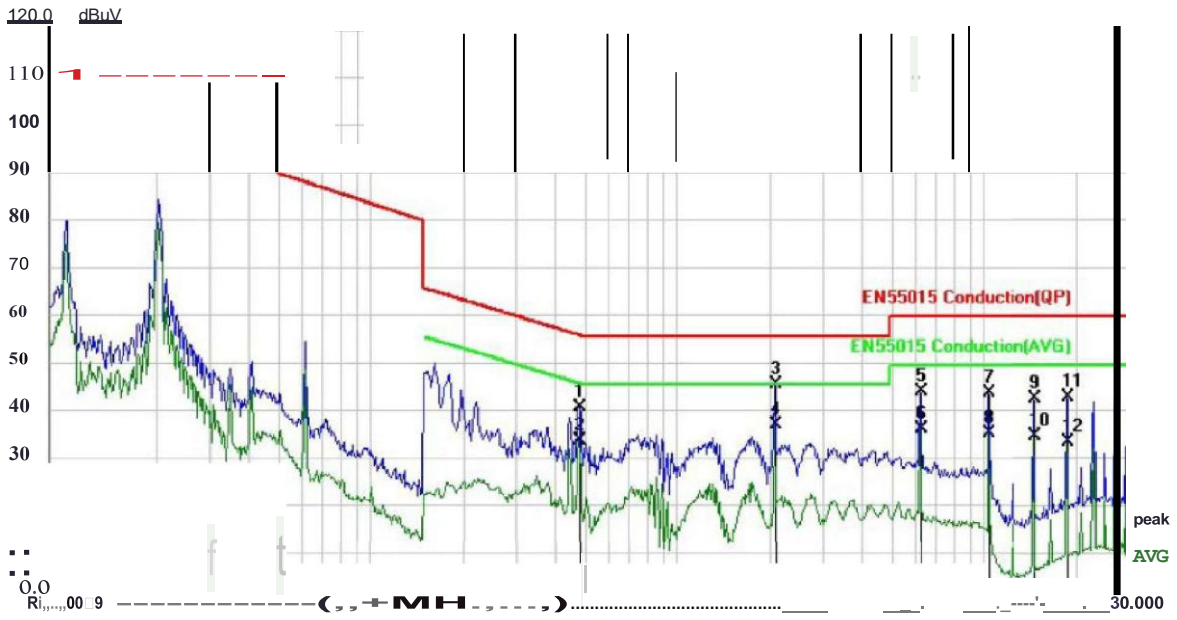


INo. Mk.	Freq.	Reading Levell	Correct Factor	Measure-ment	Limiit	Over	
	MHz	clBuV	dB	dBuV	dBuV	dB	Detectm
1	0.4860	34.23	9.99	44..22	56.24	-12.02	OP
2	,o.4860	24.15	9.99	34.14	46..24	-12.10	AVG
3	2.0900	41.02	10.10	51.12	56..00	-4..88	QP
,4! •	2.0900	32.17	10.10	42.27	46..00	-3.73	AVG
5	6.2660	40.02	10.47	50.49	60..00	-9.51	QP
6	6.2660	31.89	10.47	42.36	50.00	-7.·64	AVG
7	10.4420	38.73	10.59	49.32		-10.68	OP
8	10.4420	29.89	10.59	40.48	50.00	-9.52	AVG
9	14.6180	36.65	10.72	47.37	60.00	-12.63	OP
10	14.6180	27.88	10.72	38.60	50.00	-11.40	AVG
11	27.1420	34.95	11.19	46.14	60.00	-13.86	QP
12	27.1420	23.14	11.19	34.33	50.00	-15.'67	AVG

Note: Result=Reading + Factor

Over Limit=Result – Limit

Temperature:	23	Relative Humidity:	54 %
Pressure:	101kPa	Phase :	Neutral
Test Voltage :	AC 230V/50Hz	Test Mode:	Mode 1



No.. Mk.	Freq.	Reading Levell	Correct Factor	Measure-ment	Limit	Oveir	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detedm
1	0.4820	31..37	9.99	41.36	56.30	-14.94	,Qp
2	0.4820	24.31	9.99	34.30	46.30	-12.00	AVG
3	2.0860	36.07	10.10	46.17	56.00	-9.83	QP
4 •	2.0860	27.60	10.10	37.70	46.00	-8.30	AVG
5	6.2619	34.02	10.47	44.49	60.00	-15.51	OP
6	6.2619	26.31	10.47	36.78	50.00	-13.22	AVG
7	10.4460	33.66	10.59	44.25	60.00	-15.75	QP
8	10.4460	25.40	10.59	35.99	50.00	-14.01	AVG
9	14.6100	32.31	10.72	43.03	60.00	-16.97	OP
10	14.6100	24.44	10.72	35.16	50.00	-14.84	AVG
11	18.7939	32.59	10.80	43.39	60.00	-16.'61	QP
12	18.7939	23.19	10.80	33.99	50.00	-16-.01	AVG

Note: Result=Reading + Factor
Over Limit=Result – Limit

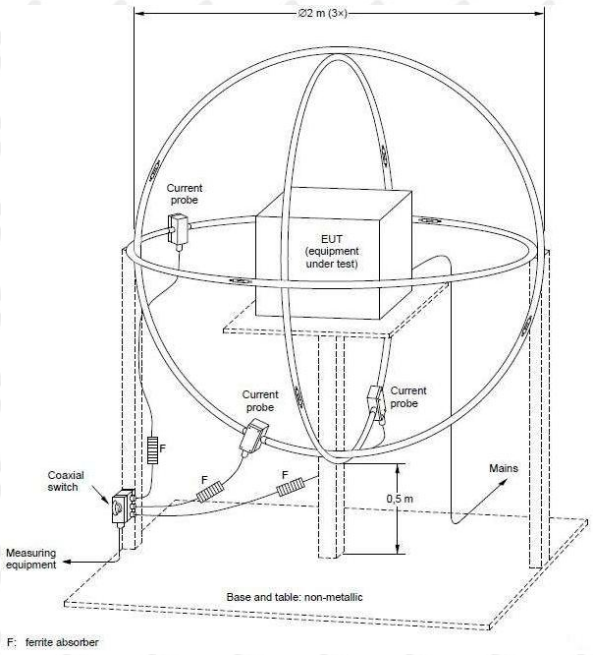
6.2. Magnetic field strength

6.2.1. Limit

Magnetic field strength limits in the frequency range 9 kHz to 30 MHz	
Frequency range MHz	Limits for loop diameter (dBμA)[a]
	2m
9KHz to 70KHz	88
70KHz to 150KHz	88 ~ 58[b]
150KHz to 3.0MHz	58 ~ 22[b]
3.0MHz to 30MHz	22

a. At the transition frequency, the lower limit applies.
b. Decreasing linearly with the logarithm of the frequency. For electrodeless lamps and luminaires, the limit in the frequency range of 2,2MHz to 3,0MHz is 58dB(dBμA) for 2m.

6.2.2. Block diagram of test setup

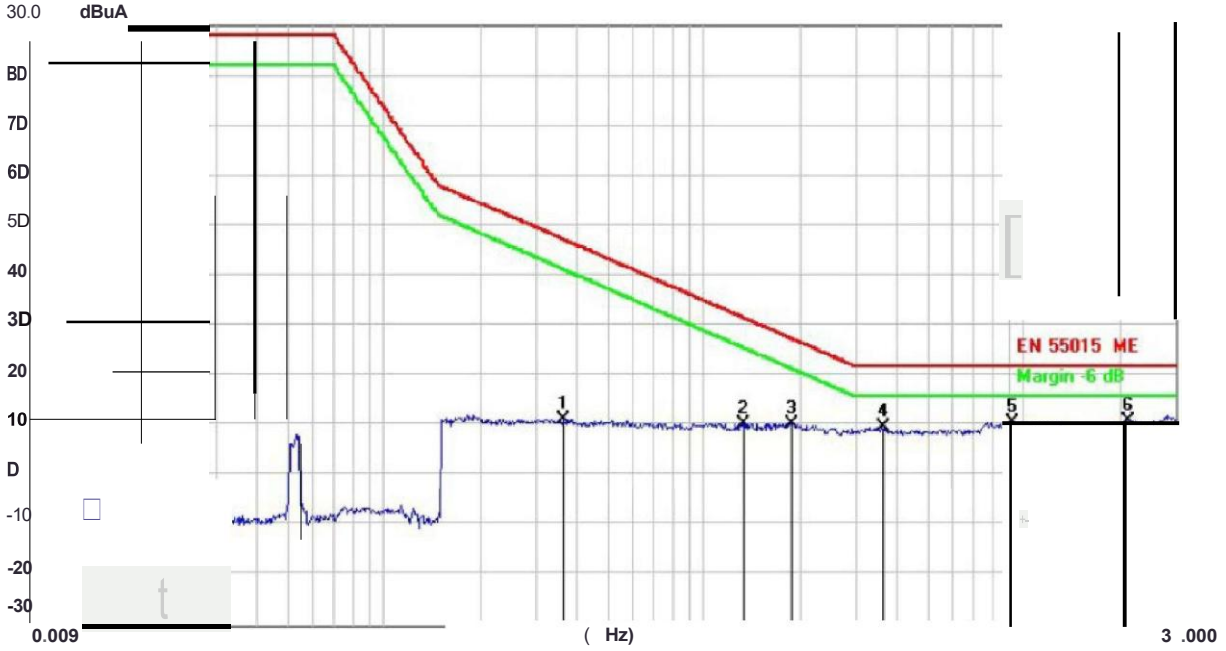


6.2.3. Test procedure

1. The EUT is placed on a wood table in the center of a loop antenna. The induced current in the loop antenna is measured by means of a current probe and the test receiver. Three axes of X Y Z are tested by coaxial switch.
2. The frequency range from 9KHz to 30MHz is investigated. The receiver is measured with the quasi-peak detector. For frequency band 9KHz to 150KHz, the bandwidth of the field strength meter (R&S test receiver ESCI) is set at 200Hz. For frequency band 150KHz to 30MHz, the bandwidth is set at 9KHz.

6.2.4. Test results

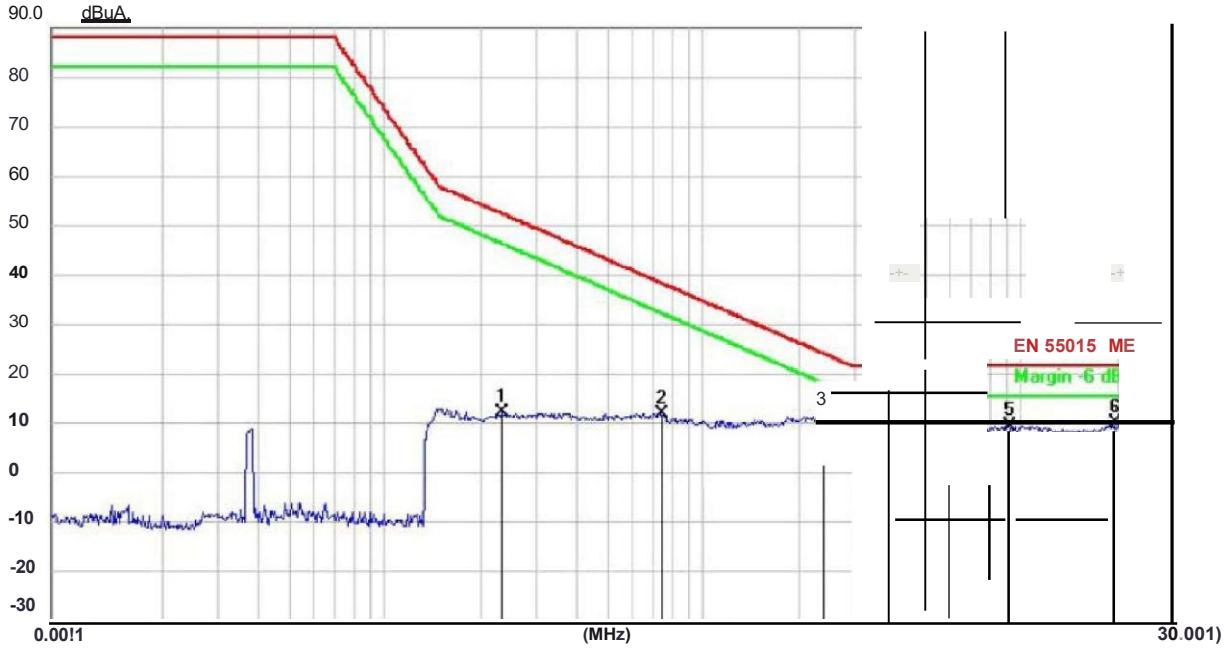
Temperature:	23 'C	Relative Humidity:	54 %
Pressure:	101kPa	Polarization :	X
Test Voltage :	DC 3.7V	Test Mode:	Mode 2



No.	Mk.	Freq.	Reading level	Correct Factor	IMeasme-ment	Limit	Over	
		MHz	dBuV	dBS	dBuA	dBuA	dB	Detector
1		0.3659	13.28	-1.92	11.36	47.28	-35.92	QP
2		1.3260	12.03	-1.56	10.47	31.81	-21.34	OP
3		1.8810	9,_9,2	0.55	10.47	27.61	-17.14	QP
4		3.6339	7.64	2.06	9.70	22.00	-12.30	OP
5		9.2378	9·.52	1.25	10.77	22.00	-11.23	QP
6		21.1700	10.82	0.00	10..82	22.00	-11.18	QP

Note: Result=Reading + Factor
Over Limit=Result – Limit

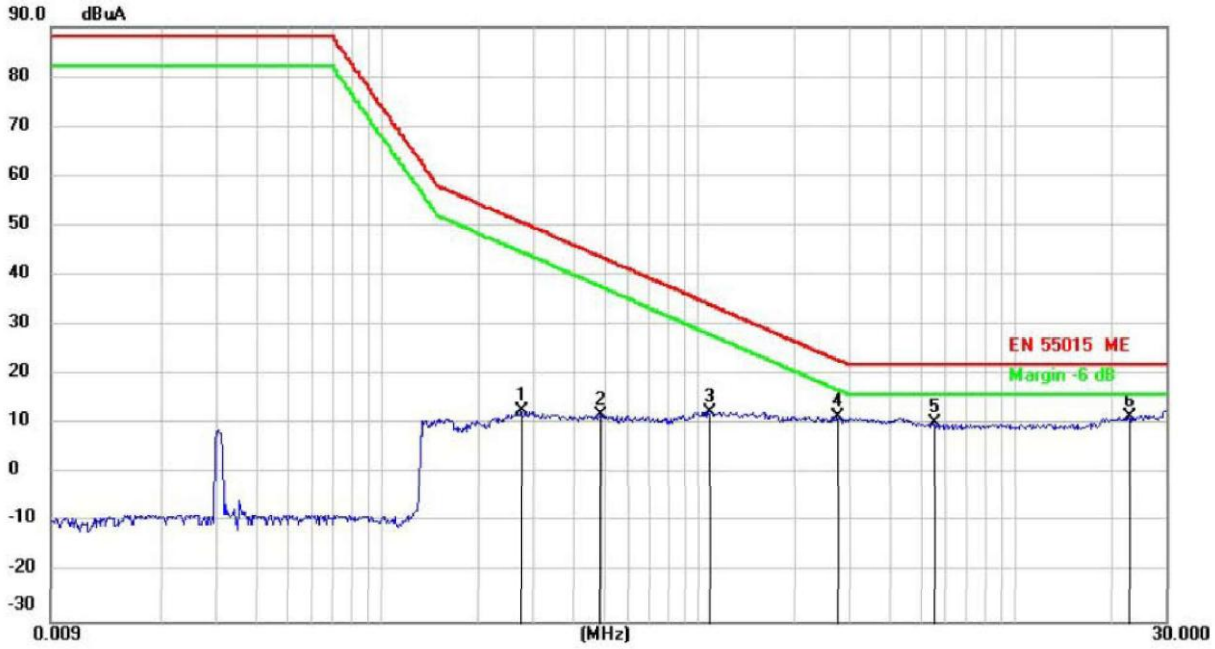
Temperature:	23	Relative Humidity:	54 %
Pressure:	101kPa	Polarization :	Y
Test Voltage :	DC 3.7V	Test Mode:	Mode 2



No.	Mk..	Freq.	Reading Level	Correct Factor	Measure-ment	Limiiit	Over	
		MHz	dBuV	dBS	dBuA	dBuA	dB	Detedm
1		0.2.346	15..75	-3.10	12.65	52.63	-39.98	QP
2		0.7378	17.00	-4.42	12.58	38.86	-2·S..28	QP
3		2.3820	15..87	-3.98	11..89	24.77	-12.88	QP
4	.lt	3.8580	15..05	-3.91	11.14	22.00	-10.8'6	OP
5		·9.2378	13..43	-3.34	10..09	22.00	-11.91	QP
6		19.7300	13..21	-2.51	10.70	22.00	-11.30	OP

Note: Result=Reading + Factor
Over Limit=Result – Limit

	℃		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dBS	dBuA	dBuA	dB	Detector
1		0.2740	14.84	-2.18	12.66	50.76	-38.10	QP
2		0.4900	13.61	-1.89	11.72	43.77	-32.05	QP
3		1.0859	14.19	-1.62	12.57	34.21	-21.64	QP
4		2.7458	13.26	-1.58	11.68	23.06	-11.38	QP
5		5.5339	11.06	-0.82	10.24	22.00	-11.76	QP
6	*	22.8658	11.88	-0.30	11.58	22.00	-10.42	QP

6.3. Radiated disturbances

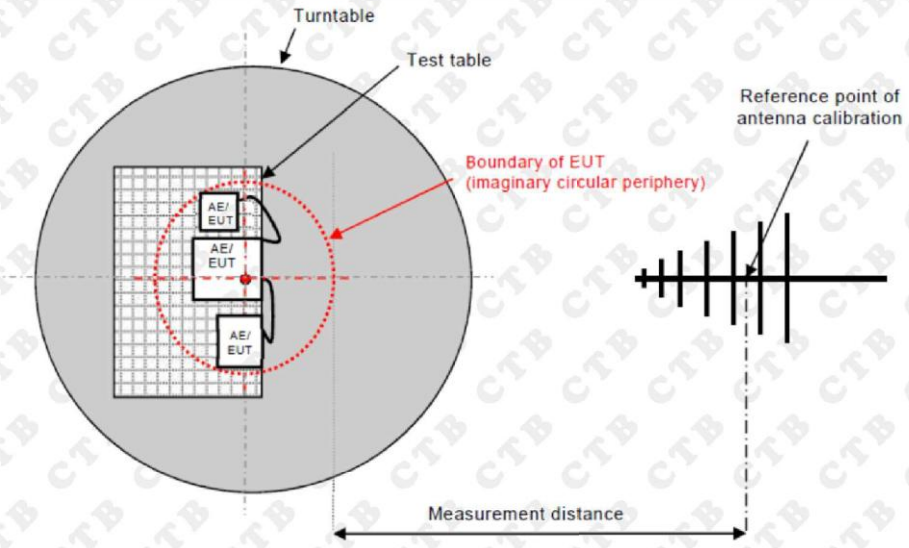
6.3.1. Limit

Frequency range MHz	Quai-peak limits (dBμV/m)[a]
	3m [b, c]
30 to 230	40
230 to 1000	47

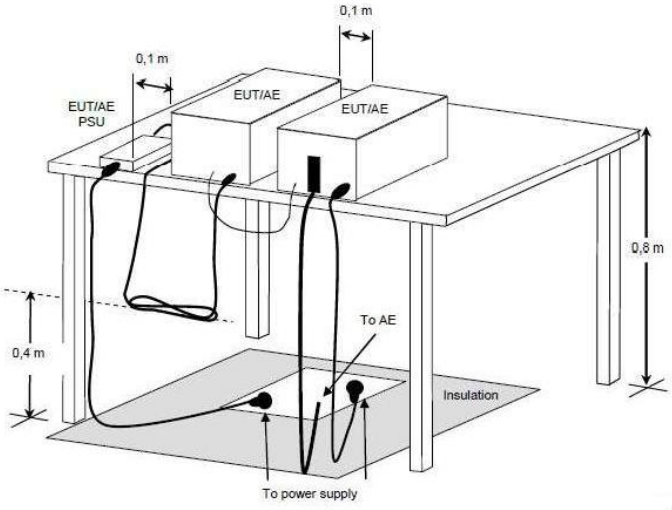
a. At the transition frequency, the lower limit applies.
b. Either of the two measurement distances and the associated limits can be applied to demonstrate compliance.
c. Care should be taken when measuring a large EUT at 3 m and at frequencies near 30 MHz due to near field effects

6.3.2. Block diagram of test setup

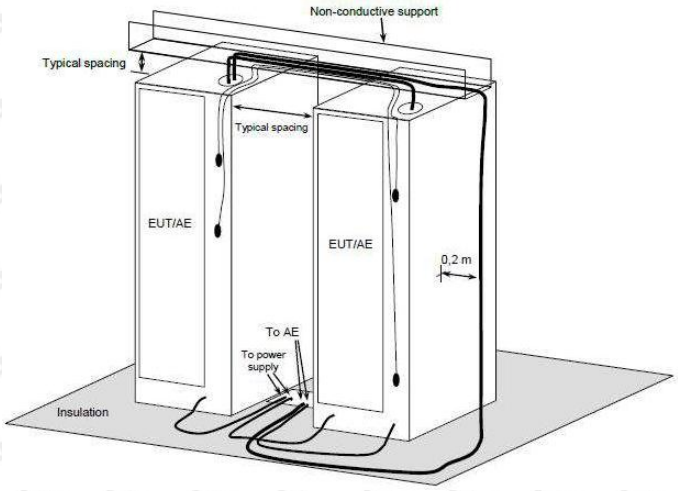
Measurement distance



For table-top equipment



For floor standing equipment

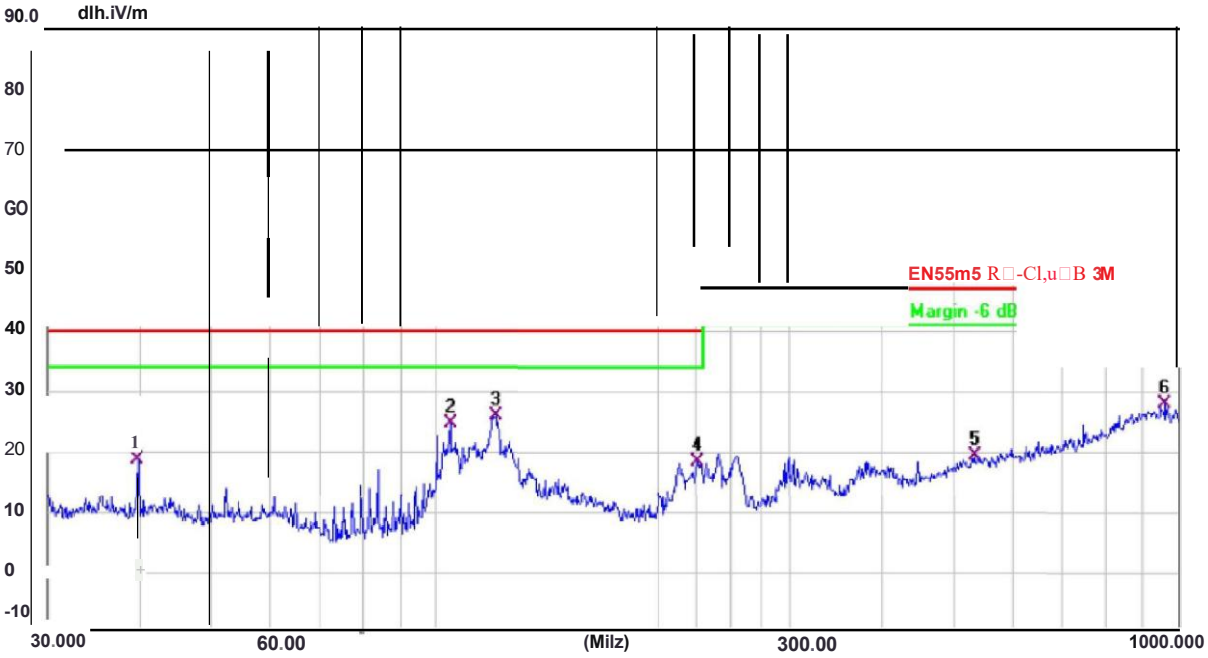


6.3.3. Test procedure

The measurement was performed in a semi-anechoic chamber.
The distance from EUT to receiving antenna is 3 meters.
Measurement was performed according to clause 7.3 of CISPR 16-2-3.

6.3.4. Test results

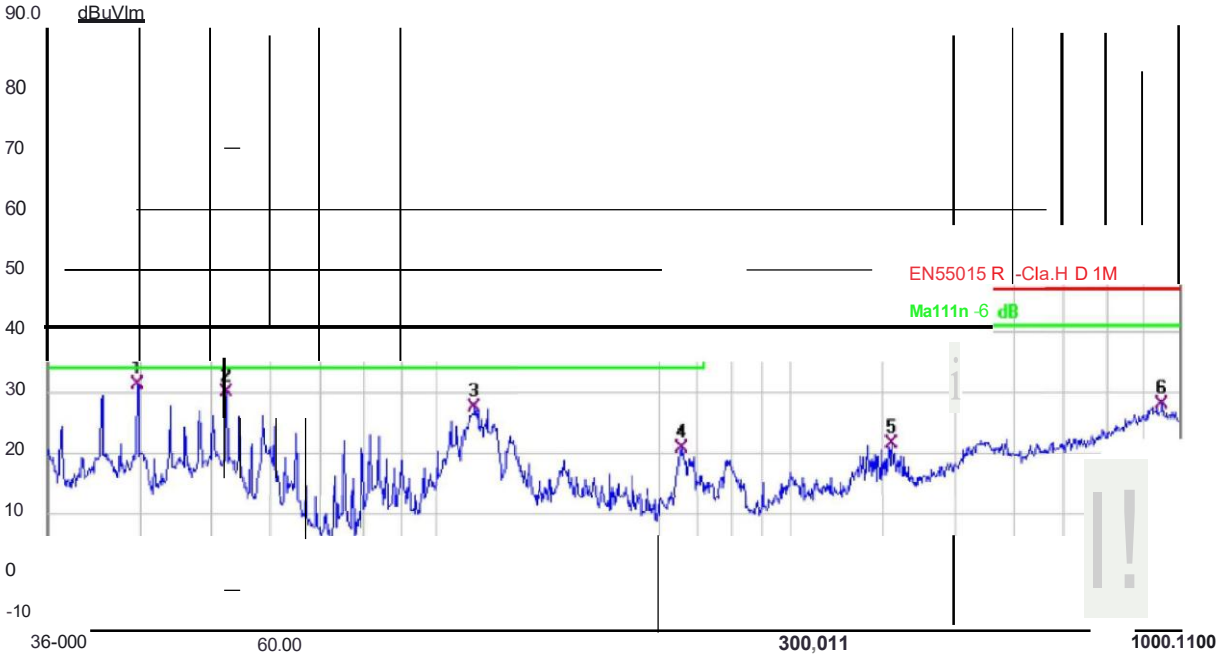
Temperature:	23 'C	Relative Humidity:	54 %
Pressure:	101kPa	Polarization :	Horizontal
Test Voltage :	AC 230V/50Hz	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV)	Factor (dBlm)	Level (dBuV/m}	um··t (dBuV/m)	Margin (dB)	Detector
1	39·.7146	32.12	-13.59	18.53	40.00	-21.47	QP
2	104.5360	41.75	-17.09	24.66	40.00	-15.34	QP
3 *	120.2761 6	41.30	-15.37	25.93	40.00	-14.07	QP
4	225.3080	34.31	-15.99	18.32	40.00	-21.68	QP
5	531.9634	26.62	-7.32	19.30	47.00	-27.70	QP
6	962.1622	26.9'2	0.9'7	27.89	47.00	-19.11	QP

Note: Result=Reading+Factor
Over Limit=Result-Limit

Temperature:	23	Relative Humidity:	54 %
Pressure:	101kPa	Polarization :	Vertical
Test Voltage :	AC 230V/50Hz	Test Mode:	Mode 1



No.	Frequency (MHz)	Reading (dBuV),	Factor (dB/m)	Level (dlBuV/m}	Limirt (dBuV/m)	Margin (dB)	Detector
1 *	39.5757	44.84	-13.61	31.23	40.00	-8.77	OP
2	52..2078	45.26	-15.34	29.92	40.00	-10.08	OP
3	112.5243	43.68	-16.25	27.43	40.00	-12.57	OP
4	214.5142	36.65	-16.13	20.52	40.00	-19.48	OP
5	410.3824	32.45	-11.17	21.28	47.00	-25.72	OP
6	948.7610	26.75	1.05	27.80	47.00	-19.20	OP

Note: Result=Reading+Factor
Over Limit=Result-Limit

7. Immunity

Performance criteria

Performance criterion **A**

During the test, no change of the luminous intensity shall be observed and the regulatingcontrol, if any, shall operate during the test as intended.

Performance criterion **B**

During the test, the luminous intensity may change to any value. After the test, the luminous intensity shall be restored to its initial value within 1 min (30 min for high pressure gas discharge lamps). Regulating controls need not function during the test, but after the test, the mode of the control shall be the same as before the test, provided that during the test no mode changing commands were given.

Performance criterion **C**

During and after the test, any change of the luminous intensity is allowed and the light source(s) may be extinguished. After the test, within 30 min, all functions shall return to normal, if necessary by temporary interruption of the mains supply and/or operating the regulating control.

The following additional requirement applies to lighting equipment incorporating a startingl device: after the test, the lighting equipment is switched off for 30 min and back on again. Thel lighting equipment shall start and operate as intended.

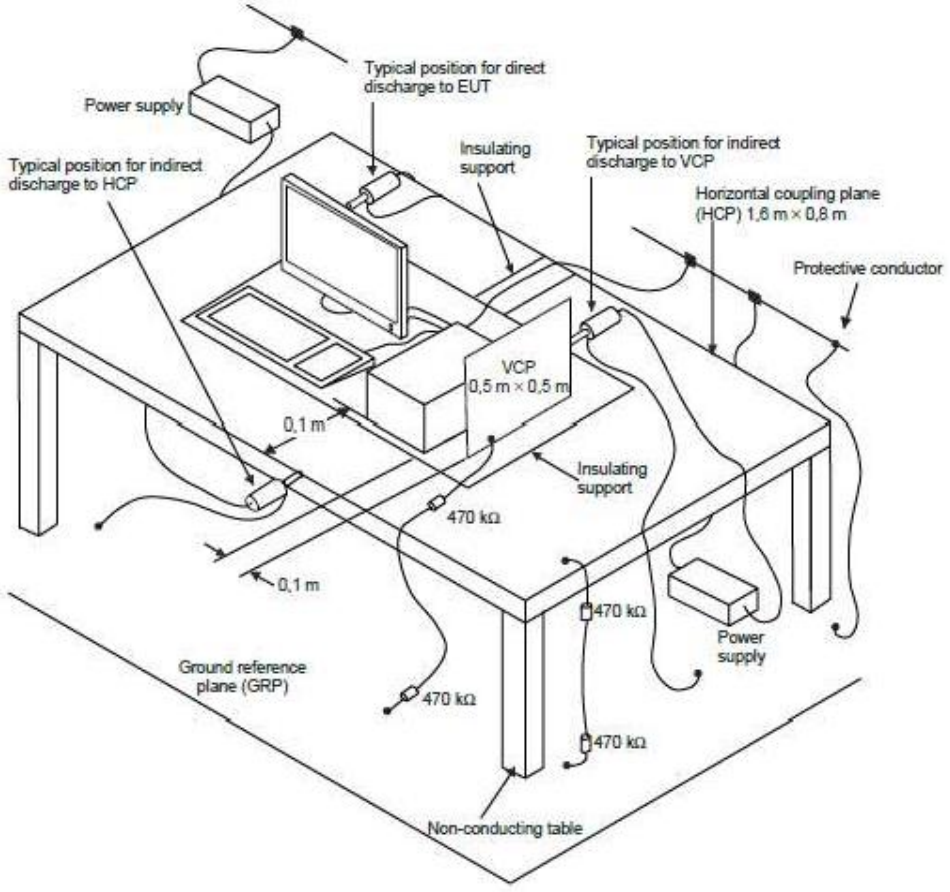
7.1. Electrostatic discharge

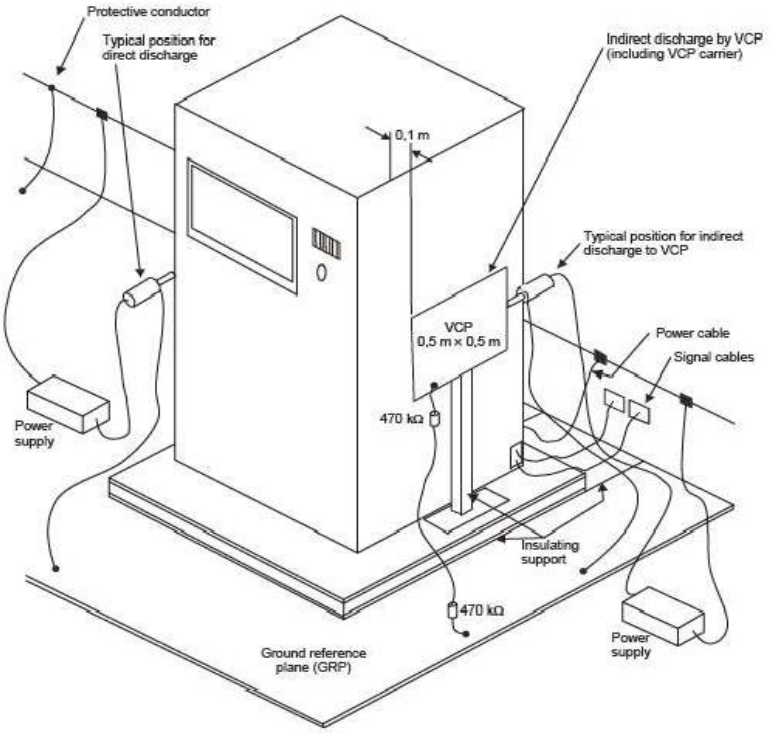
7.1.1. Test Levels and Performance Criterion

Environmental phenomenon	Test specifications	Basic Standard
Electrostatic discharge	8 kV air discharge	IEC 61000-4-2
	4 kV contact discharge	
Note [a] Criterion C applies to lighting equipment (and/or modules) for road and street lighting. Note: Except for the grades in the table, road and street lighting equipment shall be tested for air discharge at ±15 kV and for contact discharge at ±8 kV.		

7.1.2. Block diagram of test setup

For table-top equipment





7.1.3. Test Procedure

1. Measurement was performed in shielded room.
2. Measurement procedure was applied according to EN 61000-4-2 clause 8.
3. The test method and equipment were specified by EN 61000-4-2.

7.1.4. Test Result

Temperature:	23℃	Relative Humidity:	54 %
Pressure:	101kPa	Test Mode:	Mode 1
Test Voltage :	AC 230V/50Hz		

Discharge Method	Discharge Position	Voltage (±kV)	Min. No. of Discharge per polarity (Each Point)	Performance Criterion	Required Criterion
Contact Discharge	Conductive Surfaces	4	10	B	A
	Indirect Discharge HCP	4	10	B	A
	Indirect Discharge VCP	4	10	B	A
Air Discharge	Slots, Apertures, and Insulating Surfaces	8	10	B	A
Note*: N/A					

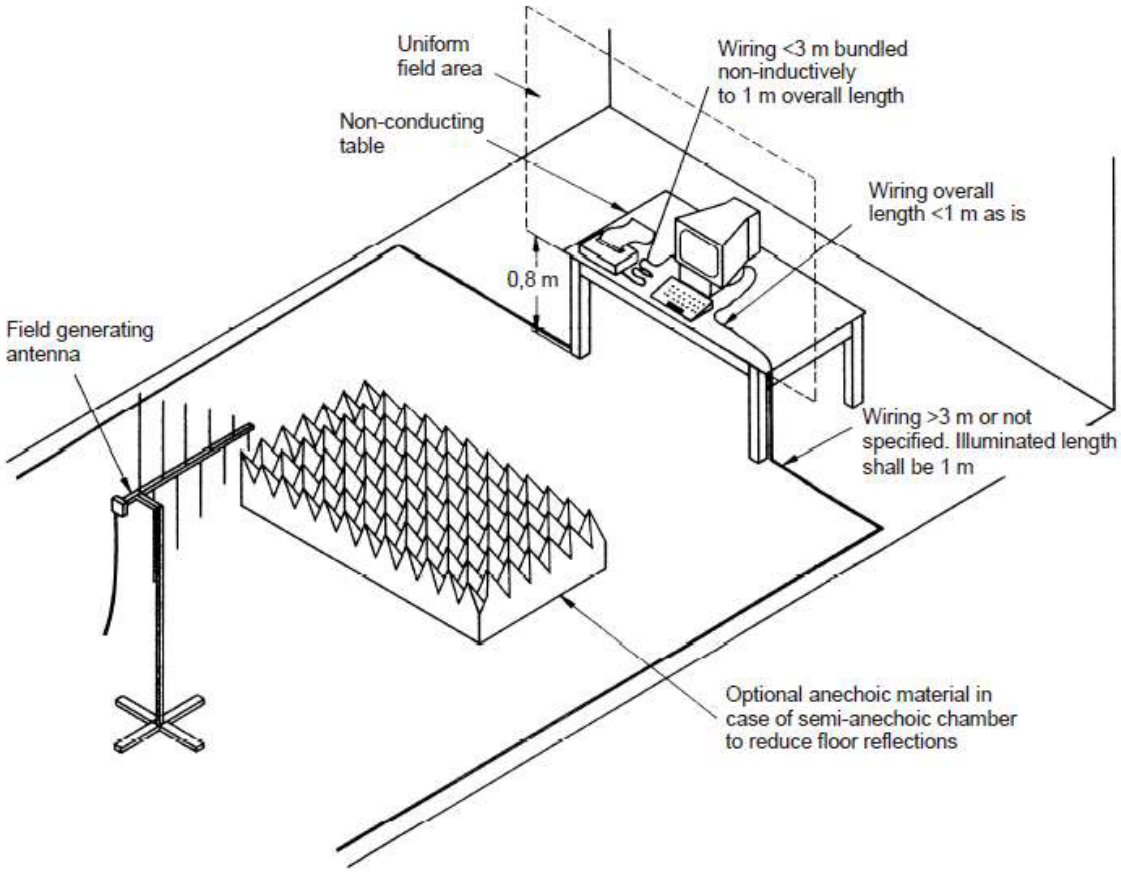
7.2. Radio-frequency electromagnetic field

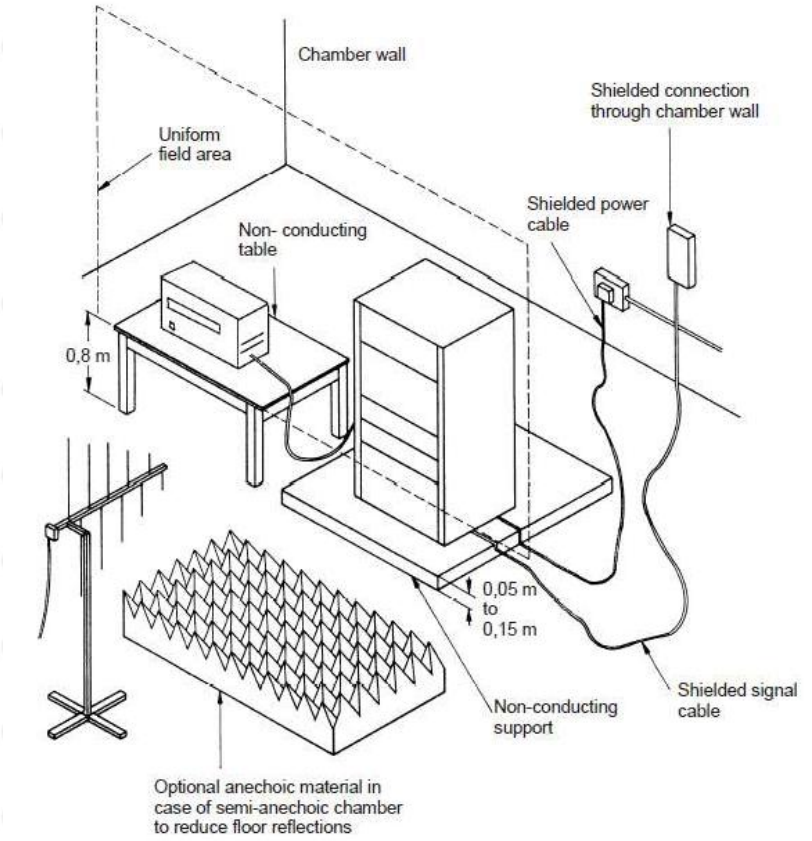
7.2.1. Test standard and Levels

Characteristics	Test levels	Basic Standard
Frequency range	80 MHz to 1 000 MHz	IEC 61000-4-3
Test field strength	3 V/m (unmodulated) See Note	
Modulation	1 kHz, 80 % AM, sine wave	
NOTE For information regarding situations with a high concentration of mobile transmitters see for example IEC TR 61000-2-5:2017, 9.3.		

7.2.2. Block diagram of test setup

For table-top equipment





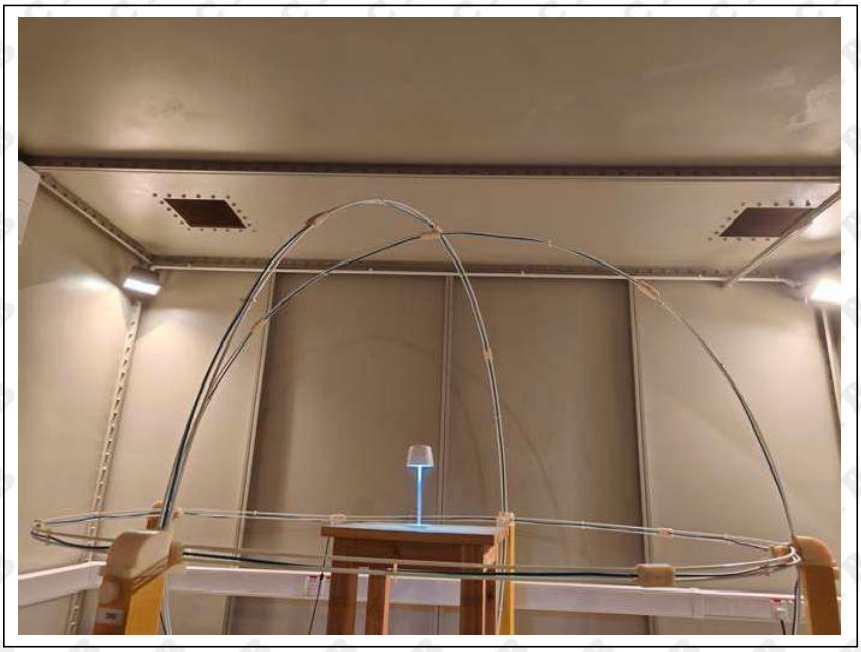
7.2.3. Test Procedure

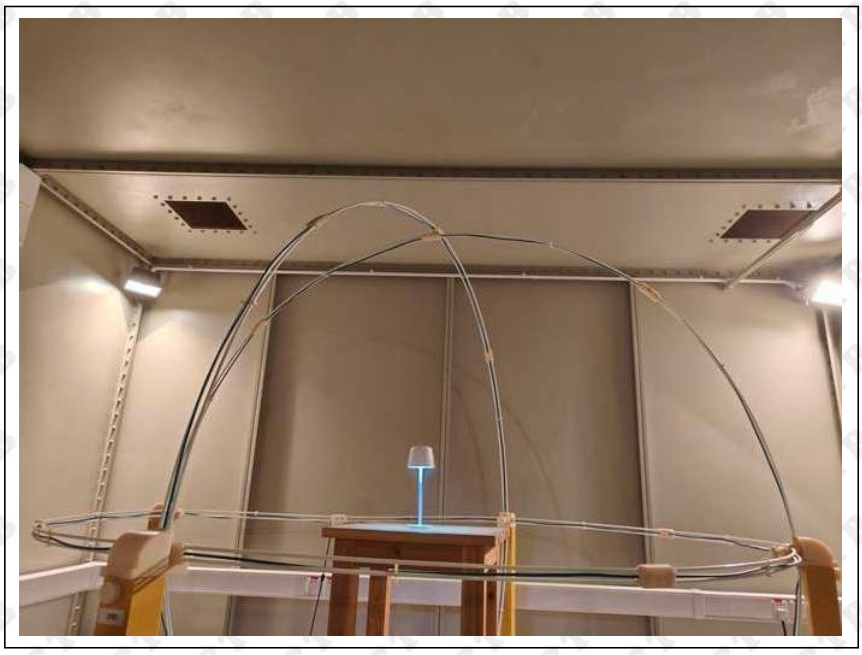
1. Measurement was performed in full-anechoic chamber.
2. Measurement procedure was applied according to EN 61000-4-3 clause 8.
3. The test method and equipment was specified by EN 61000-4-3.

7.2.4. Test Result

Temperature:	23℃	Relative Humidity:	54 %
Pressure:	101kPa	Test Mode:	Mode 2
Test Voltage :	DC 3.7V		

Frequency range [MHz]	Test Level [V/m]	Polarization	EUT Face	**Performance Criterion**	**Required Criterion**
80 to 1000	3	Horizontal & Vertical	Front/ Rear	A	A
			Right/ Left	A	A
			Top/ Underside	A	A



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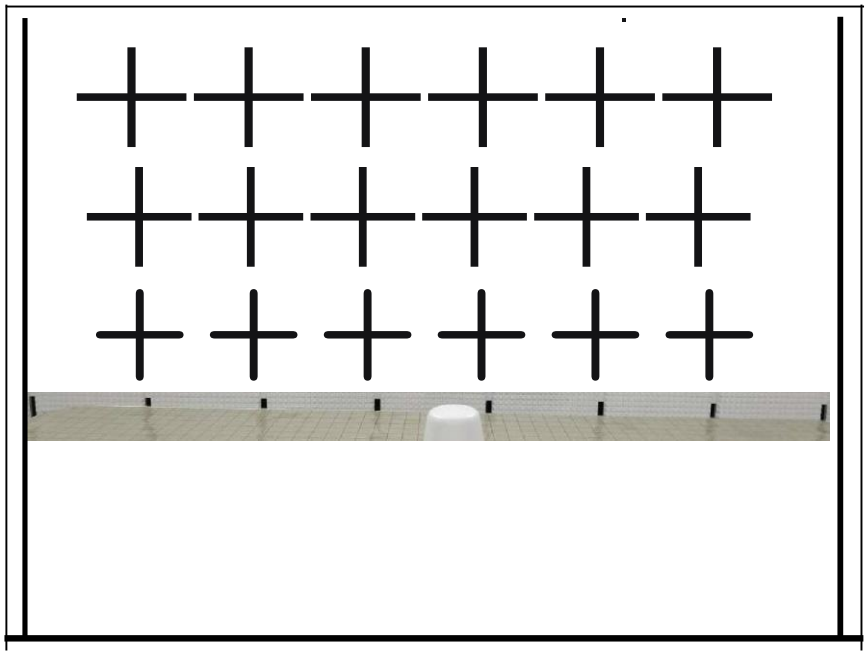

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