

FCC TEST REPORT

Applicant:	ARTIKA FOR LIVING INC.
Address of Applicant:	1756 50th Avenue Lachine, Quebec H8T 2V5 Canada
Manufacturer:	FOSHAN ECCO LIGHTING CO.,LTD
Address of Manufacturer:	No.70, Eas Development Zone, Donglian Shichen Village, Danzao Town, Nanhai District, Foshan City, Guangdong Province, P.R.China
Product name:	Maestro undercabinet light with wall and hardwire.
Model:	UCL-S2C-XXXXXX, "-XXXXXX" can be A to Z and/or 0 to 9 and/or blank(commercial code)
Rating(s):	Input: 120V~, 60Hz
Trademark:	Artika
Standards:	FCC Part15 subpart B: 2021
FCC ID:	2AUHG-UCL-S2C
Date of Receipt:	2021-12-08
Date of Test:	2021-12-08~2021-12-16
Date of Issue:	2021-12-16
Test Result	Pass*

* In the configuration tested, the test item complied with the standards specified above.

Authorized for issue by:

Test by:

Dec.13, 2021 Chivas Tsang *Chivas*
Project Engineer

Date Name/Position Signature

Reviewed by:

Dec.13, 2021 Victor Meng *Victor meng*
Project Manager

Date Name/Position Signature



This report is for the exclusive use of ITL's client and is provided pursuant to the agreement between ITL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the ITL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by ITL. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an ITL certification program. The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

Testing Laboratory information:

Testing Laboratory Name : ITL Co., Ltd
Address : No. 8 Jinqianling Street 5, Huangjiang Town Dongguan,
Guangdong, 523757 P.R.C.
Testing location : Same as above
Tel..... : 0086-769-39001678
Fax : 0086-20-62824387
E-mail : itl@i-testlab.com

Possible test case verdicts:

- test case does not apply to the test object.. : N/A
- test object does meet the requirement..... : P (Pass)
- test object does not meet the requirement . : F (Fail)

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report would be invalid test report without all the signatures of testing technician and approver.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

General product information:

- UCL-S2C-XXXXXX, "-XXXXXX" can be A to Z and/or 0 to 9 and/or blank(commercial code)
- All models are identical with each other except for model designation, color temperature.
- All tests were performed on the model UCL-S2C as representative.

Test Summary:

Electromagnetic Emissions				
Test Item	Test Standard	Test Method	Class/Severity	Result
Conducted Emission(0.15-30MHz)	FCC part 15.107	ANSI C63.4:2014	Class B	PASS
Radiated Emission	FCC part 15.109 & FCC part 15.209	ANSI C63.4:2014	Class B	PASS

Test Location

All the tests were performed in ITL Co., Ltd. Which is located at No. 8 Jinqianling Street 5, Huangjiang Town Dongguan, Guangdong, 523757 P.R.C.

Tel: 0086-769-39001678, Fax: 0086-20-62824387

No test is subcontracted

Test Facility

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

- **CNAS Lab code: L9342**
- **FCC Designation No.:CN5035**
- **IC Registration NO.: 12593A**
- **NVLAP LAB CODE: 600199-0**

TABLE OF CONTENTS

<i>FCC TEST REPORT</i>	1
Test Summary:	3
Test Location	3
Test Facility	3
Section 1 General Information and Equipment Used	5
1.1 Client Information	5
1.2 EUT General and Technical Descriptions	5
1.3 Support Equipment(s) and Test Configuration	5
1.3.1 Details of Support Equipment(s)	5
1.3.2 Working State of EUT	5
1.3.3 Block Diagram of Test Configuration	5
1.4 Equipment Used during Test	6
Section 2 Emission Test Results	7
2.1 Conducted Emission at Mains Terminals, 150 kHz to 30MHz	7
2.1.1 E.U.T. Operation	7
2.1.2 Test Setup and Procedure	8
2.1.3 Measurement Data	8
2.2 Radiated Emissions	11
2.2.1 E.U.T. Operation	11
2.2.2 Test Setup and Procedure	12
2.2.3 Measurement Data	13
Section 3 Photographs	16
3.1 Conducted Emissions Mains Terminals Test Setup	16
3.2 Radiated Emissions Test Setup	16
3.3 EUT Constructional Details	17

Section 1 General Information and Equipment Used

1.1 Client Information

Applicant: ARTIKA FOR LIVING INC.
 Address of Applicant: 1756 50th Avenue Lachine, Quebec H8T 2V5 Canada

1.2 EUT General and Technical Descriptions

EUT Name: Maestro undercabinet light with wall and hardwire
 EUT Model: UCL-S2C
 EUT Trademark: Artika
 Input Voltage: 120V~
 Frequency: 60Hz
 Input Power/Current: /
 Output rated: /
 Power Cable Description: /
 Other Cables Description: /
 I/O Ports: /
 Function(s) Description: /
 Accessories information: /

1.3 Support Equipment(s) and Test Configuration

1.3.1 Details of Support Equipment(s)

Description	Manufacturer	Model No.	Connection	Working state
/	/	/	/	/

1.3.2 Working State of EUT

Power Supply of EUT: 120V~ 60Hz
 EUT Status: Test the EUT in lighting mode.

1.3.3 Block Diagram of Test Configuration

/

1.4 Equipment Used during Test

Conducted Emission						
No.	Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
DGITL-303a	EMI Test receiver	R&S	ESCI	100910	2021.05.11	2022.05.11
DGITL-304	L.I.S.N.#1	R&S	ESH3-Z5	100272	2021.05.11	2022.05.11
DGITL-302	Shielded Room	ETS•Lindgren	8*4*3	CT09010	2020.08.03	2022.08.03
DGITL-316	Pulse Limiter	R&S	ESH3-Z2	100327	2021.05.11	2022.05.11

Radiated Emission						
No.	Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
DGITL- 301	Semi-Anechoic chamber	ETS•Lindgren	9*6*6	CT000874-1181	2020.08.03	2022.08.03
DGITL- 307	EMI test receiver	R&S	ESVS10	833616/003	2021.05.11	2022.05.11
DGITL- 306	Spectrum Analyzer	Agilent Technologies	N9010A	MY54200334	2021.05.11	2022.05.11
DGITL- 308	Bilog Antenna	ETS•Lindgren	3142D	156975	2020.06.20	2022.06.20
DGITL - 163	Active Loop Antenna	Schwarzbeck	FMZB 1519B	1519B-062	2020.06.19	2022.06.18
DGITL- 352	Pre Amplifier	Mlnl-Circuits	ZFC-1000 HX	SN292801110	2021.05.11	2022.05.11

Section 2 Emission Test Results

2.1 Conducted Emission at Mains Terminals, 150 kHz to 30MHz

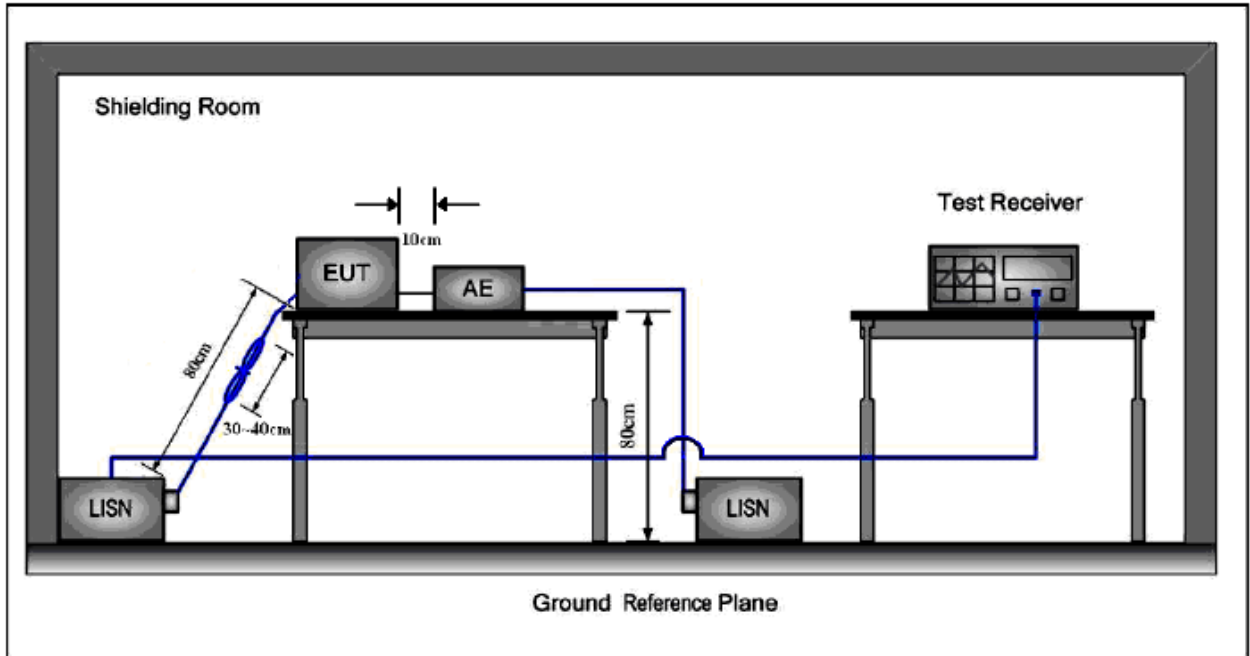
Test Requirement:	FCC part 15.107
Test Method:	ANSI C63.4:2014
Test Voltage:	120V AC, 60Hz
Frequency Range:	150 kHz to 30MHz
Detector:	Peak for pre-scan Quasi-Peak and Average at frequency with maximum peak (9 kHz resolution bandwidth)
Uncertainty:	2Uc (V) = 2.3dB
Class / Limit:	Class B

Frequency range MHz	Class B Limits dB (µV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
NOTE 1 :The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		
NOTE 2: The lower limit is applicable at the transition frequency.		

2.1.1 E.U.T. Operation

Operating Environment:			
Temperature:	22.0 °C	Humidity:	42 % RH
		Atmospheric Pressure:	101 kPa
EUT Operation:	Test the EUT in lighting mode.		

2.1.2 Test Setup and Procedure

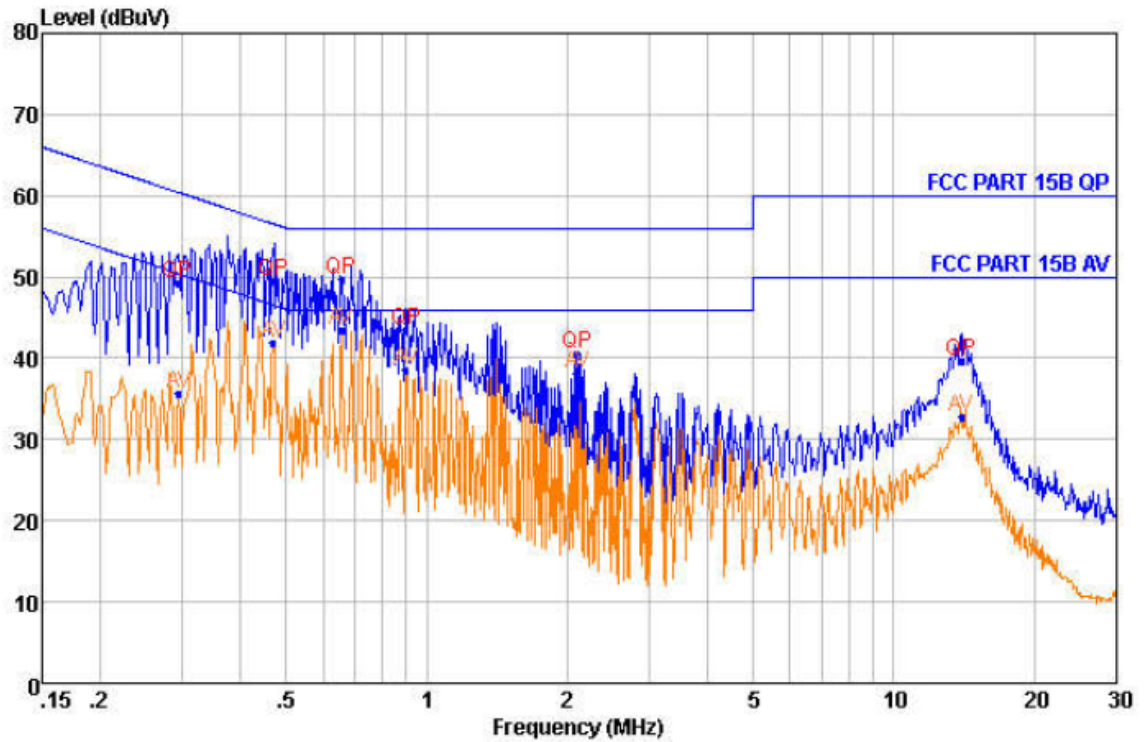


1. The mains terminal disturbance voltage test was conducted in a shielded room.
2. The EUT was connected to nominal power supply through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu\text{H}+5\Omega$ linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

2.1.3 Measurement Data

Pre-scan was performed with peak detected on both live and neutral cable. Quasi-peak & average measurements were performed at the frequencies which maximum peak emission level was detected. Please see the attached Quasi-peak and Average test results.

Live Line:
 Peak Scan:
 Level (dBμV)



Quasi-peak and Average measurement

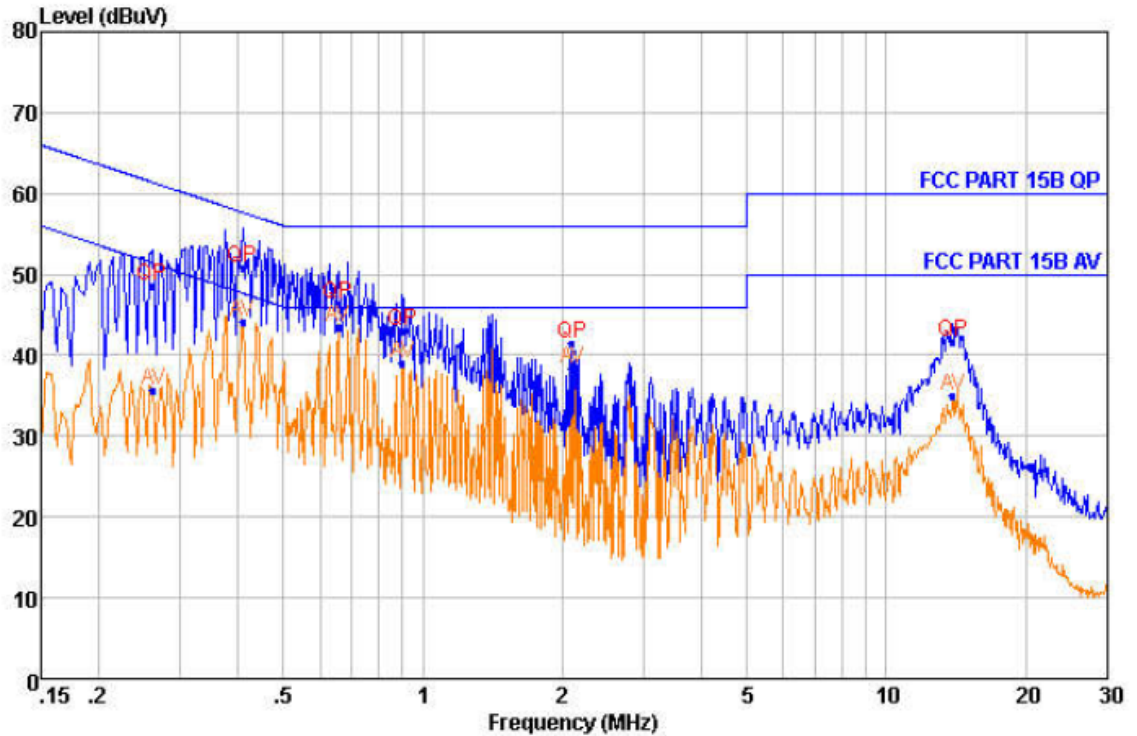
NO.	Freq MHz	Level dBμV	Remark	LISN Factor dB	Cable Loss dB	Limit Line dBμV	Over Limit dB
1	0.293	49.18	QP	9.67	0.24	60.43	-11.25
2	0.294	35.65	Average	9.67	0.24	50.41	-14.76
3	0.470	49.44	QP	9.65	0.26	56.51	-7.07
4	0.470	41.98	Average	9.65	0.26	46.51	-4.53
5	0.658	49.60	QP	9.70	0.28	56.00	-6.40
6	0.658	43.46	Average	9.70	0.28	46.00	-2.54
7	0.902	43.41	QP	9.68	0.30	56.00	-12.59
8	0.902	38.63	Average	9.68	0.30	46.00	-7.37
9	2.094	40.56	QP	9.65	0.35	56.00	-15.44
10	2.094	38.02	Average	9.65	0.35	46.00	-7.98
11	13.966	39.76	QP	9.70	0.46	60.00	-20.24
12	13.966	32.67	Average	9.70	0.46	50.00	-17.33

This report is for the exclusive use of ITL's client and is provided pursuant to the agreement between ITL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the ITL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by ITL. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an ITL certification program. The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

Neutral Line:

Peak Scan:

Level (dB μ V)



Quasi-peak and Average measurement

NO.	Freq MHz	Level dBuV	Remark	LISN Factor dB	Cable Loss dB	Limit Line dBuV	Over Limit dB
1	0.261	48.53	QP	9.64	0.23	61.40	-12.87
2	0.262	35.61	Average	9.64	0.23	51.38	-15.77
3	0.409	50.78	QP	9.66	0.26	57.66	-6.88
4	0.409	44.13	Average	9.66	0.26	47.66	-3.53
5	0.658	46.41	QP	9.63	0.28	56.00	-9.59
6	0.658	43.54	Average	9.63	0.28	46.00	-2.46
7	0.902	42.97	QP	9.63	0.30	56.00	-13.03
8	0.902	38.93	Average	9.63	0.30	46.00	-7.07
9	2.094	41.37	QP	9.62	0.35	56.00	-14.63
10	2.094	38.41	Average	9.62	0.35	46.00	-7.59
11	13.890	41.56	QP	9.63	0.46	60.00	-18.44
12	13.890	35.01	Average	9.63	0.46	50.00	-14.99

This report is for the exclusive use of ITL's client and is provided pursuant to the agreement between ITL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the ITL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by ITL. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an ITL certification program. The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

2.2 Radiated Emissions

Test Requirement:	FCC part 15.109 & 15.209
Test Method:	ANSI C63.4:2014
Test Voltage:	120V AC, 60Hz
Measurement Distance	3m
Detector:	Peak for pre-scan Quasi-Peak if maximised peak within 6dB of limit (120 kHz resolution bandwidth)
Uncertainty:	2Uc (V) = 3.35dB
Class / Limit:	

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

2.2.1 E.U.T. Operation

Operating Environment:

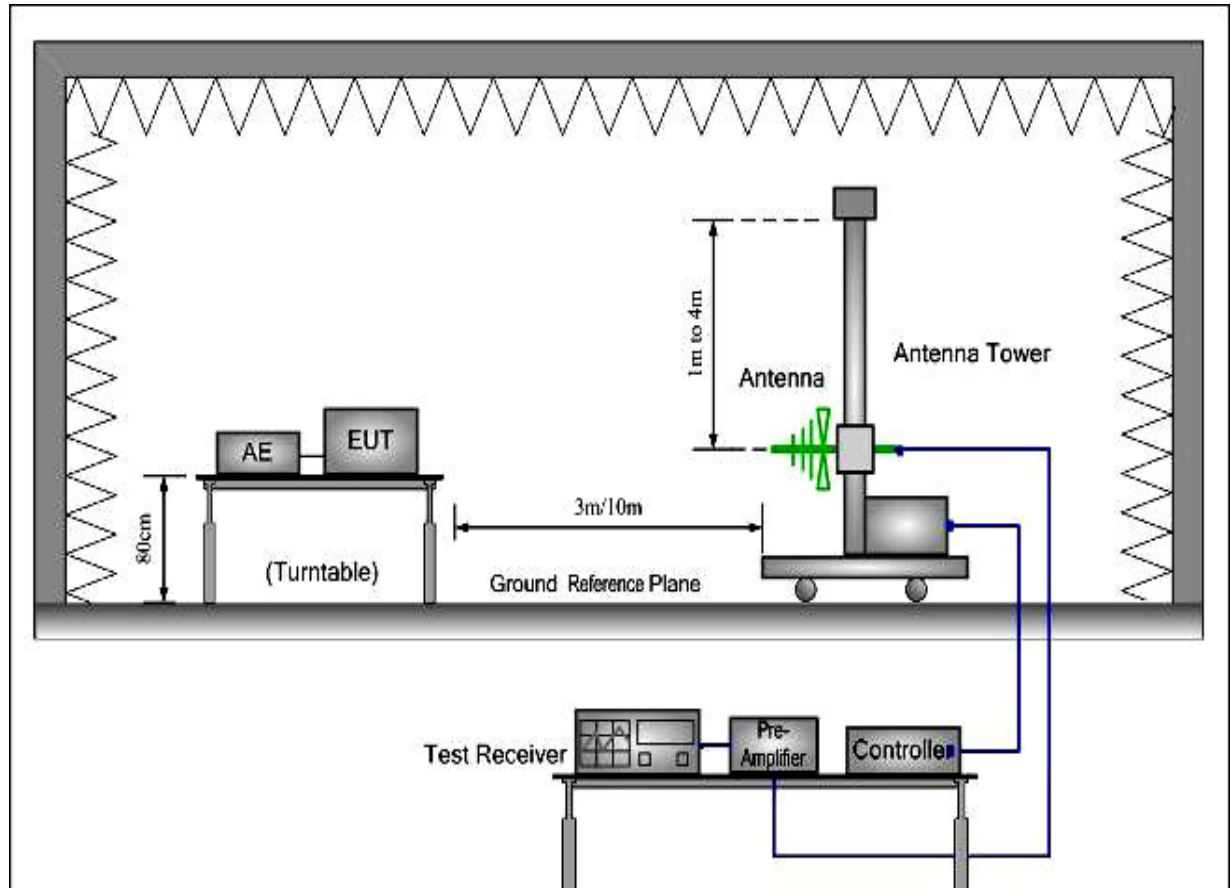
Temperature: 21.0 °C

Humidity: 42 % RH

Atmospheric Pressure: 101 kPa

EUT Operation: Test the EUT in lighting mode.

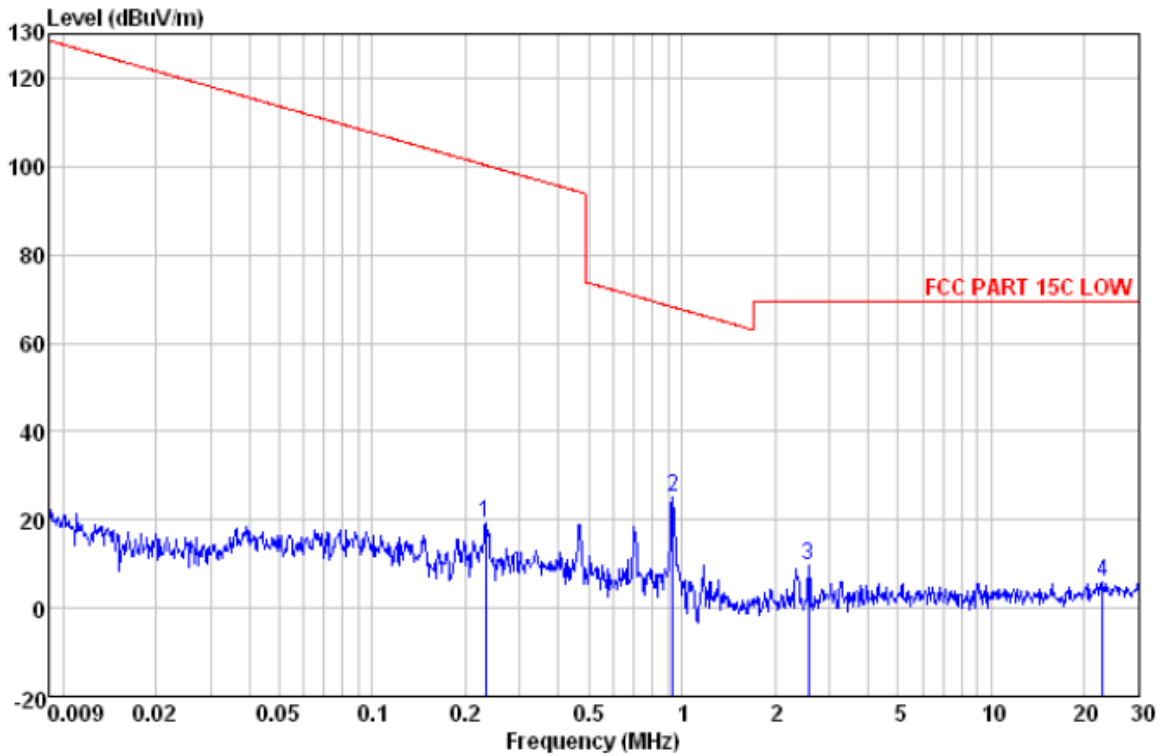
2.2.2 Test Setup and Procedure



1. The radiated emissions test was conducted in a semi-anechoic chamber.
2. Biconical and log periodic antenna was used for the frequency range from 30MHz to 1GHz
3. The EUT was connected to nominal power supply through a mains power outlet which was bonded to the ground reference plane; The mains cables were draped to the ground reference plane. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of radiated emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emissions spectrum plots of the EUT.
5. The frequencies of maximum emission were determined in the final radiated emissions measurement. At each frequency, the EUT was rotated 360° , and the antenna was raised and lowered from 1 to 4 meters in order to determine the maximum disturbance. Measurements were performed for both horizontal and vertical antenna polarization.

2.2.3 Measurement Data

Evaluation has been done with the antenna placed vertically and horizontally. Only the worst case test setup pictures and results are presented in the report
 9kHz~30MHz Test result



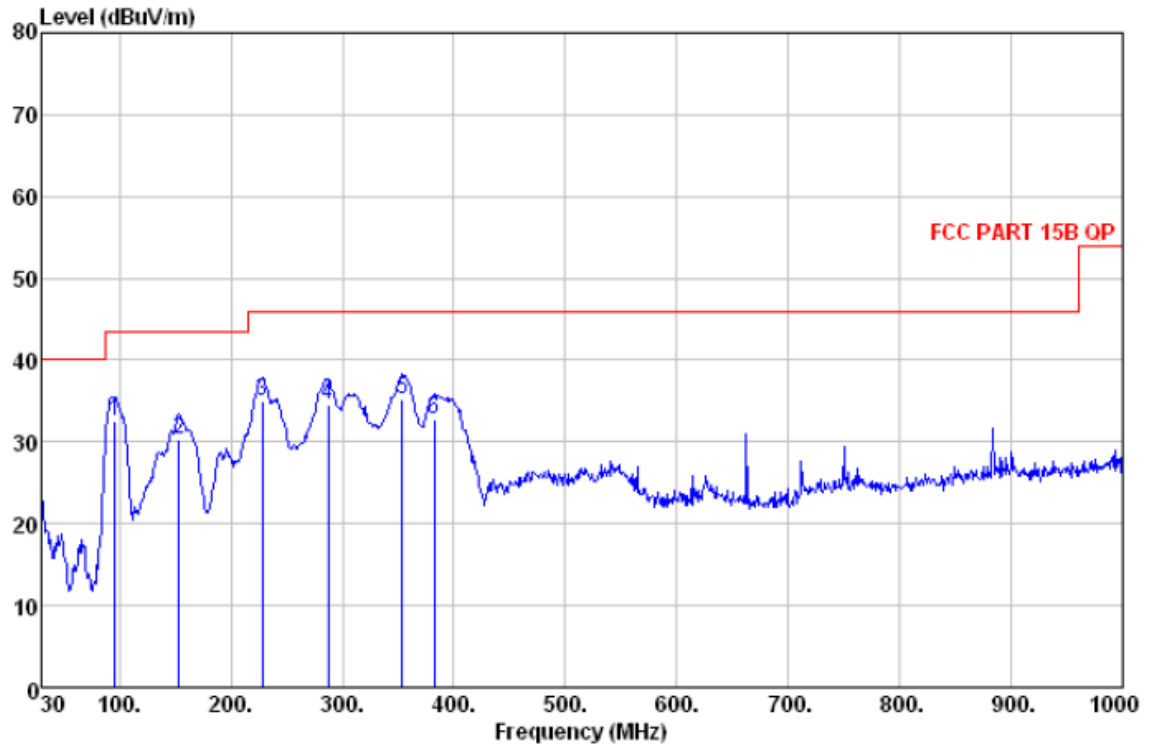
Frequency (MHz)	Reading Level (dBµV/m)	Correct (dB/m)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
0.233	8.84	10.34	19.18	100.27	-81.09	PK
0.932	19.01	6.23	25.24	68.22	-42.98	PK
2.569	7.07	2.47	9.54	69.54	-60.00	PK
22.954	18.29	-12.23	6.06	69.54	-63.48	PK

30 MHz~1 GHz Radiated Emissions .Quasi-Peak Measurement

Horizontal:

Peak scan

Level (dBµV/m)



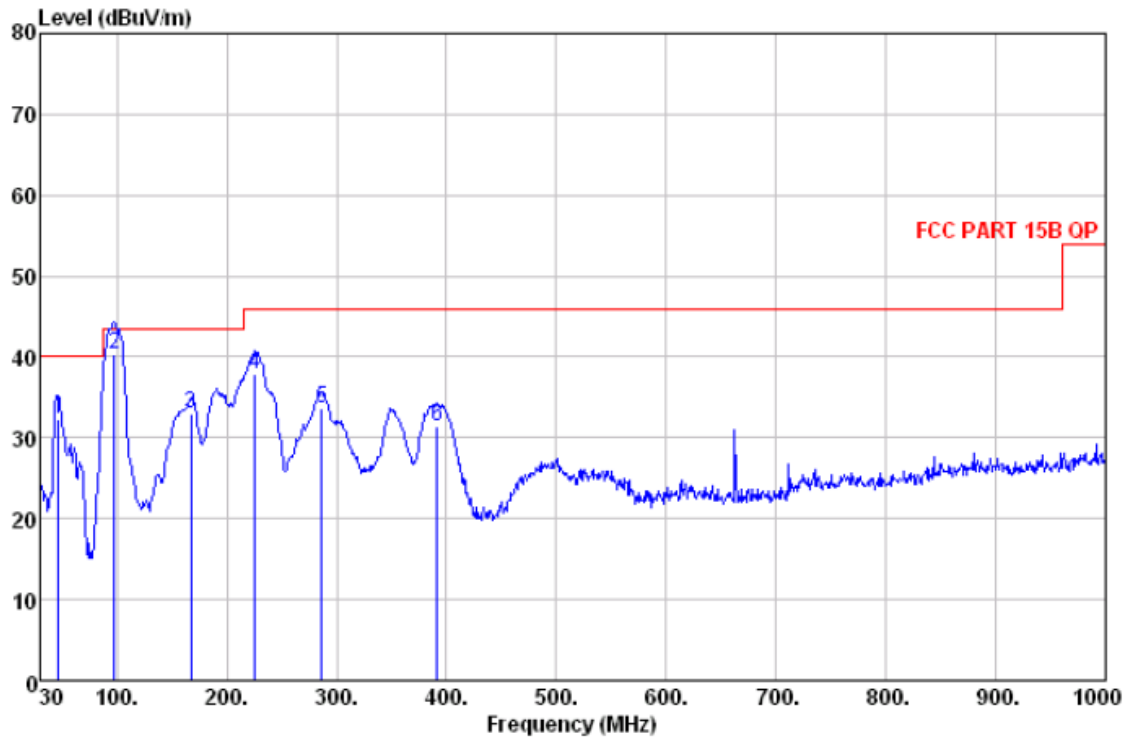
Quasi-peak measurement

No.	Freq MHz	Read Level dBµV	Antenna Factor dB	Cable Loss dB	Preamp Factor dB	Level dBµV/m	Limit Line dBµV/m	Over Limit dB	Pol/Phase	Remark
1	95.960	51.72	8.28	1.14	28.64	32.50	43.50	-11.00	HORIZONTAL	QP
2	153.190	49.52	7.80	1.48	28.44	30.36	43.50	-13.14	HORIZONTAL	QP
3	227.880	49.10	11.60	1.83	27.56	34.97	46.00	-11.03	HORIZONTAL	QP
4	287.050	46.85	13.25	2.07	27.56	34.61	46.00	-11.39	HORIZONTAL	QP
5	353.980	45.91	14.54	2.29	27.48	35.26	46.00	-10.74	HORIZONTAL	QP
6	382.110	43.64	15.19	2.38	28.34	32.87	46.00	-13.13	HORIZONTAL	QP

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

This report is for the exclusive use of ITL's client and is provided pursuant to the agreement between ITL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the ITL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by ITL. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an ITL certification program. The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.

Vertical:
 Peak scan
 Level (dBµV/m)



Quasi-peak measurement

No.	Freq MHz	Read Level dBµV	Antenna Factor dB	Cable Loss dB	Preamp Factor dB	Level dBµV/m	Limit Line dBµV/m	Over Limit dB	Pol/Phase	Remark
1	46.490	49.89	10.15	0.77	28.53	32.28	40.00	-7.72	VERTICAL	QP
2	97.900	59.64	8.34	1.16	28.72	40.42	43.50	-3.08	VERTICAL	QP
3	167.740	51.18	8.62	1.55	28.41	32.94	43.50	-10.56	VERTICAL	QP
4	225.940	52.15	11.46	1.82	27.62	37.81	46.00	-8.19	VERTICAL	QP
5	286.080	45.90	13.24	2.07	27.58	33.63	46.00	-12.37	VERTICAL	QP
6	391.810	41.75	15.41	2.42	28.26	31.32	46.00	-14.68	VERTICAL	QP

Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor

Section 3 Photographs

3.1 Conducted Emissions Mains Terminals Test Setup



3.2 Radiated Emissions Test Setup



This report is for the exclusive use of ITL's client and is provided pursuant to the agreement between ITL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the ITL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by ITL. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an ITL certification program. The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.



3.3 EUT Constructional Details



This report is for the exclusive use of ITL's client and is provided pursuant to the agreement between ITL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the ITL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by ITL. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an ITL certification program. The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.



END OF THE TEST REPORT