MASSPHOTON LIMITED

FCC REPORT

Prepared For :	MASSPHOTON LIMITED Unit 542, 5/F, Building 5W, Phase One, Hong Kong Science Park, Pak Shek Kok, New Territories, Hong Kong
Product Name:	UV Air Steriliser
Trademark:	MASSPHOTON
Main Test Model:	Q6060-D
Prepared By:	BST Testing (Shenzhen) Co.,Ltd. No.7, New Era Industrial Zone, Guantian, Bao'an District, Shenzhen, Guangdong, China
Test Date:	Apr. 28, 2025 To May 19, 2025
Date of Report:	May 19, 2025
Report No.:	XDD31255010051901ER

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TEST REPORT DECLARATION

Applicant	:	MASSPHOTON LIMITED
Address	:	Unit 542, 5/F, Building 5W, Phase One, Hong Kong Science Park, Pak Shek Kok, New Territories, Hong Kong
EUT Description	:	UV Air Steriliser
Model Number	:	Q6060-D (Note: The series products have the same circuit diagram. PCB layout and functionality. The differences are the model name and appearance, sowe select Q6060-D to test)

Test Standards: **FCC Part 15:2016**

The EUT described above is tested by US to determine the maximum emission levels emanating from the EUT, the maximum emission levels are compared to the FCC Part 15 Subpart Class B limits.The measurement results are contained in this test report.and BST Testing (Shenzhen) Co.,Ltd.. is assumed of full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is to be technically compliant with the FCC requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of BST Testing (Shenzhen) Co.,Ltd.

Prepared by : Grace
Assistant

Tested by: Toby zhong
Test Engineer

Reviewer : Tom chen
Supervisor

Approved & Authorized Signer : Salon
Manager

1. GENERAL INFORMATION

1.1. Report information

1.1.1. This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that BST approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that BST in any way guarantees the later performance of the product/equipment.

1.1.2. The sample/s mentioned in this report is/are supplied by Applicant, BST therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

1.1.3. Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through BST, unless the applicant has authorized BST in writing to do so.

1.2. Measurement Uncertainty

Available upon request.

1.3. Test Facility

Site Description

EMC Lab. : Certificated by FCC

Name of Firm : BST Testing (Shenzhen) Co.,Ltd.

Site Location : No.7, New Era Industrial Zone, Guantian, Bao'an District, Shenzhen, Guangdong, China.

1.4. Test Uncertainty

Conducted Emission Uncertainty = ±2.66dB
Radiated Emission Uncertainty = ±4.26dB

2. PRODUCT DESCRIPTION

2.1. EUT Description

Applicant	:	MASSPHOTON LIMITED Unit 542, 5/F, Building 5W, Phase One, Hong Kong Science Park, Pak Shek Kok, New Territories, Hong Kong
Manufacturer	:	MASSPHOTON LIMITED Unit 542, 5/F, Building 5W, Phase One, Hong Kong Science Park, Pak Shek Kok, New Territories, Hong Kong
Description	:	UV Air Steriliser
Model Number	:	Q6060-D (Note: The series products have the same circuit diagram. PCB layout and functionality. The differences are the model name and appearance, sowe select Q6060-D to test)

2.2. Test Conditions

Temperature: 23~25 ℃

Relative Humidity: 55~63 %

3. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
Conducted disturbance	PASS
Radiated disturbance	PASS

Remark: “N/A” means “Not applicable.”

4. TEST EQUIPMENT USED

4.1. For Conducted Emission Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS30	828985/018	Nov. 16,24	1 Year
2.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	Nov. 16,24	1 Year
3.	L.I.S.N.	Rohde & Schwarz	ESH2-Z5	834549/005	Nov. 16,24	1 Year
4.	Conical	Emtek	N/A	N/A	N/A	N/A
5.	Voltage Probe	Schwarzbeck	TK9416	N/A	Nov. 16,24	1 Year
6.	Coaxial Switch	Anritsu	MP59B	6100214550	Nov. 16,24	1 Year

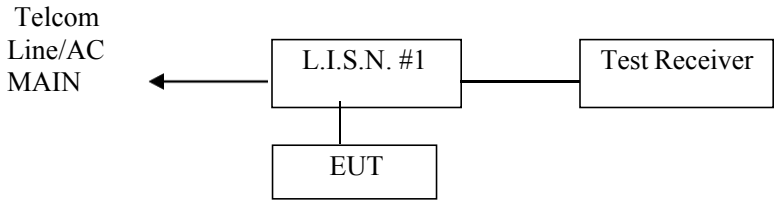
4.2. For Radiated Emission Measurement

Semi-Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	ANRITSU	MS2661C	6200140915	Nov. 16,24	1 Year
2.	Test Receiver	Rohde&Schwarz	ESC830	828982/018	Nov. 16,24	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	142	Nov. 16,24	1 Year
4.	50 Coaxial Switch	Anritsu Corp	MP59B	6100237248	Nov. 16,24	1 Year
5.	Cable	Schwarzbeck	AK9513	ACRX1	Nov. 16,24	1 Year
6.	Cable	Rosenberger	N/A	FR2RX2	Nov. 16,24	1 Year
7.	Cable	Schwarzbeck	AK9513	CRRX2	Nov. 16,24	1 Year
8.	Cable	Schwarzbeck	AK9513	CRRX2	Nov. 16,24	1 Year
9.	Single Phase Power Line Filter	MPE	23332C	N/A	Nov. 16,24	1 Year
10.	Single Phase Power Line Filter	MPE	23333C	N/A	Nov. 16,24	1 Year
11.	Signal Generator	HP	864A	3625U00573	Nov. 16,24	1 Year

5. CONDUCTED EMISSION TEST

5.1. Block Diagram of Test Setup



5.2. Test Standard

FCC Part 15: 2016

5.3. Conducted Emission Limit(Class B)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

5.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet Part 15 requirement and operating in a manner, which tends to maximize its emission characteristics in a normal application.

5.4.1. EUT Information

Model Number : Q6060-D
Serial Number : Q6060-D2025012000005

5.5. Operating Condition of EUT

5.5.1. Setup the EUT and simulators as shown in Section 5.1.

5.5.2. Turn on the power of all equipments.

5.5.3. Let the EUT work in test modes (EUT Working) and test it.

5.6. Test Procedure

The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI test receiver (R&S Test Receiver ESCS30) is used to test the emissions form both sides of AC line. The bandwidth of EMI test receiver is set at 9kHz.

The bandwidth of the test receiver (R&S Test Receiver ESHS30) is set at 10KHz.

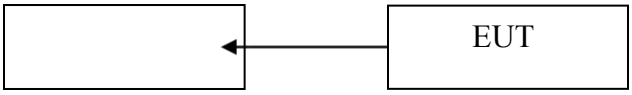
5.7. Test Result

PASS

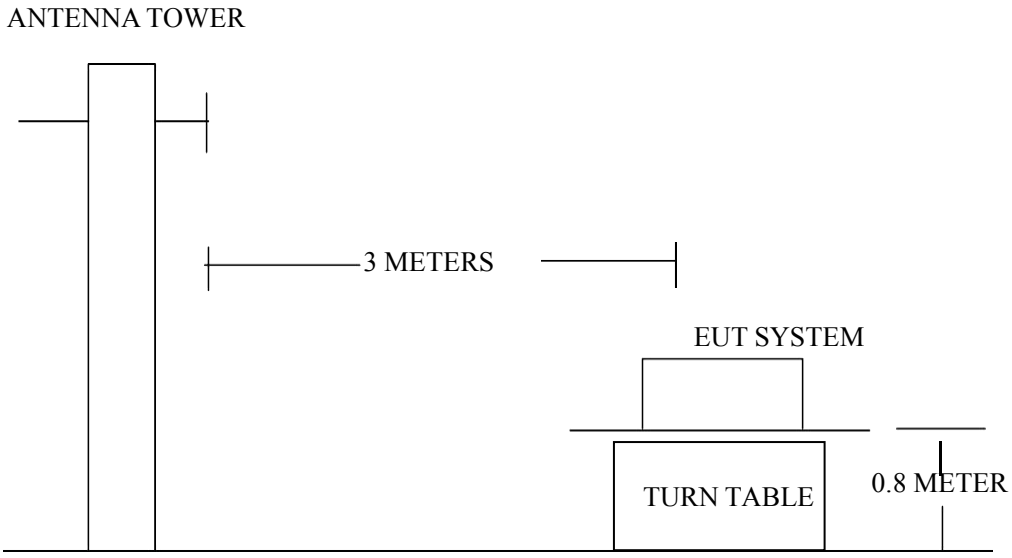
6. RADIATED EMISSION MEASUREMENT

6.1. Block Diagram of EUT Configuration

6.1.1. Block Diagram of connection between the EUT and the simulators



6.1.2. Semi-Anechoic Chamber Test Setup Diagram



6.2. Test Standard

FCC Part 15: 2016

6.3. Radiated Emission Limit(Class B)

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMITS (dBμV/m)
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Note**:**(1) The smaller limit shall apply at the edge between two frequency bands.
(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT or system.

6.4.EUT Configuration on Test

The following equipment are installed on Radiated Emission Measurement to meet the Commission requirements and operating regulations in a manner which tends to maximize Its emission characteristics in normal application.

6.5.Operating Condition of EUT

6.5.1Setup the EUT as shown on Section 6.1.2

6.5.2.Turn on the power of all equipments.

6.5.3.Let the EUT work in test mode(EUT working) and measure it.

6.6.Test Procedure

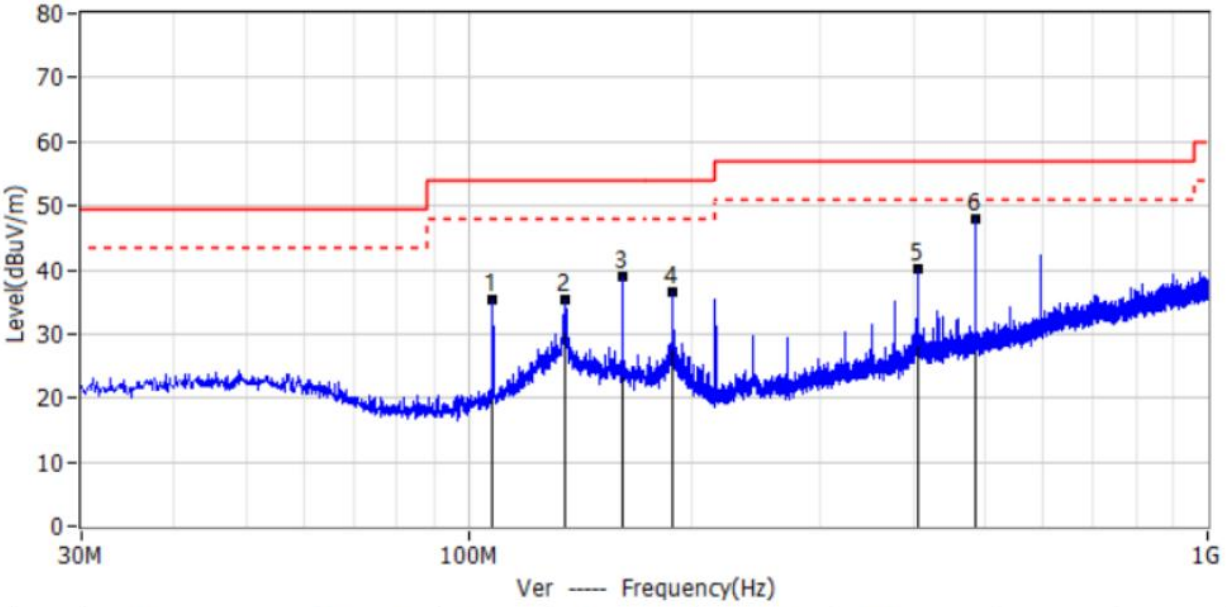
The EUT is placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

The bandwidth setting on the test receiver (R&S TEST RECEIVER ESCS20) is 120 KHz. The EUT is tested in Semi-Anechoic Chamber. The frequency range from 30MHz to 1000 MHz is checked.All the test results are listed in Section 6.7. and all the scanning waveform are attached within **Appendix I**.

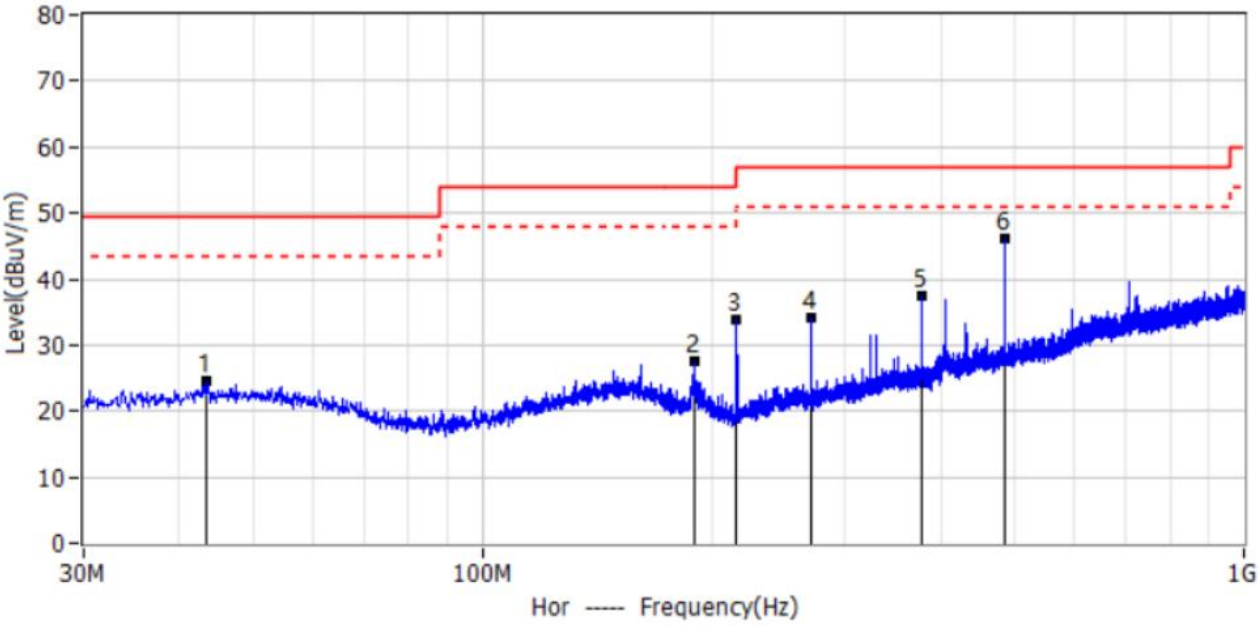
6.7.Test Result

PASS

APPENDIX I Test Curves



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	107.964	17.68	17.66	35.34	53.90	-18.56	PK	Ver
2*	135.245	14.54	20.70	35.24	53.90	-18.66	PK	Ver
3*	161.920	17.85	21.25	39.10	53.90	-14.80	PK	Ver
4*	188.959	18.21	18.27	36.48	53.90	-17.42	PK	Ver
5*	405.026	15.90	24.36	40.26	56.90	-16.64	PK	Ver
6*	485.900	21.35	26.49	47.84	56.90	-9.06	PK	Ver



No.	Frequency MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Detector	Polar
1*	43.338	3.75	20.77	24.52	49.50	-24.98	PK	Hor
2*	190.414	9.13	18.48	27.61	53.90	-26.29	PK	Hor
3*	215.998	16.38	17.58	33.96	53.90	-19.94	PK	Hor
4*	269.954	14.18	20.00	34.18	56.90	-22.72	PK	Hor
5*	377.988	13.70	23.66	37.36	56.90	-19.54	PK	Hor
6*	485.900	19.69	26.49	46.18	56.90	-10.72	PK	Hor

APPENDIX II

(Photos of the EUT)



Photo 1



Photo 2

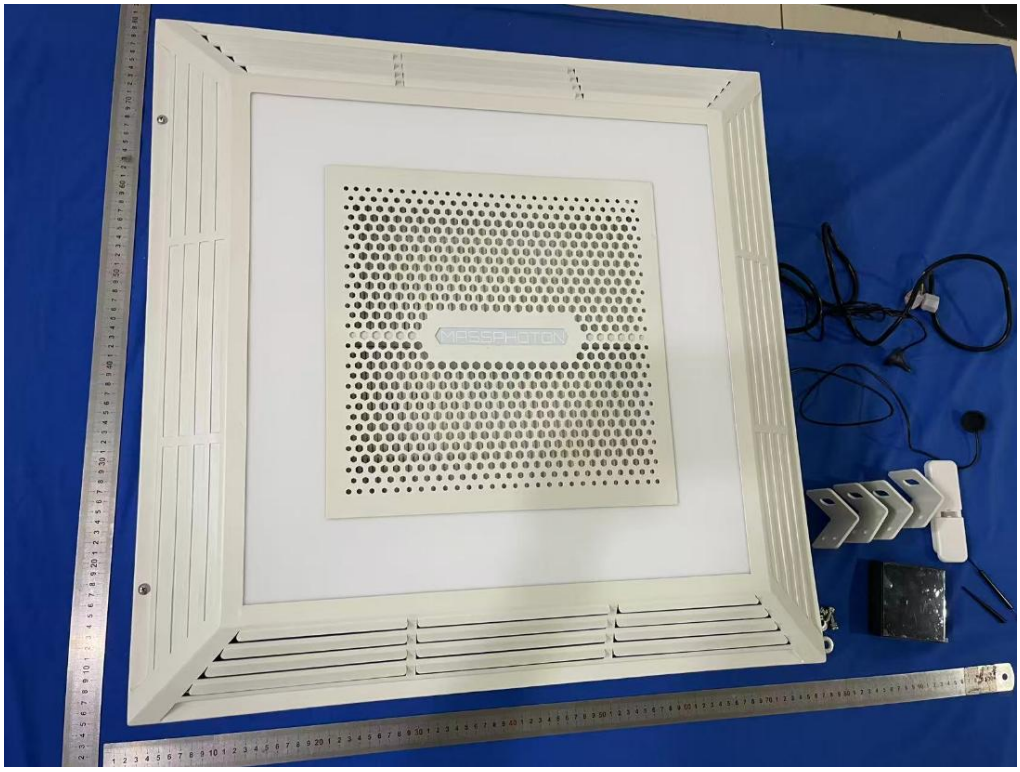


Photo 3

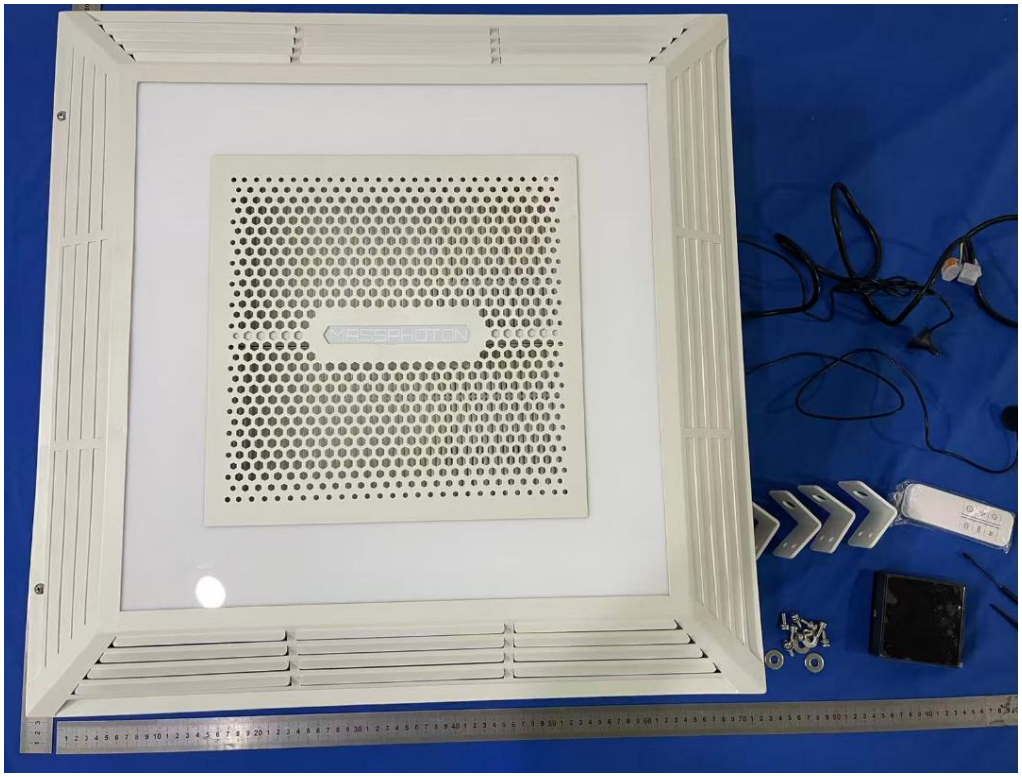


Photo 4

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