



中国认可
国际互认
检测
TESTING
CNAS L5313



DEKRA

RF Exposure Evaluation Declaration

Product Name : Sol
Model No. : CBYGEF001
FCC ID : PUU-CBYGEF001

Applicant : GE Lighting
Address : 1975 Noble Road , Cleveland , Ohio , 44077 , United
States

Date of Receipt : Jun. 08th, 2017
Test Date : Jun. 09th, 2017~Jun. 25th, 2017
Issued Date : July. 12th, 2017
Report No. : 1762020R-RF-US-P20V01
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, CNAS or any agency of the government.

The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.

Test Report Certification

Issued Date : July. 12th, 2017

Report No. : 1762020R-RF-US-P20V01



Product Name : Sol

Applicant : GE Lighting

Address : 1975 Noble Road , Cleveland , Ohio , 44077 , United States

Manufacturer : GE Lighting

Address : 1975 Noble Road , Cleveland , Ohio , 44077 , United States

Model No. : CBYGEF001

FCC ID : PUU-CBYGEF001

EUT Voltage : DC 12V,2.5A

Test Voltage : AC 120V/60Hz

Brand Name : GE Lighting

Applicable Standard : KDB 447498D01V06
FCC Part1.1310

Test Result : Complied

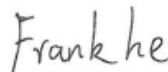
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Documented By :



(Adm. Specialist: Kitty Li)

Reviewed By :



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Approved By :



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1. RF Exposure Evaluation

1.1. Limits

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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

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

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

1.2. Test Procedure

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

The temperature and related humidity: 18 and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product	:	Sol
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

Antenna Information:

BLE :

Model No.		N/A								
Antenna manufacturer		N/A								
Antenna Delivery		☒	1*TX+1*RX		☐	2*TX+2*RX		☐	3*TX+3*RX	
Antenna technology		☒	SISO							
		☐	MIMO	☐	Basic					
				☐	CDD					
				☐	Sectorized					
				☐	Beam-forming					
Antenna Type		☐	External	☐	Dipole					
				☐	Sectorized					
		☒	Internal	☐	PIFA					
				☒	PCB					
				☐	Ceramic Chip Antenna					
				☐	Metal plate type F antenna					
Antenna Technology		Ant Gain (dBi)								
☒	SISO	3.8								

WIFI :

Antenna manufacturer	N/A				
Antenna Delivery	☒	1*TX+1*RX	☒	2*TX+2*RX	☐ 3*TX+3*RX
Antenna technology	☒	SISO			
	☐	MIMO	☐	Basic	
			☐	Sectorized antenna systems	
			☐	Cross-polarized antennas	
			☐	Unequal antenna gains, with equal transmit powers	
			☐	Spatial Multiplexing	
			☐	CDD	
			☐	Beam-forming	
Antenna Type	☐	External	☐	Dipole	
			☐	Panel	
	☒	Internal	☐	PIFA	
			☒	PCB	
			☐	Ceramic Chip Antenna	
			☐	Metal plate type F antenna	
			☐	Cross-polarize Antenna	
Antenna Gain #1	2dBi				
Antenna Gain #2	2dBi				

- Output Power into Antenna & RF Exposure Evaluation Distance
- Standalone modes

Test Mode	Frequency Band (MHz)	Maximum Output Power to Antenna (dBm)	Directional Gain (dBi)	Power Density at R = 20 cm (mW/cm ²)	Power Density Limit at R = 20 cm (mW/cm ²)
BLE	2400 ~ 2483.5 MHz	6.63	3.8	0.0022	1.0
WIFI	2400 ~ 2483.5 MHz	17.16	2	0.0164	1.0

Simultaneous transmission:

Frequency Band (MHz)	Maximum Output Power to Antenna (dBm)	Directional Gain (dBi)	Power Density at R = 20 cm (mW/cm ²)	Power Density Limit at R = 20 cm (mW/cm ²)
2400 ~ 2483.5	6.63	3.8	0.0022	1.0
2400 ~ 2483.5	17.16	3.8	0.0164	1.0
Simultaneous transmission power density			0.0186	1.0

Note: The simultaneous transmission power density is 0.0186mW/cm² for Sol without any other radio equipment.

_____ The End _____