

FCC Test Report

EUT Name : Transparent LED Screen
Brand Name : N/A
Model Name : GC-T001
Series Model : T050, T010, T150
Applicant : GC TECH SCIENCE & TECHNOLOGY CO.,LTD
Address : Room 2201, 22 / F, Building 1, 32 Jingsan North Road, Jinshui District,
Zhengzhou City, Henan Province
Manufacturer : GC TECH SCIENCE & TECHNOLOGY CO.,LTD
Address : Room 2201, 22 / F, Building 1, 32 Jingsan North Road, Jinshui District,
Zhengzhou City, Henan Province
Date of Receipt : 2024.01.24.
Date of Test : 2024.01.24-2024.01.31
Issued Date : 2024.01.31
Report Version : V1.0
Test Sample : Engineering Sample No.: AIT24012404
Standard(s) : FCC Part 15B Rules
FCC ID : 2BE3A-GC-T001
Lab: Guangdong Asia Hongke Test Technology Limited
Add: B1/F, Building 11, Junfeng Industrial Park, Chongqing Road,
Heping Community, Fuhai Street, Bao'an District, Shenzhen,
Guangdong, China
Tel.: +86 0755-230967639 Fax.: +86 0755-230967639

This device described above has been tested by Guangdong Asia Hongke Test Technology Limited and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Reviewed by:



Sean She

Approved by:



Eder Zhan



REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	2024-01-31	Valid	Initial Release

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1. Test Summary

Test	Test Requirement	Test Method	Criterion	Result
Mains Terminals Disturbance Voltage, 150kHz to 30MHz	FCC Part 15 Subpart B	FCC Part 15 Subpart B ANSI C63.4: 2014	Limits	PASS
Radiated Emissions 30MHz to 1GHz 1GHz to 6GHz	FCC Part 15 Subpart B	FCC Part 15 Subpart B ANSI C63.4: 2014	Limits	PASS

1.1. Measurement Uncertainty

The report uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95% .

No.	Item	Frequency Range	U , Value
1	Power Line Conducted Emission	150KHz~30MHz	1.20 dB
2	Disturbance Power Emission	30MHz~300MHz	2.96 dB
3	Radiated Emission Test	30MHz~1GHz	3.30 dB
4	Radiated Emission Test	1GHz~18GHz	3.30 dB

2. Test Facility

The test facility is recognized, certified or accredited by the following organizations:

FCC-Registration No.: 251906 Designation Number: CN1376

Guangdong Asia Hongke Test Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC —Registration No.: 31737 CAB identifier: CN0165

The 3m Semi-anechoic chamber of Guangdong Asia Hongke Test Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 31737

A2LA-Lab Cert. No.: 7133.01

Guangdong Asia Hongke Test Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

3. Deviation from standard

None

4. Abnormalities from standard conditions

None

5. General Information

5.1. General Description of EUT

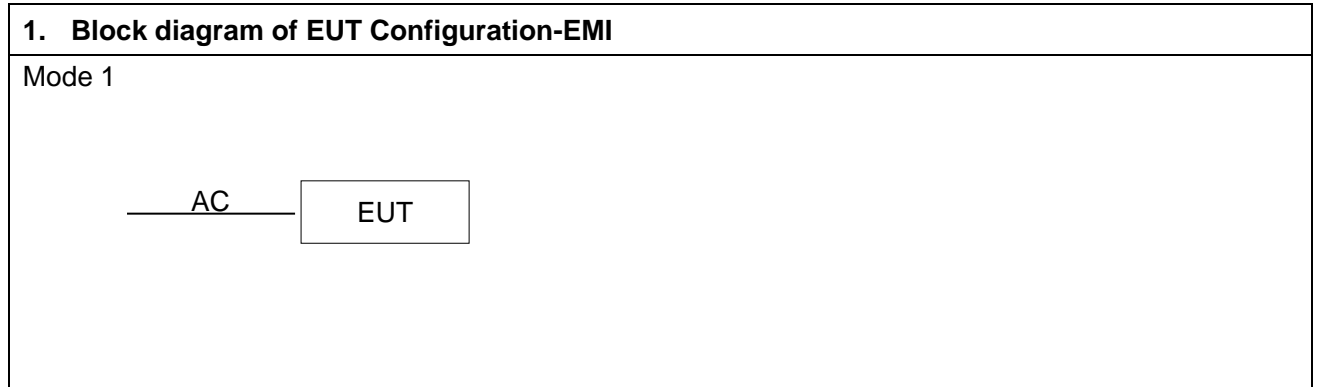
EUT Name:	Transparent LED Screen
Model No:	GC-T001
Serial No:	T050, T010, T150
Brand Name:	N/A
Power Range:	Input: 100-240V~50/60Hz 4.9A Max Output: 100-175V~+5V=60A Max 176-240V~+5V=80A Max
Model description:	In addition to the appearance of different colors, different model names, different sales places, the rest of the same

5.2. EUT Test Mode

Mode 1	Lighting
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5.3. Description of Test setup

EUT was tested in normal configuration (Please See following Block diagrams)



5.4. Test Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	power adapter	SHENZHEN KEYSUN TECHNOLOGY LIMITED	FCC	KS39DU-1 200100WC	N/A	N/A	N/A
2	LED Player	N/A	FCC	A35	N/A	N/A	N/A

5.5. EUT Peripheral List

No.	Equipment	Manufacturer	EMC Compliance	Model No.	Serial No.	Power cord	signal cable
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

6. Equipments List for All Test Items

<input checked="" type="checkbox"/> Radiation Test Equipment						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI Measuring Receiver	R&S	ESR	101160	2023.09.08	2024.09.07
2	Low Noise Pre Amplifier	Tsj	MLA-10K01-B01-27	1205323	2023.09.08	2024.09.07
3	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2023.09.08	2024.09.07
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2023.09.08	2024.09.07
5	Spectrum Analyzer	R&S	FSV40	101160	2023.09.08	2024.09.07
6	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2023.09.08	2024.09.07
7	Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	452	2023.09.08	2024.09.07

<input checked="" type="checkbox"/> Conduction Test equipment						
No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	EMI Test Receiver	R&S	ESCI	100124	2023.09.08	2024.09.07
2	LISN	Kyoritsu	KNW-242	8-837-4	2023.09.08	2024.09.07
3	LISN	R&S	ESH3-Z5	892785/016	2023.09.08	2024.09.07
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2023.09.08	2024.09.07

Note:

1. is not applicable in this Test Report. is applicable in this Test Report.

7.Emission Test Results

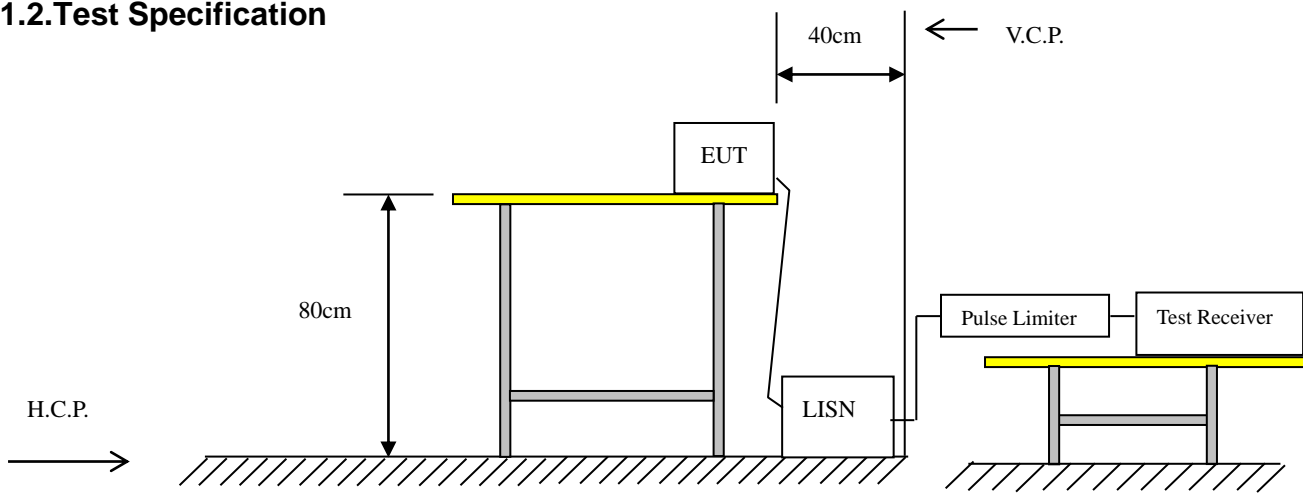
7.1.Mains Terminals Disturbance Voltage Measurement					
Frequency (MHz)	☐ Class A (dB μ V)		☒ Class B (dB μ V)		
	Q.P. (Quasi-Peak)	A.V. (Average)	Q.P. (Quasi-Peak)	A.V. (Average)	
0.15 ~ 0.50	79	66	66 to 56	56 to 46	
0.50 ~ 5.0	73	60	56	46	
5.0 ~ 30	73	60	60	50	

Detector: Peak for pre-scan (9kHz Resolution Bandwidth)
Quasi-Peak & Average if maximized peak within 6dB of Average Limit

7.1.1.E.U.T. Operation

Temperature:	26	Humidity:	50	Atmospheric Pressure:	1006	Kpa
Test Mode:	Mode 1		The Worst Mode:		Mode 1	

7.1.2.Test Specification



EUT was placed upon a wooden test table 0.8m above the horizontal metal reference plane and 0.4m from the vertical ground plane, and it was connected to an AMN. The closest distance between the boundary of the EUT and the surface of the AMN is 0.8m. All peripherals were connected to another AMN, and placed at a distance of 10cm from each other. A spectrum and receiver was connected to the RF output port of the AMN. Both average and quasi-peak value were detected.

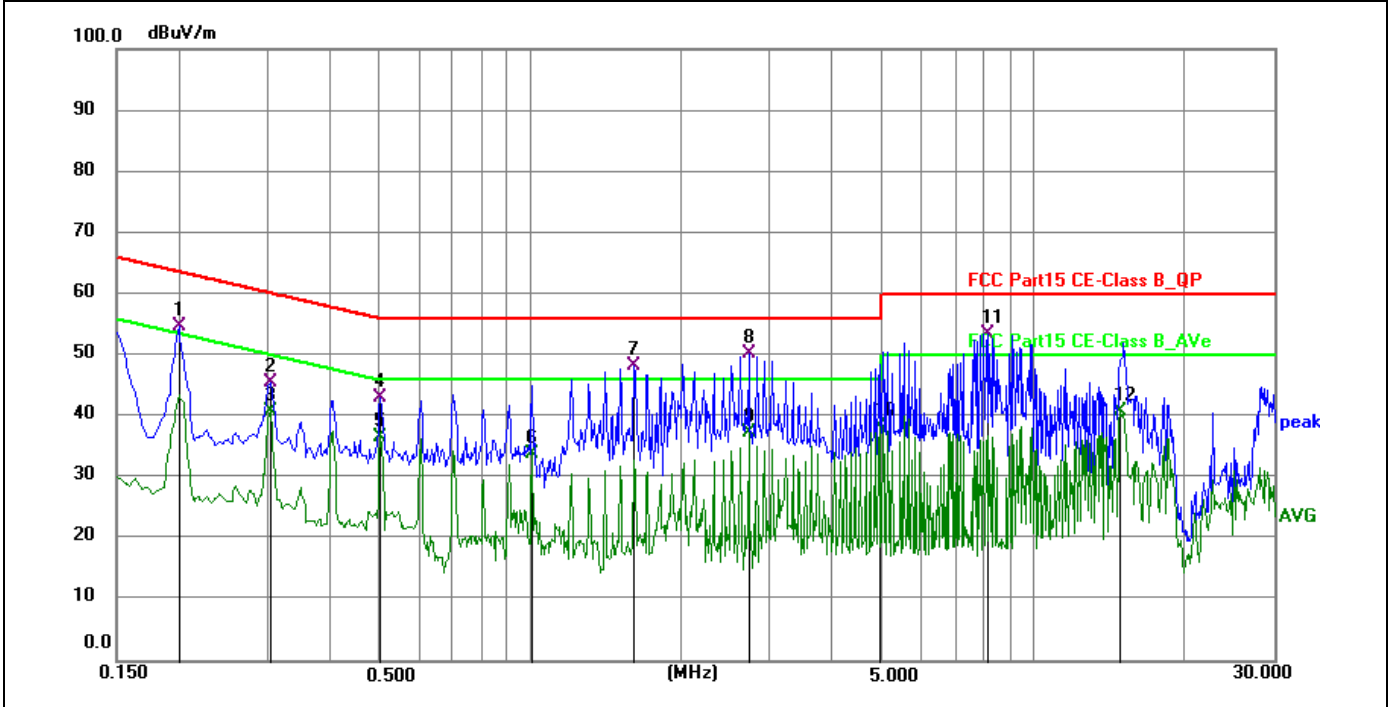
7.1.3.Measurement Data

An initial pre-scan was performed on the live and neutral lines.

Quasi-peak or average measurements were performed at the frequency which maximum peak emissions were detected.

Please refer to the attached quasi-peak & average measurement data for reference.

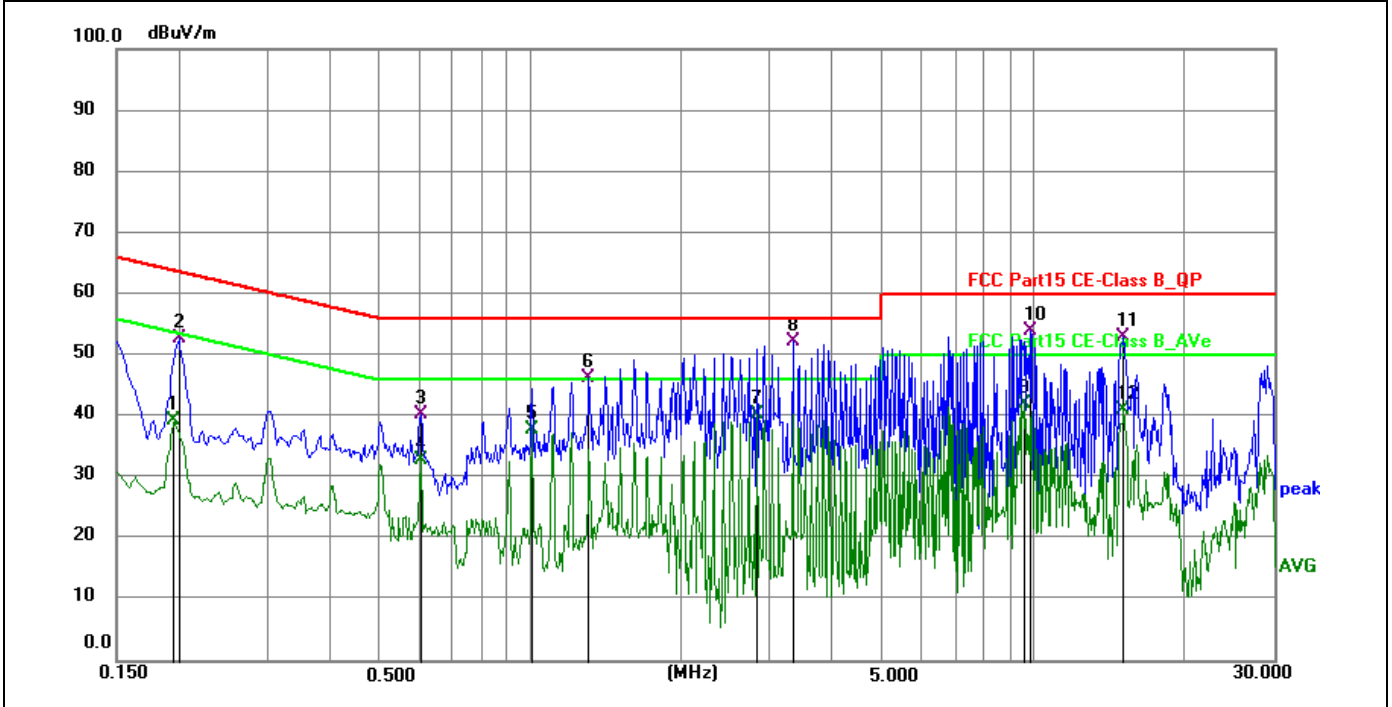
Test Mode:	Mode 1	Phase:	Line
Model:	GC-T001	Date:	2024-01-30



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1995	43.82	10.84	54.66	63.63	-8.97	QP
2	0.3030	34.67	10.84	45.51	60.16	-14.65	QP
3	0.3030	30.07	10.84	40.91	50.16	-9.25	AVG
4	0.5010	32.31	10.84	43.15	56.00	-12.85	QP
5	0.5010	25.67	10.84	36.51	46.00	-9.49	AVG
6	1.0050	23.06	10.85	33.91	46.00	-12.09	AVG
7	1.6080	37.46	10.87	48.33	56.00	-7.67	QP
8	2.7150	39.27	10.90	50.17	56.00	-5.83	QP
9	2.7150	26.56	10.90	37.46	46.00	-8.54	AVG
10	4.9290	27.12	11.13	38.25	46.00	-7.75	AVG
11	8.1463	42.28	11.19	53.47	60.00	-6.53	QP
12	14.8830	29.50	11.34	40.84	50.00	-9.16	AVG

Test Mode:	Mode 1	Phase:	Neutral
Model:	GC-T001	Date:	2024-01-30



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1949	28.52	10.84	39.36	53.83	-14.47	AVG
2	0.1995	41.79	10.83	52.62	63.63	-11.01	QP
3	0.6045	29.49	10.84	40.33	56.00	-15.67	QP
4	0.6045	21.94	10.84	32.78	46.00	-13.22	AVG
5	1.0050	26.96	10.85	37.81	46.00	-8.19	AVG
6	1.3064	35.38	10.85	46.23	56.00	-9.77	QP
7	2.8140	29.36	10.89	40.25	46.00	-5.75	AVG
8	3.3180	41.33	10.99	52.32	56.00	-3.68	QP
9	9.5550	30.91	11.08	41.99	50.00	-8.01	AVG
10	9.8565	42.83	11.12	53.95	60.00	-6.05	QP
11	15.0853	41.65	11.30	52.95	60.00	-7.05	QP
12	15.0853	29.78	11.30	41.08	50.00	-8.92	AVG

7.2.Radiated Emission Measurement

Limits of Radiated Emission Measurement

Frequency (MHz)	<input type="checkbox"/> Class A (10m)	<input checked="" type="checkbox"/> Class B (3m)
	Quasi-Peak dB(μV/m)	
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

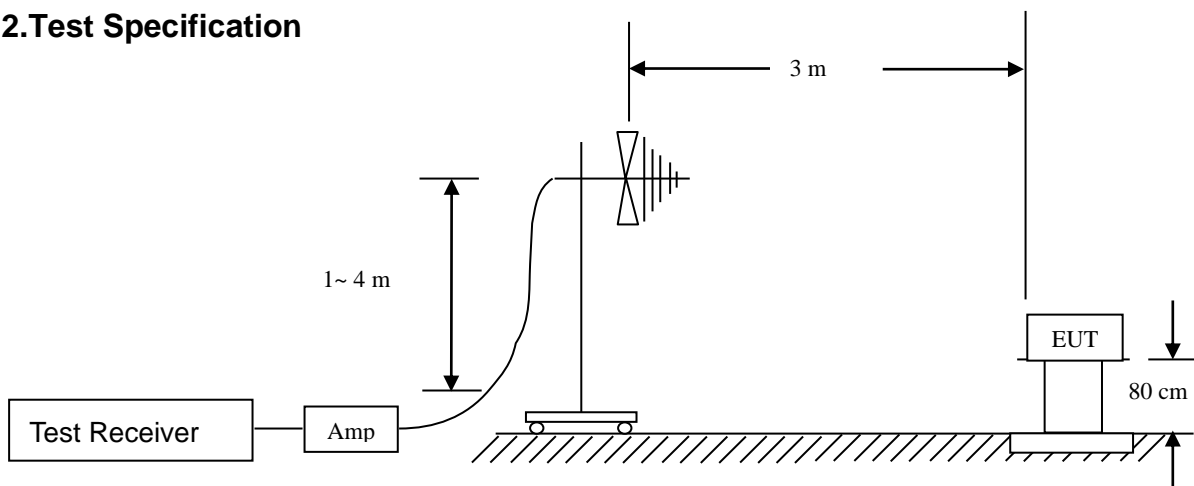
Detector:

Peak for pre-scan (120kHz resolution bandwidth)
 Quasi-Peak if maximum peak within 6dB of limit

7.2.1.E.U.T. Operation

Temperature:	25°C	Humidity:	50% RH	Atmospheric Pressure:	1006	Kpa
Test Mode:	Mode 1		The Worst Mode:		Mode 1	

7.2.2.Test Specification



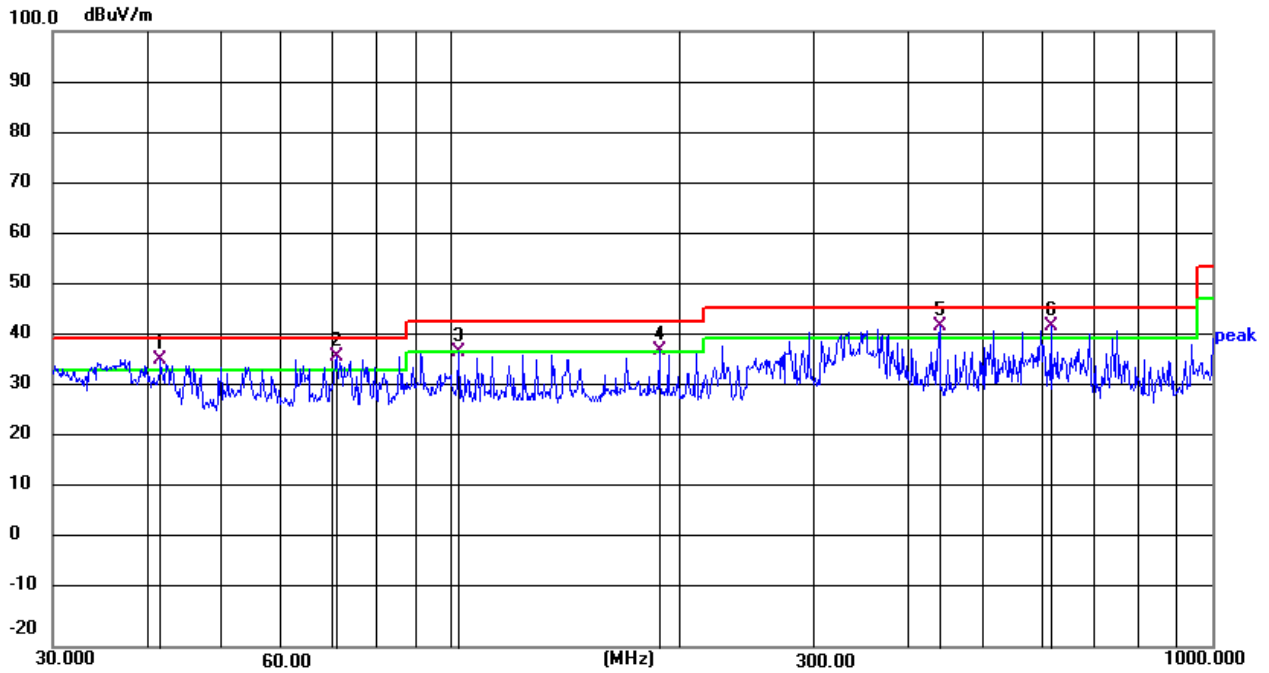
EUT was placed upon a wooden test table which was placed on the turn table 0.8m above the horizontal metal ground plane, and operating in the mode as mentioned above. A receiving antenna was placed 3m away from the EUT. During testing, turn around the turn table and move the antenna from 1m to 4m to find the maximum field-strength reading. All peripherals were placed at a distance of 10cm between each other. Both horizontal and vertical antenna polarities were tested.

7.2.3.Measurement Data

An initial pre-scan was performed in the 3m chamber using the spectrum analyzers in peak detection mode. The EUT was measured by Biology antenna with 2 orthogonal polarities and peak emissions from the EUT were detected within 6dB of the class B limit line.

The following quasi-peak measurements were performed on the EUT.

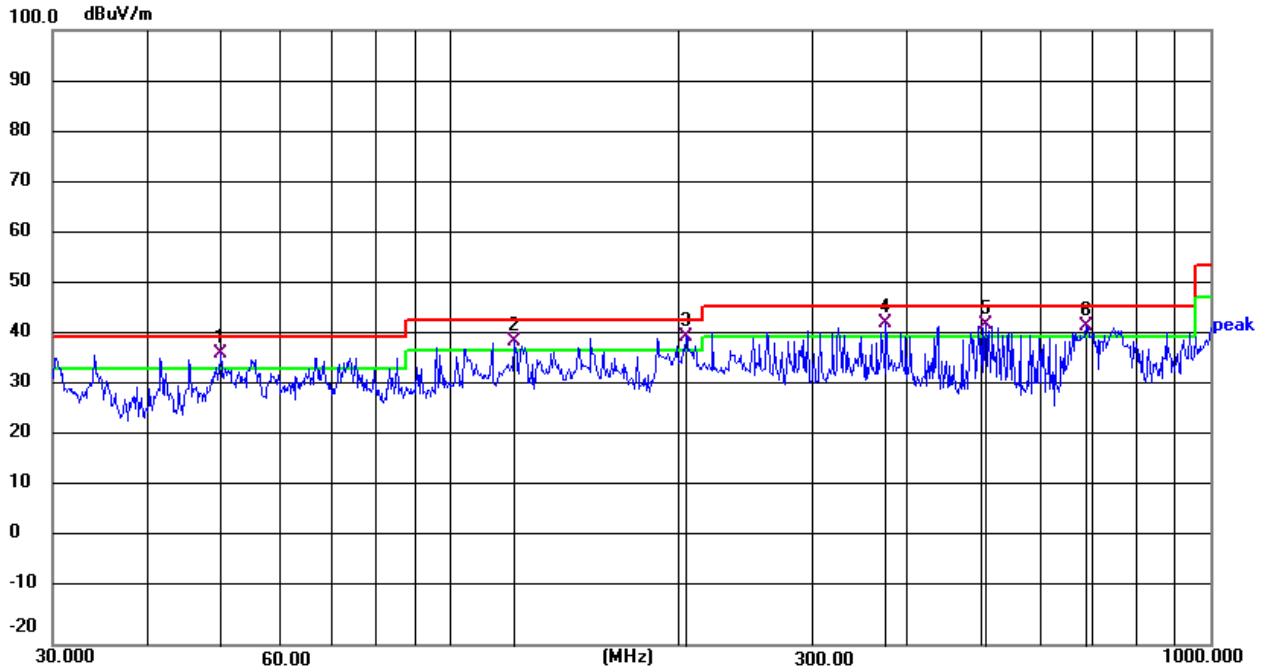
Test Mode:	Mode 1	Polarization:	Vertical
Model:	GC-T001	Date:	2024-01-30



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	41.5670	48.32	-12.42	35.90	40.00	-4.10	QP
2 *	70.8315	53.48	-16.76	36.72	40.00	-3.28	QP
3	102.3596	56.69	-19.15	37.54	43.50	-5.96	QP
4	187.7530	55.03	-17.13	37.90	43.50	-5.60	QP
5	438.6553	50.69	-8.29	42.40	46.00	-3.60	QP
6	614.2142	46.70	-4.13	42.57	46.00	-3.43	QP

Test Mode:	Mode 1	Polarization:	Horizontal
Model:	GC-T001	Date:	2024-01-30



Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	49.8813	49.98	-13.16	36.82	40.00	-3.18	QP
2	121.5485	53.38	-14.20	39.18	43.50	-4.32	QP
3	204.2375	53.11	-12.95	40.16	43.50	-3.34	QP
4 *	374.6225	57.22	-14.33	42.89	46.00	-3.11	QP
5	506.4790	50.07	-7.63	42.44	46.00	-3.56	QP
6	687.1506	44.20	-2.01	42.19	46.00	-3.81	QP

8 Test Setup Photographs of EUT

Please refer to separated files for Test Setup Photos of the EUT.

9 External Photographs of EUT

Please refer to separated files for External Photos of the EUT.

10 Internal Photographs of EUT

Please refer to separated files for Internal Photos of the EUT.

**** End of report ****