# MPE REPORT
# FCC ID: 2A5K7-WRD36WRGBCCT

| | | |
|---|---|---|
| Product | : | Stage lights |
| Model Name | : | WRD36WRGBCCT,OK-094-APPWLx2,OK-095-24APPWL, OK-078-APPWL,YS-052-APPWLx2,OK-098-40WAPPFL, LA-051-40W FL,LA-055-40W FL,GL001,BCS-20w,RGBCW-20W, LS-6P-30W,FL-30W-RGBCW |
| Brand | : | N/A |
| Report No. | : | PTC22022106101E-FC01 |
| | | PTC22022106101-#1 |

**Prepared for**

Shenzhen Wenrunda Technology Co., Ltd.

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**Prepared by**

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# 1 TEST RESULT CERTIFICATION

| | | |
|---|---|---|
| Applicant's name | : | Shenzhen Wenrunda Technology Co., Ltd. |
| Address | : | Room 402, No. 252, Daer Village, Dashuikeng Community, Fucheng Street, Longhua District, Shenzhen |
| Manufacture's name | : | Shenzhen Wenrunda Technology Co., Ltd. |
| Address | : | Room 402, No. 252, Daer Village, Dashuikeng Community, Fucheng Street, Longhua District, Shenzhen |
| Product name | : | Stage lights |
| Model name | : | WRD36WRGBCCT,OK-094-APPWLx2,OK-095-24APPWL, OK-078-APPWL,YS-052-APPWLx2,OK-098-40WAPPFL, LA-051-40W FL,LA-055-40W FL,GL001,BCS-20w,RGBCW-20W, LS-6P-30W,FL-30W-RGBCW |
| Standards | : | FCC CFR47 Part 15 Section 15.247 |
| Test procedure | : | ANSI C63.10:2013 |
| Test Date | : | Feb.16, 2022 to Mar. 08, 2022 |
| Date of Issue | : | Mar. 09, 2022 |
| Test Result | : | Pass |

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

Leo Yang / Engineer

Technical Manager:

Chris Du / Manager

# RF EXPOSURE EVALUATION

According to FCC 1.1310: 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 §1.1307(b)

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

MPE Calculation Method

Friis transmission formula: $Pd= (Pout*G)\ (4*pi*R^2)$

Where

Pd= Power density in mW/cm2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1415926

R= distance between observation point and center of the radiator in cm (20cm)

Pd the limit of MPE, 1mW/cm2. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

# Measurement Result

R=20cm BT:
Peak Power: [2480MHz, 2.122 ± 1dBm (2.052mW) output power]
Gain:0dBi=1
Pd= (Pout*G)\ (4*pi*$R^2$)

So , Pd= 0.00041 mW/cm2

**Conclusion:**

For the max result: 0.00041≤ 1.0 for 1g SAR, No SAR is required

**----END OF REPORT----**