# RF Exposure Evaluation Report

| | | |
|---|---|---|
| **Product** | : | Wireless Smart Audio Module |
| **Trade mark** | : | Linkplay |
| **Model/Type reference** | : | A98ML, A98L, A98L-12, A98L-22, A98L-55, A98ML-12, A98ML-22, A98ML-55 |
| **Serial Number** | : | N/A |
| **Report Number** | : | EED32L00168303 |
| **FCC ID** | : | 2ANOG-A98XLXX |
| **Date of Issue** | : | Aug. 16, 2019 |
| **Test Standards** | : | 47 CFR Part 1.1307(2015)<br>47 CFR Part 1.1310(2015)<br>KDB447498D01v06 |
| **Test result** | : | PASS |

Prepared for:

**Linkplay Technology Inc**
**8F-8036, Qianren Building, No. 7, Yingcui Road,**
**Jiangning District, Nanjing, China**

Prepared by:

**Centre Testing International Group Co., Ltd.**
**Hongwei Industrial Zone, Bao'an 70 District,**
**Shenzhen, Guangdong, China**
**TEL: +86-755-3368 3668**
**FAX: +86-755-3368 3385**

| | | | |
|---|---|---|---|
| Tested By: | Jay Zheng | Compiled by: | Alex Wu |
| | Jay Zheng | | Alex Wu |
| Reviewed by: | Ware Xin | Approved by: | Kevin Yang |
| | Ware Xin | | Kevin Yang |
| Date: | Aug. 16, 2019 | | Check No:3915541757 |

CENTRE TESTING INTERNATIONAL GROUP CO.,LTD. Report Seal

# 2 Version

| Version No. | Date | Description |
|---|---|---|
| 00 | Aug. 16, 2019 | Original |
| | | |
| | | |

# 3 Contents

# 4 General Information

## 4.1 Client Information

| | |
|---|---|
| Applicant: | Linkplay Technology Inc |
| Address of Applicant: | 8F-8036, Qianren Building, No. 7, Yingcui Road, Jiangning District, Nanjing, China |
| Manufacturer: | Linkplay Technology Inc |
| Address of Manufacturer: | 8F-8036, Qianren Building, No. 7, Yingcui Road, Jiangning District, Nanjing, China |
| Factory: | Linkplay Technology Inc |
| Address of Factory: | 8F-8036, Qianren Building, No. 7, Yingcui Road, Jiangning District, Nanjing, China |

## 4.2 General Description of EUT

| | |
|---|---|
| Product Name: | Wireless Smart Audio Module |
| Model No.(EUT): | A98ML, A98L, A98L-12, A98L-22, A98L-55, A98ML-12, A98ML-22, A98ML-55 |
| Test Model No.: | A98ML |
| Trade Mark: | Linkplay |
| EUT Supports Radios application | Bluetooth 4.1 |

## 4.3 Product Specification subjective to this standard

| | |
|---|---|
| Frequency Range: | 2402MHz~2480MHz |
| Modulation Type: | GFSK, π/4DQPSK, 8DPSK |
| Number of Channels: | Default Setting |
| Test Software of EUT: | Linkplay Factory Tool For Custom (manufacturer declare ) |
| Antenna Type: | PIFA antenna |
| Antenna Gain: | 1.6 dBi |
| Power Supply: | DC 5V |
| Max Conducted Peak Output Power: | BT4.0: 0.63dBm; 2.4G WIFI: 18.87dBm |
| | The Max Conducted Peak Output Power data refer to the report EED32L00168301, EED32L00168304 |
| Sample Received Date: | Jun. 26, 2019 |
| Sample tested Date: | Jun. 26, 2019 to Aug. 16, 2019 |
| The tested sample(s) and the sample information are provided by the client.<br>Model No:A98ML,A98L,A98L-12,A98L-22,A98L-55 A98ML-12,A98ML-22,A98ML-55<br>Only the model A98ML was tested, The difference is that ROM and RAM are different in size or customer. | |

## 4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd
Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China
Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385
No tests were sub-contracted.
FCC Designation No.: CN1164

## 4.5 Deviation from Standards

None.

## 4.6 Abnormalities from Standard Conditions

None.

## 4.7 Other Information Requested by the Customer

None.

# 5 RF Exposure Evaluation

## 5.1 RF Exposure Compliance Requirement

### 5.1.1 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

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 Exposures** | | | | |
| 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 |
| 300–1500 | ..... | ..... | f/300 | 6 |
| 1500–100,000 | ..... | ..... | 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 |
| 300–1500 | ..... | ..... | f/1500 | 30 |
| 1500–100,000 | ..... | ..... | 1.0 | 30 |

A rough estimation of the expected exposure in power flux density on a given point can be made with the following equation:

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R= distance to the centre of radiation of the antenna

EIRP = P*G

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. Therefore, the S of the device is calculated with R=20cm, and if it is below the limit S, then we can conclude the device complies with the rules.

### 5.1.2 Test Procedure

Software provided by client enabled the EUT to transmit data at lowest, middle and highest channel individually.

### 5.1.3 EUT RF Exposure Evaluation

**Antenna Gain:** 1.6dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

| Channel | Frequency (MHz) | Max Conducted Peak Output Power(dBm) | Gain (dBi) | EIRP* (dBm) | EIRP (mW) | R (cm) | S ($mW/cm^2$) | Limit ($mW/cm^2$) | Result |
|---|---|---|---|---|---|---|---|---|---|
| Low | 2402 | 0.63 | 1.6 | 2.23 | 1.67 | 20 | 0.0001 | 1.0 | Pass |
| Low | 2412 | 18.87 | 1.6 | 20.47 | 111.43 | 20 | 0.022 | 1.0 | Pass |

**Note:** Refer to report No. EED32L00168301,EED32L00168304 or EUT test Max Conducted Peak Output Power value.

# PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00168301or EUT external and internal photos.

*** End of Report ***