

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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Applicant: Zhejiang Yankon Group Co.,Ltd.
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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:



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Reviewer
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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
Type/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
Description of EUT:	EUT is a LED lamp with WiFi Function, all models are the same except in appearance.
Rating:	120V 60Hz 5W 0.07A
Category of EUT:	Class B
EUT type:	<input checked="" type="checkbox"/> Table top <input type="checkbox"/> 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
Type of Modulation:	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n-HT20: OFDM (64-QAM, 16-QAM, QPSK, BPSK)
Channel Number:	11 Channels for 802.11b, 802.11g and 802.11n(HT20)
Data Rate:	IEEE 802.11b: Up to 11 Mbps IEEE 802.11g: Up to 54 Mbps IEEE 802.11n-HT20: Up to MCS7
Channel Separation:	5 MHz
Antenna Information:	1dBi, Monopole antenna

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 (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave 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 ≤ 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/cm²

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.

***** END *****