



TEST REPORT

NINGBO GAOLI ELECTRONIC TECHNOLOGY CO LTD

Technical Report: (3225)022-0560

Date Received:

Dec.12,2024

Dec.20 2024

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NINGBO GAOLI ELECTRONIC TECHNOLOGY CO LTD
NO.8 XINYUAN 1ST ROAD,BINHAI INDUSTRIAL ZONE PHASE
II, XIDIAN TOWN,NINGHAI ,NINGBO

SAMPLE INFORMATION:

Sample Description:	Flashlight	Style No.(s):	MY-85020
Sample Status :	INTACT	PO No.:	30220858
Manufacturer:	/	Country of Origin:	China
Buyer:	/	Country of Destination:	OVERSEAS

Above sample information was provided and confirmed by customers, BV is not responsible for its accuracy or completeness.

EXECUTIVE SUMMARY:

TEST REQUESTED	CONCLUSION
EN IEC 55015:2019+A11:2020*	PASS
EN IEC61547:2020*	PASS

Note: Samples are provided by customers.
The tested part of the sample was specified by client.
The test conclusion was given based on the results of tested part.
With the client's prior consent ,the above * was subcontracted test item

REMARK

If there are questions or concerns on this report, please contact the following persons:

Customer service

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BUREAU VERITAS TESTING TECHNICAL SERVICE (ZHEJIANG) CO.,LTD

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This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

General Remarks:

1. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
2. The above test results are only responsible for the samples received.
3. If you have any objection to the test result, please explain in detail by written in ten days after receiving the report.
4. Please take the samples back in 30 days after receiving the report.

Possible Test Case Verdicts:

1. (N/A) - test case does not apply to the test object,
2. (P) - test object does meet the requirement,
3. (F) - test object does not meet the requirement.

Test item and Test verdict

EMISSION

No.	Test item	Test standard	Result
1	Radiated Disturbance 9kHz~30MHz	EN IEC 55015:2019+A11:2020	Pass
2	Radiated Disturbance 30MHz~1000MHz	EN IEC 55015:2019+A11:2020	Pass

IMMUNITY

1	Electrostatic Discharge	EN IEC61547:2020	Pass
2	Radiated, radio-frequency, electromagnetic field immunity	EN IEC61547:2020	Pass

Remark

—

Description of Equipment Under Test(EUT)

EUT	Flashlight
Model	MY-85020 1.5v*2
Rating	—
Remark	—



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Test Field

No.	Designation	Type	Serial No.	Manufacturer	Next Cal. Date
1	Shielding Room1	8.5m×4.2m×3m	—	Albatross	2023-03-02
2	Control Room2	11.2m×5.2m×3.3m	—	Albatross	2023-03-02
3	Shielding Room2	10m×4.9m×3.0m	—	Albatross	2023-03-02
4	Semi -Anechoic Chamber (3m)	9.1m×5.8m×5.7m	—	Albatross	2023-03-02
5	Semi -Anechoic Chamber (5m)	12.1×7.3×6m	—	Albatross	2023-03-02

Test Instrument

No.	Designation	Type	Serial No.	Manufacturer	Next Cal. Date
1	EMI receiver	ESCI	100708	R&S	2023-03-22
3	EMI receiver	ESU26	100224	R&S	2023-03-22
4	Combined antenna	VULB 9163	9163-560	SCHWARZBE CK	2023-03-22
7	Log-Periodic Antenna	AT1080	0325189	AR	2023-03-22
8	Power Amplifier	250W1000A	0327579	AR	2023-03-22
9	Integrated test system	IMS	100012	R&S	2023-03-22
10	Smart sensor technology	NRP-Z91	100520	R&S	2023-03-22
11	Dual Directional Coupler	DC6180M1	0328058	AR	2023-03-22
12	ESD Simulator	dito	B07040	EM TEST	2023-03-22
13	EMI receiver	ESCI	100708	R&S	2023-03-22
14	Triple-Loop Antenna	HXYZ 9170	175	SCHWARZBE CK	2023-03-22
21	Thermo-Hygro Recorder	WS508CL	07054646	Baolima	2023-03-22

Radiated Disturbance 9kHz~30MHz

Measuring arrangement

Test standard:

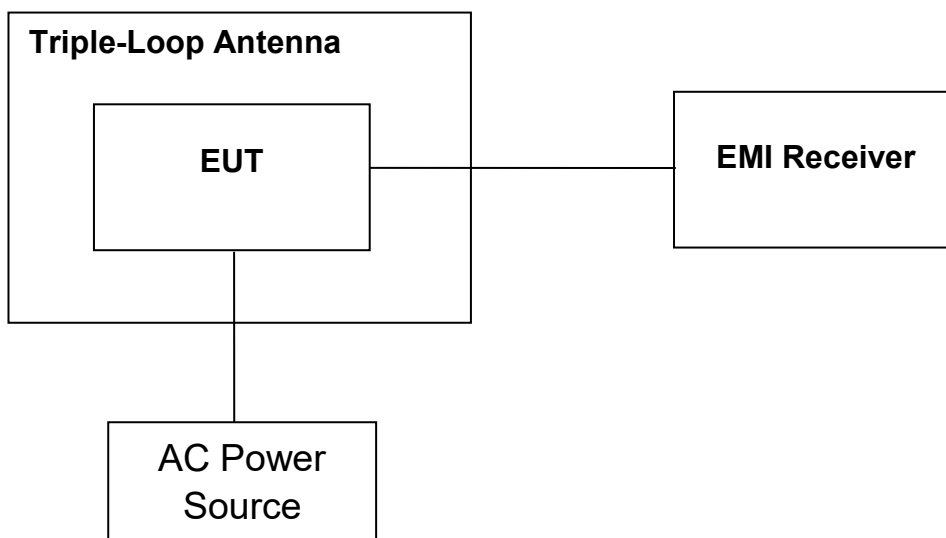
EN IEC 55015:2019+A11:2020

Frequency range :

9kHz to 30MHz

The test system consists of AC power source, Triple-Loop Antenna and EMI receiver.

Block Diagram of measuring arrangement:



Ambient

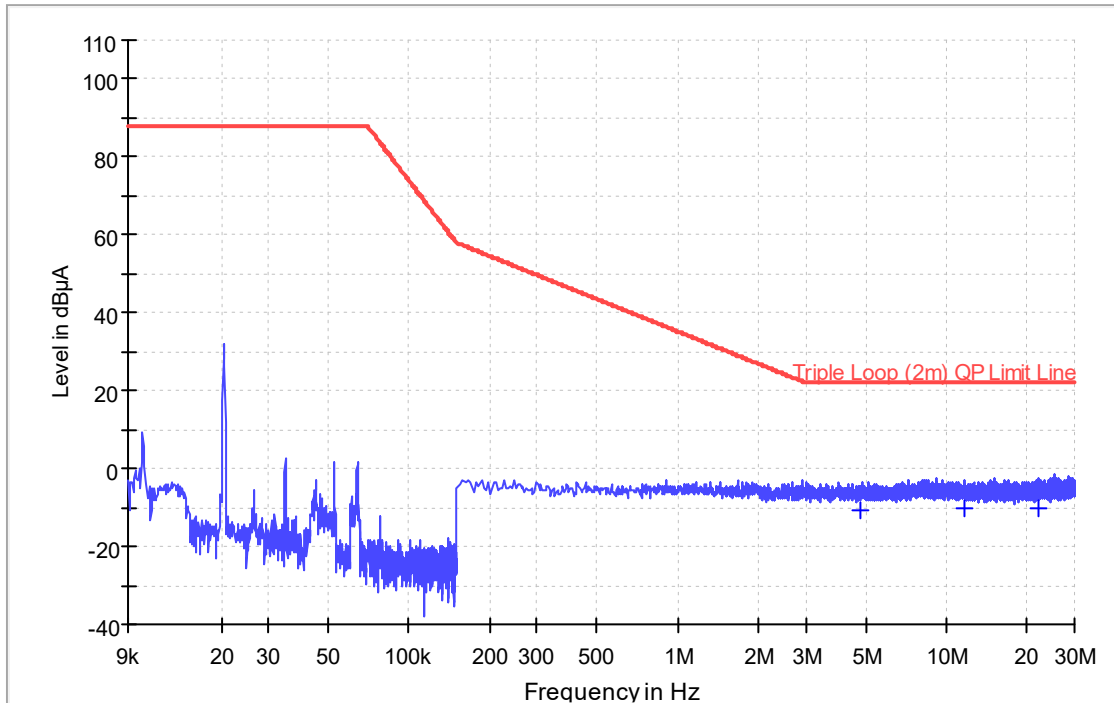
Temperature:22°C Relative Humidity:50.0% Atmospheric Pressure: 101.3 kPa

EUT operating condition and setting: Normal Working

Test Result : Pass

Radiated Disturbance-X

Triple Loop pre-emc

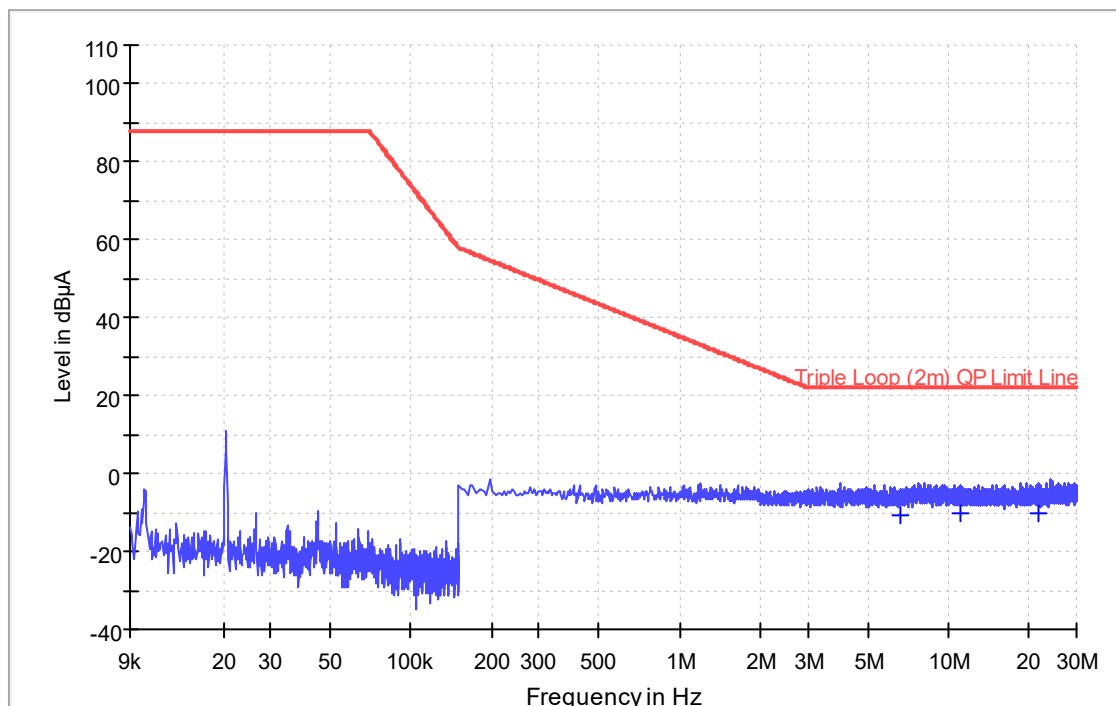


Limit and Margin-QP

Frequency (MHz)	QuasiPeak (dBμA)	Meas. Time (ms)	Bandwidth (kHz)	Triple Loop frame	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBμA)	Comment
4.778000	-10.6	1000.0	9.000	X	0.2	32.6	22.0	
11.626000	-10.3	1000.0	9.000	X	0.2	32.3	22.0	
21.870000	-10.1	1000.0	9.000	X	0.3	32.1	22.0	

Radiated Disturbance-Y

Triple Loop pre-emc

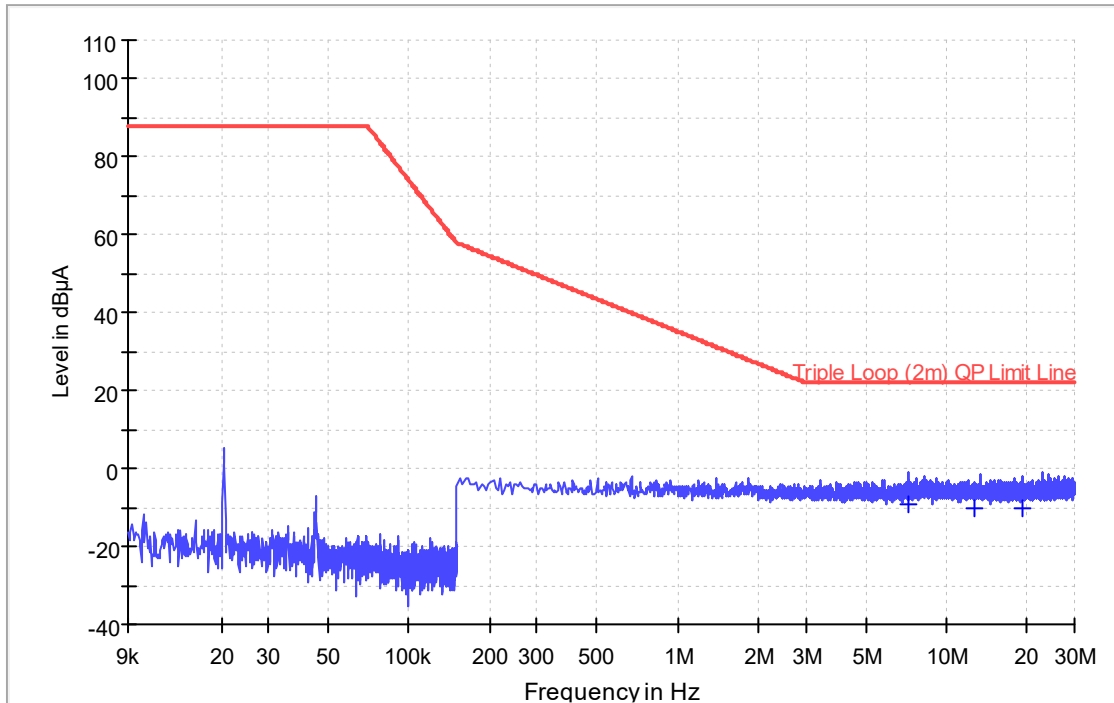


Limit and Margin-QP

Frequency (MHz)	QuasiPeak (dBμA)	Meas. Time (ms)	Bandwidth (kHz)	Triple Loop frame	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBμA)	Comment
6.626000	-10.5	1000.0	9.000	Y	0.2	32.5	22.0	
11.074000	-10.3	1000.0	9.000	Y	0.2	32.3	22.0	
21.522000	-10.0	1000.0	9.000	Y	0.3	32.0	22.0	

Radiated Disturbance-Z

Triple Loop pre-emc



Limit and Margin-QP

Frequency (MHz)	QuasiPeak (dBμA)	Meas. Time (ms)	Bandwidth (kHz)	Triple Loop frame	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBμA)	Comment
7.278000	-9.3	1000.0	9.000	Z	0.2	31.3	22.0	
12.790000	-10.2	1000.0	9.000	Z	0.2	32.2	22.0	
19.326000	-10.3	1000.0	9.000	Z	0.3	32.3	22.0	

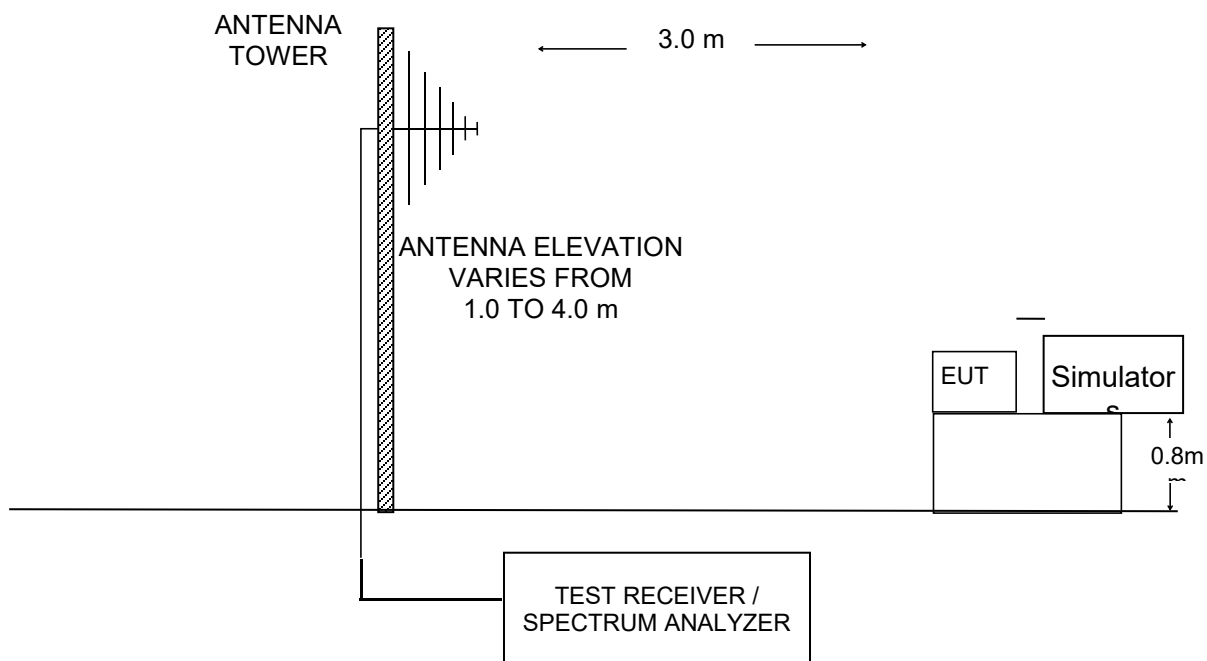
Radiated Disturbance 30MHz~1000MHz

Measuring arrangement

Test standard: EN IEC 55015:2019+A11:2020

Frequency range : 30MHz-1000MHz

Block Diagram of measuring arrangement:



Test result :Pass

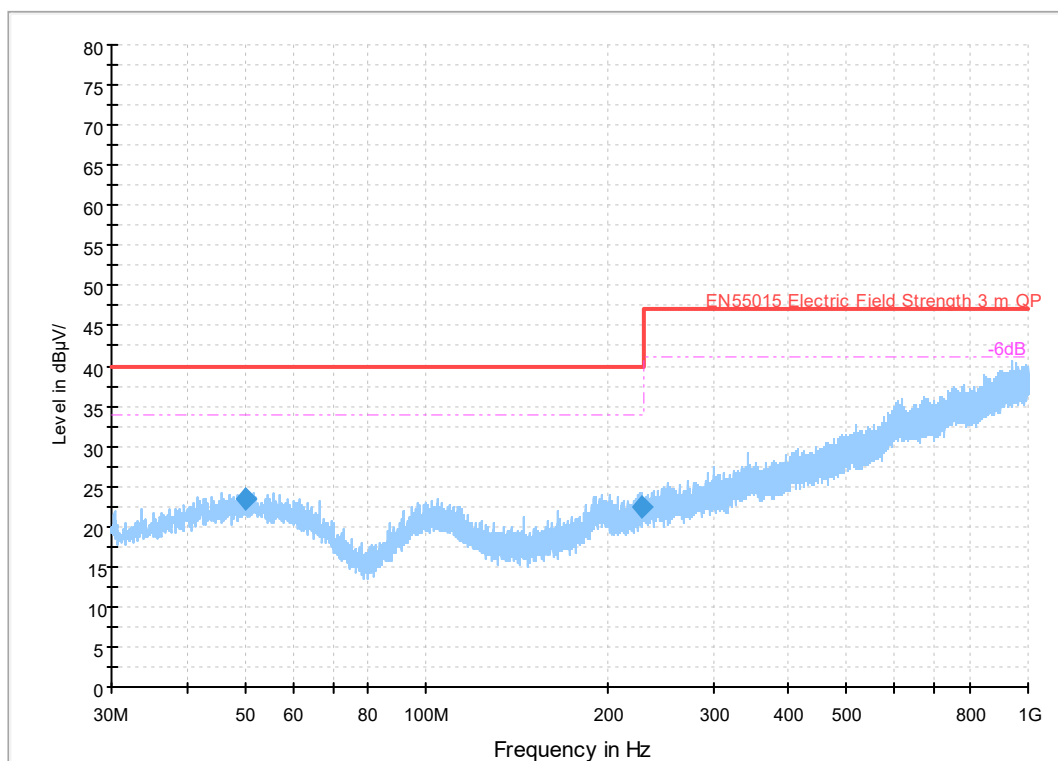
Ambient Temperature : 22°C Relative humidity : 50% Atmospheric Pressure: 101.3 kPa

Test Data

Measurement results of disturbance radiation (Horizontal polarization)

Radiated EMI Auto Test (30-1000MHz)

Radiated EMI Auto Test (30-1000MHz)



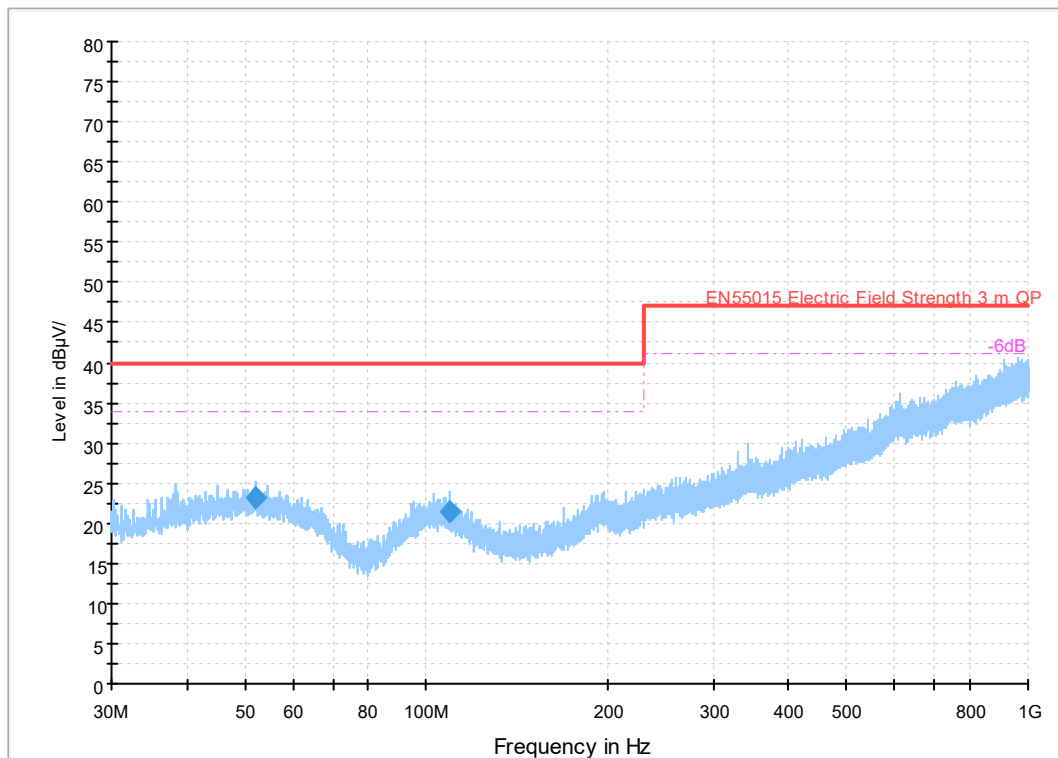
Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)
50.200667	23.4	1000.0	120.000	100.0	H	-10.0	14.8	16.6
227.994000	22.3	1000.0	120.000	150.0	H	10.0	13.5	17.7

Measurement results of disturbance radiation (Vertical polarization)

Radiated EMI Auto Test (30-1000MHz)

Radiated EMI Auto Test (30-1000MHz)



Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)
51.874333	23.2	1000.0	120.000	135.1	V	38.0	14.7	16.8
109.632333	21.5	1000.0	120.000	136.0	V	4.0	12.9	18.5

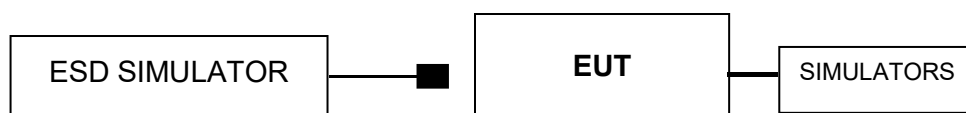
Electrostatic Discharge Immunity Test

Measuring arrangement

Test standard: EN IEC61547:2020

Charge voltage: $\pm 4.0\text{kV}$ (Contact Discharge),
 $\pm 8.0\text{kV}$ (Air Discharge)

Block diagram of measuring arrangement



Test result: Pass

Ambient

Temperature: 22°C Relative humidity: 50% Atmospheric Pressure: 101.3 kPa

Test Data

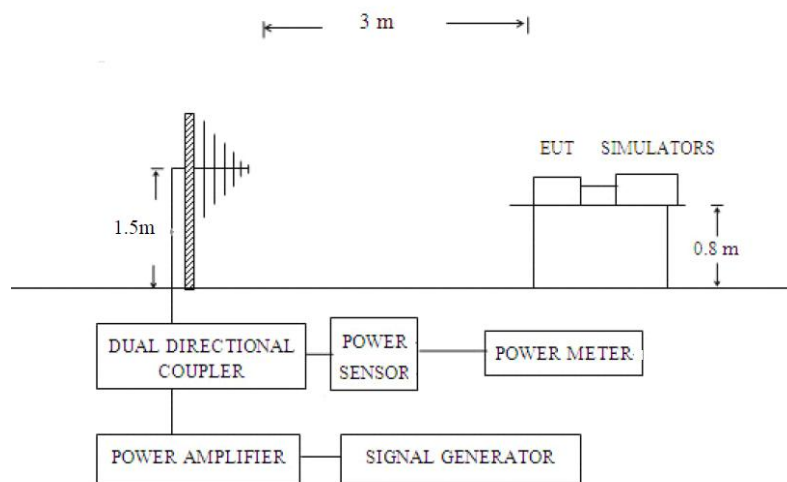
Location	Kind of Discharge	Result
Coupling plane (VCP/HCP)	Contact discharge $\pm 4.0\text{kV}$	pass
Slots, seams, non-metallic part of the enclosure	Air discharge $\pm 8.0\text{kV}$	pass

RF Electromagnetic Field Immunity

Measuring arrangement

Test standard: EN IEC61547:2020

Block Diagram of measuring arrangement:



Ambient

Temperature: 22°C Relative humidity: 50% Atmospheric Pressure: 101.3 kPa

RF Electromagnetic Field immunity

Field Strength: 3 V/m

Frequency range: 80MHz-1GHz

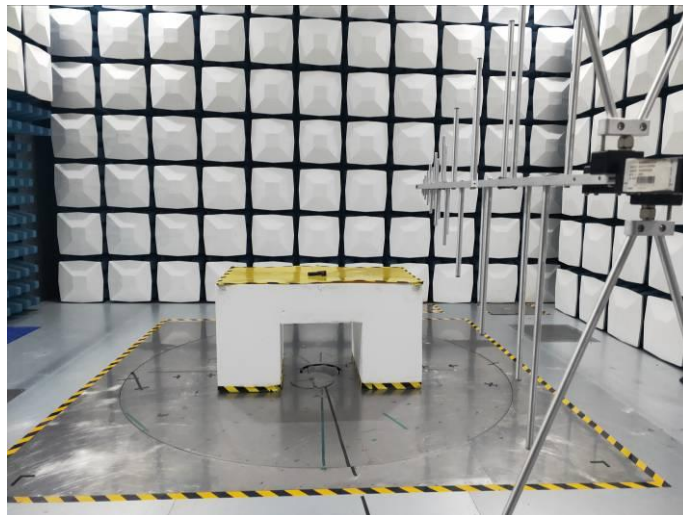
Antenna Polarization		Horizontal	Vertical
EUT Position	Front	Pass	Pass
	Rear		
	Right		
	Left		
	Floor		
	Top		

NOTE - "N/A" means the item is no applicable.

Test result: Pass

Photographs of the test configuration

Photos of Radiated Disturbance Test (In Semi Anechoic Chamber)



Photos of Radiated Electromagnetic Disturbance Test



Photos of Electrostatic Discharge Test



Photos of RF Field Strength Susceptibility Test



Photographs of EUT





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SAMPLE REFERENCE PHOTO:



-- END OF REPORT --

Appendix **Additional Model**

MY-85020L,MY-85019L/MY-85022BL/MY-85022AL/MY-85022L/MY-85023BL/MY-85023AL/
MY-85023L/MY-85018L/MY-85028L/MY-85028CL/MY-85028BL/MY-85018AL/MY-85018CL/
MY-85019BL/MY-85034/MY-85033/MY-85002/MY-85074/MY-85031/MY-85029/MY-85030/
MY-85031/MY-85032/MY-85027/MY-85001/MY-85007/MY-85008/MY-88069/MY-85003/
MY-85004/MY-85005/MY-85006/MY-85025/MY-85026/MY-85033/MY-85035/MY-85036/
MY-85037/MY-78061/MY-78024/

Note: The information in this Appendix is provided by client. Since the client was not able to provide the sample of additional Style, above additional Style(s) hasn't been tested, but only based on the guarantee letter provided by the client. Bureau Veritas-CPS takes no responsibility for any mistakes and the problems of product consistency caused by inaccurate and/or invalid information submitted by the client. The client will take the responsibility of all discrepancy and risk.