

# LG Electronics USA, Inc. MPE ASSESSMENT REPORT

## **Report Type:**

FCC Part §2.1091, §2.1093 and §1.1307(b) assessment report

**Model:** MS0995###

**REPORT NUMBER:** 230500957SHA-002

**ISSUE DATE:** May 12, 2023

**DOCUMENT CONTROL NUMBER:** TTRFFCCMPE-01\_V1 © 2018 Intertek





TEST REPORT

Telephone: 86 21 6127 8200 www.intertek.com Report no.: 230500957SHA-002

| Applicant:          | LG Electronics USA, Inc.<br>111 Sylvan Avenue North Building, Englewood Cliffs, New Jersey, United<br>States                             |
|---------------------|--|
| Manufacturing Site: | LG Electronics Tianjin Appliances Co., Ltd.<br>No.9 Jinwei Road, Bei Chen Dist., Tianjin 300402, People's Republic of<br>China           |
| Product Name:       | Microwave oven   |
| Type/Model:         | MS1595###<br>("#" on model/type reference represents A to Z or blank, according to<br>exterior design, color, cooking utensil or market) |
| FCC ID:             | BEJS159FZ  |

#### SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

47CFR Part 18 (2018) FCC/OET MP-5 (1986) FCC Part2.1093 FCC Part1.1307(b), 1.1310, 2.1091

PREPARED BY:

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Project Engineer Dylan Tang **REVIEWED BY:** 

Wakeyou

Reviewer Wakeyou Wang



# **Revision History**

| Report No.       | Version | Description             | Issued Date  |
|------------------|---------|-------------------------|--------------|
| 230500957SHA-002 | Rev. 01 | Initial issue of report | May 12, 2023 |
|                  |         |                         |              |
|                  |         |                         |              |

Total Quality. Assured.

# **1 GENERAL INFORMATION**

# **1.1 Description of Equipment Under Test (EUT)**

| Product name:         | Microwave oven  |  |  |
|-----------------------|---|--|--|
|                       | MS1595###   |  |  |
|                       | ("#" on model/type reference represents A to Z or blank, according to |  |  |
| Type/Model:           | exterior design, color, cooking utensil or market)                    |  |  |
| Brand Name:           | LG  |  |  |
|                       | The EUT is a Microwave oven which have series models, and they are    |  |  |
| Description of EUT:   | electric identical. The model LMC1575BD were chosen to testing.       |  |  |
| Rating:               | AC 120V 60Hz Output: 1250W  |  |  |
| Frequency:            | 2450MHz   |  |  |
| EUT type:             | Table top 🔲 Floor standing  |  |  |
| Software Version:     | /   |  |  |
| Hardware Version:     | /   |  |  |
| Sample received date: | April 20, 2023  |  |  |
| Date of test:         | April 20, 2023 ~ May 10, 2023   |  |  |

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# 1.2 Description of Test Facility

| Name:      | Intertek Testing Services Shanghai                                     |
|------------|--|
| Address:   | Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China |
| Telephone: | 86 21 61278200   |
| Telefax:   | 86 21 54262353   |

| The test facility is<br>recognized,<br>certified, or<br>accredited by these<br>organizations: | CNAS Accreditation Lab<br>Registration No. CNAS L0139                         |
|---|---|
|   | FCC Accredited Lab<br>Designation Number: CN0175                              |
|   | IC Registration Lab<br>CAB identifier.: CN0014                                |
|   | VCCI Registration Lab<br>Registration No.: R-14243, G-10845, C-14723, T-12252 |
|   | A2LA Accreditation Lab<br>Certificate Number: 3309.02                         |

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# **2** Radiation Hazard Measurement

Test result: Pass

## 2.1 Limit

A maximum of 1.0mW/cm<sup>2</sup> is allowed in accordance with the applicable FCC standards. Hence, microwave leakage in the as-received condition with the oven door closed was below the maximum allowed.

## 2.2 Radiation Hazard (Health) Requirement

For ISM equipment operating on higher frequencies (above 900 MHz), in particulars microwave ovens and medical diathermy equipment, radiation leakage should be measured in accordance with the current Bureau of Radiological Health standard, employing an electromagnetic radiation monitor. This test is made primarily to assure that personnel will not be exposed to radiation hazard in testing the equipment. Equipment submitted to the FCC which have radiation leakage apparently in excess of BRH limit will be reported to BRH for their evaluation. See FCC Bulletin OST 56, "Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Radiation".

#### **2.3 Measurement Procedure**

The EUT was set-up according to the FCC MP-5 and FCC Part 18 for Radiation Hazard Measurement. The measurement was using a microwave leakage meter to measure the Radiation leakage in the as-received condition with the oven door closed. A 1000ml water load in a beaker was located in the center of the oven and the Microwave Oven was set to maximum power. While the oven operating, the microwave meter will check the leakage and then record the maximum leakage.



## 2.4 MPE Assessment Limit

#### Mobile device exposure for standalone operations:

According to §1.1310, the limit for general population/uncontrolled exposures

| Frequency range<br>(MHz)                            | Electric field strength<br>(V/m) | Magnetic field strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |  |  |
|---|----------------------------------|----------------------------------|--|-----------------------------|--|--|
| Limits For General Population/Uncontrolled Exposure |                                  |                                  |  |                             |  |  |
| 0.3-1.34  | 614                              | 1.63                             | *(100)                                 | 30                          |  |  |
| 1.34-30   | 824/f                            | 2.19/f                           | *(180/f2)                              | 30                          |  |  |
| 30-300  | 27.5                             | 0.073                            | 0.2                                    | 30                          |  |  |
| 300-1500  | /                                | 1                                | f/1500                                 | 30                          |  |  |
| 1500-100,000  | 1                                | 1                                | 1.0                                    | 30                          |  |  |

F=Frequency in MHz; \*Plane-wave equivalent power density

A maximum of 1.0mW/cm<sup>2</sup> is allowed in accordance with the applicable FCC standards. Hence, microwave leakage in the as-received condition with the oven door closed was below the maximum allowed.

## 2.3 Test Results

There was no microwave leakage exceeding a power level of 0.15mW/cm<sup>2</sup> observed at any point 5cm or more from the external surface of the oven.