

RF Exposure Evaluation TEST REPORT

for

Lenovo (Beijing) Limited

LCD Monitor

Model No.: A20270DL0

Brand Name: Lenovo

FCC ID: A5M- A20270DL0

Prepared for : Lenovo (Beijing) Limited
201-H2-6, Floor2, Building 2, No.6 Shangdi West Road,
Haidian District, Beijing, China

Prepared By : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Kefeng Road, Science & Technology Park,
Nanshan District , Shenzhen, Guangdong, China

Tel: (0755) 26639496
Fax: (0755) 26632877

Report Number : ACS-F20161
Date of Test : Aug.11,2020
Date of Report : Aug.24,2020

TABLE OF CONTENTS

| Description | Page |
|--|------|
| REPORT VERIFICATION | 3 |
| 1. GENERAL INFORMATION..... | 4 |
| 1.1. Description of Equipment Under Test..... | 4 |
| 1.2. Test Facility | 5 |
| 1.3. Measurement Uncertainty (95% confidence levels, k=2)..... | 5 |
| 2. RF EXPOSURE REQUIREMENT | 6 |
| 2.1. GENERAL INFORMATION..... | 6 |
| 2.2. LIMIT | 6 |
| 3. ASSESS RESULTS | 7 |
| 4. PHOTOGRAPHS | 8 |

REPORT VERIFICATION

Applicant : Lenovo (Beijing) Limited
Product : LCD Monitor
Brand : Lenovo
FCC ID : A5M- A20270DL0
(A) Model No. : A20270DL0
(B) Test Voltage : AC 120V/60Hz

Testing Based on:
KDB 680106 D01 RF Exposure Wireless Charging Apps v03

The device described above is tested by Audix Technology (Shenzhen) Co., Ltd.. The measurement results were contained in this test report and Audix Technology (Shenzhen) Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC RF Exposure requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Audix Technology (Shenzhen) Co., Ltd..

Date of Test : Aug.11,2020 Report of date: Aug.24,2020

Prepared by : Brave Zhang Reviewed by : Sunny Lu
Brave Zhang / Assistant Sunny Lu / Deputy Manager

Approved & Authorized Signer :

AUDIX[®] 信華科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report
Signature: David Jin
David Jin / Deputy General Manager

1. GENERAL INFORMATION

1.1. Description of Equipment Under Test

| | |
|----------------------|--|
| Applicant | Lenovo (Beijing) Limited |
| Applicant Address | 201-H2-6, Floor2, Building 2, No.6 Shangdi West Road, Haidian District, Beijing, China |
| Manufacturer | Lenovo (Beijing) Limited |
| Manufacturer Address | 201-H2-6, Floor2, Building 2, No.6 Shangdi West Road, Haidian District, Beijing, China |
| Factory | TPV Electronics (Fujian) Co., Ltd. |
| Factory Address | Rongqiao Economic and Technological Development Zone, Fuqing City, Fujian Province, P.R. China. |
| Product | LCD Monitor |
| Model No. | A20270DL0 |
| Brand | Lenovo |
| Adapter | Manufacturer: Lenovo; M/N: ADP-170CB B Input: AC 100-240V 50-60Hz, 2.5A Output: DC 20V, 8.5A |
| Radio Frequency | 127.7kHz |
| Modulation Type | FSK |
| Sample Type | Prototype production |
| Date of Receipt | Jul.14,2020 |
| Date of Test | Aug.11,2020 |

1.2. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Kefeng Road, Science & Technology
Park, Nanshan District , Shenzhen, Guangdong,
China

RF Anechoic Chamber : Dimensions are:
[L]10m × [W]5.5m × [H]5m

EMC Lab. : Accredited by DAkkS, Germany
Registration No: D-PL-12151-01-00
Valid Date: Dec.07, 2021

: Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2021

Certificated by FCC, USA
Designation No: CN5022
Valid Date: Mar.31, 2021

1.3. Measurement Uncertainty (95% confidence levels, k=2)

| Test Item | Uncertainty |
|--|----------------------|
| Uncertainty for Radiated Spurious Emission test in RF chamber | 3.7dB(30MHz-1000MHz) |
| | 3.3dB(1GHz-26.5GHz) |
| Uncertainty for test site temperature and humidity | 0.6°C |
| | 3% |

2. RF EXPOSURE REQUIREMENT

2.1.GENERAL INFORMATION

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

This device meeting all of the following requirements, so the PGA is not required.

- (1) Power transfer frequency is less than 1 MHz.
- (2) Output power from each primary coil is less than or equal to 15 watts.
- (3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.
- (4) Client device is placed directly in contact with the transmitter.
- (5) Mobile exposure conditions only
- (6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

2.2.LIMIT

Basic Restrictions Reference levels

Basic restrictions for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure | | | | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | *900/f ² | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *100 | 30 |
| 1.34-30 | 824/f | 2.19/f | *180/f ² | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 30 |

f = frequency in MHz * = Plane-wave equivalent power density

3. ASSESS RESULTS

| | | | | | |
|----------------------------------|----------|-------------------------|---------------------------|------------------------|--------|
| EUT: LCD Monitor | | | | | |
| M/N: A20270DL0 | | | | | |
| Test date: 2020-08-11 | | Pressure: 102.5±1.0 kpa | | Humidity: 52.7±3.0% | |
| Tested by: Lynn | | Test site: RF Site | | Temperature: 22.6±0.6℃ | |
| Normal Operation (Charging mode) | | | | | |
| Frequency (kHz) | Position | Distance (CM) | E-Field Strength (V/m) | Limit (V/m) | Result |
| 127.7 | Front | 10 | 1.356 | 614 | PASS |
| | Bank | 10 | 1.336 | 614 | PASS |
| | Left | 10 | 1.325 | 614 | PASS |
| | Right | 10 | 1.323 | 614 | PASS |
| | Top | 10 | 1.632 | 614 | PASS |
| | Buttom | 10 | 1.592 | 614 | PASS |
| Normal Operation (Charging mode) | | | | | |
| 127.7 | Position | Distance (CM) | H-Field Strength (A/m) | Limit (A/m) | Result |
| | Front | 10 | 0.524 | 1.63 | PASS |
| | Bank | 10 | 0.532 | 1.63 | PASS |
| | Left | 10 | 0.501 | 1.63 | PASS |
| | Right | 10 | 0.523 | 1.63 | PASS |
| | Top | 10 | 0.663 | 1.63 | PASS |
| | Buttom | 10 | 0.624 | 1.63 | PASS |

4. PHOTOGRAPHS



----- **THE END** -----