

FCC Test Report



(Verification of Conformity)
For
Electromagnetic Interference
Of

Product : LED Digital Display Fan

Trade Name : N/A

Model Number : S1

Prepared for

Shenzhen Senshui Technology Co., Ltd

Building B5, 3rd Floor, Anle Industrial Zone, No. 172 Hangcheng Avenue, Sanwei
Community, Hangcheng Street, Bao'an District, Shenzhen

Prepared by

Shenzhen CABLETEK Compliance Laboratory Limited

East 02, 6th Floor, Building 3, Zhouteng Industrial Zone, Shanglilang Community,
Nanwan Street, Longgang District, Shenzhen

TEST RESULT CERTIFICATION

Applicant's name : Shenzhen Senshui Technology Co., Ltd
Building B5, 3rd Floor, Anle Industrial Zone, No. 172 Hangcheng
Address : Avenue, Sanwei Community, Hangcheng Street, Bao'an District,
Shenzhen

Manufacturer's Name : Shenzhen Senshui Technology Co., Ltd
Building B5, 3rd Floor, Anle Industrial Zone, No. 172 Hangcheng
Address : Avenue, Sanwei Community, Hangcheng Street, Bao'an District,
Shenzhen

Product description

Product name..... : LED Digital Display Fan
Model and/or type reference : S1

Standards..... : FCC Part 15B
ANSI C63.4:2014

This device described above has been tested by CABLETEK, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

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Date of Test..... :

Date (s) of performance of tests..... : Mar. 17, 2025 ~ Mar. 21, 2025

Date of Issue..... : Mar. 21, 2025

Test Result..... : **Pass**

Testing Engineer : Peter Li
(Peter Li)

Technical Manager : Gary Yang
(Gary Yang)

Authorized Signatory : Nico Zou
(Nico Zou)



Table of Contents	Page
1 . TEST SUMMARY	4
1.1 TEST FACILITY	5
1.2 MEASUREMENT UNCERTAINTY	5
2 . GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 DESCRIPTION OF TEST MODES	7
2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL	8
2.4 MEASUREMENT INSTRUMENTS LIST	8
3 . EMC EMISSION TEST	9
3.1 CONDUCTED EMISSION MEASUREMENT	9
3.1.1 POWER LINE CONDUCTED EMISSION	9
3.1.2 TEST PROCEDURE	10
3.1.3 TEST SETUP	10
3.1.4 EUT OPERATING CONDITIONS	10
3.1.5 TEST RESULTS	11
3.1.7 LIMITS OF RADIATED EMISSION MEASUREMENT	13
3.1.8 TEST PROCEDURE	13
3.1.9 TEST SETUP	14
3.1.10 EUT OPERATING CONDITIONS	14
3.1.11 TEST RESULTS	15
3.1.12 TEST RESULTS(Above 1GHz)	17
ATTACHMENT PHOTOGRAPHS OF TEST	18
ATTACHMENT PHOTOGRAPHS OF EUT	19

1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part 15B ANSI C63.4: 2014	Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	

NOTE:

- (1) 'N/A' denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.

1.1 TEST FACILITY

Shenzhen CABLETEK Compliance Laboratory Limited

Add. : East 02, 6th Floor, Building 3, Zhouteng Industrial Zone, Shanglilang Community, Nanwan Street, Longgang District, Shenzhen

1.2 MEASUREMENT UNCERTAINTY

The reported 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** %.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
CBT01	ANSI	150 KHz ~ 30MHz	3.2	

B. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
CBT01	ANSI	30MHz ~ 1000MHz	4.7	
		1GHz ~6GHz	5.0	

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	LED Digital Display Fan
Model Name	S1
Serial No	N/A
Model Difference	N/A
Product Description	The EUT is a LED Digital Display Fan Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.
Power Source	DC Voltage
Power Rating	Input Voltage: DC5V1A

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Working +charging Mode

For Conducted Test	
Final Test Mode	Description
Mode 1	Working +charging Mode

For Radiated Test	
Final Test Mode	Description
Mode 1	Working +charging Mode

2.3 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units.

2.4 MEASUREMENT INSTRUMENTS LIST

2.4.1 CONDUCTED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	LISN	R&S	ENV216	101313	Jul. 06, 2025
2	LISN	EMCO	3816/2	00042990	Jul. 06, 2025
3	50Ω Switch	ANRITSU CORP	MP59B	6200983704	Jul. 06, 2025
4	Test Cable	N/A	C01	N/A	Jul. 06, 2025
5	Test Cable	N/A	C02	N/A	Jul. 06, 2025
6	Test Cable	N/A	C03	N/A	Jul. 06, 2025
7	EMI Test Receiver	R&S	ESCI	101160	Jul. 06, 2025
8	Passive Voltage Probe	ESH2-Z3	R&S	100196	Jul. 06, 2025
9	Triple-Loop Antenna	EVERFINE	LIA-2	11020003	Jul. 06, 2025
10	Absorbing Clamp	R&S	MDS-21	100423	Jul. 08, 2025

2.4.2 RADIATED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Bilog Antenna	TESEQ	CBL6111D	31216	Jul. 06, 2025
2	Test Cable	N/A	R-01	N/A	Jul. 06, 2025
3	Test Cable	N/A	R-02	N/A	Jul. 06, 2025
4	EMI Test Receiver	R&S	ESCI-7	101318	Jul. 06, 2025
5	Antenna Mast	EM	SC100_1	N/A	N/A
6	Turn Table	EM	SC100	060531	N/A
7	50Ω Switch	Anritsu Corp	MP59B	6200983705	Jul. 06, 2025
8	Spectrum Analyzer	Aglient	E4407B	MY45108040	Jul. 06. 2025
9	Horn Antenna	EM	EM-AH-10180	2011071402	Jul. 06. 2025
10	Amplifier	EM	EM-30180	060538	Jul. 06. 2025

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

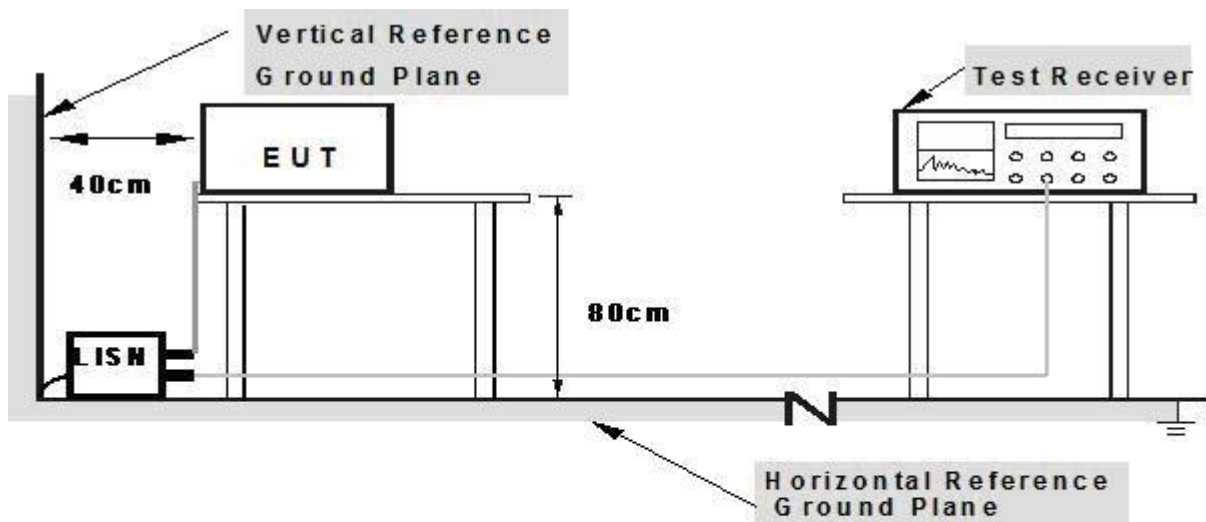
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

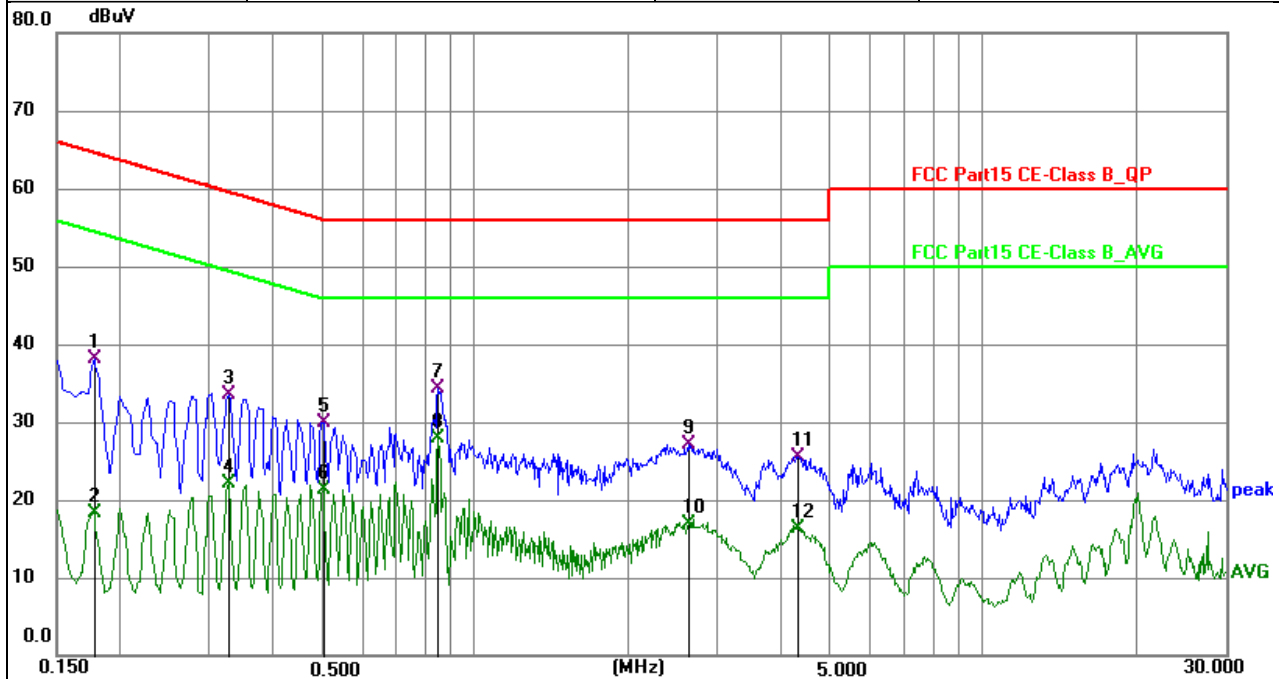
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

3.1.5 TEST RESULTS

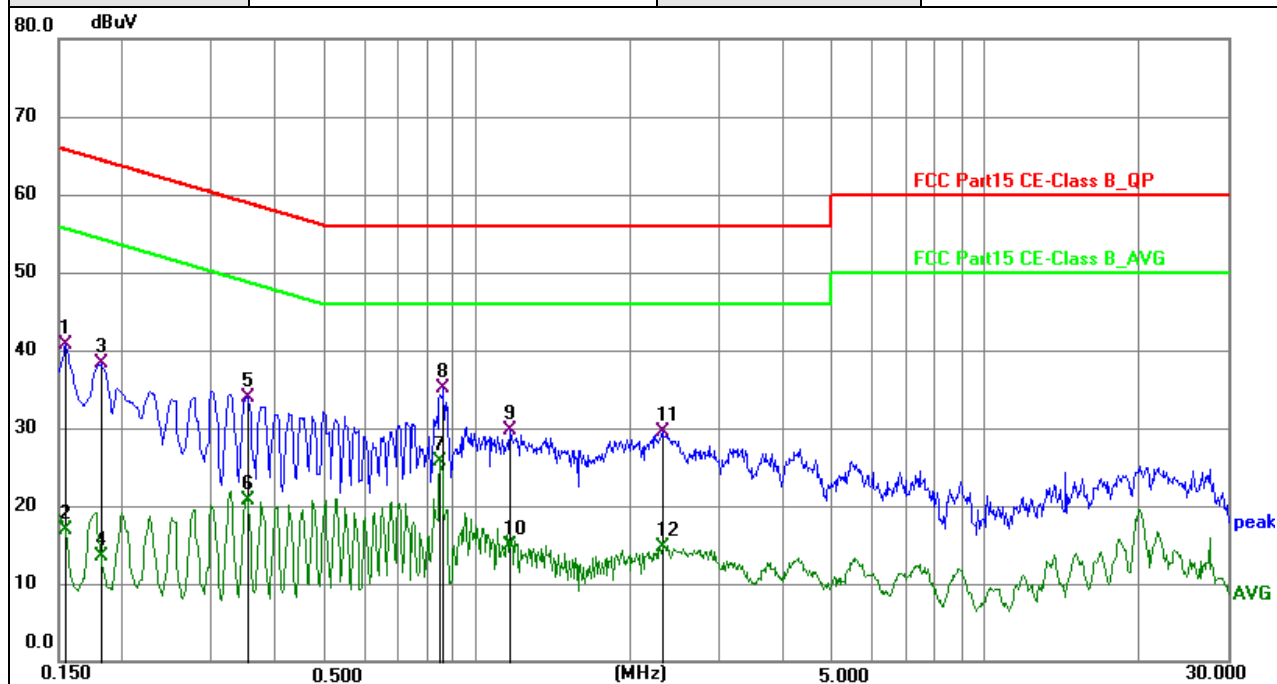
EUT :	LED Digital Display Fan	Model Name. :	S1
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101.2kPa	Test Mode :	Charging +Working
Test Voltage :	DC 5V from adapter	Phase :	L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1770	28.52	9.62	38.14	64.63	-26.49	QP	P	
2	0.1770	8.71	9.62	18.33	54.63	-36.30	AVG	P	
3	0.3255	23.80	9.67	33.47	59.57	-26.10	QP	P	
4	0.3255	12.49	9.67	22.16	49.57	-27.41	AVG	P	
5	0.5010	20.19	9.62	29.81	56.00	-26.19	QP	P	
6	0.5010	11.67	9.62	21.29	46.00	-24.71	AVG	P	
7	0.8475	24.72	9.62	34.34	56.00	-21.66	QP	P	
8 *	0.8475	18.35	9.62	27.97	46.00	-18.03	AVG	P	
9	2.6340	17.52	9.66	27.18	56.00	-28.82	QP	P	
10	2.6340	7.22	9.66	16.88	46.00	-29.12	AVG	P	
11	4.3215	15.95	9.53	25.48	56.00	-30.52	QP	P	
12	4.3215	6.85	9.53	16.38	46.00	-29.62	AVG	P	

EUT :	LED Digital Display Fan	Model Name. :	S1
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Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101.2kPa	Test Mode :	Charging +Working
Test Voltage :	DC 5V from adapter	Phase :	N



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1544	31.26	9.53	40.79	65.76	-24.97	QP	P	
2	0.1544	7.31	9.53	16.84	55.76	-38.92	AVG	P	
3	0.1814	28.69	9.64	38.33	64.42	-26.09	QP	P	
4	0.1814	3.92	9.64	13.56	54.42	-40.86	AVG	P	
5	0.3524	24.18	9.66	33.84	58.91	-25.07	QP	P	
6	0.3524	10.97	9.66	20.63	48.91	-28.28	AVG	P	
7 *	0.8475	16.03	9.62	25.65	46.00	-20.35	AVG	P	
8	0.8609	25.58	9.61	35.19	56.00	-20.81	QP	P	
9	1.1625	20.07	9.55	29.62	56.00	-26.38	QP	P	
10	1.1625	5.34	9.55	14.89	46.00	-31.11	AVG	P	
11	2.3144	19.87	9.69	29.56	56.00	-26.44	QP	P	
12	2.3144	5.04	9.69	14.73	46.00	-31.27	AVG	P	

3.1.6 RADIATED EMISSION MEASUREMENT

3.1.7 LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 3m)
	dBuV/m	dBuV/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

Notes:

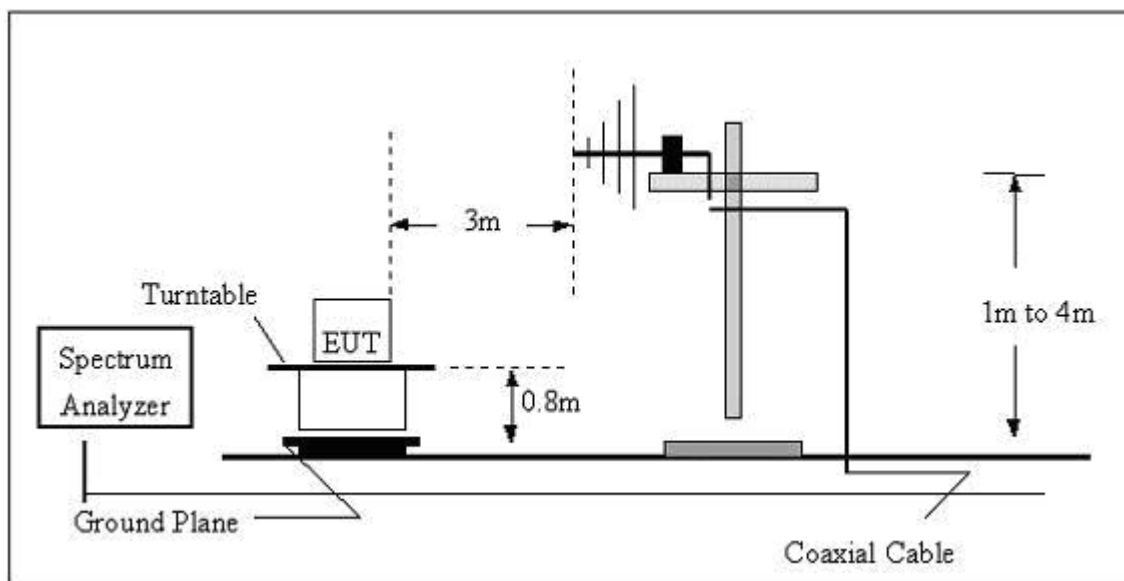
- (1) The limit for radiated test was performed according to as following:
FCC PART 15B /ICES-003.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

3.1.8 TEST PROCEDURE

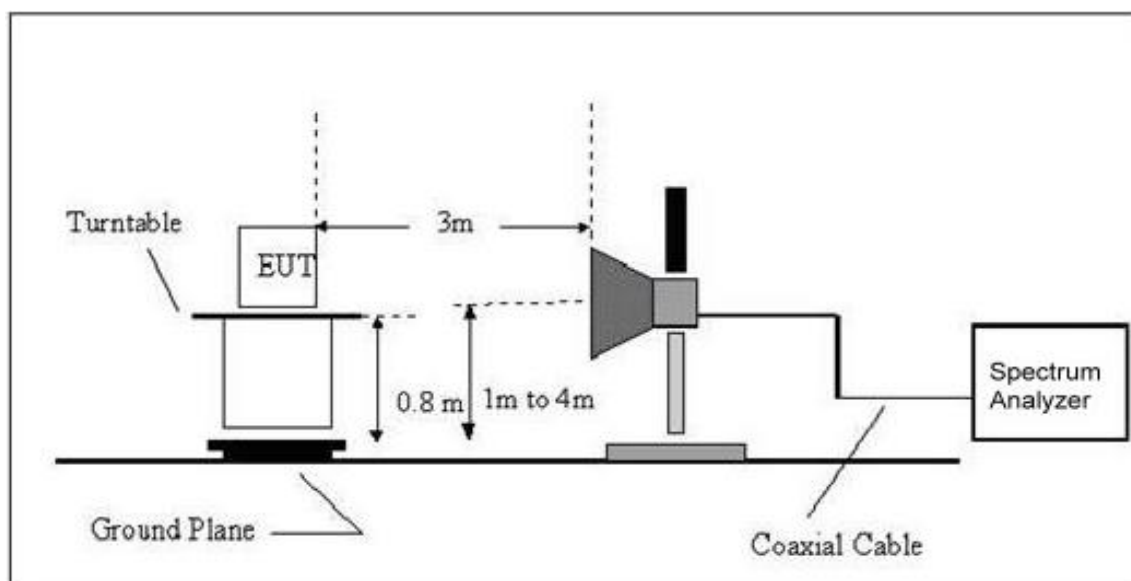
- a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP(AV) Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.9 TEST SETUP

(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-Up Frequency Above 1GHz

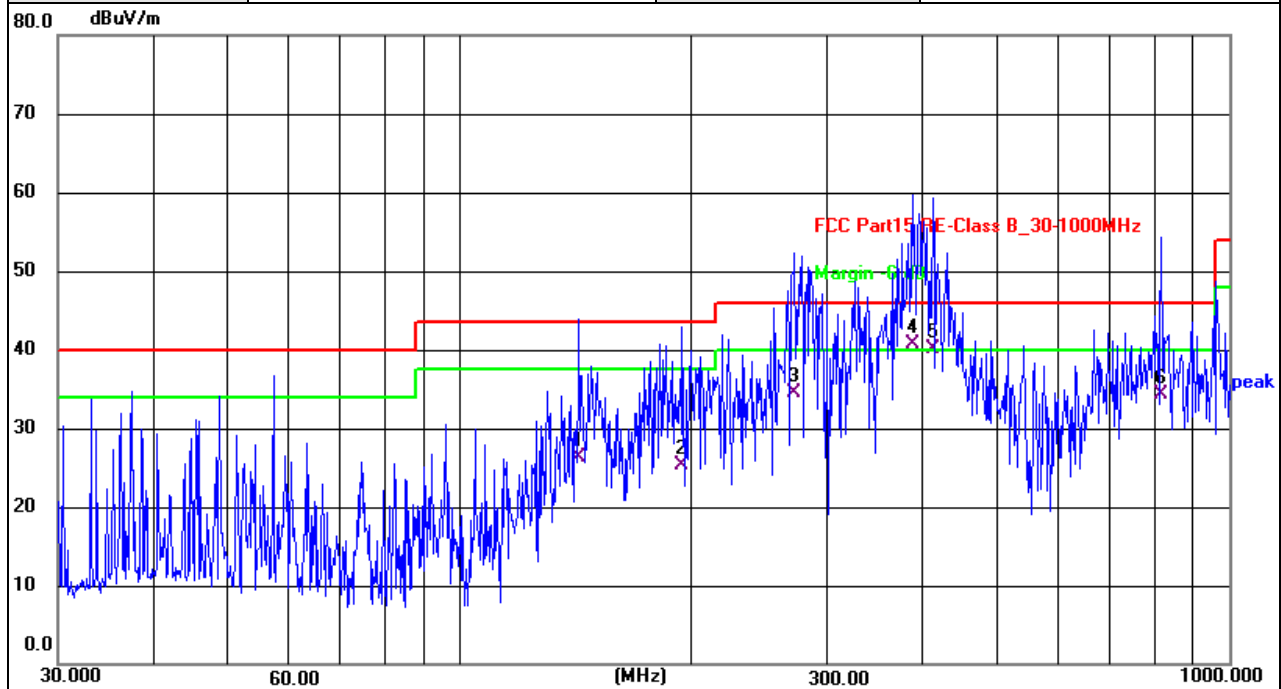


3.1.10 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

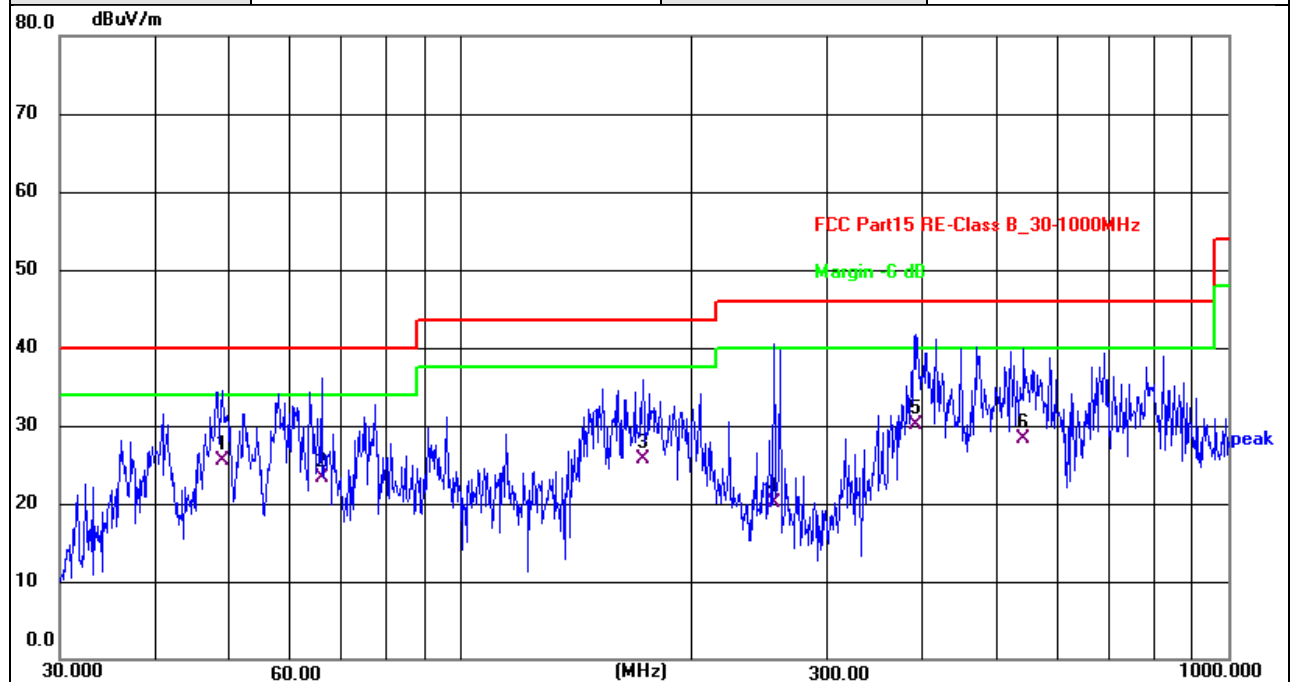
3.1.11 TEST RESULTS

EUT :	LED Digital Display Fan	Model Name :	S1
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	101.2kPa	Test Mode :	Charging +Working
Test Power :	DC 5V from adapter	Polarization :	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	142.8243	42.82	-16.52	26.30	43.50	-17.20	QP	100	0	P	
2	194.4534	44.27	-18.87	25.40	43.50	-18.10	QP	100	0	P	
3	272.2776	51.73	-17.13	34.60	46.00	-11.40	QP	100	0	P	
4 *	387.9920	54.35	-13.65	40.70	46.00	-5.30	QP	100	0	P	
5 !	411.8240	53.08	-12.88	40.20	46.00	-5.80	QP	100	0	P	
6	815.9678	38.77	-4.37	34.40	46.00	-11.60	QP	100	0	P	

EUT :	LED Digital Display Fan	Model Name :	S1
Temperature :	24 °C	Relative Humidity :	54%
Pressure :	101.2kPa	Test Mode :	Charging +Working
Test Power :	DC 5V from adapter	Polarization :	Vertical

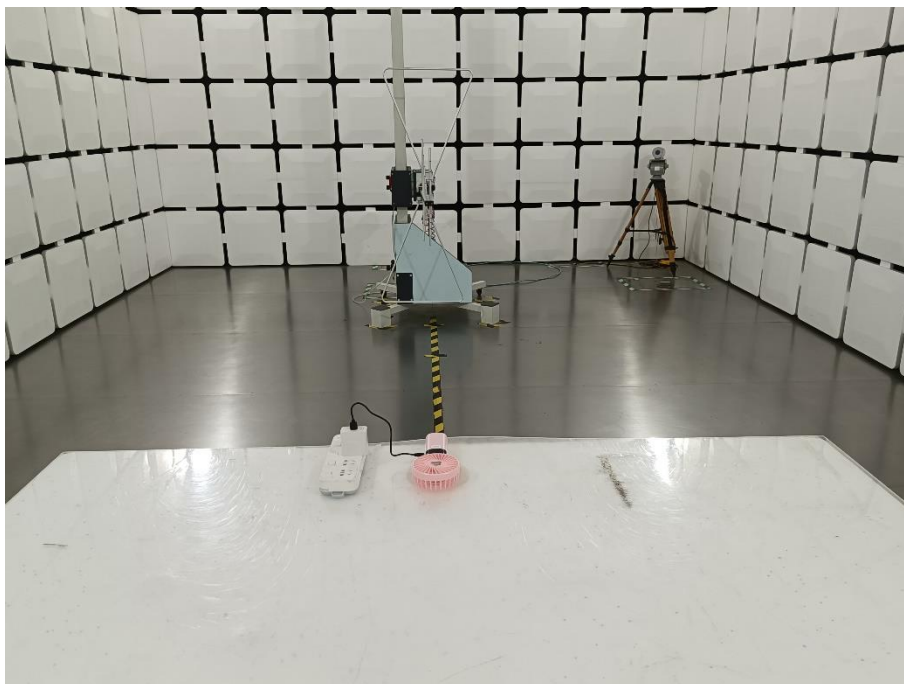


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	48.8429	42.07	-16.47	25.60	40.00	-14.40	QP	100	360	P	
2	65.8031	41.33	-17.93	23.40	40.00	-16.60	QP	100	360	P	
3	172.5988	42.64	-16.84	25.80	43.50	-17.70	QP	100	360	P	
4	255.6231	37.80	-17.70	20.10	46.00	-25.90	QP	100	360	P	
5	392.0951	43.70	-13.50	30.20	46.00	-15.80	QP	100	360	P	
6	541.3725	38.33	-9.93	28.40	46.00	-17.60	QP	100	360	P	

3.1.12 TEST RESULTS(Above 1GHz)

The EUT operates at less than 108MHz and does not require testing as required by the standard.

ATTACHMENT PHOTOGRAPHS OF TEST



ATTACHMENT PHOTOGRAPHS OF EUT

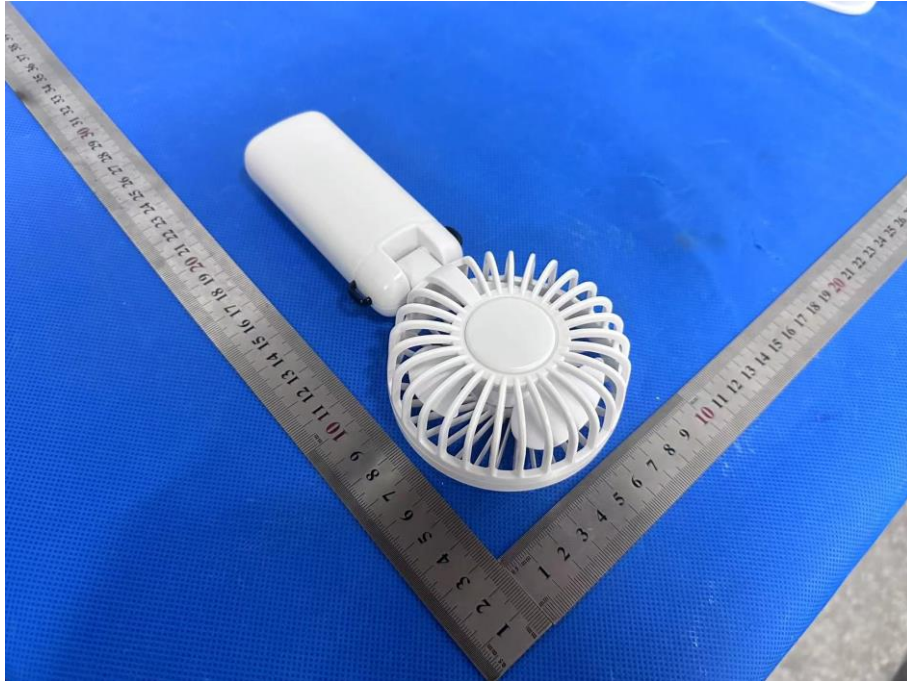
Photo 1



Photo 2



Photo 3



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