



FCC TEST REPORT

For

ARTIKA FOR LIVING INC

LED CEILING FAN

Test Model: FAN-ALR-HD2BL

Additional Model No.: FAN-ALR-*****("*****" 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

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Mail : webmaster@lcs-cert.com

Date of receipt of test sample : May 08, 2024

Number of tested samples : 1

Serial number : Prototype

Sample No. : A240430002003

Date of Test : May 08, 2024 to May 14, 2024

Date of Report : May 15, 2024



Shenzhen LCS Compliance Testing Laboratory Ltd.

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**TEST REPORT****Report No.** : LCSA04014350E**Date of Issue** : May 15, 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.**

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Test Item Description. : LED CEILING FAN**Trade Mark** : ARTIKA**Test Model** : FAN-ALR-HD2BL**Result** : Positive**Compiled by:**

Emma wang / File Administrator

Supervised by:

Cary Luo/ Technique principal

Approved by:

Gavin Liang / Manager



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TEST REPORT

Test Report No.: LCSA040143510E	<u>May 15, 2024</u> Date of issue
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Test Model	: FAN-ALR-HD2BL
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
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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 15, 2024	Initial Issue	/





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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-ALR-HD2BL
Additional Model No.	: FAN-ALR-*****("*****" 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~, 50Hz, 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)	$\pm 2.35\text{ dB}$
Radiated Emission (30MHz to 1000MHz)	$\pm 3.48\text{ dB}$
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)

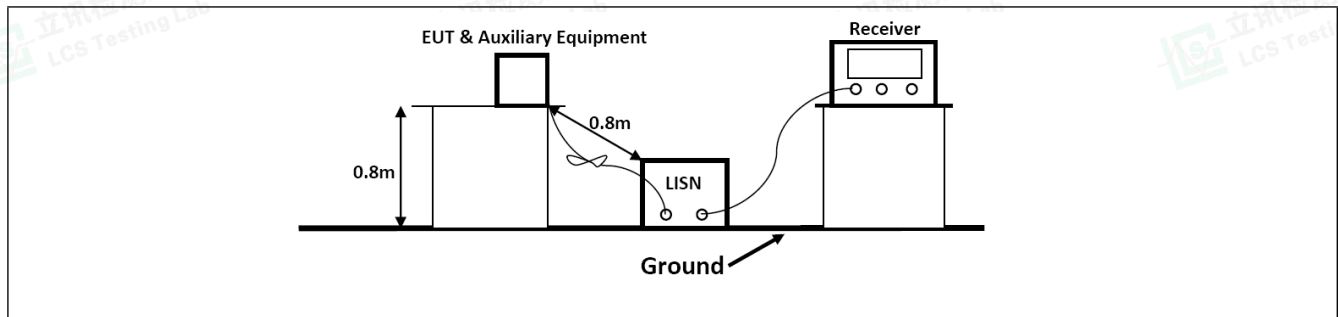
4.1 Conducted emissions on AC mains

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:	24.4 °C	Humidity:	53 %
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:

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

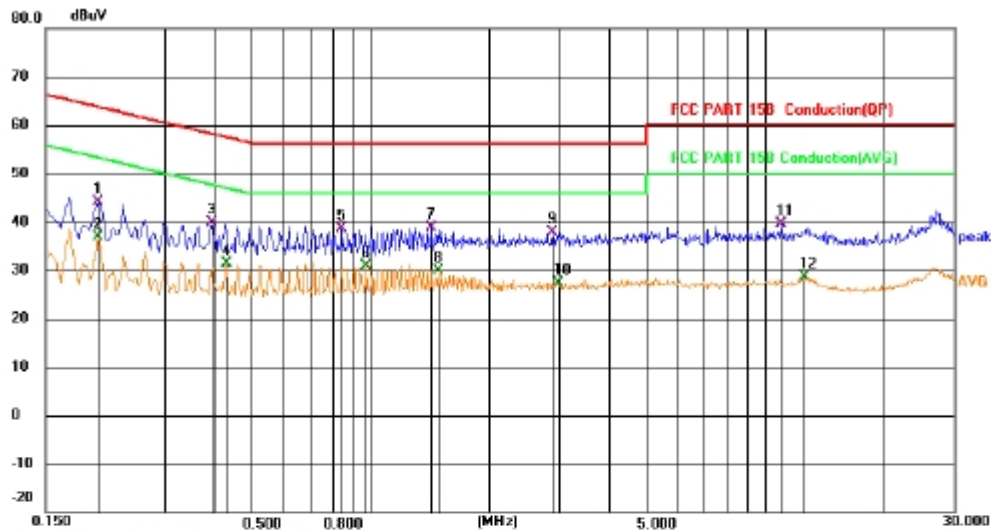
Where CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor





4.1.4 Test Data:

TM1 / Line: Line



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.2041	24.45	19.63	44.08	63.44	-19.36	QP	
2		0.2041	17.25	19.63	36.88	53.44	-16.56	AVG	
3		0.3976	20.22	19.63	39.85	57.90	-18.05	QP	
4		0.4291	11.79	19.63	31.42	47.27	-15.85	AVG	
5		0.8430	18.87	19.64	38.51	56.00	-17.49	QP	
6 *		0.9735	11.29	19.65	30.94	46.00	-15.06	AVG	
7		1.4235	19.23	19.66	38.89	56.00	-17.11	QP	
8		1.4865	10.18	19.66	29.84	46.00	-16.16	AVG	
9		2.8995	18.10	19.68	37.78	56.00	-18.22	QP	
10		2.9671	7.71	19.68	27.39	46.00	-18.61	AVG	
11		10.9816	19.73	19.85	39.58	60.00	-20.42	QP	
12		12.4531	8.86	19.84	28.70	50.00	-21.30	AVG	



Shenzhen LCS Compliance Testing Laboratory Ltd.

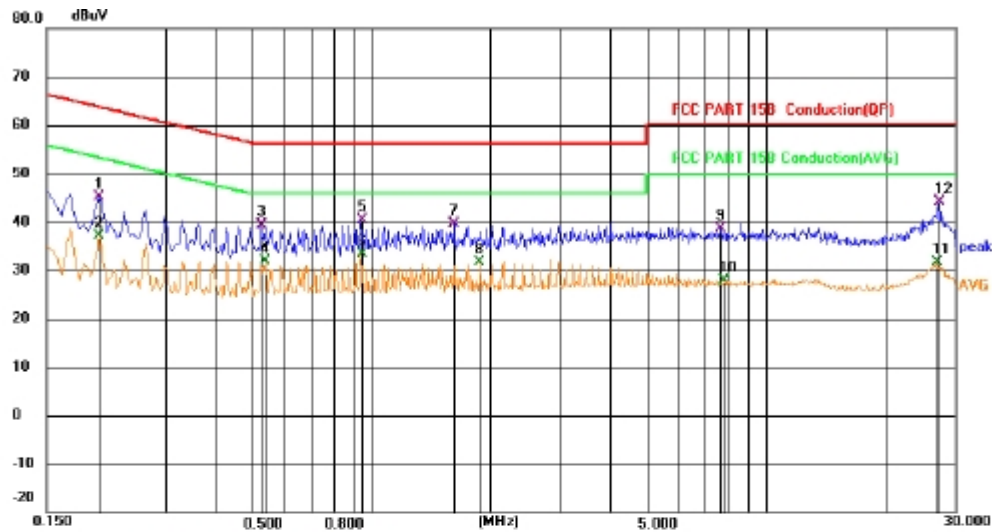
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TM1 / Line: Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.2041	25.57	19.63	45.20	63.44	-18.24	QP	
2		0.2041	17.46	19.63	37.09	53.44	-16.35	AVG	
3		0.5235	19.61	19.65	39.26	56.00	-16.74	QP	
4		0.5370	12.16	19.65	31.81	46.00	-14.19	AVG	
5		0.9420	20.84	19.65	40.49	56.00	-15.51	QP	
6	*	0.9420	13.75	19.65	33.40	46.00	-12.60	AVG	
7		1.6170	20.05	19.67	39.72	56.00	-16.28	QP	
8		1.8870	12.03	19.68	31.71	46.00	-14.29	AVG	
9		7.6741	18.89	19.83	38.72	60.00	-21.28	QP	
10		7.8226	8.08	19.84	27.92	50.00	-22.08	AVG	
11		26.8711	11.57	20.04	31.61	50.00	-18.39	AVG	
12		27.2761	24.13	20.04	44.17	60.00	-15.83	QP	

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

2) Margin= Reading level + Correct factor-Limit

Correct Factor= Liss Factor+Cable Factor





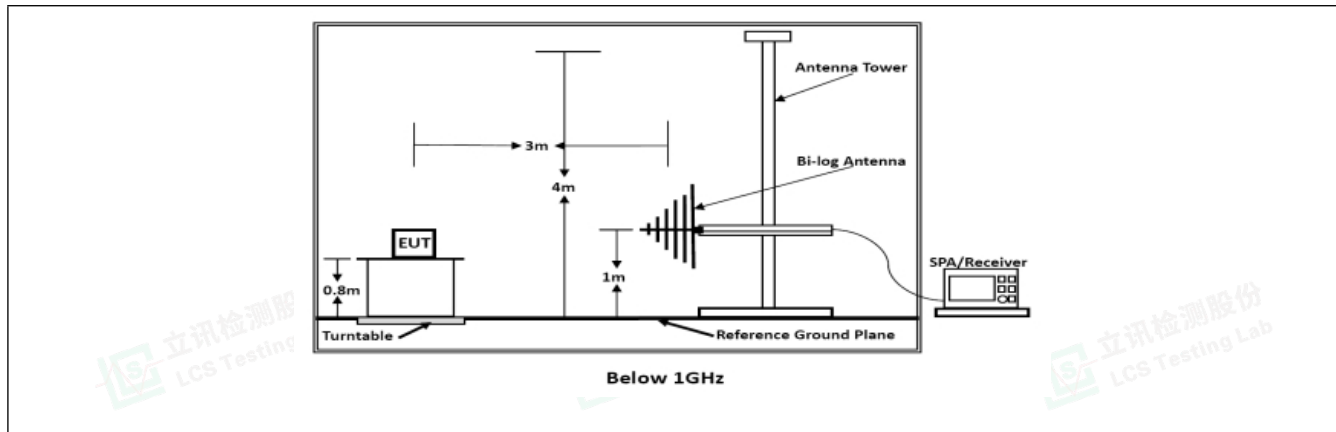
4.2 Radiated emissions (Below 1GHz)

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:	22.3 °C	Humidity:	53.1 %
Pre test mode:	TM1		
Final test mode:	TM1		

4.2.2 Test Setup Diagram:





4.2.3 Field Strength Calculation:

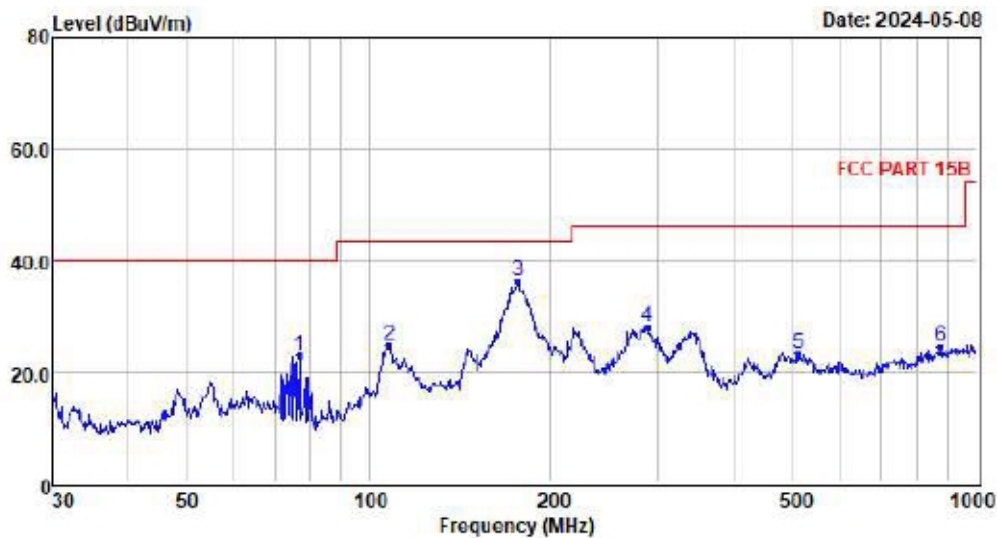
The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

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

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



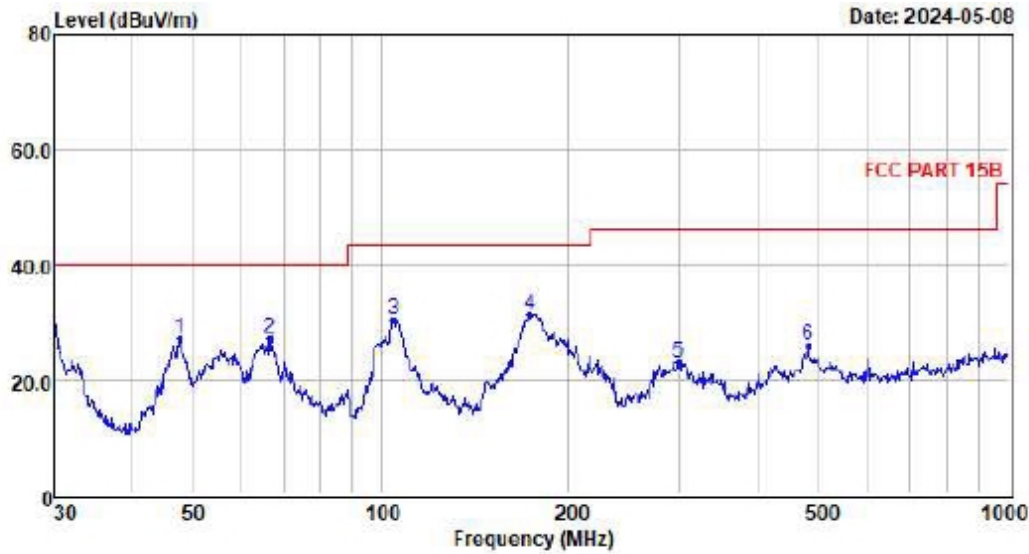
	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	76.78	12.15	0.72	9.92	22.79	40.00	-17.21	QP
2	107.89	12.71	0.84	11.26	24.81	43.50	-18.69	QP
3	176.27	25.53	1.13	9.76	36.42	43.50	-7.08	QP
4	287.99	13.31	1.31	13.47	28.09	46.00	-17.91	QP
5	511.84	4.66	1.50	17.02	23.18	46.00	-22.82	QP
6	872.18	1.05	2.07	21.19	24.31	46.00	-21.69	QP

Note: 1. All readings are Quasi-peak values.
2. Measured= Reading + Antenna Factor + Cable Loss
3. The emission that are 20db below the official limit are not reported





TM1 / Polarization: Vertical



	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	47.66	14.36	0.58	12.05	26.99	40.00	-13.01	QP
2	66.50	15.34	0.68	10.97	26.99	40.00	-13.01	QP
3	104.54	18.45	0.83	11.03	30.31	43.50	-13.19	QP
4	173.21	20.52	1.12	9.73	31.37	43.50	-12.13	QP
5	299.32	7.94	1.32	13.69	22.95	46.00	-23.05	QP
6	482.22	8.00	1.48	16.42	25.90	46.00	-20.10	QP

Note: 1. All readings are Quasi-peak values.
2. Measured= Reading + Antenna Factor + Cable Loss
3. The emission that are 20db below the official limit are not reported

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





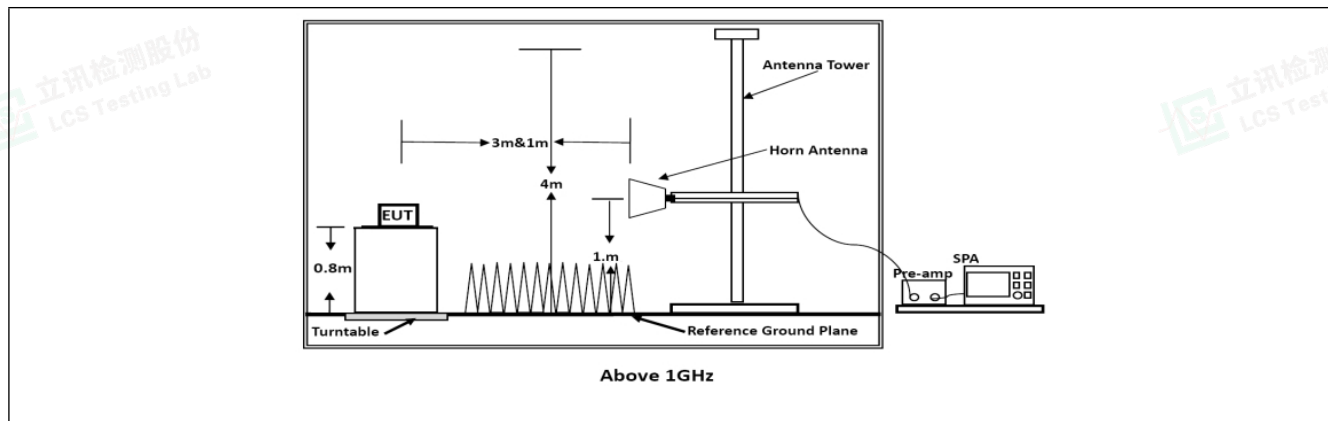
4.3 Radiated emissions (Above 1GHz)

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:

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

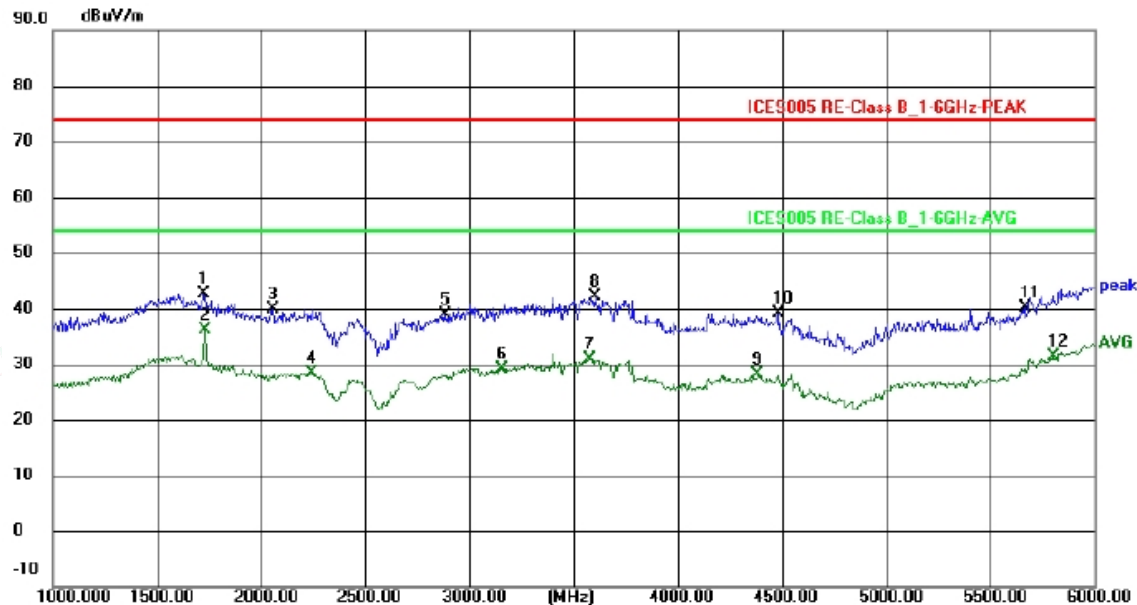
Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	





4.3.4 Test Data:

TM1 / Polarization: Horizontal

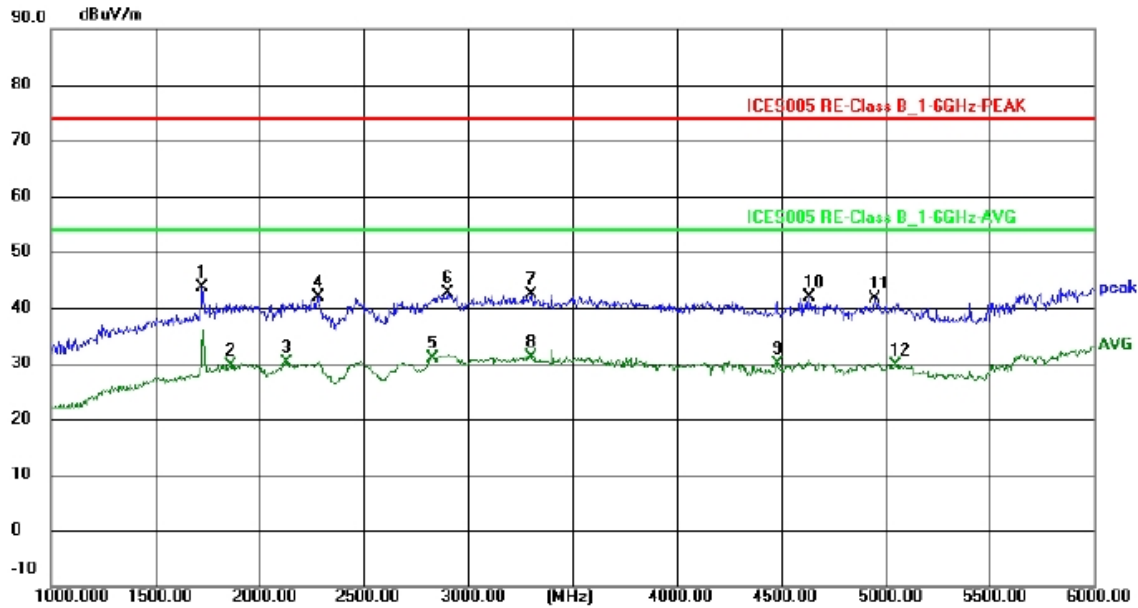


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	1725.000	57.03	-14.32	42.71	74.00	-31.29	peak	P	
2	1730.000	50.44	-14.31	36.13	54.00	-17.87	AVG	P	
3	2055.000	52.79	-12.91	39.88	74.00	-34.12	peak	P	
4	2245.000	40.61	-12.24	28.37	54.00	-25.63	AVG	P	
5	2880.000	48.97	-10.01	38.96	74.00	-35.04	peak	P	
6	3155.000	38.72	-9.54	29.18	54.00	-24.82	AVG	P	
7	3575.000	40.09	-9.28	30.81	54.00	-23.19	AVG	P	
8	3600.000	51.34	-9.24	42.10	74.00	-31.90	peak	P	
9	4385.000	35.08	-7.03	28.05	54.00	-25.95	AVG	P	
10	4480.000	45.68	-6.66	39.02	74.00	-34.98	peak	P	
11	5670.000	43.57	-3.37	40.20	74.00	-33.80	peak	P	
12	5800.000	34.88	-3.50	31.38	54.00	-22.62	AVG	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	58.03	-14.32	43.71	74.00	-30.29	peak	P	
2	1860.000	43.49	-13.83	29.66	54.00	-24.34	AVG	P	
3	2130.000	42.70	-12.65	30.05	54.00	-23.95	AVG	P	
4	2280.000	54.08	-12.12	41.96	74.00	-32.04	peak	P	
5	2830.000	41.19	-10.19	31.00	54.00	-23.00	AVG	P	
6	2900.000	52.48	-9.94	42.54	74.00	-31.46	peak	P	
7	3305.000	51.93	-9.49	42.44	74.00	-31.56	peak	P	
8	3305.000	40.69	-9.49	31.20	54.00	-22.80	AVG	P	
9	4480.000	36.55	-6.66	29.89	54.00	-24.11	AVG	P	
10	4635.000	47.74	-5.92	41.82	74.00	-32.18	peak	P	
11	4950.000	46.05	-4.36	41.69	74.00	-32.31	peak	P	
12	5050.000	33.59	-4.03	29.56	54.00	-24.44	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 LCSA04014350E.docx

6. EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)

Refer to Appendix - EUT Photos for LCSA04014350E.docx

--- End of Report ---

