TEST REPORT

Reference No.	:	**WTX20X10073111R1E**
Applicant	:	**Dongguan Olight E-Commerce Technology Co., Ltd**
Address	:	**4th Floor Building 4 Kegu Industrial Park No6 Zhongnan Road, Changan Town, Dongguan City ,Guangdong, China**
Product	:	**Flashlight**
Test Model	:	**JAVELOT TURBO**
Standards	:	**EN 55015:2013/A1:2015** **EN 61547:2009**
Date of Receipt sample	:	**Oct.13, 2020**
Date of Test	:	**Oct.13, 2020 to Oct.15, 2020**
Date of Issue	:	**Nov.06, 2020**
Test Result	:	**Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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Revision History

Report No.	Version	Description	Issue Date	Note
WTX20X10073111E	Original	Initial report	2020-10-15	Invlid
WTX20X10073111R1E	Re.1	1. Change of Model No 2. Replace the product appearance photo	2020-11-06	Valid

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Dongguan Olight E-Commerce Technology Co., Ltd
Address of applicant:	4th Floor Building 4 Kegu Industrial Park No6 Zhongnan Road, Changan Town, Dongguan City , Guangdong, China
Manufacturer:	Dongguan Olight E-Commerce Technology Co., Ltd
Address of manufacturer:	4th Floor Building 4 Kegu Industrial Park No6 Zhongnan Road, Changan Town, Dongguan City , Guangdong, China

General Description of EUT	
Product Name:	Flashlight
Trade Name:	OLIGHT
Model No.:	JAVELOT TURBO
Adding Model(s):	/
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Rated Voltage:	DC 3.6V
Rated Current:	6A
Rated Power:	21.6w
Power Adaptor Model:	/
Highest Internal Frequency:	Below 108MHz

1.2 Test Standards

The tests were performed according to following standards:

EN 55015:2013/A1:2015 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

EN 61547:2009 Electromagnetic for general lighting purposes - EMC immunity requirements

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with the standards EN 55015,and EN 61547 for general lighting purposes equipment, and all related testing and measurement techniques intentional standards.

1.4 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission/immunity level. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List			
Test Mode	Description	Remark	Power Supply Mode
TM1	Charging	Charging port connects to the adapter	DC 5V (With a adapter input AC230V50Hz)
TM2	Discharge	Flashlight lamp reaches its brightest	DC 3.6V
TM3	Discharge	Flashlight lamp reaches its darkest	DC 3.6V

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
Adapter cable	0.54	Unshielded	Without Core

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
/	/	/	/

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
MEIZU	Dongguan Aohai Power Supply Technology Co. LTD	UP0830S	/

1.5 Performance Criteria for EMS

All the test data has been collected, reduced, and analyzed within this report in accordance with Immunity requires the following as specific performance criteria:

A. The apparatus shall continue to operate as intended during and after the test. The manufacturer specifies some minimum performance level. The performance level may be specified by the manufacturer as a permissible loss of performance.

B. The apparatus shall continue to operate as intended after the test. This indicates that the EUT does not need to function at normal performance levels during the test, but must recover. Again some minimal performance is defined by the manufacturer. No change in operating state or loss of data is permitted.

C. Temporary loss of function is allowed. Operation of the EUT may stop as long as it is either automatically reset or can be manually restored by operation of the controls.

1.6 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
Spectrum Analyzer	Rohde & Schwarz	FSP	836079/035	2020-04-28	2021-04-27
EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2020-04-28	2021-04-27
Amplifier	Agilent	8447F	3113A06717	2020-04-28	2021-04-27
Amplifier	C&D	PAP-1G18	2002	2020-04-28	2021-04-27
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2019-05-05	2021-05-04
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2019-05-05	2021-05-04
Loop Antenna	EVERFINE	LLA-2	711001	2019-04-30	2021-04-29
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2020-04-28	2021-04-27
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2020-04-28	2021-04-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2020-04-28	2021-04-27
AC LISN	Schwarz beck	NSLK8126	8126-224	2020-04-28	2021-04-27
8-WIRE LISN	Schwarz beck	8158	CAT3-8158-0059	2020-04-28	2021-04-27
8-WIRE LISN	Schwarz beck	8158	CAT5-8158-0117	2020-04-28	2021-04-27
PMF Generator	LIONCEL	PMF-801C-C	0171101	2020-04-28	2021-04-27
PMF Antenna	LIONCEL	PMF-801C-A	0180302	2020-04-28	2021-04-27
Instantaneous PMF Generator Module	LIONCEL	PMF-801C-T	0171001	2020-04-28	2021-04-27
Digital Power Analyzer	California Instrument	CTS	72831	2020-04-28	2021-04-27
Power Source	California Instrument	5001IX-CTS-400	25965	2020-04-28	2021-04-27
ESD Generator	LIONCEL	ESD-203B	0170901	2020-04-28	2021-04-27
Amplifier	Agilent	8447D	2944A10179	2020-04-28	2021-04-27
Transient 2000	EMC PARTNER	TRA2000	863	2020-04-28	2021-04-27
Couple Clamp	EMC PARTNER	CN-EFT1000	513	2020-04-28	2021-04-27
CONDUCTED IMMUNITY TEST SYSTEM	FRANKONIA	CIT-10/75	126B1247/2013	2020-01-13	2021-01-12
Attenuator	EMTEST	MA-5100/6BF2	1009	2020-04-28	2021-04-27
CDN	Luthi	L-801M2/M3	2665	2020-04-28	2021-04-27
Signal Generator	HP	8688B	3438A00604	2020-04-28	2021-04-27
Power Meter	KEITHLEY	3500	1162591	2020-04-28	2021-04-27
Power Meter	KEITHLEY	3500	1121428	2020-04-28	2021-04-27
RF Power Amplifier	MicoTop	MPA-80-1000-250	MPA1906239	2020-04-28	2021-04-27
RF Power Amplifier	MicoTop	MPA-80-1000-100	MPA1906238	2020-04-28	2021-04-27
Antenna	SCHWARZBECK	STLP 9129	9129 114	N/A	N/A

2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
EN 55015	Disturbance Voltages	Compliant
	Radiated Electromagnetic Disturbances (Frequency range 9kHz to 30MHz)	Compliant
	Radiated Electromagnetic Disturbances (Frequency range 30MHz to 300MHz)	Compliant
EN 61000-3-2	Harmonic Current Emission	N/A
EN 61000-3-3	Voltage Fluctuation And Flicker	N/A
EN 61547	Electrostatic Discharge Immunity in accordance with EN 61000-4-2	Compliant
	Radio-Frequency Electromagnetic Field Immunity in accordance with EN 61000-4-3	Compliant
	Electrical Fast Transient/Burst Immunity in accordance EN 61000-4-4	Compliant
	Surges Immunity in accordance with EN 61000-4-5	Compliant
	Injected Currents Immunity in accordance with EN 61000-4-6	Compliant
	Power-frequency Magnetic Field Immunity in accordance with EN 61000-4-8	Compliant
	Voltage Dips/Interruptions Immunity in accordance with EN 61000-4-11	N/A

N/A: not applicable

3. Conducted Emission

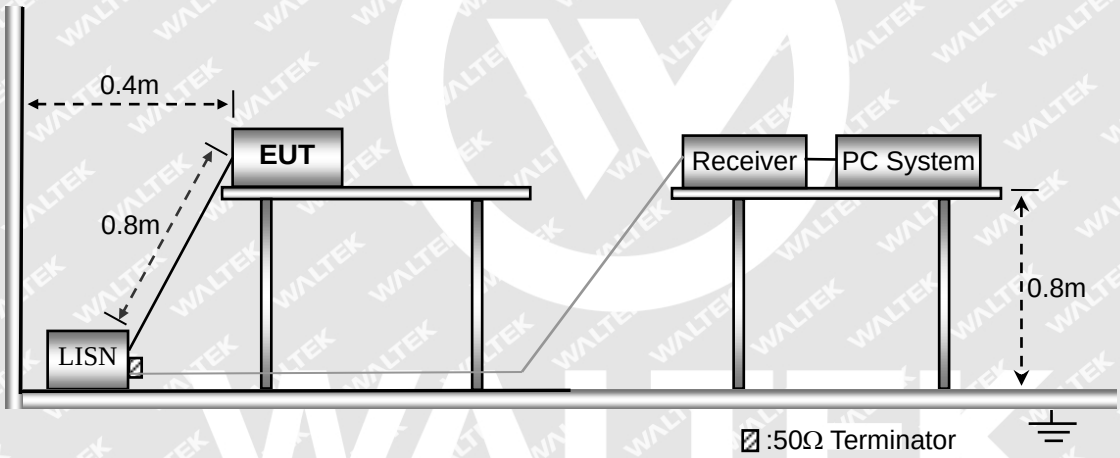
3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement:

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	9-150kHz ±3.74dB
		0.15-30MHz ±3.34dB

3.2 Basic Test Setup Block Diagram

AC port



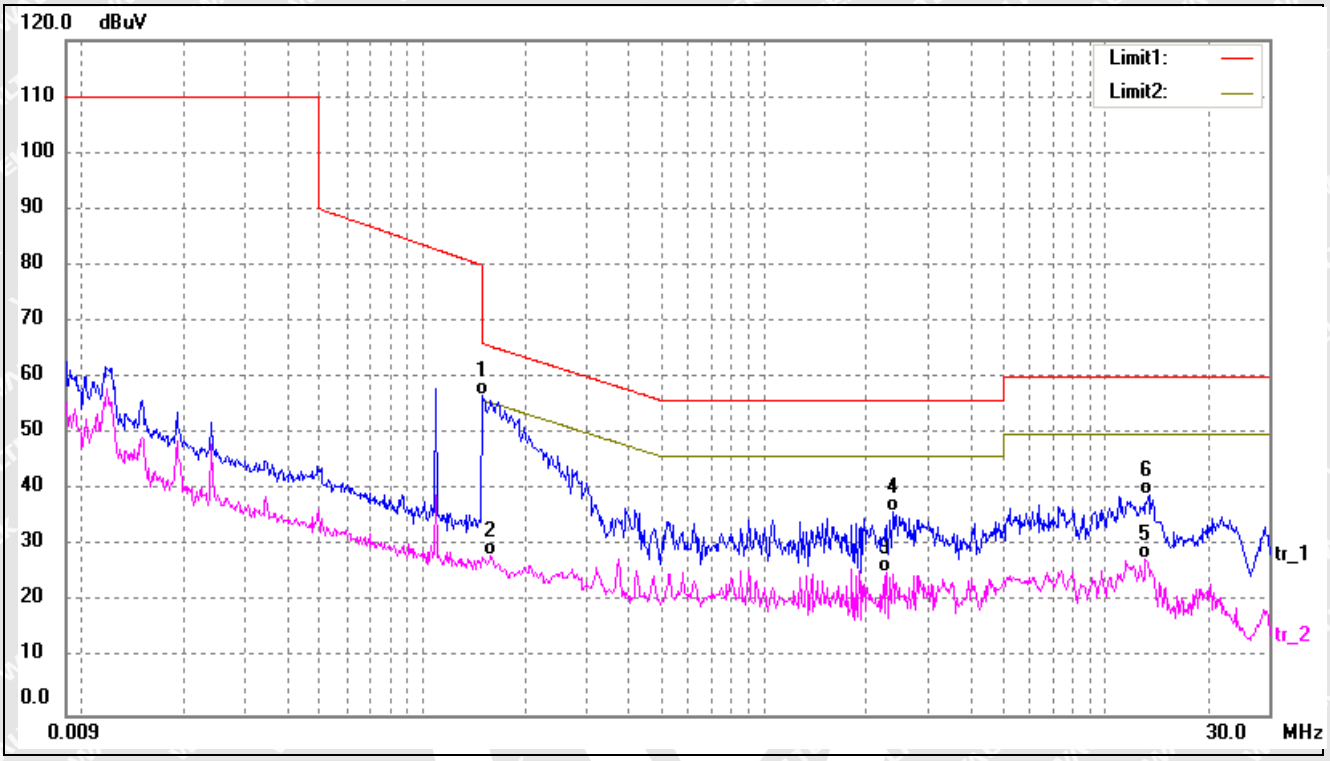
3.3 Environmental Conditions

Temperature:	22.5 ° C
Relative Humidity:	54 %
ATM Pressure:	1015 mbar

3.4 Summary of Test Results

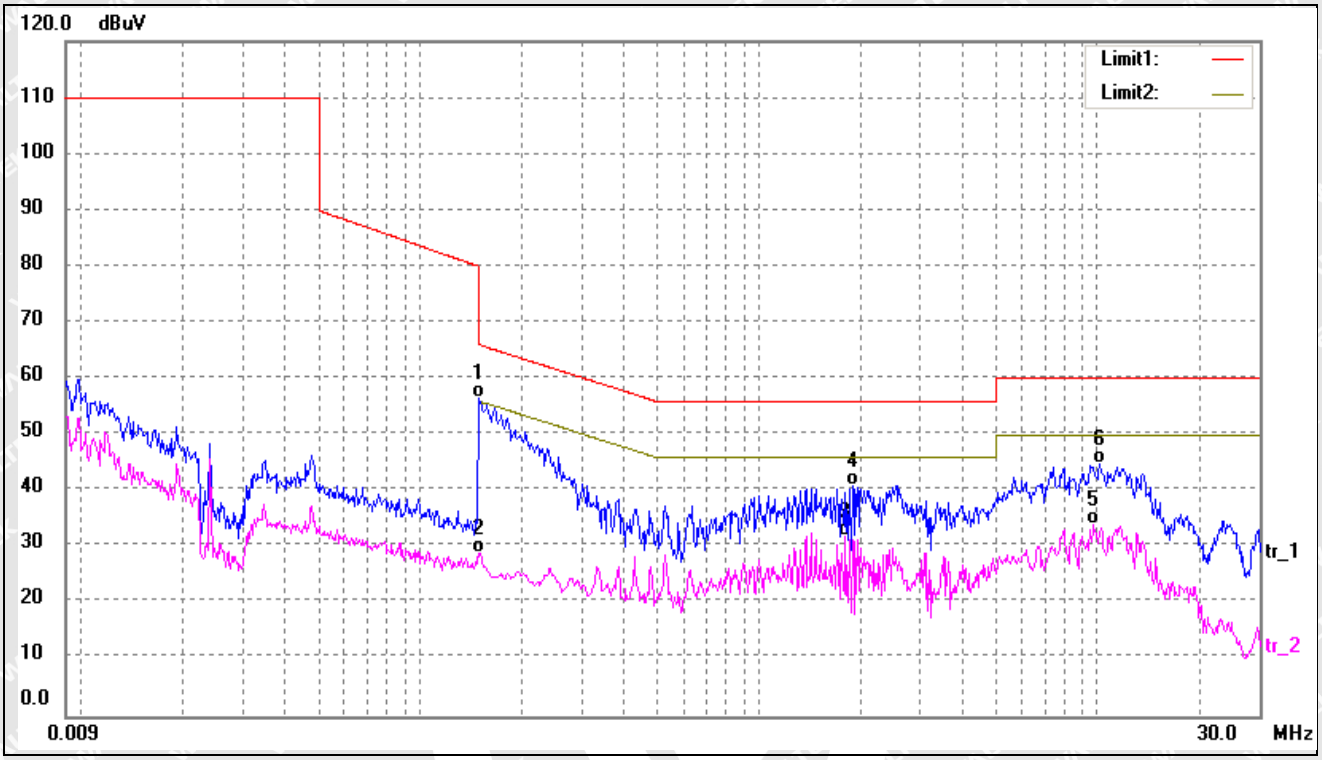
Look at the graphs and data below：

Test mode:	TM1	Polarity:	Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1500	46.61	10.25	56.86	66.00	-9.14	QP
2	0.1580	18.18	10.25	28.43	55.57	-27.14	AVG
3	2.2780	14.95	10.30	25.25	46.00	-20.75	AVG
4	2.3740	25.75	10.29	36.04	56.00	-19.96	QP
5	13.1140	17.16	10.47	27.63	50.00	-22.37	AVG
6	13.3740	28.81	10.48	39.29	60.00	-20.71	QP

Test mode:	TM1	Polarity:	Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1500	46.33	10.25	56.58	66.00	-9.42	QP
2	0.1500	18.64	10.25	28.89	56.00	-27.11	AVG
3	1.8100	21.55	10.26	31.81	46.00	-14.19	AVG
4	1.9020	30.69	10.28	40.97	56.00	-15.03	QP
5	9.7380	23.67	10.28	33.95	50.00	-16.05	AVG
6	10.1660	34.43	10.29	44.72	60.00	-15.28	QP

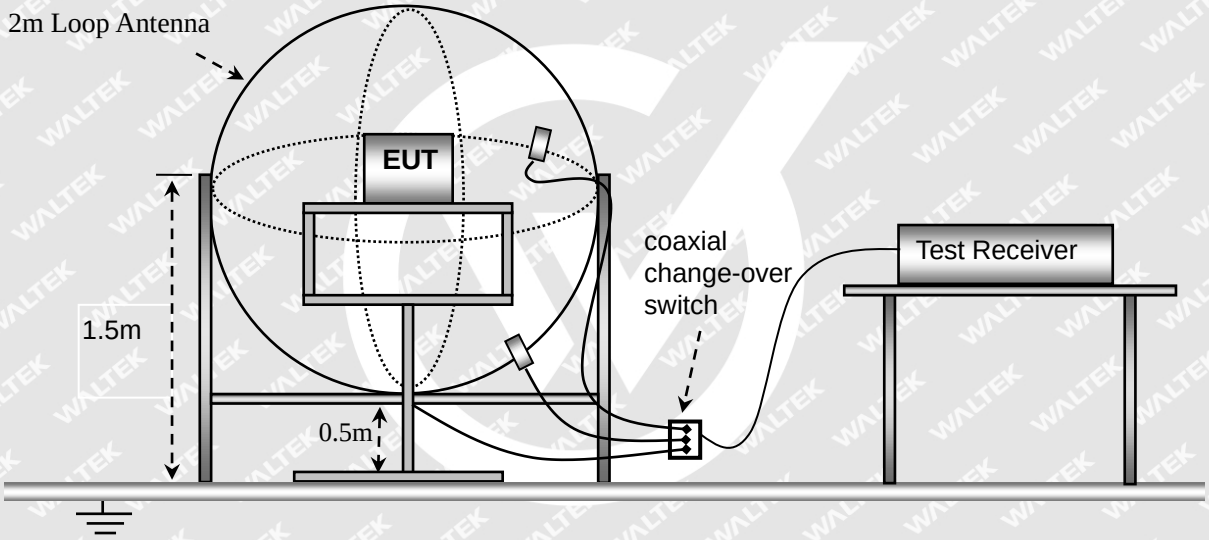
4. Radiated Electromagnetic Disturbances (9kHz to 30MHz)

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 3.6 dB.

4.2 Basic Test Setup Block Diagram

The Radiation Electromagnetic Disturbance (9kHz to 30MHz) test was performed in accordance with the EN 55015



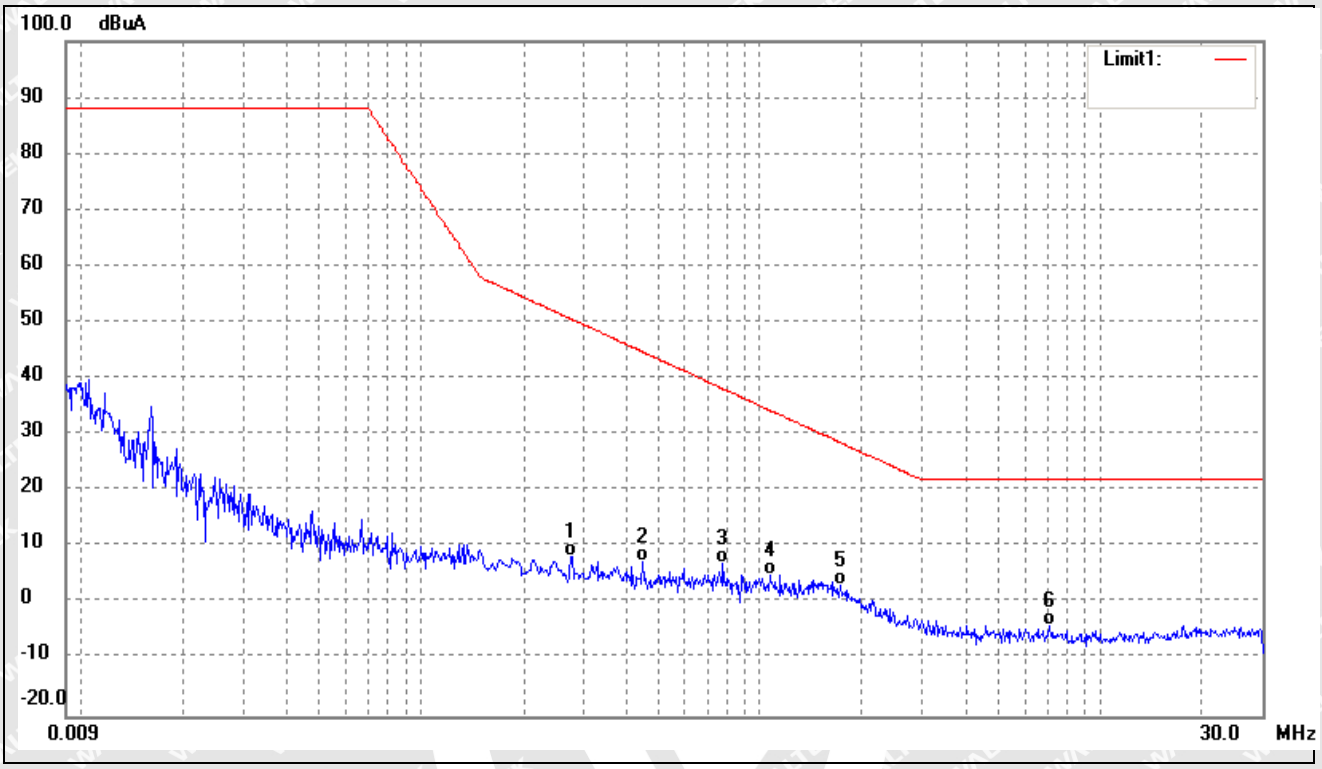
4.3 Environmental Conditions

Temperature:	22.5 ° C
Relative Humidity:	54 %
ATM Pressure:	1015 mbar

4.4 Summary of Test Results

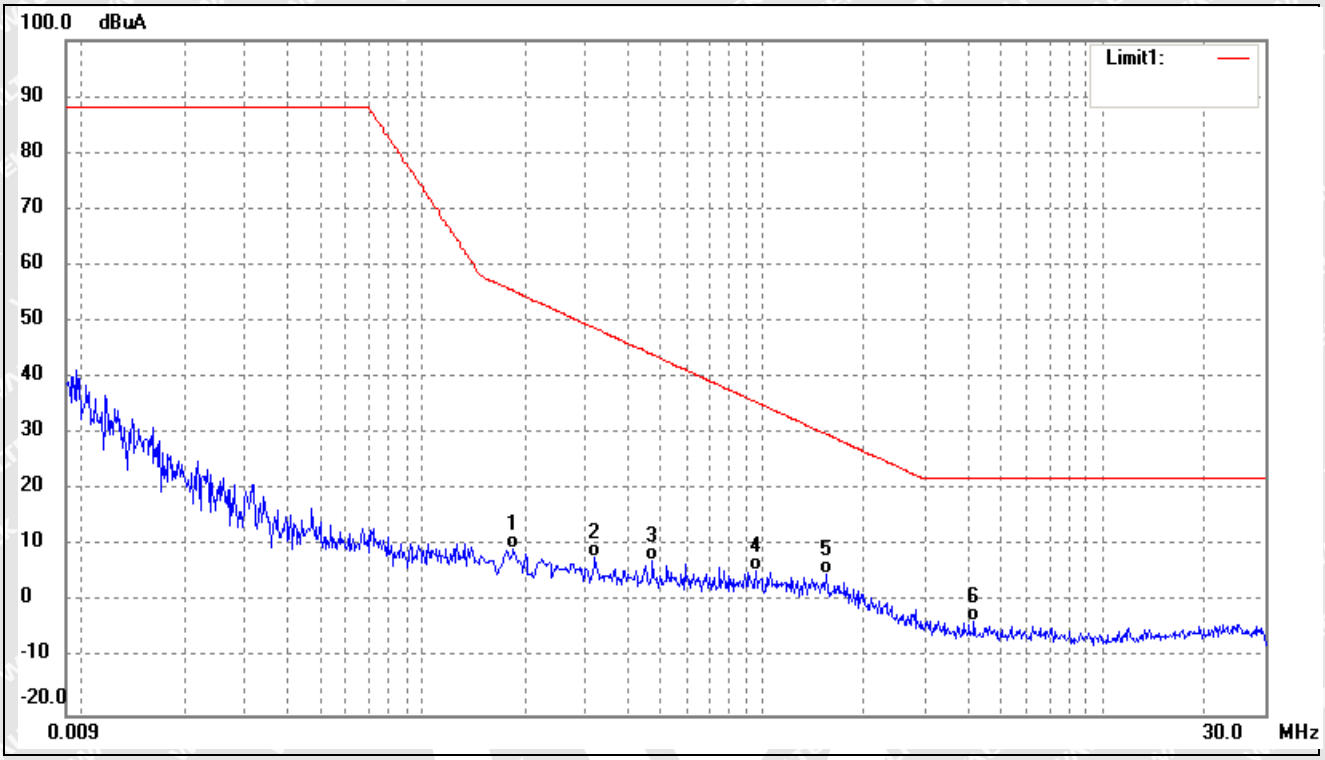
Look at the graphs and data below:

Test mode:	TM1	Polarity:	X



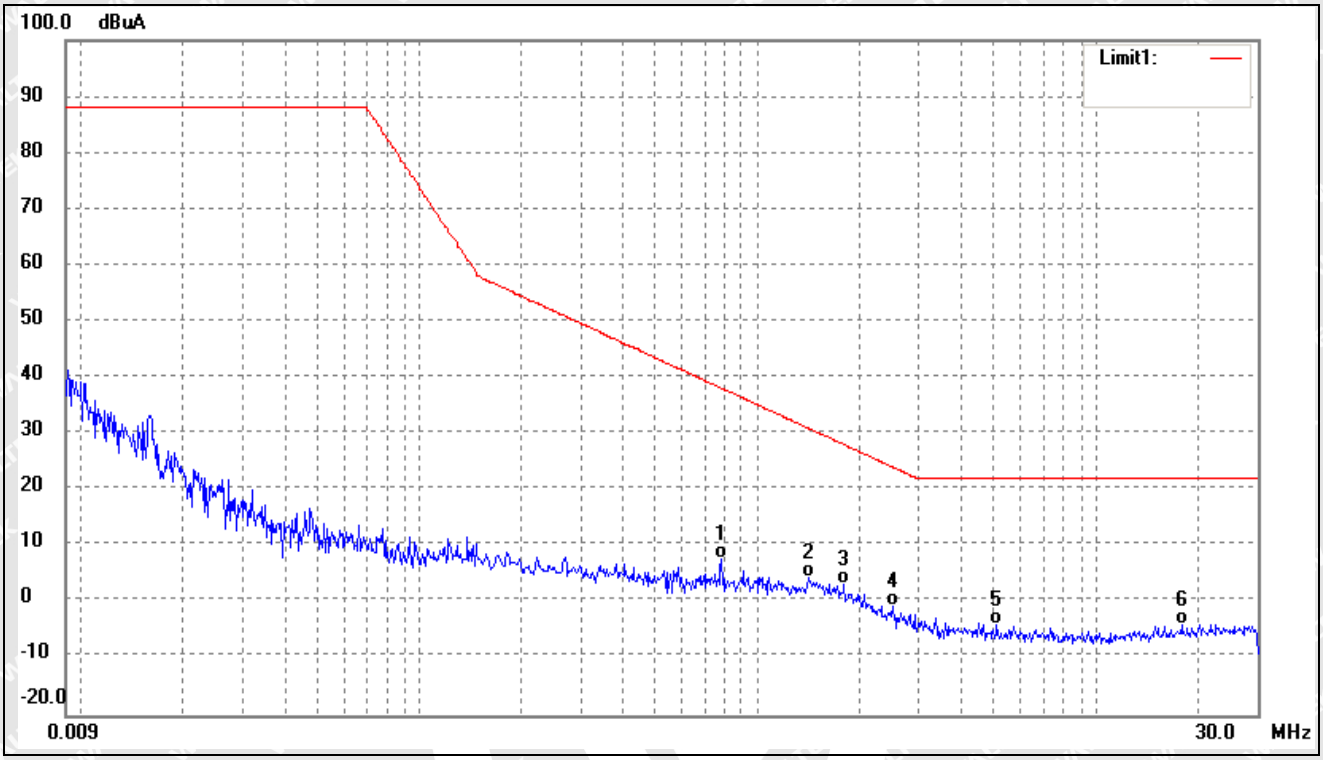
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.2779	-12.09	20.54	8.45	50.58	-42.13	QP
2	0.4500	-12.88	20.31	7.43	44.79	-37.36	QP
3	0.7740	-13.04	20.07	7.03	38.28	-31.25	QP
4	1.0620	-14.97	20.09	5.12	34.48	-29.36	QP
5*	1.7220	-17.15	20.42	3.27	28.67	-25.40	QP
6	7.1300	-24.42	20.53	-3.89	22.00	-25.89	QP

Test mode:	TM1	Polarity:	Y



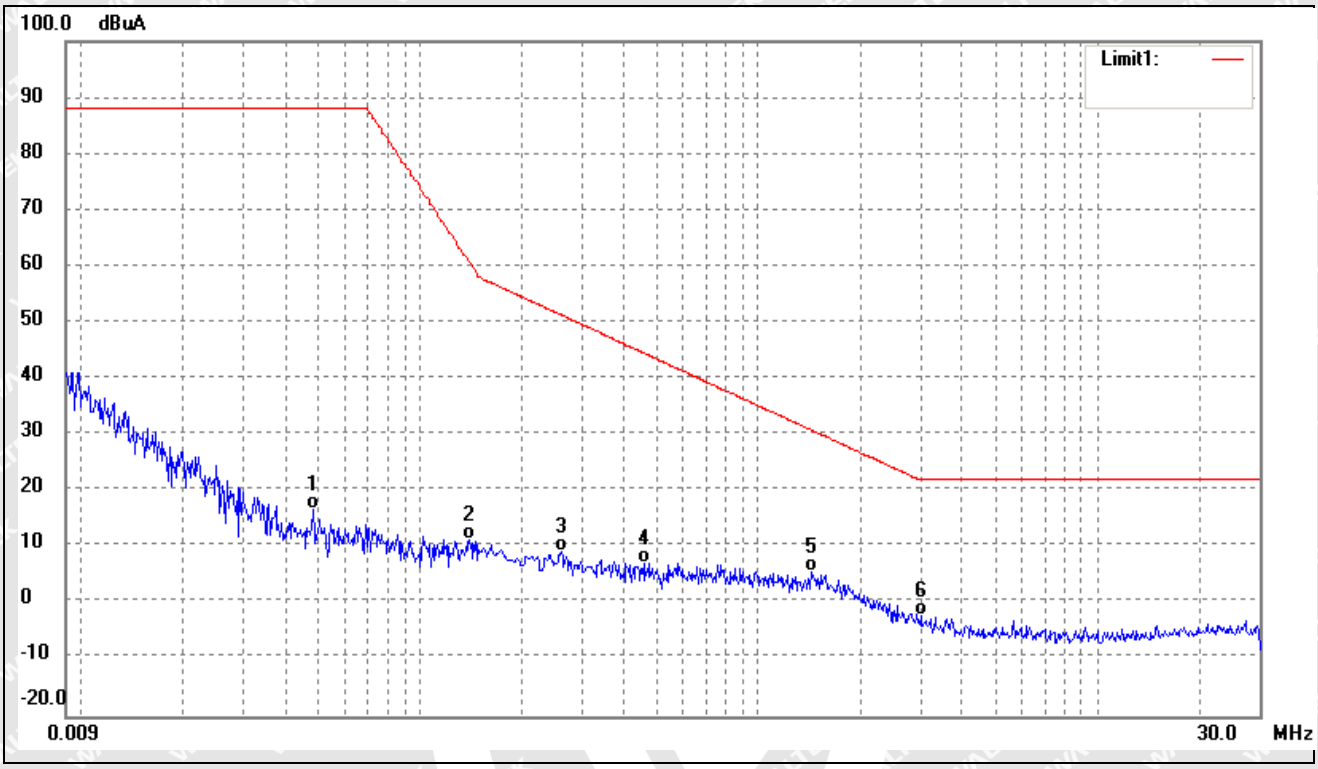
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.1860	-11.35	20.79	9.44	55.41	-45.97	QP
2	0.3220	-12.28	20.48	8.20	48.82	-40.62	QP
3	0.4780	-12.86	20.28	7.42	44.07	-36.65	QP
4	0.9620	-14.33	20.06	5.73	35.67	-29.94	QP
5*	1.5460	-15.26	20.33	5.07	29.97	-24.90	QP
6	4.1860	-24.09	20.67	-3.42	22.00	-25.42	QP

Test mode:	TM1	Polarity:	Z



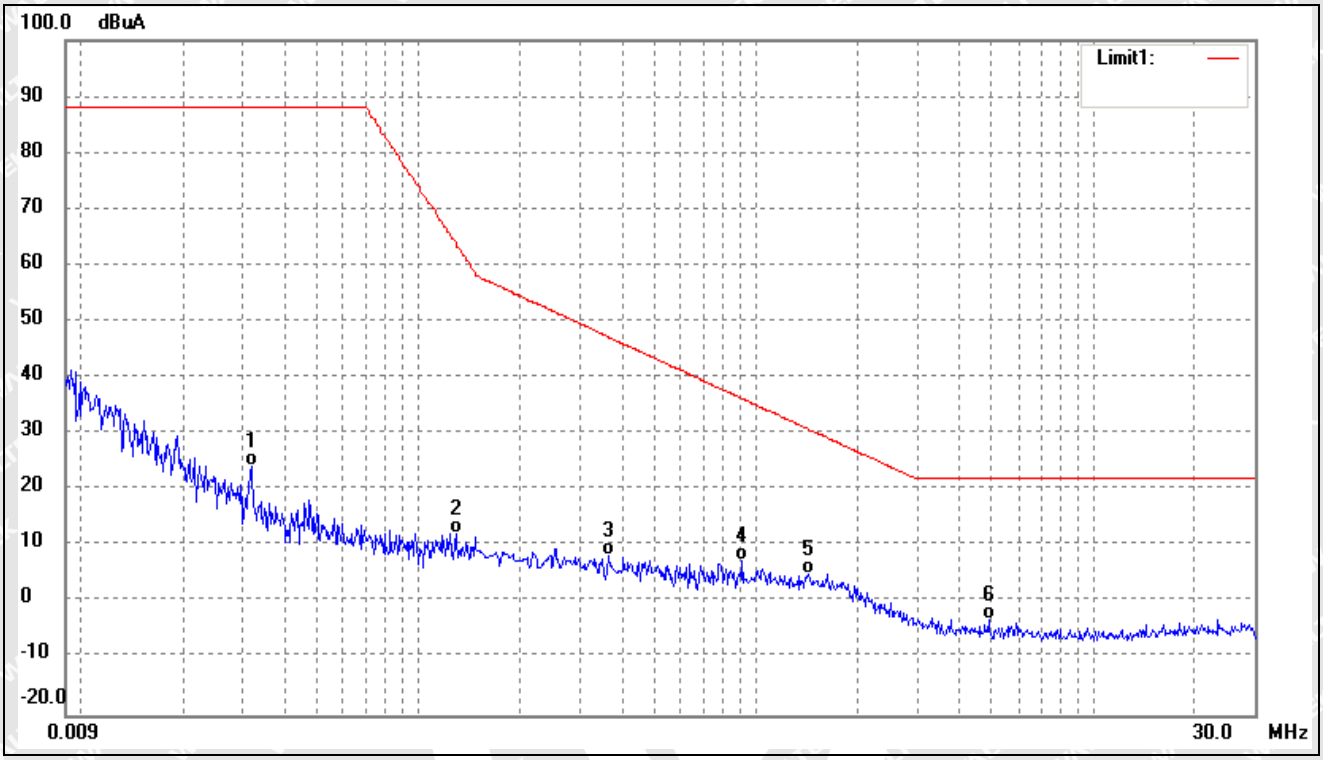
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.7820	-12.40	20.07	7.67	38.16	-30.49	QP
2	1.4140	-15.96	20.27	4.31	31.04	-26.73	QP
3	1.7980	-17.25	20.46	3.21	28.15	-24.94	QP
4*	2.5100	-21.28	20.59	-0.69	24.14	-24.83	QP
5	5.0780	-24.54	20.71	-3.83	22.00	-25.83	QP
6	17.9940	-25.15	21.06	-4.09	22.00	-26.09	QP

Test mode:	TM2	Polarity:	X



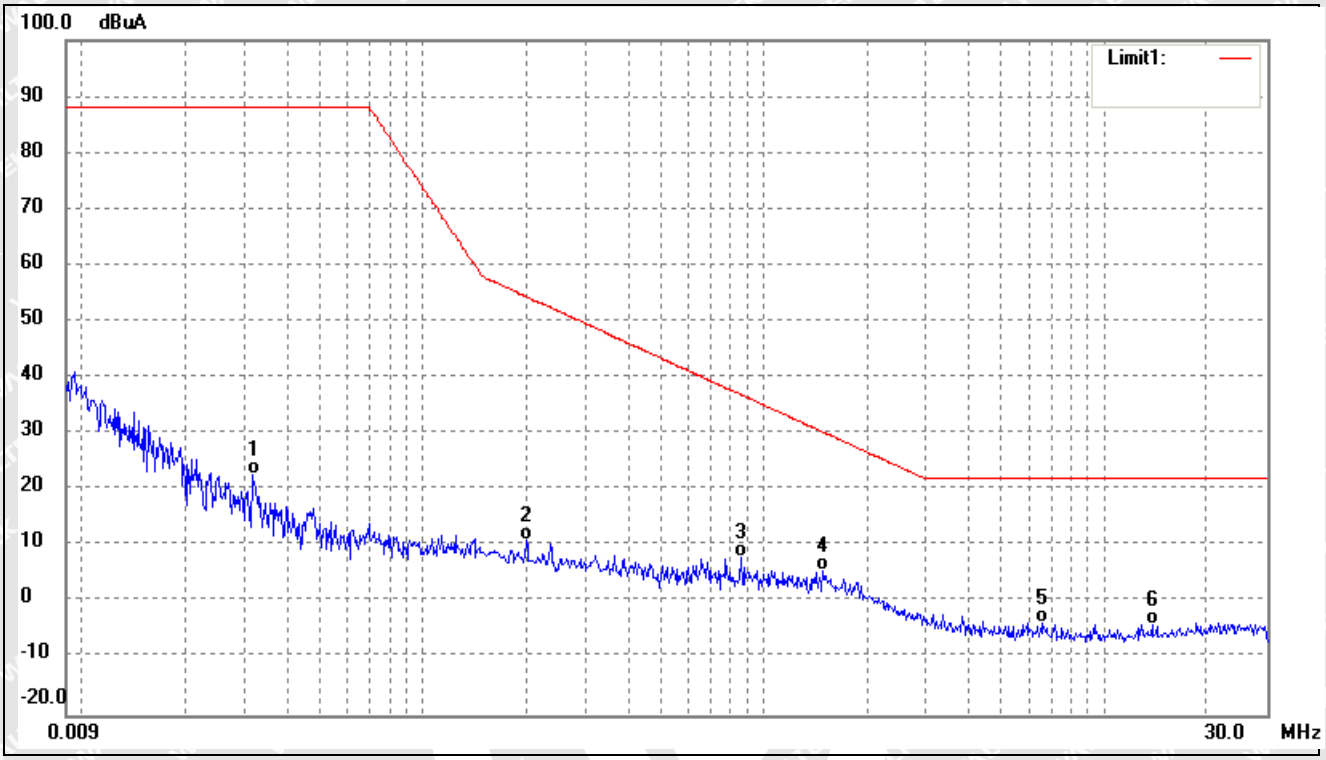
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.0485	-7.71	24.32	16.61	88.00	-71.39	QP
2	0.1405	-9.79	21.20	11.41	60.55	-49.14	QP
3	0.2620	-11.35	20.57	9.22	51.29	-42.07	QP
4	0.4580	-13.06	20.30	7.24	44.58	-37.34	QP
5	1.4217	-14.76	20.27	5.51	30.97	-25.46	QP
6*	3.0178	-22.78	20.61	-2.17	22.00	-24.17	QP

Test mode:	TM2	Polarity:	Y



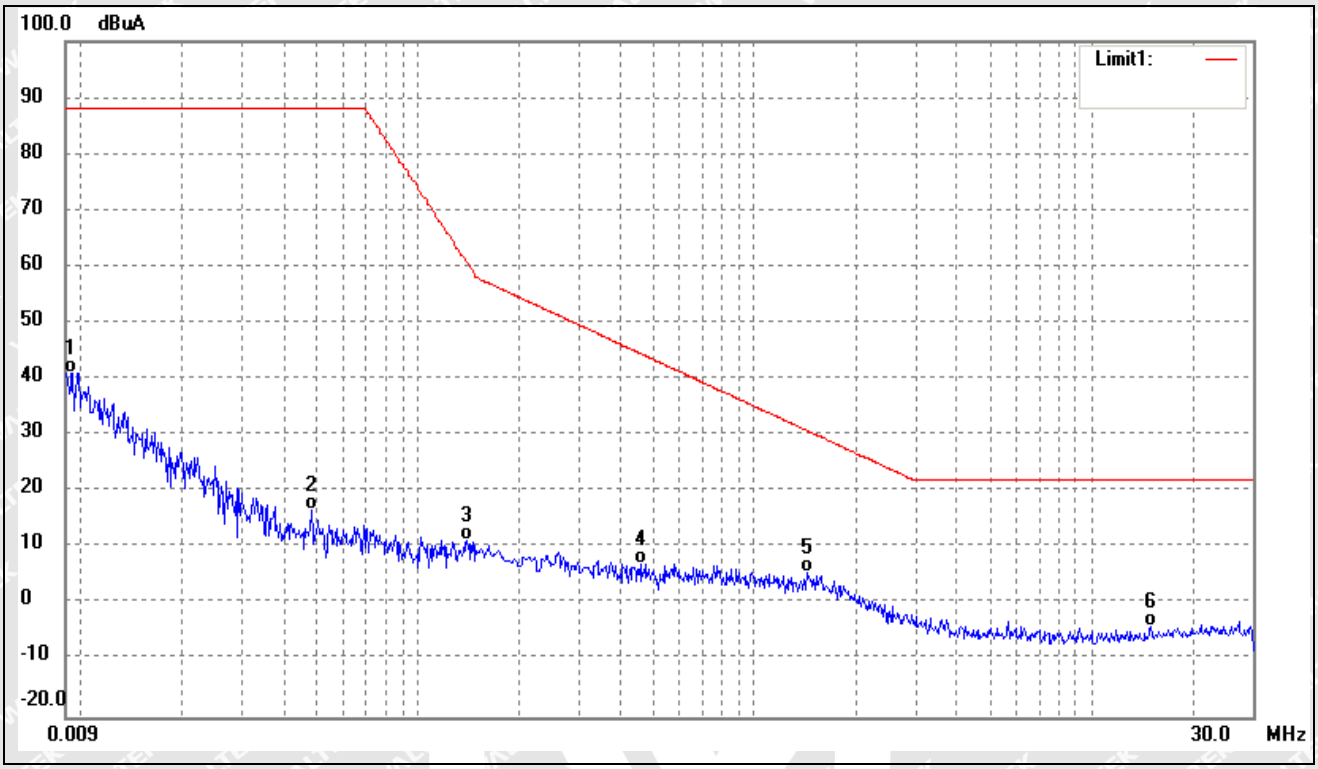
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.0320	-3.89	28.18	24.29	88.00	-63.71	QP
2	0.1287	-9.05	21.30	12.25	64.01	-51.76	QP
3	0.3659	-12.15	20.41	8.26	47.28	-39.02	QP
4	0.9100	-12.61	20.06	7.45	36.33	-28.88	QP
5	1.4258	-15.33	20.27	4.94	30.94	-26.00	QP
6*	4.9100	-23.87	20.71	-3.16	22.00	-25.16	QP

Test mode:	TM2	Polarity:	Z



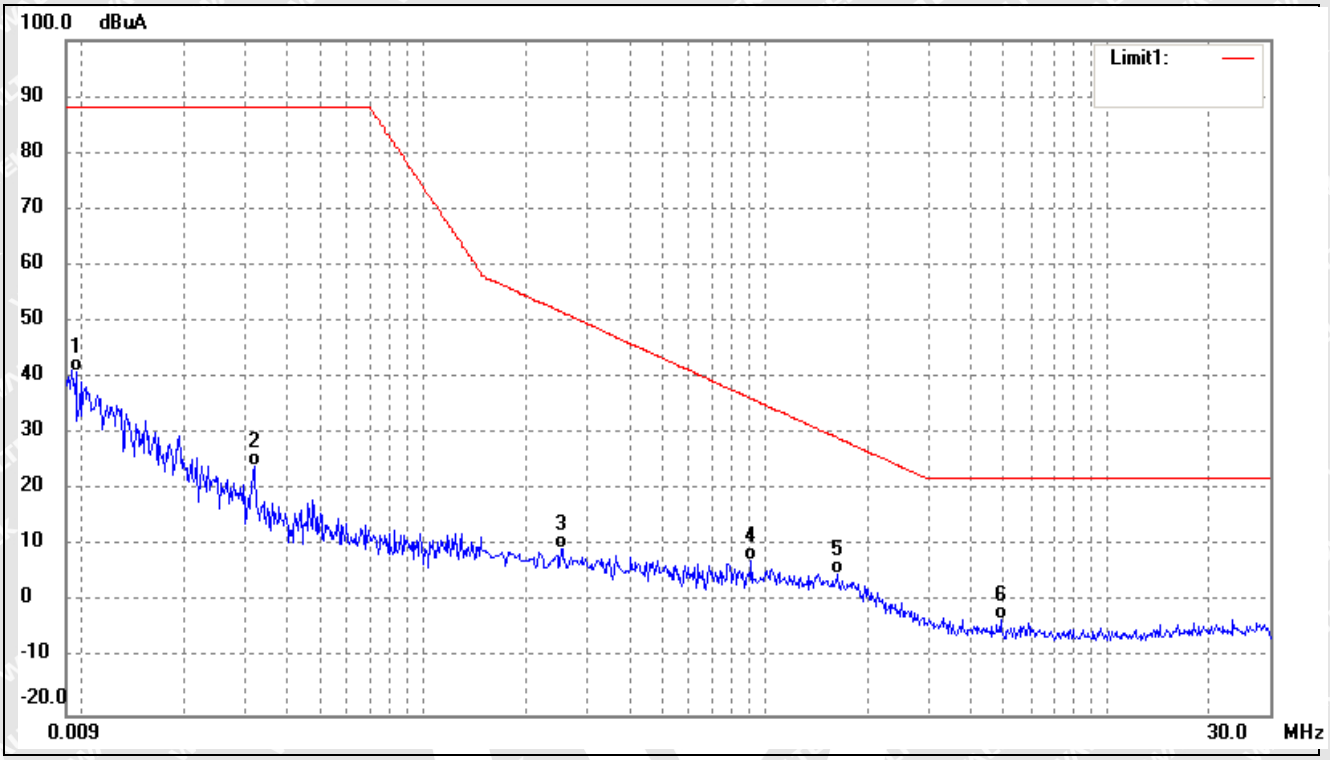
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.0318	-5.61	28.25	22.64	88.00	-65.36	QP
2	0.2020	-9.64	20.66	11.02	54.42	-43.40	QP
3	0.8659	-12.15	20.06	7.91	36.93	-29.02	QP
4*	1.5020	-14.65	20.31	5.66	30.31	-24.65	QP
5	6.5899	-24.19	20.64	-3.55	22.00	-25.55	QP
6	13.8140	-24.46	20.64	-3.82	22.00	-25.82	QP

Test mode:	TM3	Polarity:	X



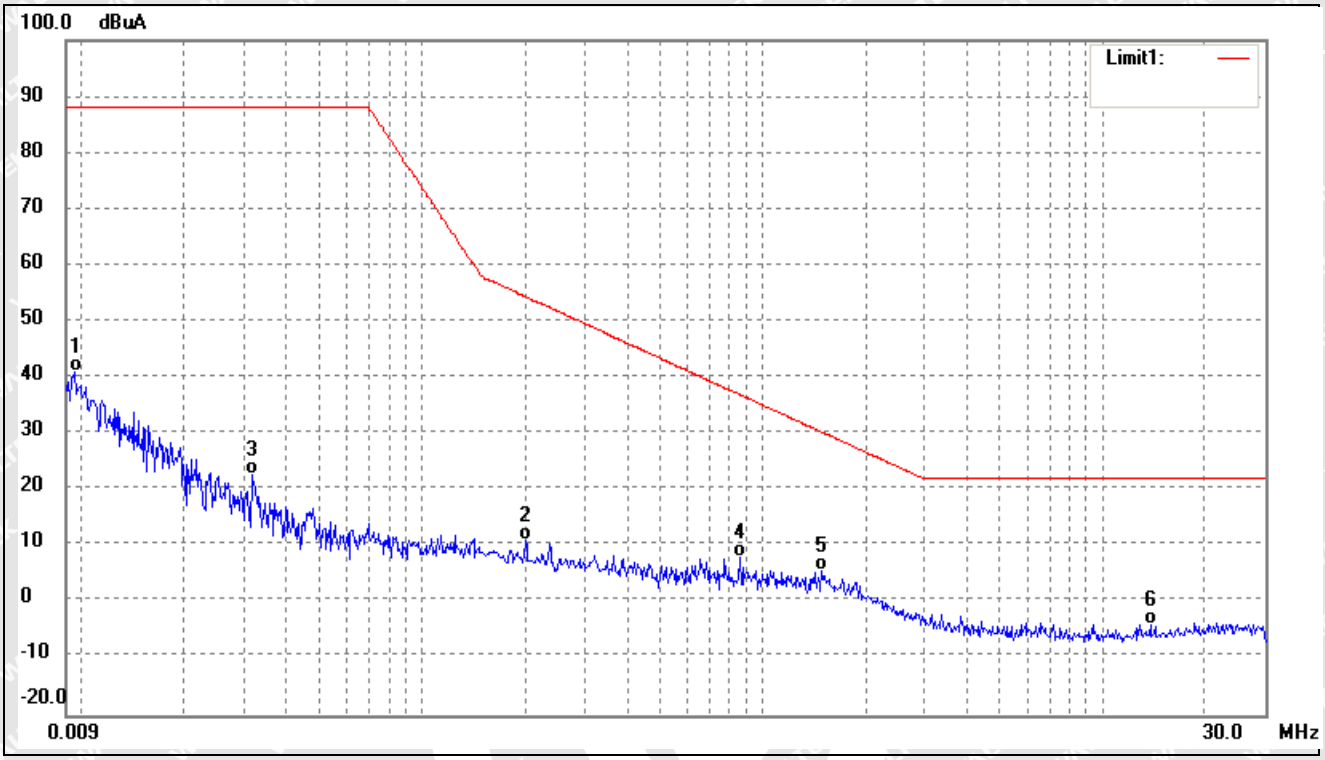
No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.0094	1.68	39.46	41.14	88.00	-46.86	QP
2	0.0486	-7.70	24.31	16.61	88.00	-71.39	QP
3	0.1406	-9.78	21.19	11.41	60.52	-49.11	QP
4	0.4580	-13.06	20.30	7.24	44.58	-37.34	QP
5*	1.4220	-14.76	20.27	5.51	30.97	-25.46	QP
6	14.9540	-24.79	20.76	-4.03	22.00	-26.03	QP

Test mode:	TM3	Polarity:	Y



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.0096	1.85	39.29	41.14	88.00	-46.86	QP
2	0.0320	-3.89	28.18	24.29	88.00	-63.71	QP
3	0.2540	-10.93	20.58	9.65	51.66	-42.01	QP
4	0.9100	-12.61	20.06	7.45	36.33	-28.88	QP
5*	1.6340	-15.46	20.38	4.92	29.30	-24.38	QP
6	4.9100	-23.87	20.71	-3.16	22.00	-25.16	QP

Test mode:	TM3	Polarity:	Z



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuA)	(dB/m)	(dBuA)	(dBuA)	(dB)	
1	0.0096	1.70	39.29	40.99	88.00	-47.01	QP
2	0.2020	-9.64	20.66	11.02	54.42	-43.40	QP
3	0.0319	-5.58	28.22	22.64	88.00	-65.36	QP
4	0.8660	-12.15	20.06	7.91	36.93	-29.02	QP
5*	1.5020	-14.65	20.31	5.66	30.31	-24.65	QP
6	13.8140	-24.46	20.64	-3.82	22.00	-25.82	QP

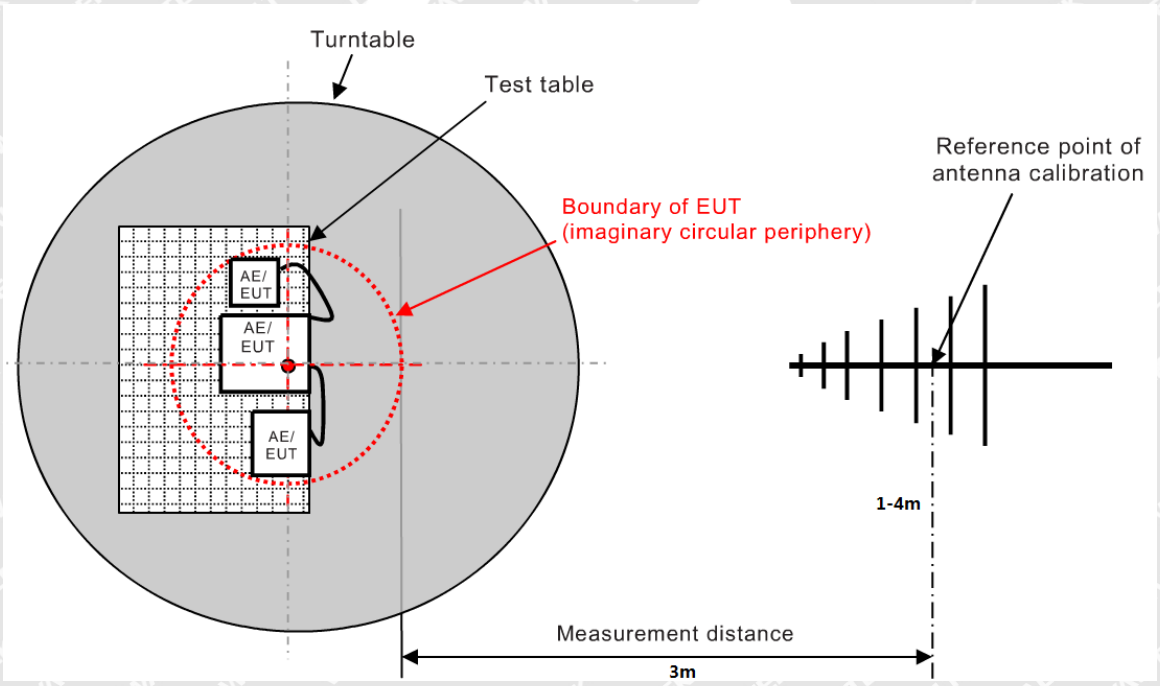
5. Radiated Electromagnetic Disturbances (30MHz to 300MHz)

5.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement:

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Radiated Emissions	Radiated	30-200MHz ±4.52dB
		0.2-1GHz ±5.56dB
		1-6GHz ±3.84dB
		6-18GHz ±3.92dB

5.2 Basic Test Setup Block Diagram



5.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corr. Ampl. = Indicated Reading + Correct
Correct=Ant.Factor + Cable Loss - Ampl.Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for a lighting device. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – EN 55015 Limit

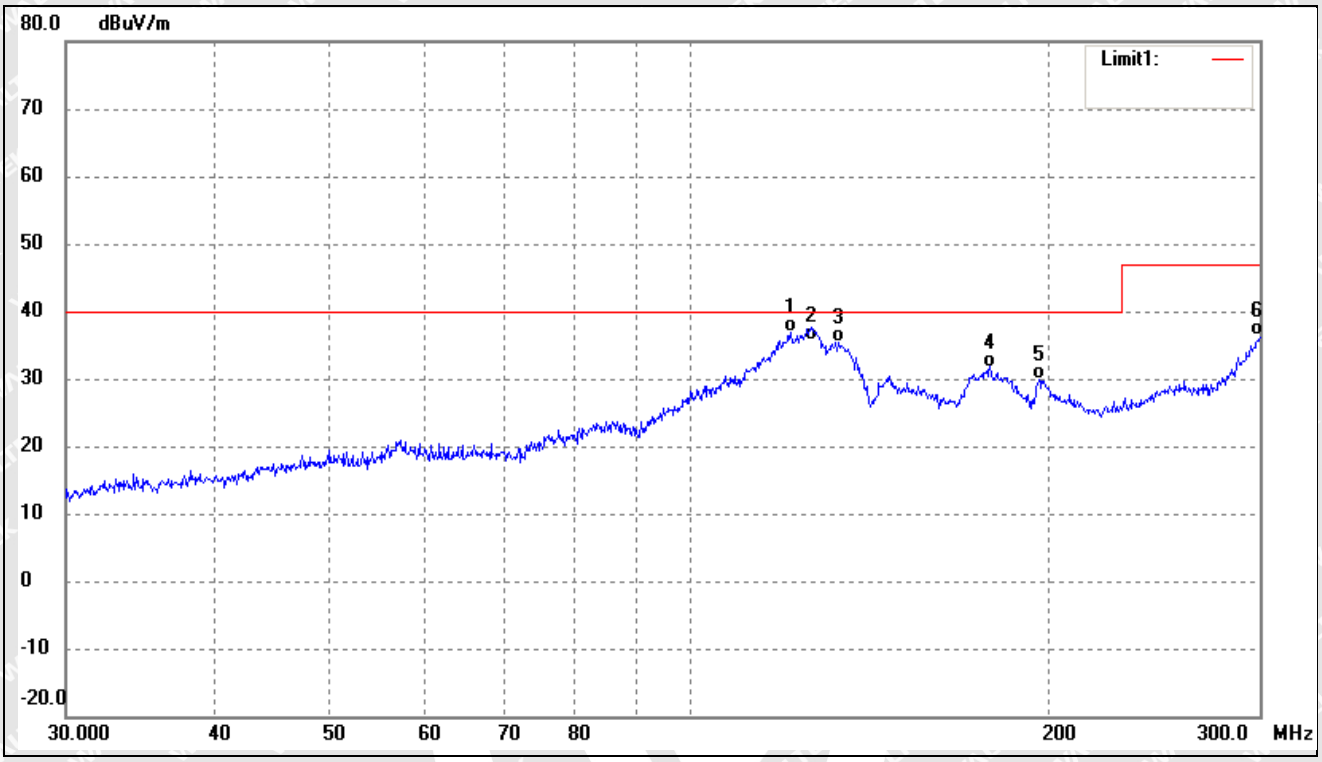
5.4 Environmental Conditions

Temperature:	22.5° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.5 Summary of Test Results

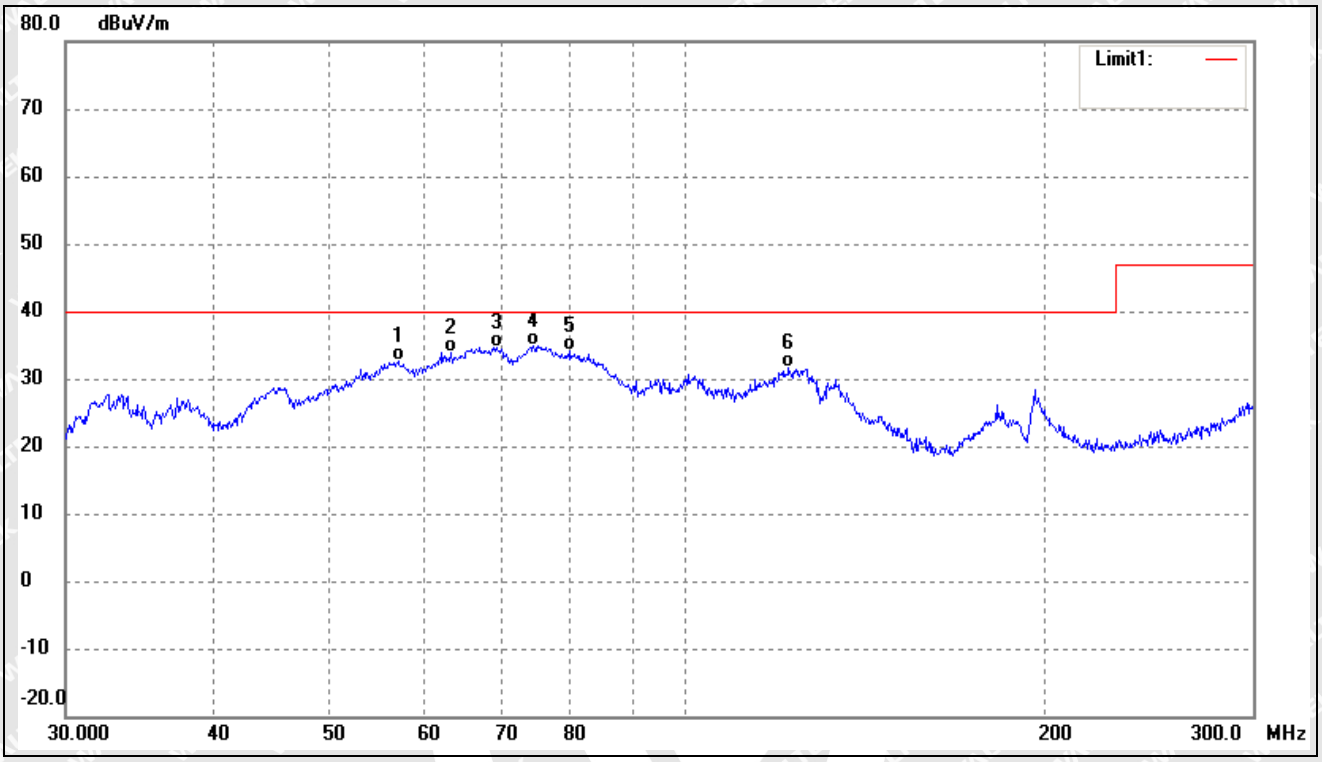
Look at the graphs and data below:

Test mode:	TM1	Polarity:	Horizontal



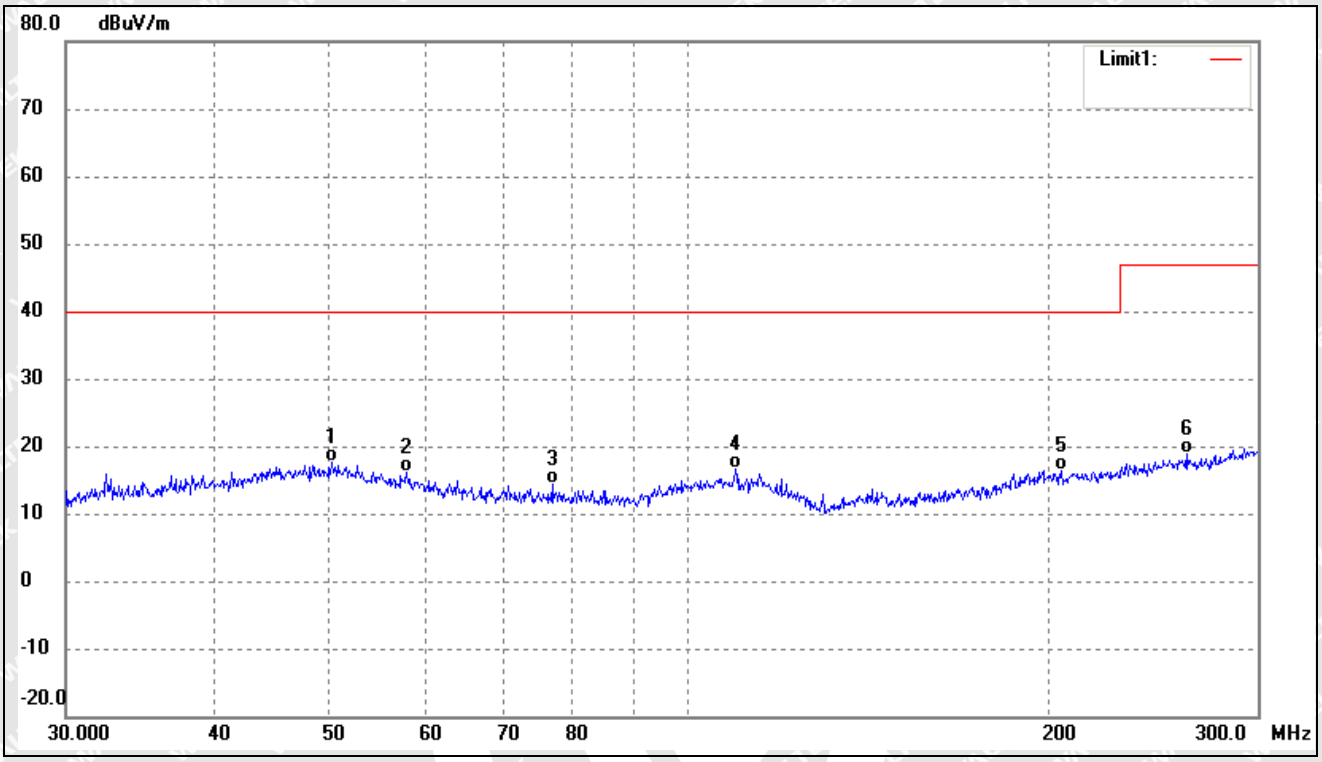
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	121.3728	50.55	-13.59	36.96	40.00	-3.04	281	100	QP
2	126.5090	50.53	-14.93	35.60	40.00	-4.40	92	100	QP
3	133.0826	50.89	-15.43	35.46	40.00	-4.54	331	100	QP
4	178.2876	45.13	-13.38	31.75	40.00	-8.25	97	100	QP
5	195.9392	41.39	-11.61	29.78	40.00	-10.22	217	100	QP
6	300.0000	43.64	-7.23	36.41	47.00	-10.59	115	100	QP

Test mode:	TM1	Polarity:	Vertical



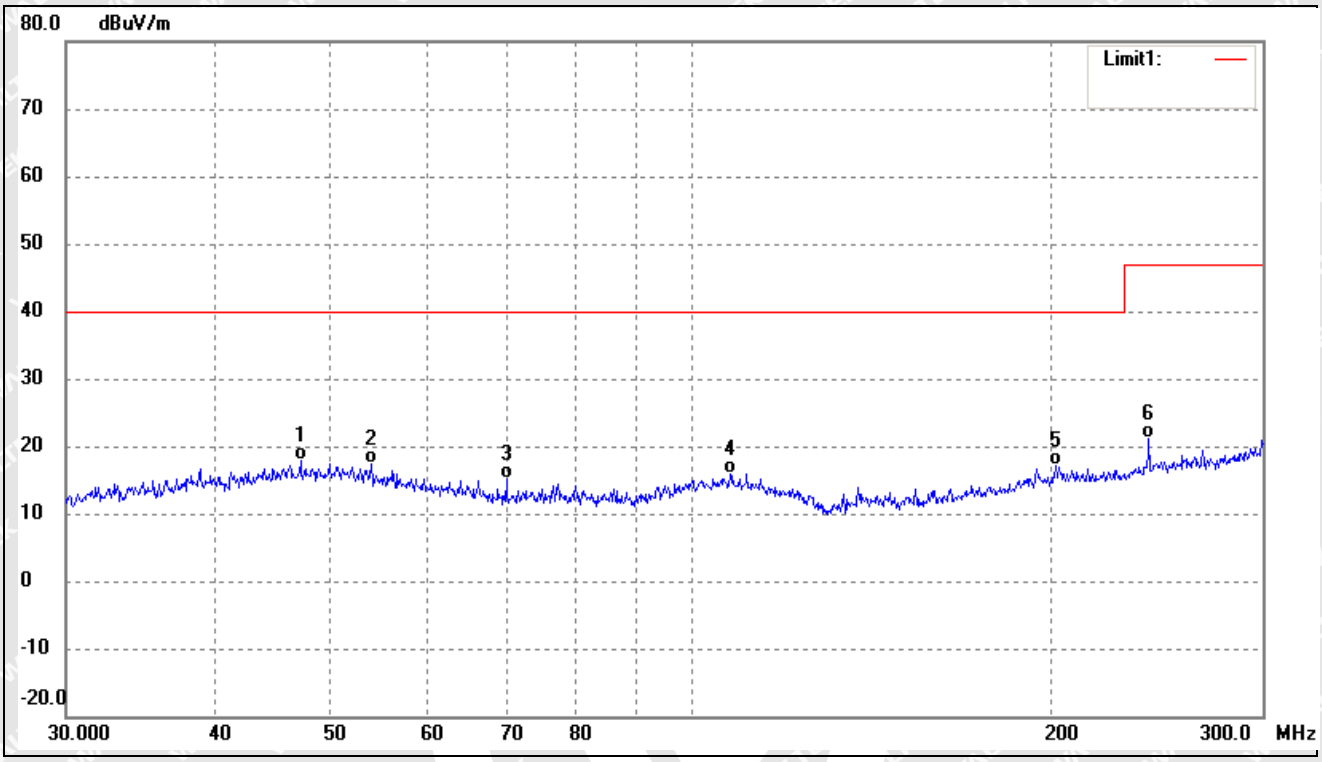
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	57.1638	44.44	-11.74	32.70	40.00	-7.30	149	100	QP
2	63.4047	46.71	-12.81	33.90	40.00	-6.10	114	100	QP
3	69.2024	48.53	-13.90	34.63	40.00	-5.37	97	100	QP
4	74.3227	48.82	-13.95	34.87	40.00	-5.13	132	100	QP
5	79.8218	48.26	-14.16	34.10	40.00	-5.90	184	100	QP
6	121.9330	45.31	-13.73	31.58	40.00	-8.42	308	100	QP

Test mode:	TM2	Polarity:	Horizontal



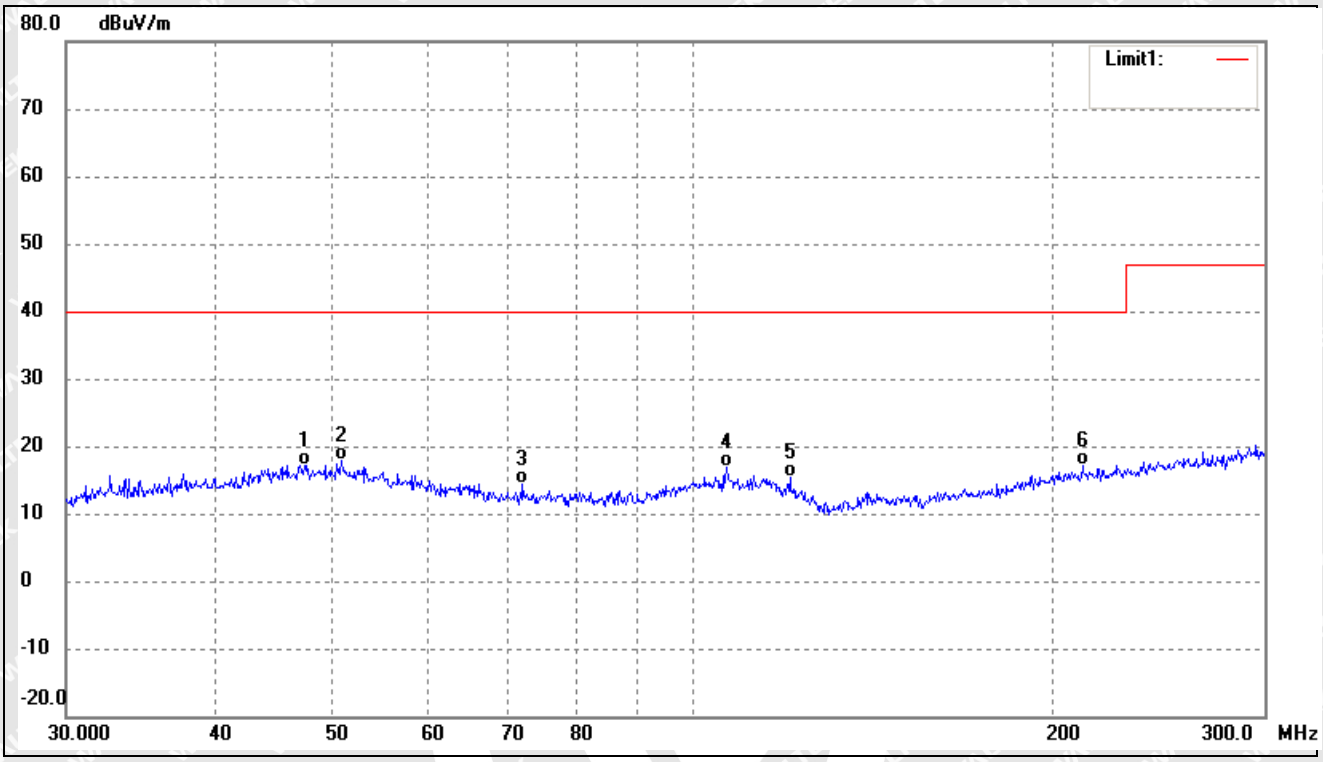
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	50.1327	27.92	-10.22	17.70	40.00	-22.30	127	100	QP
2	57.9590	28.13	-11.92	16.21	40.00	-23.79	145	100	QP
3	76.7576	28.41	-14.01	14.40	40.00	-25.60	94	100	QP
4	109.4262	28.78	-12.18	16.60	40.00	-23.40	120	100	QP
5	205.1735	27.49	-11.19	16.30	40.00	-23.70	69	100	QP
6	261.2891	27.85	-9.03	18.82	47.00	-28.18	322	100	QP

Test mode:	TM2	Polarity:	Vertical



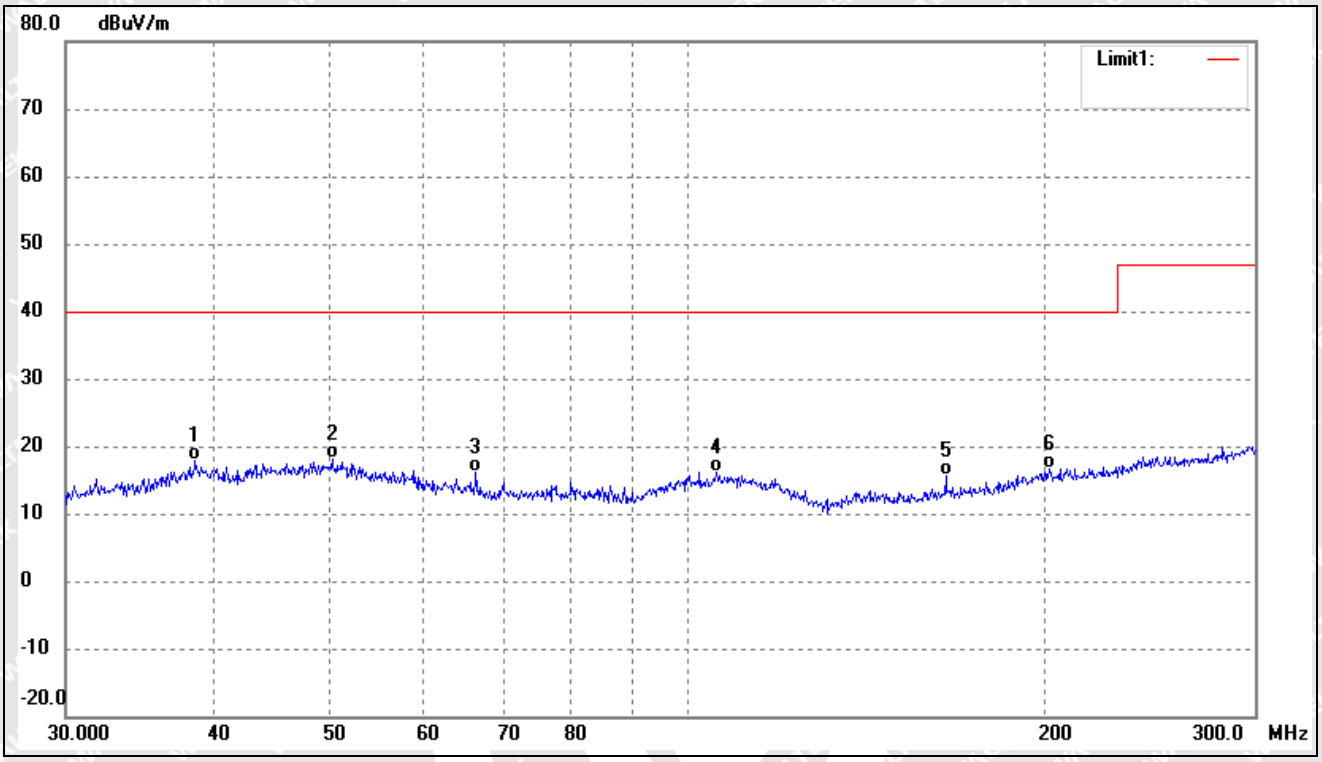
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	47.1109	28.31	-10.40	17.91	40.00	-22.09	81	100	QP
2	53.9661	28.33	-11.04	17.29	40.00	-22.71	165	100	QP
3	70.0037	29.11	-14.07	15.04	40.00	-24.96	83	100	QP
4	107.6766	28.05	-12.20	15.85	40.00	-24.15	100	100	QP
5	201.4287	28.52	-11.27	17.25	40.00	-22.75	208	100	QP
6	241.0578	30.90	-9.82	21.08	47.00	-25.92	180	100	QP

Test mode:	TM3	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	47.4374	27.43	-10.38	17.05	40.00	-22.95	180	100	QP
2	50.9473	28.29	-10.39	17.90	40.00	-22.10	176	100	QP
3	72.1309	28.36	-14.00	14.36	40.00	-25.64	122	100	QP
4	106.6894	29.16	-12.23	16.93	40.00	-23.07	109	100	QP
5	120.5372	28.78	-13.38	15.40	40.00	-24.60	256	100	QP
6	211.4079	28.31	-11.06	17.25	40.00	-22.75	127	100	QP

Test mode:	TM3	Polarity:	Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	38.5586	29.83	-12.00	17.83	40.00	-22.17	79	100	QP
2	50.2483	28.44	-10.24	18.20	40.00	-21.80	106	100	QP
3	66.3928	29.49	-13.31	16.18	40.00	-23.82	56	100	QP
4	105.7113	28.40	-12.25	16.15	40.00	-23.85	143	100	QP
5	164.8623	29.53	-14.00	15.53	40.00	-24.47	283	100	QP
6	201.4287	27.90	-11.27	16.63	40.00	-23.37	241	100	QP

6. Electrostatic Discharges (ESD)

6.1 Test Procedure

Test is conducting under the description of EN 61000-4-2.

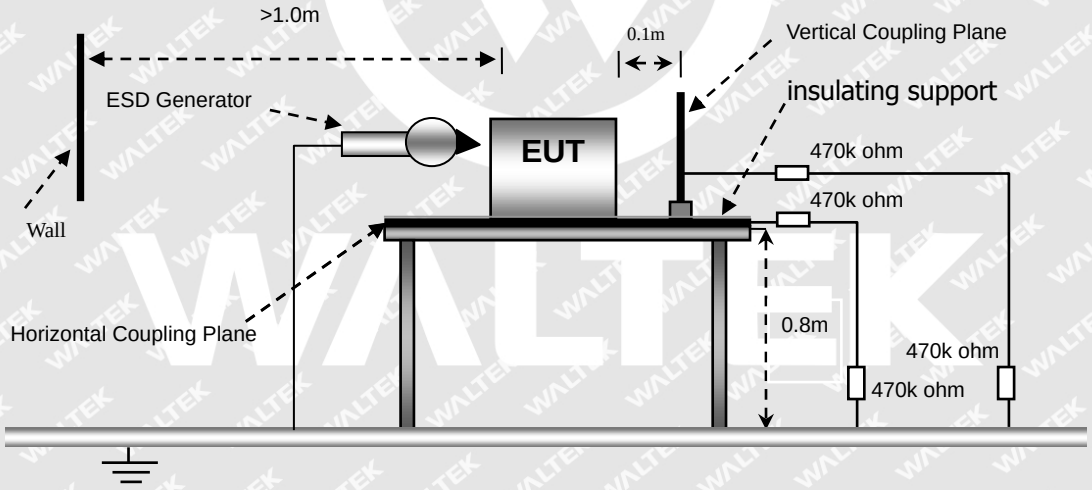
6.2 Test Performance

Performance Criterion: B

6.3 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

6.4 Basic Test Setup Block Diagram



6.5 Electrostatic Discharge Immunity Test Data

Table 1: Electrostatic Discharge Immunity (Air Discharge)

EN 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Seams	A	A	A	A	B	B	B	B	/	/
Buttons	A	A	A	A	B	B	B	B	/	/
Surface	A	A	A	A	B	B	B	B	/	/

Table 2: Electrostatic Discharge Immunity (Direct Contact)

EN 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
Metal shell	A	A	B	B	/	/	/	/	/	/

Table 3: Electrostatic Discharge Immunity (Indirect Contact HCP & VCP)

EN 61000-4-2	Test Voltage (kV)									
Test Points	-2	+2	-4	+4	-6	+6	-8	+8	-15	+15
HCP (6 Sides)	A	A	A	A	/	/	/	/	/	/
VCP (4 Sides)	A	A	A	A	/	/	/	/	/	/

Test Result: Pass

7. Continuous RF electromagnetic field Disturbances (RS)

7.1 Test Procedure

Test is conducting under the description of EN 61000-4-3.

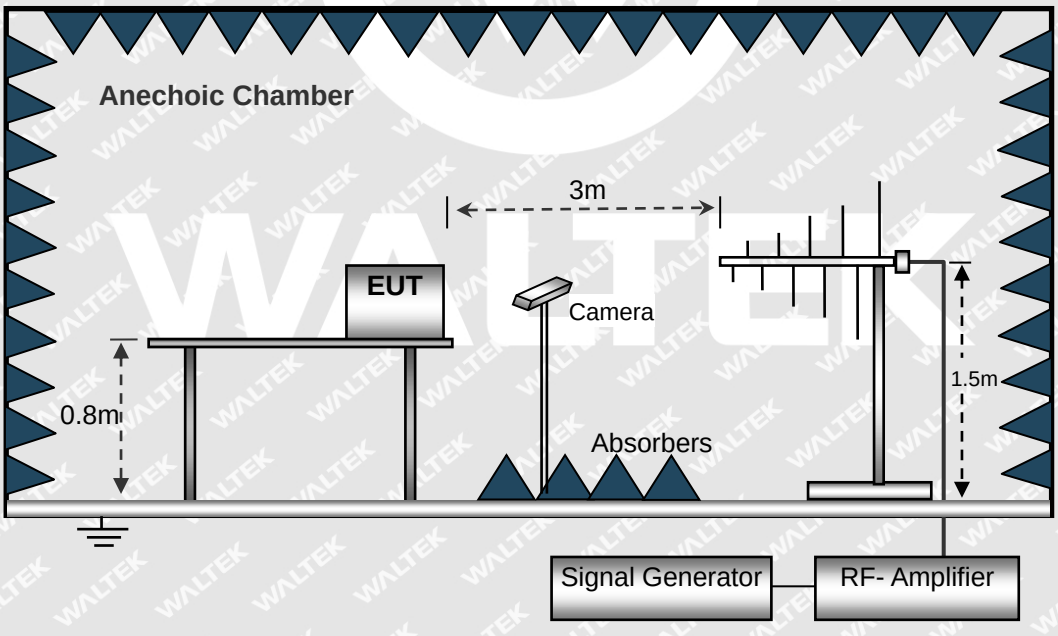
7.2 Test Performance

Performance Criterion: A

7.3 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54%
ATM Pressure:	1010 mbar

7.4 Basic Test Setup Block Diagram



7.5 Continuous Radiated Disturbances Test Data

Frequency step: 1% of fundamental
Dwell time: 1 second
Modulation: AM by 1kHz sine wave with 80% modulation depth

Frequency Range(MHz)	Field (V/m)	Front		Rear		Left Side		Right Side	
		VERT	HORI	VERT	HORI	VERT	HORI	VERT	HORI
80-1000	3	A	A	A	A	A	A	A	A

Test Result: Pass

8. Electrical Fast Transients (EFT)

8.1 Test Procedure

Test is conducting under the description of EN 61000-4-4.

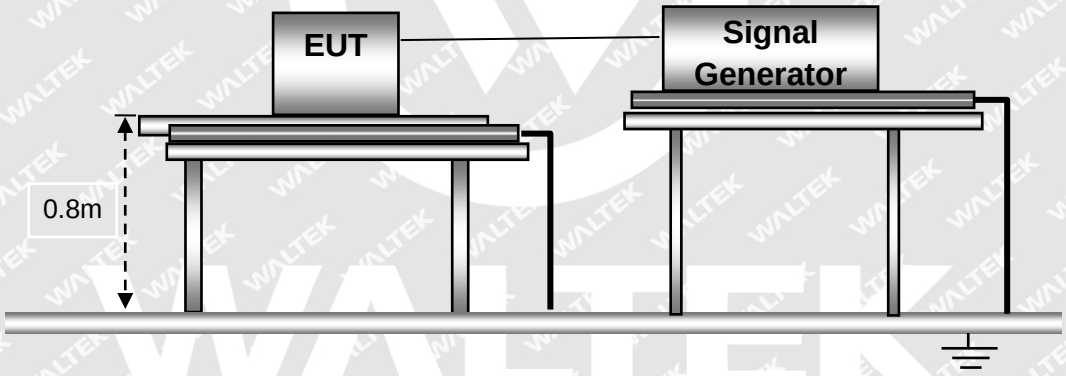
8.2 Test Performance

Performance Criterion: B

8.3 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

8.4 Basic Test Setup Block Diagram



8.5 Electrical Fast Transients Test Data

EN 61000-4-4 Test Points		Test Voltage (kV)							
		+0.5	-0.5	+1.0	-1.0	+2.0	-2.0	+4.0	-4.0
Power Supply Power Port of EUT	L1	/	/	B	B	/	/	/	/
	L2	/	/	B	B	/	/	/	/
	PE	/	/	/	/	/	/	/	/
	L1+L2	/	/	B	B	/	/	/	/
	L1 + PE	/	/	/	/	/	/	/	/
	L2 + PE	/	/	/	/	/	/	/	/
	L1+L2+PE	/	/	/	/	/	/	/	/
Signal ports	RJ45	/	/	/	/	/	/	/	/

Test Result: Pass

9. Surges

9.1 Test Procedure

Test is conducting under the description of EN 61000-4-5.

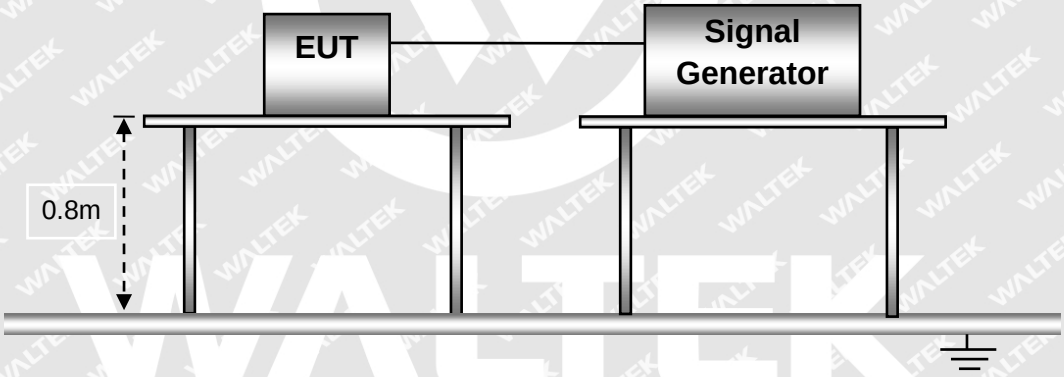
9.2 Test Performance

Performance Criterion: C

9.3 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

9.4 Basic Test Setup Block Diagram



9.5 Surge Test Data

Test Voltage	Poll	Path	Pass	Fail
0.5kV	±	L-N	B	/
1kV	±	L-N	/	/
2kV	±	L-PE, N-PE	/	/
4kV	±	L-N, L-PE, N-PE	/	/

Test Result: Pass

10. Continuous induced RF disturbances (C/S)

10.1 Test Procedure

Test is conducting under the description of EN 61000-4-6.

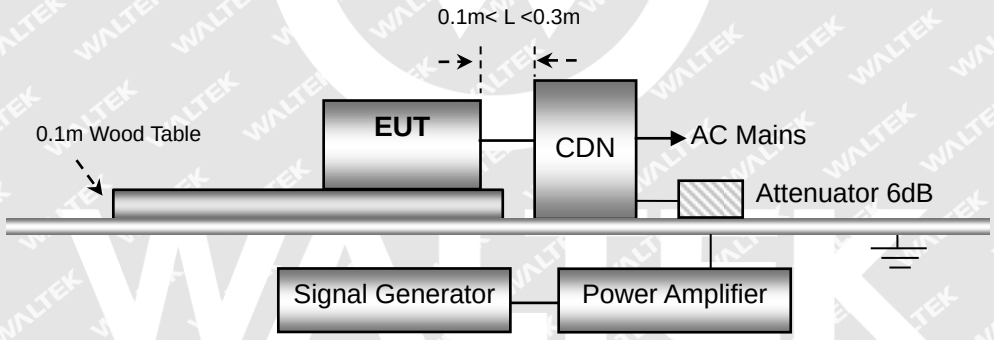
10.2 Test Performance

Performance Criterion: A

10.3 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

10.4 Basic Test Setup Block Diagram



10.5 Continuous Conducted Disturbances Test Data

Sweep frequency range: 0.15 MHz to 80 MHz
Frequency step: 1% of fundamental
Dwell time: 1 second

AC Port

Frequency MHz	Injected Position	Voltage level (e.m.f.)	Observations (Performance Criterion)	Result
0.15-80	AC Mains	1V	/	/
0.15-80	AC Mains	3V	A	Pass
0.15-80	AC Mains	10V	/	/

Test Result: Pass

11. Power-Frequency Magnetic Fields (PFMF)

11.1 Test Procedure

Test is conducting under the description of EN 61000-4-8.

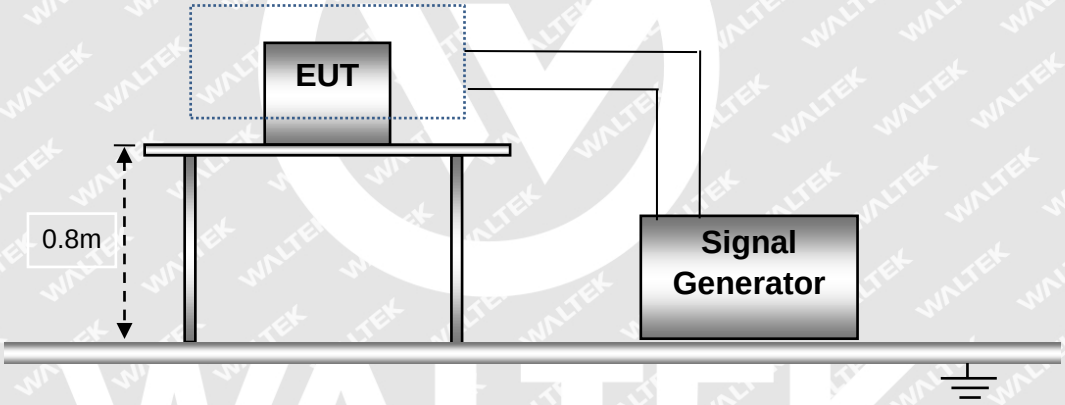
11.2 Test Performance

Performance Criterion: A

11.3 Environmental Conditions

Temperature:	22.5 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

11.4 Basic Test Setup Block Diagram



11.5 Power-Frequency Magnetic Field Test Data

Level	Magnetic Field Strength (r.m.s) A/m	Frequency Hz	Induction Coil Postion	Pass	Fail
1	1	50	X, Y, Z	/	/
2	3	50	X, Y, Z	A	/
3	10	50	X, Y, Z	/	/
X	Special	/	/	/	/

Test Result: Pass

EXHIBIT 1 - PRODUCT LABELING

Proposed CE Label Format

Flashlight
Model: JAVELOT TURBO
Brand: OLIGHT
Importer Name: XXX
Importer Address: XXX
Dongguan Olight E-Commerce Technology Co., Ltd
4th Floor Building 4 Kegu Industrial Park No6
Zhongnan Road, Changan Town, Dongguan City ,
Guangdong, China

Specifications: Text is Black in color and is justified. Labels are printed in indelible ink on permanent adhesive backing or silk-screened onto the EUT or shall be affixed at a conspicuous location on the EUT. The 'CE' marking must be affixed to the EUT or to its data plate. Where this is not possible or not warranted on account of the nature of the apparatus, it must be affixed to the packaging, if any, and to the accompanying documents. The 'CE' marking is allowed less than 5 mm but must clear. If the 'CE' marking is reduced or enlarged the proportions given in the above graduated drawing must be respected. The Importer name, address and Manufacturer name and address should indicate on marking label or packaging or in a document accompanying

Proposed Label Location on EUT

CE Label Location



EXHIBIT 2 - EUT PHOTOGRAPHS

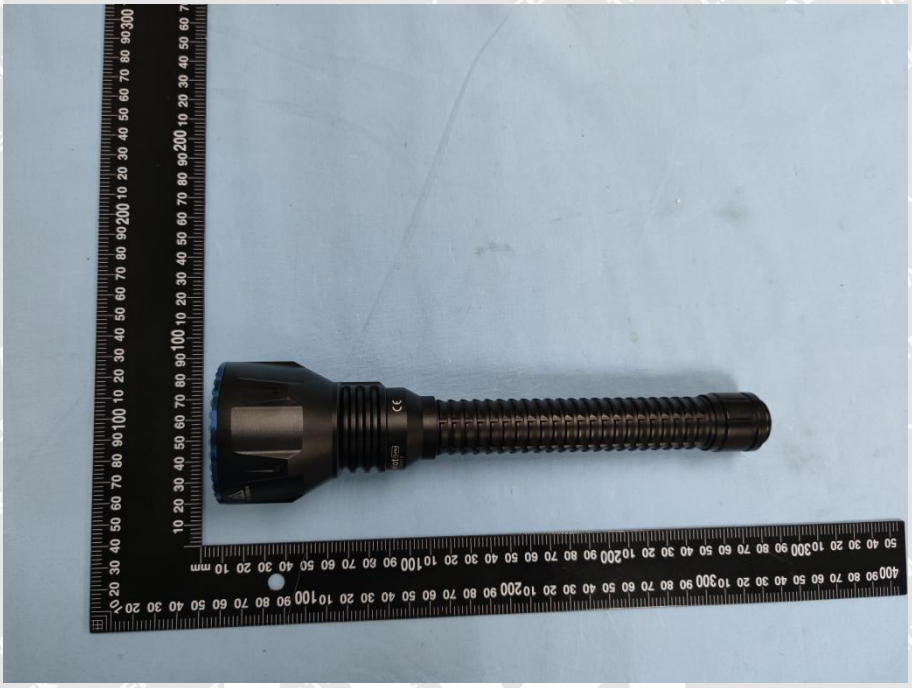
EUT View 1



EUT View 2



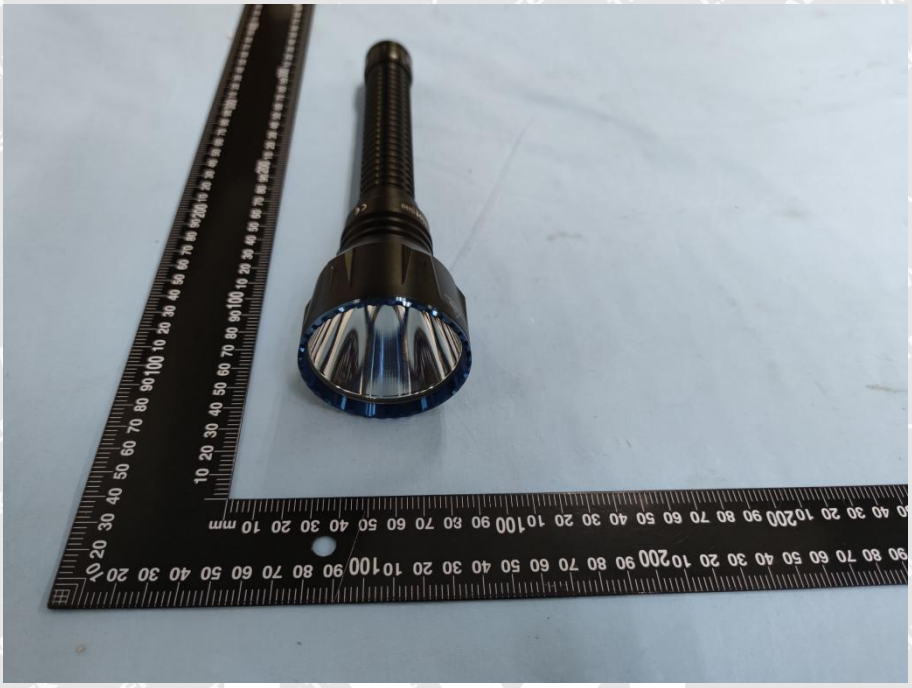
EUT View 3



EUT View 4



EUT View 5



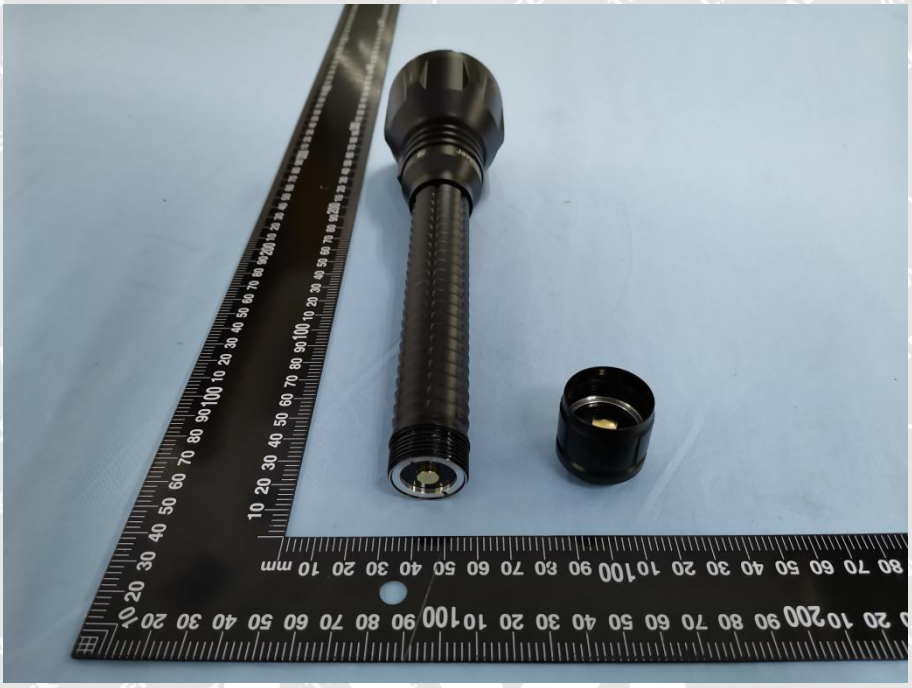
EUT View 6



EUT View 7



EUT Housing and Board View 1



Solder Board-Component View 2



EXHIBIT 3 - TEST SETUP PHOTOGRAPHS

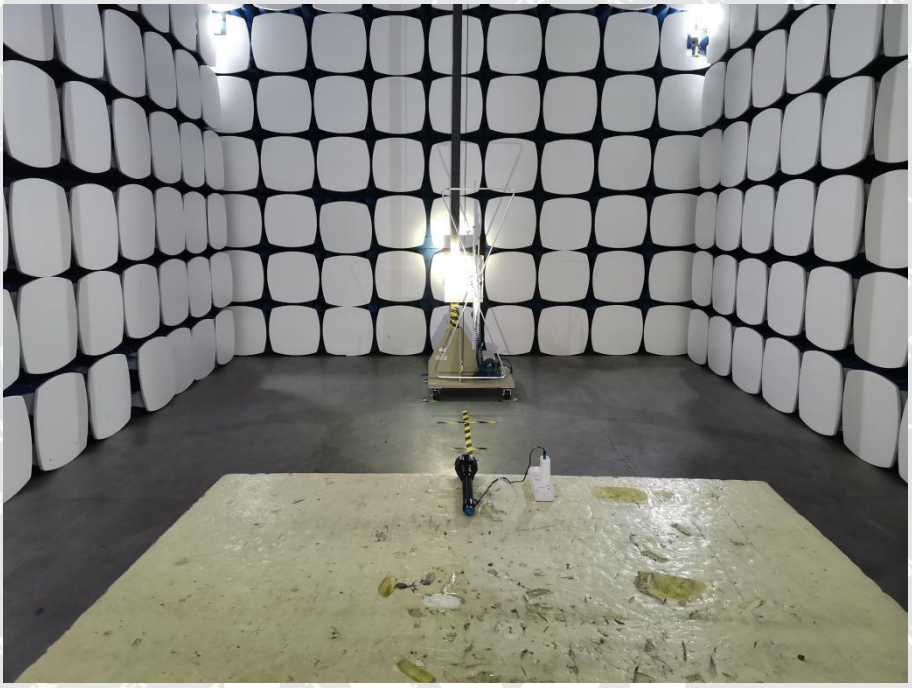
Conduction Emission Test View



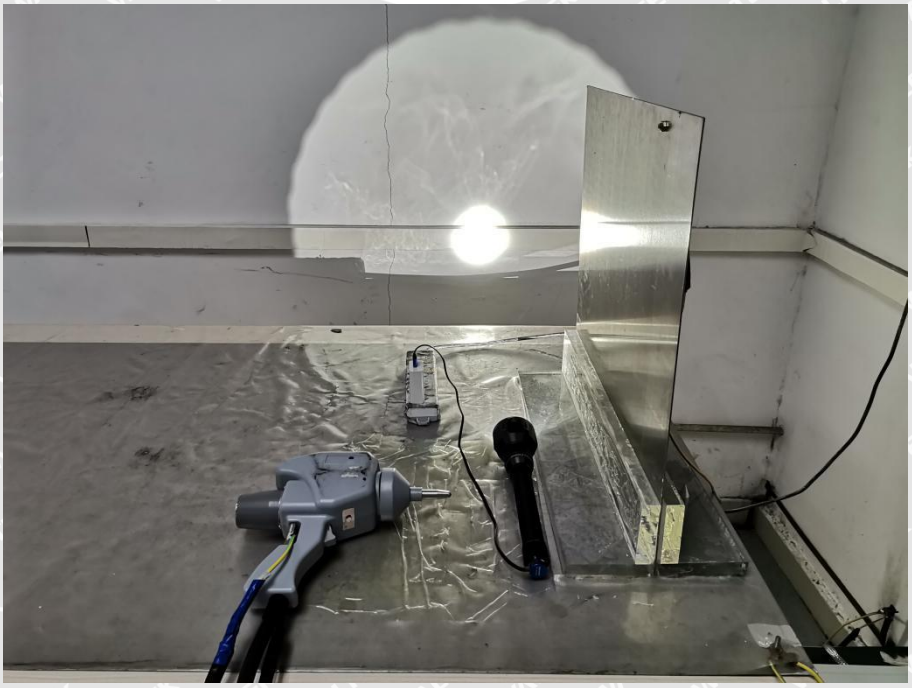
Radiation Emission Test View (9kHz to 30MHz)



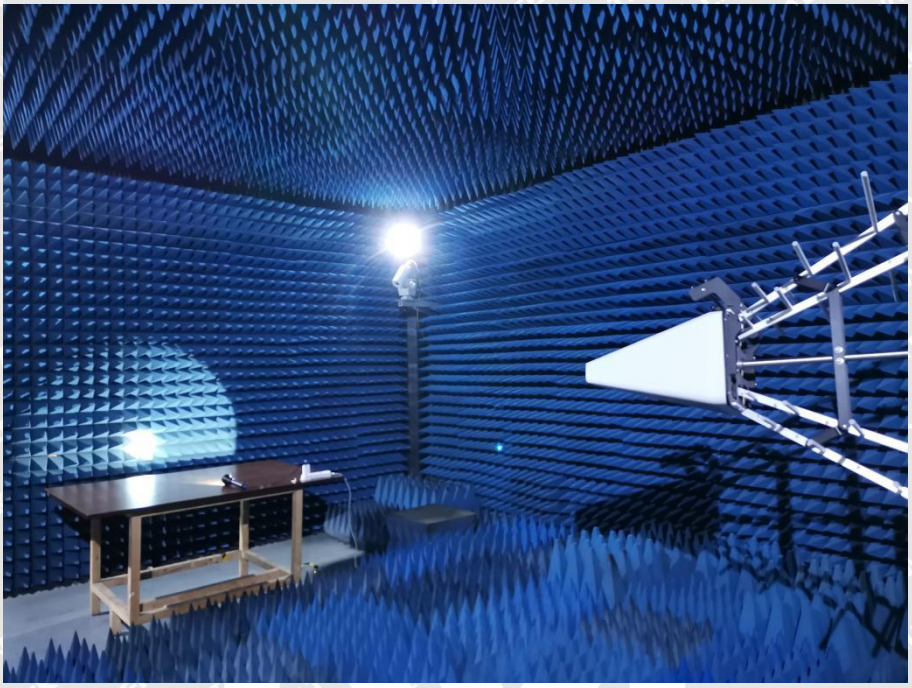
Radiation Emission Test View (30MHz to 300MHz)



EN **61000-4-2 Test View**



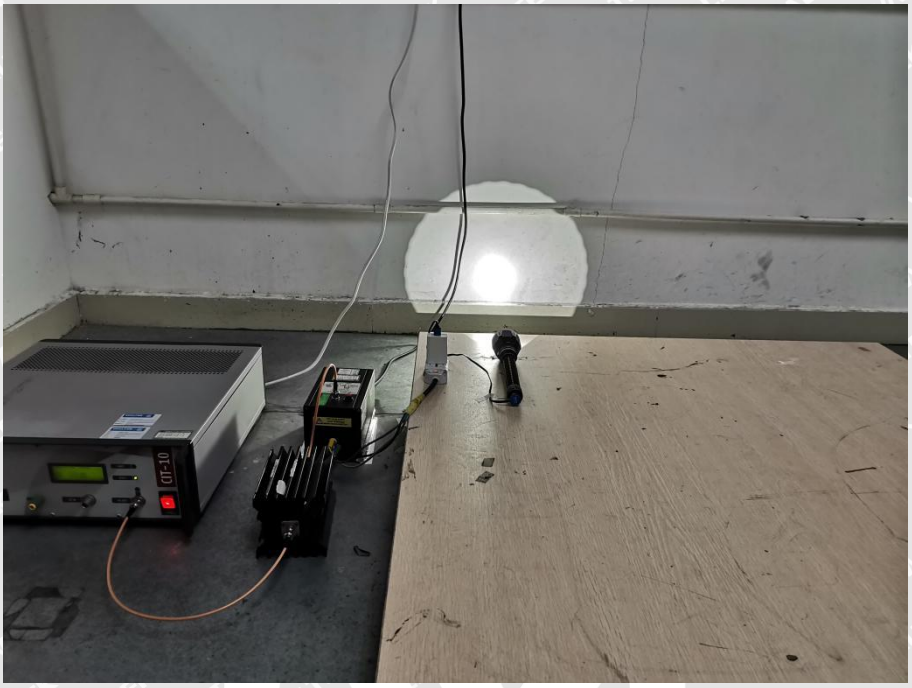
EN **61000-4-3 Test View**



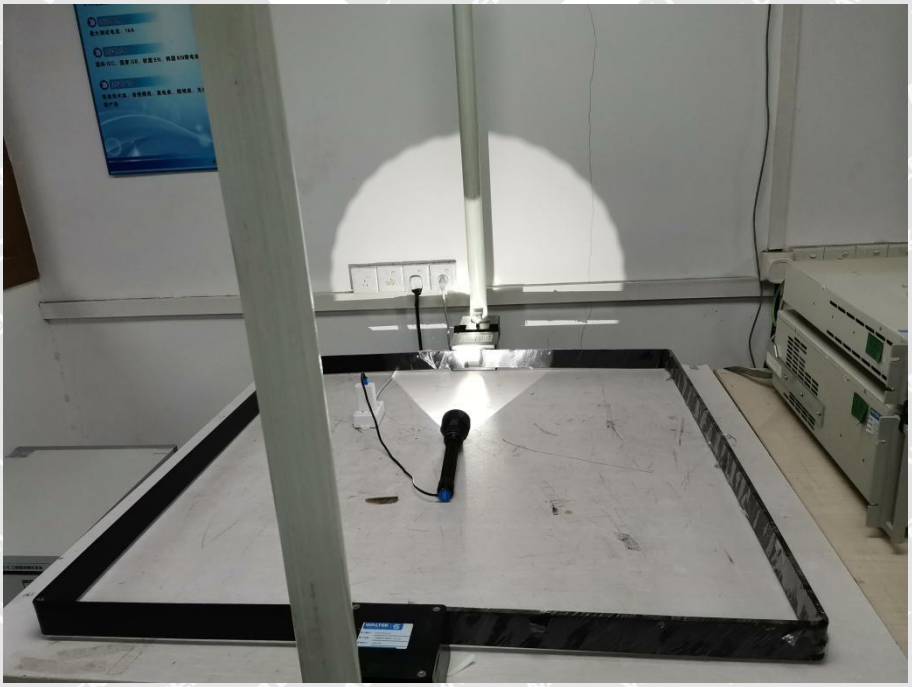
EN **61000-4-4/5 Test View**



EN **61000-4-6 Test View**



EN **61000-4-8 Test View**



******* END OF REPORT *******