

**FCC TEST REPORT**

For

ARTIKA FOR LIVING INC**LED CEILING FAN****Test Model: FAN-ELR-BL**

Additional Model No.: FAN-ELR-***** (“*****” means may be follow by up to six characters, The character mentioned can be letters, numbers, “-” or blank, denote different commercial codes))

Prepared for : ARTIKA FOR LIVING INC
Address : 1756, 50th Avenue Montréal (Lachine), Québec, Canada
H8T 2V5

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
101, 201 Bldg A & 301 Bldg C, Juji Industrial Park

Address : Yabianxueziwei, Shajing Street, Baoan District,
Shenzhen, 518000, China

Tel : +(86) 0755-82591330

Fax : +(86) 0755-82591332

Web : www.lcs-cert.com

Mail : webmaster@lcs-cert.com

Date of receipt of test sample : April 11, 2024

Number of tested samples : 1

Serial number : Prototype

Sample No. : A240304088001

Date of Test : April 11, 2024 to May 09, 2024

Date of Report : May 10, 2024





TEST REPORT

Report No. : **LCSA04014352E**

Date of Issue : May 10, 2024

Testing Laboratory Name : **Shenzhen LCS Compliance Testing Laboratory Ltd.**

Address : 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park
Yabianxueziwei, Shajing Street, Baoan District,
Shenzhen, 518000, China

Testing Location/ Procedure..... : Full application of Harmonised standards ■
Partial application of Harmonised standards □
Other standard testing method □

Applicant's Name : **ARTIKA FOR LIVING INC**

Address : 1756, 50th Avenue Montréal (Lachine), Québec, Canada H8T 2V5

Test Specification

Standard : FCC 47 CFR Part 15, Subpart B
ANSI C63.4-2014

Test Report Form No. : LCSEMC-1.0

TRF Originator : Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF : Dated 2011-03

Shenzhen LCS Compliance Testing Laboratory Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen LCS Compliance Testing Laboratory Ltd. is acknowledged as copyright owner and source of the material. Shenzhen LCS Compliance Testing Laboratory Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Test Item Description. : **LED CEILING FAN**

Trade Mark : ARTIKA

Test Model : FAN-ELR-BL

Result : **Positive**

Compiled by:

Emma wang / File Administrator

Supervised by:

Baron Wen / Technique principal

Approved by:

Gavin Liang / Manager





TEST REPORT

Test Report No.: LCSA04014352E	<u>May 10, 2024</u> Date of issue
---------------------------------------	--------------------------------------

Test Model	: FAN-ELR-BL
EUT	: LED CEILING FAN
Applicant	: ARTIKA FOR LIVING INC
Address	: 1756, 50th Avenue Montréal (Lachine), Québec, Canada H8T 2V5
Telephone	: /
Fax	: /
Manufacturer	: Giant Force Technology Inc.
Address	: Sui Feng Nian Village, Lin Hai Industries Park, Sha Tian Town, Dong Guan City, China
Telephone	: /
Fax	: /
Factory	: Giant Force Technology Inc.
Address	: Sui Feng Nian Village, Lin Hai Industries Park, Sha Tian Town, Dong Guan City, China
Telephone	: /
Fax	: /

Test Result	Positive
--------------------	-----------------

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.





Revision History

Report Version	Issue Date	Revision Content	Revised By
000	May 10, 2024	Initial Issue	/





TABLE OF CONTENTS

Test Report Description	Page
1. SUMMARY OF STANDARDS AND RESULTS	6
1.1 Description of Standards and Results	6
1.2 Description of Test Modes	7
2. GENERAL INFORMATION	8
2.1 Description of Device (EUT).....	8
2.2 Support equipment List	8
2.3 Description of Test Facility.....	8
2.4 Measurement Uncertainty	8
3. MEASURING DEVICES AND TEST EQUIPMENT	9
4. EMISSION TEST RESULTS (EMI)	10
4.1 Conducted emissions on AC mains.....	10
4.2 Radiated emissions (Below 1GHz).....	13
4.3 Radiated emissions (Above 1GHz)	16
5. TEST SETUP PHOTOS	19
6. EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)	19





1. SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Limits	Result
Conducted emissions on AC mains	FCC 47 CFR Part 15, Subpart B ANSI C63.4-2014	15.107, Class B	Pass
Radiated emissions (Below 1GHz)	FCC 47 CFR Part 15, Subpart B ANSI C63.4-2014	15.109, Class B	Pass
Radiated emissions (Above 1GHz)	FCC 47 CFR Part 15, Subpart B ANSI C63.4-2014	15.109, Class B	Pass





1.2 Description of Test Modes

No	Title	Description
TM1	Working(AC 120V/60Hz)	Record





2. GENERAL INFORMATION

2.1 Description of Device (EUT)

EUT	: LED CEILING FAN
Test Model	: FAN-ELR-BL
Additional Model No.	: FAN-ELR-***** (“*****” means may be follow by up to six characters, The character mentioned can be letters, numbers, “-” or blank, denote different commercial codes))
Model Declaration	: PCB board, structure and internal of these model(s) are the same, So no additional models were tested.
Power Supply	: 100-240V~, 50/60Hz, 70W, 30W for Fan, 40W for lamp
Highest Internal Frequency	: 433MHz
Classification of Equipment	: Class B

Highest internal frequency (Fx)	Highest measured frequency
$F_x \leq 1.705\text{MHz}$	30MHz
$1.705\text{MHz} < F_x \leq 108\text{MHz}$	1GHz
$108\text{MHz} < F_x \leq 500\text{MHz}$	2GHz
$500\text{MHz} < F_x \leq 1000\text{MHz}$	5GHz
$F_x > 1\text{GHz}$	5 x Fx up to a maximum of 40GHz

2.2 Support equipment List

The EUT was tested as an independent device.

2.3 Description of Test Facility

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

NVLAP Accreditation Code is 600167-0.
 FCC Designation Number is CN5024.
 CAB identifier is CN0071.
 CNAS Registration Number is L4595.
 Test Firm Registration Number: 254912.

2.4 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emission (150kHz to 30MHz)	± 2.35 dB
Radiated Emission (30MHz to 1000MHz)	± 3.48 dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	





3. MEASURING DEVICES AND TEST EQUIPMENT

Conducted emissions on AC mains					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
EMI Test Software	Farad	EZ	N/A	N/A	N/A
Artificial Mains	R&S	ENV216	101288	2023-06-09	2024-06-08
Pulse Limiter	R&S	ESH3-Z2	102750-NB	2023-08-15	2024-08-14
EMI Test Receiver	R&S	ESR3	102312	2024-03-02	2025-03-01

Radiated emissions (Below 1GHz)					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
EMI Test Software	Farad	EZ	N/A	N/A	N/A
EMI Test Software	AUDIX	E3	N/A	N/A	N/A
By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2021-09-12	2024-09-11
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-09-05	2024-09-04
EMI Test Receiver	R&S	ESR3	102311	2023-08-15	2024-08-14
Broadband Preamplifier	/	BP-01M18G	P190501	2023-06-09	2024-06-08
EMI Test Receiver	R&S	ESCI7	101173	2023-10-25	2024-10-24
By-log Antenna	SchwarzZBECK	VULB9163	01428	2023-09-05	2024-09-04
Antenna Mast	Max-Full	MFA-515BSN	1308572	N/A	N/A





4. EMISSION TEST RESULTS (EMI)

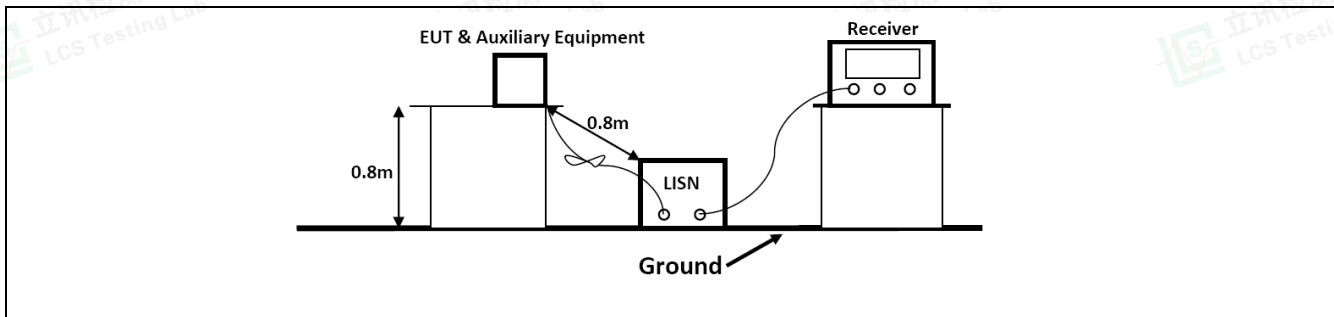
4.1 Conducted emissions on AC mains

Test Requirement:	15.107, Class B		
Test Limit:	Frequency of emission (MHz)	Conducted limit (dBμV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
	*Decreases with the logarithm of the frequency.		
Test Method:	ANSI C63.4-2014		
Procedure:	An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor		

4.1.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23.3 °C	Humidity:	53.7 %
Pre test mode:	TM1		
Final test mode:	TM1		

4.1.2 Test Setup Diagram:



4.1.3 Disturbance Calculation

The AC mains conducted disturbance is calculated by adding the 10dB Pulse Limiter and Cable Factor and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

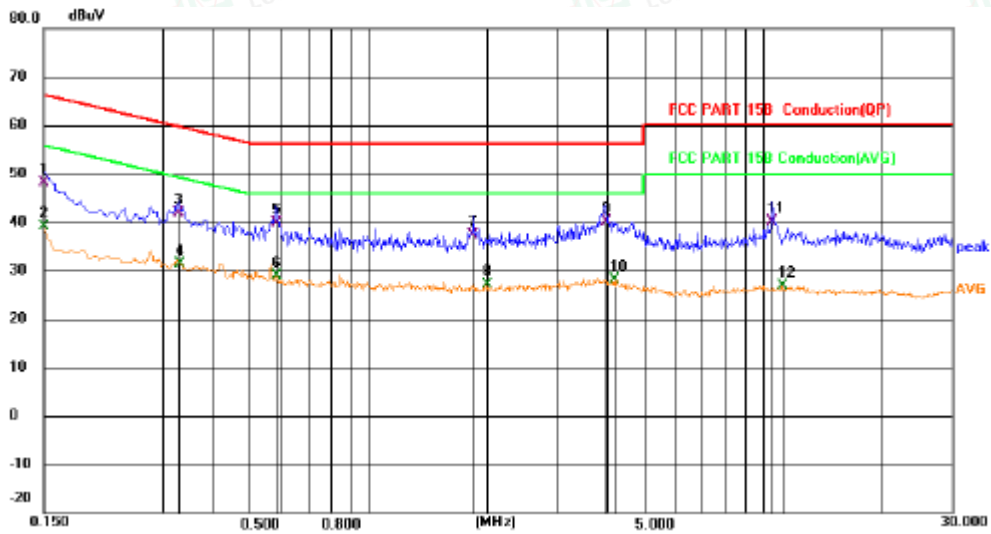
$$CD \text{ (dBuV)} = RA \text{ (dBuV)} + PL \text{ (dB)} + CL \text{ (dB)}$$

Where CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor

4.1.4 Test Data:

TM1 / Line: Line



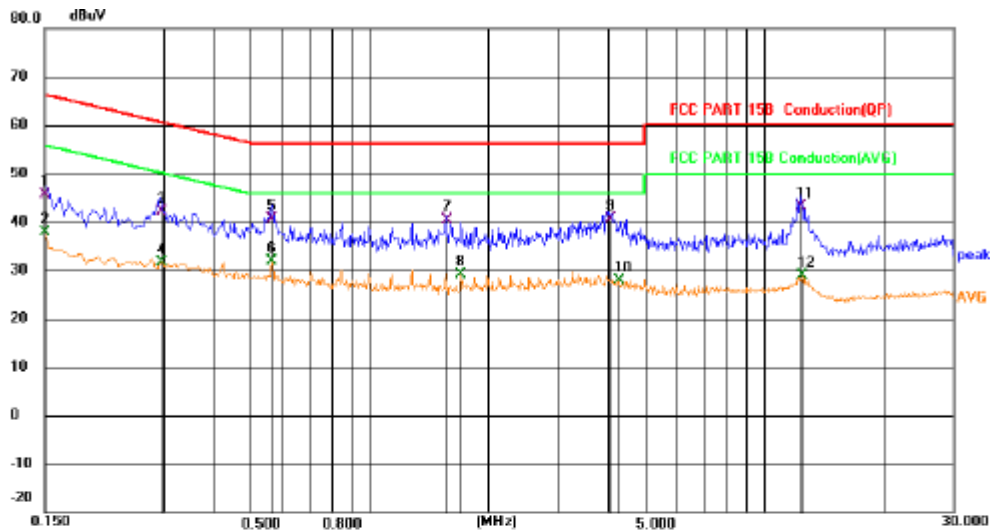


No.	Mk.	Freq.	Reading	Correct	Measurement	Limit	Margin	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	27.86	20.22	48.08	66.00	-17.92	QP	
2		0.1500	18.84	20.22	39.06	56.00	-16.94	AVG	
3		0.3301	21.60	20.19	41.79	59.45	-17.66	QP	
4		0.3320	11.23	20.20	31.43	49.40	-17.97	AVG	
5		0.5820	19.76	20.16	39.92	56.00	-16.08	QP	
6		0.5823	8.76	20.16	28.92	46.00	-17.08	AVG	
7		1.8420	17.12	20.18	37.30	56.00	-18.70	QP	
8		1.9905	7.06	20.19	27.25	46.00	-18.75	AVG	
9	*	3.9751	20.04	20.11	40.15	56.00	-15.85	QP	
10		4.1956	8.12	20.06	28.18	46.00	-17.82	AVG	
11		10.5315	19.66	20.37	40.03	60.00	-19.97	QP	
12		11.1886	6.43	20.39	26.82	50.00	-23.18	AVG	





TM1 / Line: Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1500	25.78	19.94	45.72	66.00	-20.28	QP	
2		0.1500	17.88	19.94	37.82	56.00	-18.18	AVG	
3		0.2941	22.06	20.00	42.06	60.41	-18.35	QP	
4		0.2955	11.83	20.00	31.83	50.37	-18.74	AVG	
5		0.5639	20.72	19.95	40.67	56.00	-15.33	QP	
6	*	0.5639	12.03	19.95	31.98	46.00	-14.02	AVG	
7		1.5630	20.15	20.18	40.33	56.00	-15.67	QP	
8		1.7070	8.86	20.20	29.06	46.00	-16.94	AVG	
9		4.0830	20.52	20.02	40.54	56.00	-15.46	QP	
10		4.2811	7.87	20.00	27.87	46.00	-18.13	AVG	
11		12.2866	22.87	20.14	43.01	60.00	-16.99	QP	
12		12.4936	8.80	20.12	28.92	50.00	-21.08	AVG	

***Note: 1) Pre-scan all modes and recorded the worst case results in this report.

2) Margin= Reading level + Correct factor-Limit

Correct Factor= Lisn Factor+Cable Factor





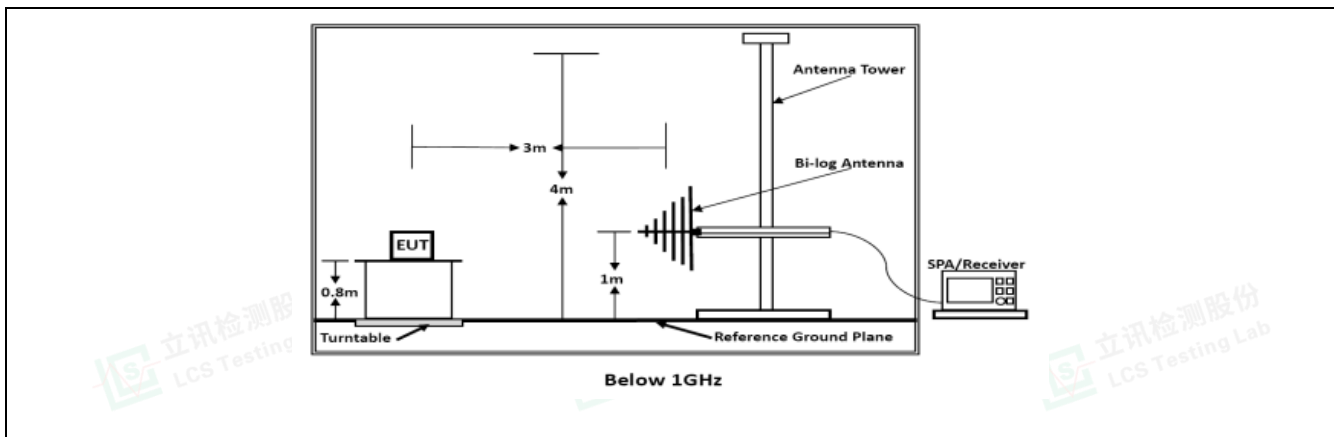
4.2 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B				
Test Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:				
	Frequency of emission (MHz)	Field strength @3m		Field strength @10m	
		(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
	30 – 88	100	40	30	29.5
	88 – 216	150	43.5	45	33.1
216 – 960	200	46	60	35.6	
Above 960	500	54	150	43.5	
Test Method:	ANSI C63.4-2014				
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor				

4.2.1 E.U.T. Operation:

Operating Environment:			
Temperature:	26.4 °C	Humidity:	54.2 %
Pre test mode:	TM1		
Final test mode:	TM1		

4.2.2 Test Setup Diagram:





4.2.3 Field Strength Calculation:

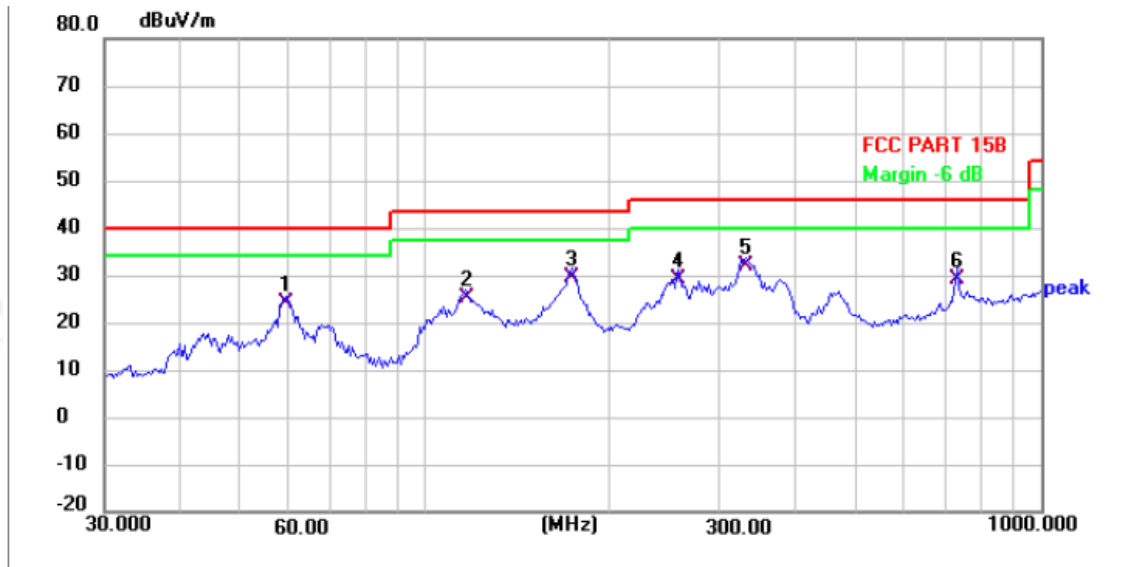
The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS \text{ (dBuV/m)} = RA \text{ (dBuV)} + AF \text{ (dB/m)} + CL \text{ (dB)} - AG \text{ (dB)}$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

4.2.4 Test Data:

TM1 / Polarization: Horizontal

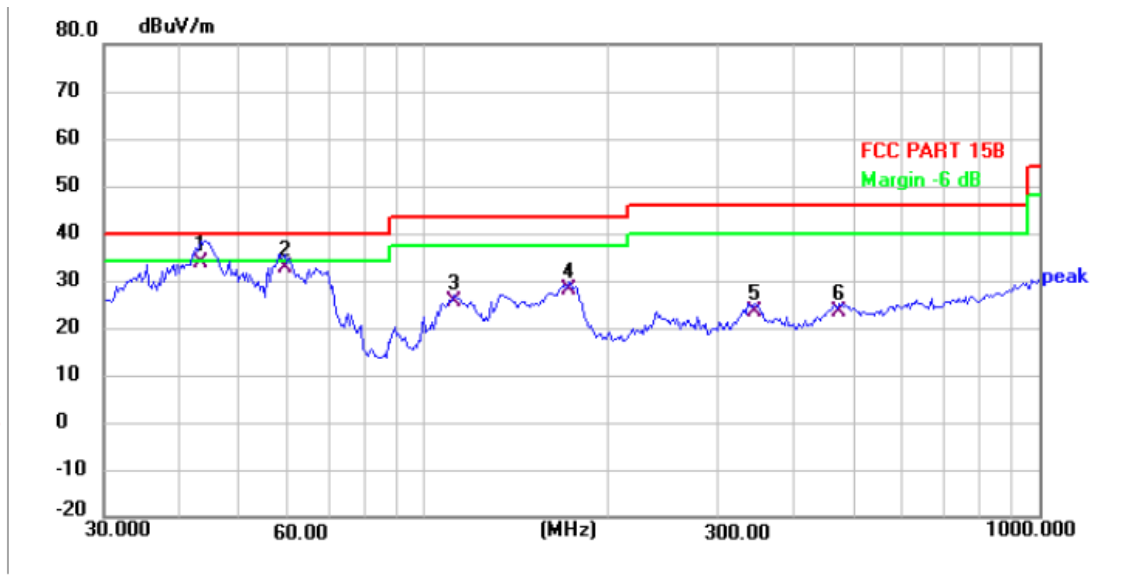


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	59.3132	42.71	-18.60	24.11	40.00	-15.89	QP			P	
2	116.4475	45.60	-20.54	25.06	43.50	-18.44	QP			P	
3 *	172.5975	51.20	-21.67	29.53	43.50	-13.97	QP			P	
4	257.6266	46.78	-17.62	29.16	46.00	-16.84	QP			P	
5	331.7857	47.85	-16.04	31.81	46.00	-14.19	QP			P	
6	728.8971	38.65	-9.51	29.14	46.00	-16.86	QP			P	





TM1 / 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 *	43.2333	50.95	-17.35	33.60	40.00	-6.40	QP			P	
2	59.3132	51.16	-18.60	32.56	40.00	-7.44	QP			P	
3	111.6398	45.42	-19.73	25.69	43.50	-17.81	QP			P	
4	171.3890	49.61	-21.73	27.88	43.50	-15.62	QP			P	
5	343.6505	39.23	-15.81	23.42	46.00	-22.58	QP			P	
6	471.4665	36.57	-13.17	23.40	46.00	-22.60	QP			P	

Note:1).Pre-Scan all mode, Thus record worse case mode result in this report.

2) Margin= Reading level + Correct factor – Limit

Correct Factor=Antenna Factor+Cable Factor- Pre-amplifier Factor





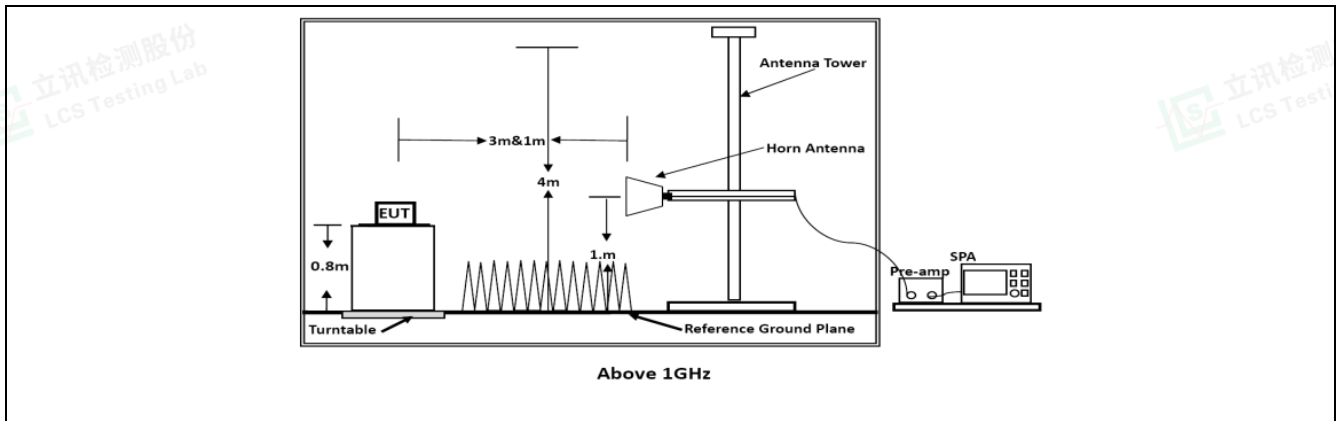
4.3 Radiated emissions (Above 1GHz)

Test Requirement:	15.109, Class B			
Test Limit:	Frequency of emission (MHz)	Field strength @3m		
		Average (uV/m)	Average(d BuV/m)	Peak (dBuV/m)
	Above 1GHz	500	54	74
Test Method:	ANSI C63.4-2014			
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. For below 1GHz test, Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. For above 1GHz test, Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor			

4.3.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23.9 °C	Humidity:	52 %
Pre test mode:	TM1		
Final test mode:	TM1		

4.3.2 Test Setup Diagram:



4.3.3 Field Strength Calculation:

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS \text{ (dBuV/m)} = RA \text{ (dBuV)} + AF \text{ (dB/m)} + CL \text{ (dB)} - AG \text{ (dB)}$$

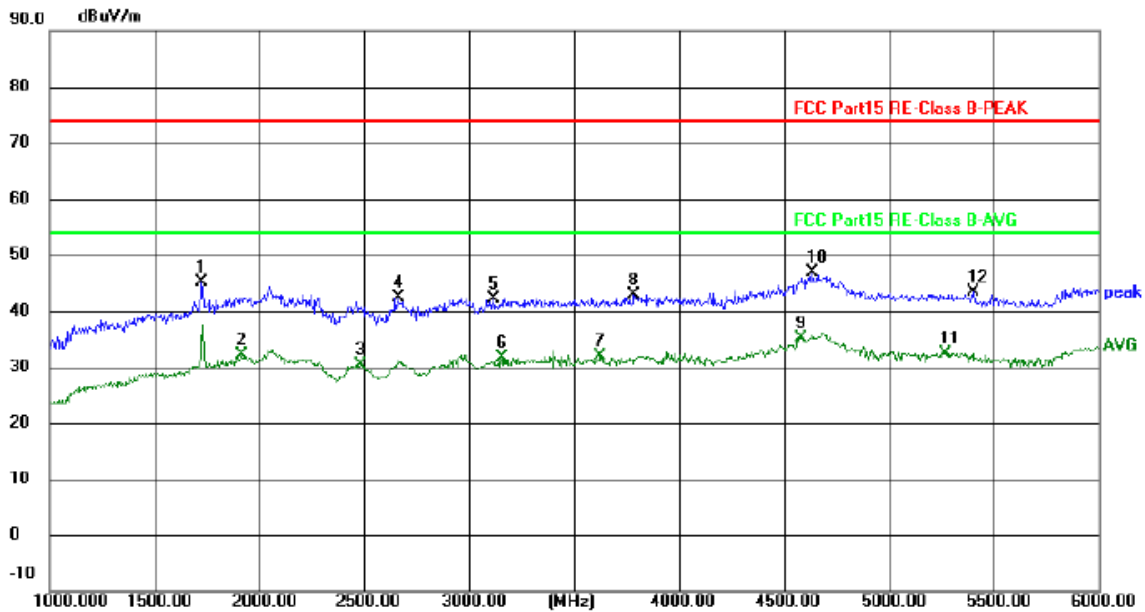
Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	





4.3.4 Test Data:

TM1 / Polarization: Horizontal

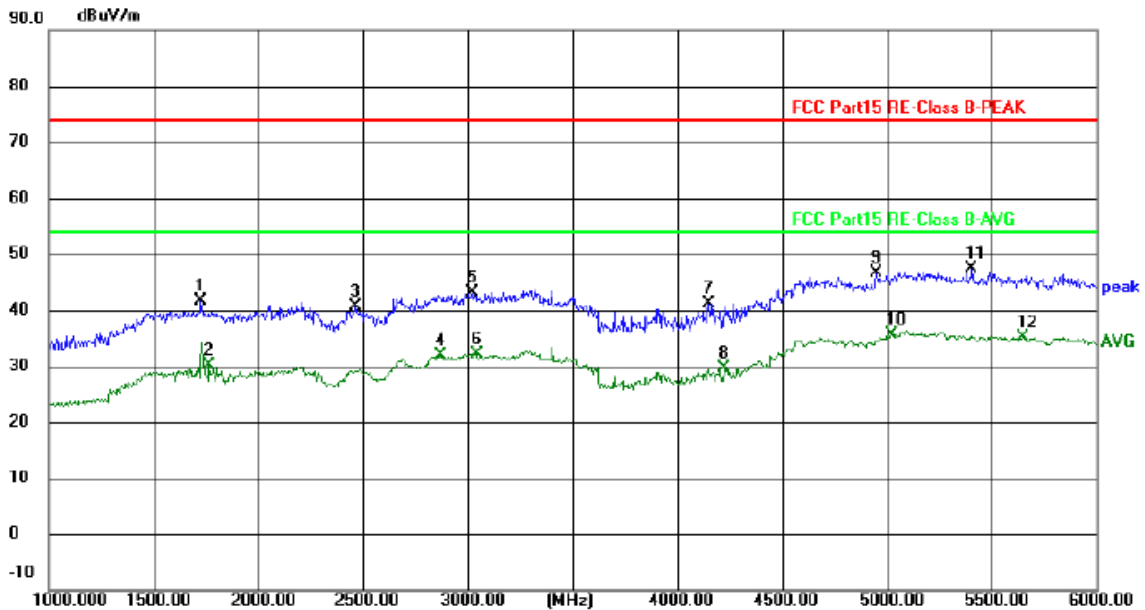


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	1725.000	59.53	-14.32	45.21	74.00	-28.79	peak	P	
2	1915.000	45.62	-13.55	32.07	54.00	-21.93	AVG	P	
3	2485.000	41.77	-11.40	30.37	54.00	-23.63	AVG	P	
4	2660.000	53.20	-10.79	42.41	74.00	-31.59	peak	P	
5	3115.000	51.70	-9.56	42.14	74.00	-31.86	peak	P	
6	3155.000	41.18	-9.54	31.64	54.00	-22.36	AVG	P	
7	3625.000	41.08	-9.19	31.89	54.00	-22.11	AVG	P	
8	3785.000	51.74	-8.92	42.82	74.00	-31.18	peak	P	
9	4580.000	41.37	-6.19	35.18	54.00	-18.82	AVG	P	
10	4635.000	52.74	-5.92	46.82	74.00	-27.18	peak	P	
11	5270.000	36.08	-3.63	32.45	54.00	-21.55	AVG	P	
12	5405.000	46.66	-3.38	43.28	74.00	-30.72	peak	P	





TM1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	1725.000	56.03	-14.32	41.71	74.00	-32.29	peak	P	
2	1765.000	44.26	-14.23	30.03	54.00	-23.97	AVG	P	
3	2465.000	52.02	-11.46	40.56	74.00	-33.44	peak	P	
4	2870.000	42.03	-10.05	31.98	54.00	-22.02	AVG	P	
5	3025.000	52.80	-9.59	43.21	74.00	-30.79	peak	P	
6	3040.000	41.74	-9.58	32.16	54.00	-21.84	AVG	P	
7	4150.000	49.10	-7.95	41.15	74.00	-32.85	peak	P	
8	4225.000	37.25	-7.67	29.58	54.00	-24.42	AVG	P	
9	4950.000	51.05	-4.36	46.69	74.00	-27.31	peak	P	
10	5020.000	39.73	-4.08	35.65	54.00	-18.35	AVG	P	
11	5405.000	50.66	-3.38	47.28	74.00	-26.72	peak	P	
12	5650.000	38.56	-3.35	35.21	54.00	-18.79	AVG	P	

Note:1).Pre-Scan all mode, Thus record worse case mode result in this report.

2) Margin= Reading level + Correct factor – Limit

Correct Factor=Antenna Factor+Cable Factor- Pre-amplifier Factor





5. TEST SETUP PHOTOS

Refer to Appendix - Test Setup Photos for LCSA04014352E.docx

6. EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)

Refer to Appendix - EUT Photos for LCSA04014352E.docx

--- End of Report ---

