FCC TEST REPORT

FOR

CJ Global Inc.

Wireless Charging Desk Lamp

Test Model: 24063-DI

Additional Model No.: 24061-DI

Prepared for CJ Global Inc.

Address 20-21 Wagaraw Road Bldg 30 Fair Lawn, New Jersey, NJ

07410, United States

Prepared by Shenzhen LCS Compliance Testing Laboratory Ltd.

101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Shajing Address Street, Bao' an District, Shenzhen, Guangdong, China

Tel (+86)755-82591330 (+86)755-82591332 Fax Web www.LCS-cert.com

Mail webmaster@LCS-cert.com

Date of receipt of test sample : August 20, 2020

Number of tested samples

: LCS200601104A-1 Sample No.

Serial number : Prototype

Date of Test : August 20, 2020 ~ September 08, 2020

Date of Report September 08, 2020

FCC TEST REPORT FCC CFR 47 PART 18

Report Reference No.: LCS200819037AEA

Date of Issue: September 08, 2020

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

Address: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Shajing Street,

Bao' an District, Shenzhen, Guangdong, China

Testing Location/ Procedure: Full application of Harmonised standards ■

Applicant's Name: : CJ Global Inc.

Address: 20-21 Wagaraw Road Bldg 30 Fair Lawn, New Jersey, NJ 07410,

United States

Test Specification

Standard: FCC CFR 47 PART 18

Test Report Form No.....: LCSEMC-1.0

TRF Originator.....: Shenzhen LCS Compliance Testing Laboratory Ltd.

Master TRF..... : Dated 2020-03

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.....: Wireless Charging Desk Lamp

Trade Mark: N/A

Test Model..... : 24063-DI

Ratings: Input: DC 5V 3A Lamp Power: 5W

Output(USB-A): DC 5V 500mA Output(Wireless Charger): 5W

Result: Positive

Compiled by: Approved by: Supervised by:

[h] i

Jin Wang/ Technique principal

Gavin Liang/ Manager

FCC -- TEST REPORT

<u>September 08, 2020</u> Test Report No.: LCS200819037AEA Date of issue

: Wireless Charging Desk Lamp EUT..... : CJ Global Inc.

: 24063-DI

Applicant..... Address..... : 20-21 Wagaraw Road Bldg 30 Fair Lawn, New Jersey, NJ 07410, **United States**

Telephone..... : / Fax..... : /

Test Model.....

: CJ Global Inc. Manufacturer.....

Address..... : 20-21 Wagaraw Road Bldg 30 Fair Lawn, New Jersey, NJ 07410,

United States

Telephone..... Fax..... : /

: CJ Global Inc. Factory.....

: 20-21 Wagaraw Road Bldg 30 Fair Lawn, New Jersey, NJ 07410, Address.....

United States

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

Revision	Issue Date	Revisions	Revised By
000	September 08, 2020	Initial Issue	Gavin Liang

TABLE OF CONTENTS

1. GENERAL INFORMATION	6
1.1 DESCRIPTION OF DEVICE (EUT)	6
1.2 SUPPORT EQUIPMENT LIST	
1.3 EXTERNAL I/O CABLE	
1.4 DESCRIPTION OF TEST FACILITY	
1.5 STATEMENT OF THE MEASUREMENT UNCERTAINTY	
1.6 Measurement Uncertainty	
1.7 DESCRIPTION OF TEST MODES	7
2. TEST METHODOLOGY	8
2.1 EUT CONFIGURATION.	8
2.2 EUT Exercise.	
2.3 GENERAL TEST PROCEDURES	8
2.3.1 CONDUCTED EMISSIONS	
2.3.2 RADIATED EMISSIONS	8
3. SYSTEM TEST CONFIGURATION	9
3.1 JUSTIFICATION	
3.2 EUT Exercise Software	
3.3 SPECIAL ACCESSORIES	
3.4 BLOCK DIAGRAM/SCHEMATICS	
3.5 EQUIPMENT MODIFICATIONS	9
3.6 Test Setup	9
4. SUMMARY OF TEST EQUIPMENT	10
5. SUMMARY OF TEST RESULT	11
3. POWER LINE CONDUCTED MEASUREMENT	12
4. RADIATED EMISSION MEASUREMENT	15
4.1. BLOCK DIAGRAM OF TEST SETUP	
4.2. RADIATED EMISSION LIMIT	
4.3. EUT CONFIGURATION ON MEASUREMENT	
4.4. OPERATING CONDITION OF EUT	
4.5. MEASURING SETTING	
4.6. TEST PROCEDURE.	
4.7. TEST RESULTS	
5. PHOTOGRAPHS OF TEST SETUP	19
6. EXTERNAL PHOTOGRAPHS OF THE EUT	19
7 INTERNAL PHOTOGRAPHS OF THE FUT	10

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

EUT : Wireless Charging Desk Lamp

Test Model : 24063-DI Additional Model No. : 24061-DI

Model Declaration : PCB board, structure and internal of these model(s) are the

same, So no additional models were tested.

Power Supply : Input: DC 5V 3A Lamp Power: 5W

> Output(USB-A): DC 5V 500mA Output(Wireless Charger): 5W

Hardware Version : TYV-17648-CM/6812E-V9.0

Software Version

WPT

: 110 KHz – 205 KHz Operating Frequency

Modulation Type : CW (Continuous Wave)

Antenna Type : Coil Antenna

1.2 Support equipment List

Manufacture	er Desc	ription	Model	Serial Number	Certificate
MIUI	Mobile	Phone	MI9	MIUI	FCC ID
Celcom (Guiga	ang) Ada	pter	MDY-10-EX	BA62003H410	FCC SDOC
Co., Ltd				993G	

1.3 External I/O Cable

I/O Port Description	Quantity	Cable
Micro USB Port	1	1.0m
USB Output Port	1	N/A

1.4 Description of Test Facility

NVLAP Accreditation Code is 600167-0.

FCC Designation Number is CN5024.

CAB identifier is CN0071.

CNAS Registration Number is L4595.

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

1.5 Statement of the Measurement Uncertainty

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.

1.6 Measurement Uncertainty

Test Item		Frequency Range	Uncertainty	Note
		9KHz~30MHz	3.10dB	(1)
	: [30MHz~200MHz	2.96dB	(1)
Radiation Uncertainty		200MHz~1000MHz	3.10dB	(1)
		1GHz~26.5GHz	3.80dB	(1)
		26.5GHz~40GHz	3.90dB	(1)
Conduction Uncertainty	:	150kHz~30MHz	1.63dB	(1)
Power disturbance	:	30MHz~300MHz	1.60dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.7 Description of Test Modes

Equipment under test was operated during the measurement under the following conditions:

Charging mode

Modulation Type: CW (Continuous Wave)

Test Modes:							
Mode 1	AC/DC Adapter + EUT + Mobile Phone (Battery Status: <1%)	Record					
Mode 2	AC/DC Adapter + EUT + Mobile Phone (Battery Status: <50%)	Pre-tested					
Mode 3	Mode 3 AC/DC Adapter + EUT + Mobile Phone (Battery Status: 100%) Pre-tested						
Note: All test modes were pre-tested, but we only recorded the worst case in this report.							

For AC conducted emission, pre-test at both AC 120V/60Hz and AC 240V/50Hz, recorded worst case;

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with MP-5, and FCC CFR PART 18.

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The EUT was operated in the charging and compunction mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 18.305 and 18.307 under the FCC Rules Part 18.

2.3 General Test Procedures

2.3.1 Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in FCC MP-5 for Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

2.3.2 Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in FCC MP-5 for radiated emission.

3. SYSTEM TEST CONFIGURATION

3.1 Justification

The system was configured for testing in a normal condition.

3.2 EUT Exercise Software

N/A.

3.3 Special Accessories

N/A.

3.4 Block Diagram/Schematics

Please refer to the related document.

3.5 Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

3.6 Test Setup

Please refer to the test setup photo.

4. SUMMARY OF TEST EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	MXA Signal Analyzer	Agilent	N9020A	MY49100040	2020-06-22	2021-06-21
2	SPECTRUM ANALYZER	R&S	FSP40	100503	2019-11-14	2020-11-13
3	3m Full Anechoic Chamber	MRDIANZI	FAC-3M	MR009	2019-09-27	2020-09-26
4	Positioning Controller	MF	MF7082	MF78020803	2020-06-22	2021-06-21
5	EMI Test Software	EZ	EZ-EMC	/	N/A	N/A
6	EMI Test Receiver	R&S	ESR 7	101181	2020-06-22	2021-06-21
7	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2018-07-26	2021-07-25
8	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2018-07-26	2021-07-25
9	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2018-07-02	2021-07-01
10	RF Cable-R03m	Jye Bao	RG142	CB021	2020-06-22	2021-06-21
11	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2020-06-22	2021-06-21
12	EMI Test Receiver	R&S	ESPI	101840	2020-06-22	2021-06-21
13	Artificial Mains	R&S	ENV216	101288	2020-06-22	2021-06-21
14	10dB Attenuator	SCHWARZBECK	MTS-IMP-136	261115-001-0032	2020-06-22	2021-06-21
Note:	All equipment is calibrated through	CHINA CEPREI LABORA	ATORY and GUANGZ	HOU LISAI CALIBRATIO	N AND TEST CO.	, LTD.

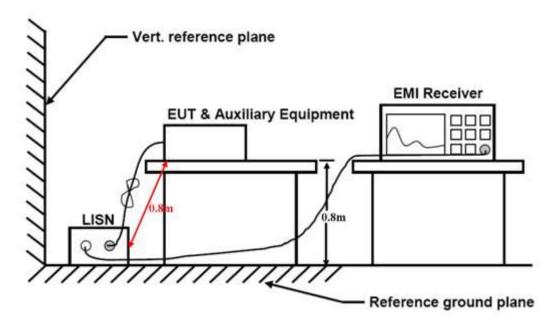
5. SUMMARY OF TEST RESULT

Test Item	FCC Rule No.	Temperature conditions	Power source conditions	С	NC	NA	NP	Remark
Radiated Emission	§18.305 (b)	Nominal	Nominal	\boxtimes				-/-
AC conducted emission	§18.307 (a)	Nominal	Nominal	\boxtimes				-/-

Remark: The measurement uncertainty is not included in the test result.

3. POWER LINE CONDUCTED MEASUREMENT

3.1. Block Diagram of Test Setup



3.2. Standard Applicable

According to §18.307 (b): For all other part 18 consumer devices which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range are listed as follows:

Frequency Range	Limits (dBμV)				
(MHz)	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			

^{*} Decreasing linearly with the logarithm of the frequency

3.3 Test Results

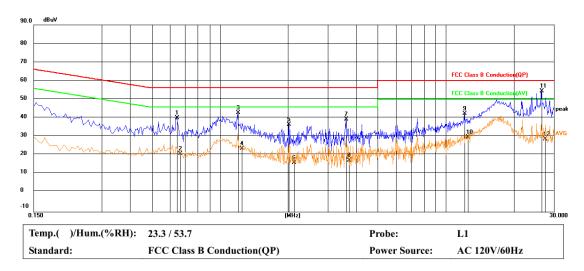
PASS.

The test data please refer to following page.

Temperature	23.3℃	Humidity	53.7%
Test Engineer	JAM ZHENG	Configurations	WPT

AC Conducted Emission of charge from power adapter mode @ AC 120V/60Hz (worst case)

Line



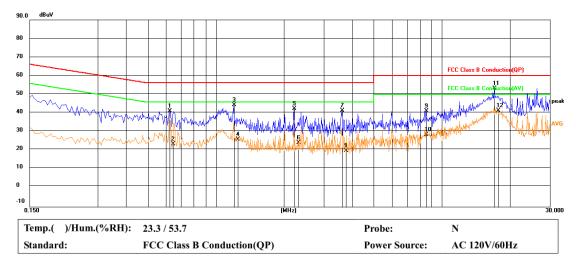
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.6450	21.11	19.23	40.34	56.00	-15.66	QP
2	0.6675	1.96	19.25	21.21	46.00	-24.79	AVG
3	1.2030	23.61	19.29	42.90	56.00	-13.10	QP
4	1.2525	4.64	19.30	23.94	46.00	-22.06	AVG
5	2.0220	17.20	19.41	36.61	56.00	-19.39	QP
6	2.1255	-3.21	19.42	16.21	46.00	-29.79	AVG
7	3.6060	19.91	19.47	39.38	56.00	-16.62	QP
8	3.7320	-1.94	19.47	17.53	46.00	-28.47	AVG
9	12.1110	22.67	19.87	42.54	60.00	-17.46	QP
10	12.5115	10.08	19.91	29.99	50.00	-20.01	AVG
11	26.4210	34.44	20.15	54.59	60.00	-5.41	QP
12	27.2715	8.73	20.15	28.88	50.00	-21.12	AVG

^{***}Note:

- 1). Pre-scan all modes and recorded the worst case results in this report
- 2). Reading Level + Correct Factor = Result.

Result - Limit = Margin.

Neutral



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.6270	21.99	19.25	41.24	56.00	-14.76	QP
2	0.6450	4.41	19.23	23.64	46.00	-22.36	AVG
3	1.2030	25.14	19.29	44.43	56.00	-11.57	QP
4	1.2525	6.81	19.30	26.11	46.00	-19.89	AVG
5	2.2200	23.20	19.43	42.63	56.00	-13.37	QP
6	2.3100	5.05	19.43	24.48	46.00	-21.52	AVG
7	3.6060	22.03	19.47	41.50	56.00	-14.50	QP
8	3.7590	0.56	19.47	20.03	46.00	-25.97	AVG
9	8.5335	21.63	19.65	41.28	60.00	-18.72	QP
10	8.5335	8.90	19.65	28.55	50.00	-21.45	AVG
11	17.0654	33.13	20.23	53.36	60.00	-6.64	QP
12	17.7270	21.25	20.26	41.51	50.00	-8.49	AVG

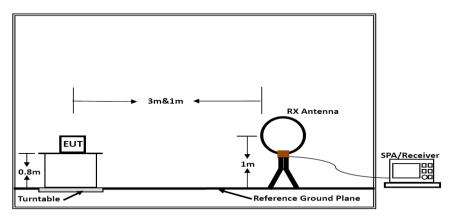
^{***}Note:

- 1). Pre-scan all modes and recorded the worst case results in this report
- 2). Reading Level + Correct Factor = Result.

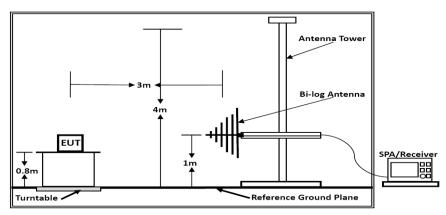
Result - Limit = Margin.

4. Radiated emission Measurement

4.1. Block Diagram of Test Setup



Below 30MHz



Below 1GHz

4.2. Radiated Emission Limit

Except as provided elsewhere in this Subpart 18.305 (b), the field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following table:

Frequency	Distance	Field Strengths Limit		
MHz	Meters	dBμV/m	Remark	
0.009~30MHz	3	103.5	Quasi-peak	
30~88	3	40.0	Quasi-peak	
88~216	3	43.5	Quasi-peak	
216~960	3	46.0	Quasi-peak	
960~1000	3	54.0	Quasi-peak	

Remark:

- (1) Emission level $dB\mu V/m$ for $0.009\sim30 MHz = 20log (15) + 40log (300/3) <math>dB\mu V/m$;
- (2) Calculated according FCC 18.305.
- (3) The smaller limit shall apply at the cross point between two frequency bands.
- (4) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3. EUT Configuration on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.4. Operating Condition of EUT

- (1) Setup the EUT as shown in Section 4.1.
- (2) Let the EUT work in worst test mode (Mode 1) and measure it.

4.5. Measuring Setting

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP/Average
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP/Average
Start ~ Stop Frequency	30MHz~1000MHz / RB 100kHz for QP

4.6. Test Procedure

1) Sequence of testing 9 kHz to 30 MHz

Setup:

- --- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- --- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- --- If the EUT is a floor standing device, it is placed on the ground.
- --- Auxiliary equipment and cables were positioned to simulate normal operation conditions.
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

Premeasurement:

- --- The turntable rotates from 0° to 315° using 45° steps.
- --- The antenna height is 0.8 meter.
- --- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

- --- Identified emissions during the premeasurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).
- --- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.
- --- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

- --- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- --- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- --- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- --- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

Premeasurement:

- --- The turntable rotates from 0° to 315° using 45° steps.
- --- The antenna is polarized vertical and horizontal.
- --- The antenna height changes from 1 to 3 meter.
- --- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

- --- The final measurement will be performed with minimum the six highest peaks.
- --- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position (± 45°) and antenna movement between 1 and 4 meter.
- --- The final measurement will be done with QP detector with an EMI receiver.
- --- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

4.7. Test Results

PASS.

Only report the worst test data (Mode 1) in test report;

The test data please refer to following page:

	<u> </u>		
Temperature	24.6℃	Humidity	54.1%
Test Engineer	JAM ZHENG	Configurations	WPT

0.009 MHz - 30 MHz

Freq. MHz	Antenna Pol.	Reading dBuV	Factor dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark
0.0177	Н	73.98	20.64	94.62	103.50	-8.88	QP
0.0577	Н	59.41	20.64	80.05	103.50	-23.45	QP
0.1257	Н	76.20	20.47	96.67	103.50	-6.83	QP
0.3787	Н	54.90	20.28	75.18	103.50	-28.32	QP
1.1982	Н	53.55	20.27	73.82	103.50	-29.68	QP
3.9482	Н	33.82	20.24	54.06	103.50	-49.44	QP

^{*}Note: Measured Level= Reading Level + Factor

Factor = Antenna Factor + Cable Loss

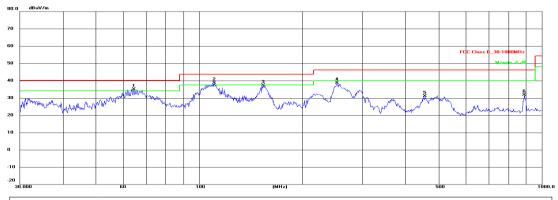
Margin = Measured - Limit

Remark:

Measured at 0 degree and 90 degree, recorded worst case at 0 degree.

30 MHz - 1000 MHz

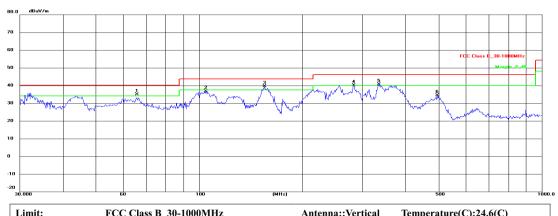
Horizontal



Limit: FCC Class B_30-1000MHz Antenna::Horizontal Temperature(C):24.6(C) **Power Rating:** AC 120V/60Hz Humidity(%):54.1%

No.	Frequency	Reading	Factor	Level	Limit	Margin	Det.
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1!	64.6594	53.24	-18.19	35.05	40.00	-4.95	QP
2 *	110.9570	56.14	-17.43	38.71	43.50	-4.79	QP
3	154.2785	58.10	-20.85	37.25	43.50	-6.25	QP
4	252.9481	54.36	-15.54	38.82	46.00	-7.18	QP
5	455.9058	42.61	-11.53	31.08	46.00	-14.92	QP
6	890.7277	37.73	-5.89	31.84	46.00	-14.16	QP

Vertical



FCC Class B_30-1000MHz Antenna::Vertical Temperature(C):24.6(C) **Power Rating:** AC 120V/60Hz Humidity(%):54.1%

No.	Frequency	Reading	Factor	Level	Limit	Margin	Det.
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1!	66.0342	53.69	-18.61	35.08	40.00	-4.92	QP
2	104.9032	53.89	-17.25	36.64	43.50	-6.86	QP
3 *	155.3643	60.33	-20.78	39.55	43.50	-3.95	QP
4!	282.9851	55.12	-14.94	40.18	46.00	-5.82	QP
5!	334.8588	54.33	-13.76	40.57	46.00	-5.43	QP
6	495.9344	45.44	-11.05	34.39	46.00	-11.61	QP

Note:

- 1). Pre-scan all modes and recorded the worst case results in this report.
- 2). Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 3). Corrected Reading: Level= Reading Level + Factor

Factor = Antenna Factor + Cable Loss

Margin = Level - Limit

5. PHOTOGRAPHS OF TEST SETUP

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

6. EXTERNAL PHOTOGRAPHS OF THE EUT

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

7. INTERNAL PHOTOGRAPHS OF THE EUT

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

-----THE END OF REPORT-----