

Zhejiang Yankon Group Co.,Ltd.

MPE ASSESSMENT REPORT

Report Type:

FCC MPE assessment report

Model:

YGA16C01-A19AM5W, YGA16C01-A19CL5W, YGA16C01-A19WH5W, YGA16C01-ST19AM5W, YGA16C01-ST19CL5W, YGA16C01-ST19WH5W, YGA16C01-G25AM5W, YGA16C01-G25CL5W, YGA16C01-G25WH5W, YGA16C01-G40AM5W YGA16C01-G40CL5W, YGA16C01-G40WH5W

REPORT NUMBER:

190401246SHA-002

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Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North) Caohejing Development Zone Shanghai 200233, China

Telephone: 86 21 6127 8200

www.intertek.com

Report no.: 190401246SHA-002

Applicant: Zhejiang Yankon Group Co.,Ltd.

No.208 Tongjiang Middle Road Shangyu Economic Development

Zone, SHAOXING Zhejiang 312300 CHINA

Manufacturer: Zhejiang Yankon Group Co.,Ltd.

No.208 Tongjiang Middle Road Shangyu Economic Development

Zone, SHAOXING Zhejiang 312300 CHINA

FCC ID: 2AL76YGA16C01

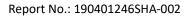
SUMMARY:

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

KDB447498 D01 General RF Exposure Guidance v06 FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

| PREPARED BY: | REVIEWED BY: | | |
|-------------------------------|-----------------------|--|--|
| Gn'ck Liu | Donnel | | |
| Project Engineer Erick Liu | Reviewer Daniel Zhao | | |

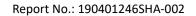
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Revision History

| Report No. | Version | Description | Issued Date |
|------------------|---------|-------------------------|---------------|
| 190401246SHA-002 | Rev. 01 | Initial issue of report | June 11, 2019 |
| | | | |
| | | | |





1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

| Product name: | LED LAMP | |
|-----------------------|---|--|
| | YGA16C01-A19AM5W, YGA16C01-A19CL5W, YGA16C01-A19WH5W, | |
| | YGA16C01-ST19AM5W, YGA16C01-ST19CL5W, YGA16C01-ST19WH5W, | |
| | YGA16C01-G25AM5W, YGA16C01-G25CL5W, YGA16C01-G25WH5W, | |
| Type/Model: | YGA16C01-G40AM5W, YGA16C01-G40CL5W, YGA16C01-G40WH5W | |
| | EUT is a LED lamp with WiFi Function, all models are the same except in | |
| Description of EUT: | appearance. | |
| Rating: | 120V 60Hz 5W 0.07A | |
| Category of EUT: | Class B | |
| EUT type: | ☐ Table top ☐ Floor standing | |
| Software Version: | / | |
| Hardware Version: | / | |
| Sample received date: | April 09, 2019 | |
| Date of test: | April 10, 2019 – April 26, 2019 | |

1.2 Technical Specification

| Frequency Range: | 2400MHz ~ 2483.5MHz | | |
|----------------------|--|--|--|
| Support Standards: | IEEE 802.11b, IEEE 802.11g, IEEE 802.11n-HT20 | | |
| | IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) | | |
| | IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) | | |
| Type of Modulation: | IEEE 802.11n-HT20: OFDM (64-QAM, 16-QAM, QPSK, BPSK) | | |
| Channel Number: | 11 Channels for 802.11b, 802.11g and 802.11n(HT20) | | |
| | IEEE 802.11b: Up to 11 Mbps | | |
| | IEEE 802.11g: Up to 54 Mbps | | |
| Data Rate: | IEEE 802.11n-HT20: Up to MCS7 | | |
| Channel Separation: | 5 MHz | | |
| Antenna Information: | 1dBi, Monopole antenna | | |

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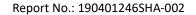


1.3 Description of Test Facility

| 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 recognized, certified, or accredited by these organizations: | CNAS Accreditation Lab Registration No. CNAS L0139 |
|---|--|
| | FCC Accredited Lab Designation Number: CN1175 |
| | IC Registration Lab Registration code No.: 2042B-1 |
| | VCCI Registration Lab Registration No.: R-4243, G-845, C-4723, T-2252 |
| | A2LA Accreditation Lab Certificate Number: 3309.02 |

2 MPE Assessment





TEST REPORT

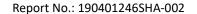
Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

| Frequency range | E-field strength | H-field strength | B-field | Equivalent plane wave |
|-----------------|------------------------|-------------------------|-------------------------|-------------------------------------|
| | (V/m) | (A/m) | (uT) | power density |
| | | | | S _{eq} (W/m ²) |
| 0-1 Hz | - | $3,2 \times 10^4$ | 4×10^{4} | - |
| 1-8 Hz | 10 000 | $3.2 \times 10^4/f^2$ | $4 \times 10^4/f^2$ | - |
| 8-25 Hz | 10 000 | 4 000/f | 5 000/f | - |
| 0,025-0,8 kHz | 250/f | 4/f | 5/f | - |
| 0,8-3 kHz | 250/f | 5 | 6,25 | - |
| 3-150 kHz | 87 | 5 | 6,25 | - |
| 0,15-1 MHz | 87 | 0,73/f | 0,92/f | - |
| 1-10 MHz | 87/f ^{1/2} | 0,73/f | 0,92/f | - |
| 10-400 MHz | 28 | 0,073 | 0,092 | 2 |
| 400-2 000 MHz | 1,375 f ^{1/2} | 0,0037 f ^{1/2} | 0,0046 f ^{1/2} | f/200 |
| 2-300 GHz | 61 | 0,16 | 0,20 | 10 |

Mobile device exposure for simultaneous transmission operations: the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is \leq 1.0





2.2 Assessment Results

Power density (S) is calculated according to the formula:

 $S = P / (4\pi R^2)$

Where $S = power density in mW/cm^2$

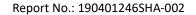
P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 190401246SHA-001: The maximum radiated power = 18.14dBm = 65.16 mW; Here R is chosen to be 20cm,

 $S = P / (4\pi R^2) = 65.16 / (4 * 3.14 * 20 * 20) = 0.013 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$





Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.