



## RF Exposure Evaluation Declaration

Product Name : Wake-up Light  
Model No. : HF3670, HF3671, HF3672,  
HF3673, HF3674  
FCC ID : 2APFC-HF367X

Applicant : Philips Consumer Lifestyle B.V.  
Address : Building TC, Tussendiepen 4, 9206 AD Drachten, The  
Netherlands

Date of Receipt : Jan. 18, 2018  
Test Date : Jan. 18, 2018 ~ Mar. 14, 2018  
Issued Date : May. 08, 2018  
Report No. : 1812126R-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, A2LA or any agency of the government.

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# Test Report Certification

Issued Date : May. 08, 2018

Report No. : 1812126R-RF-US-P20V01



Product Name : Wake-up Light  
Applicant : Philips Consumer Lifestyle B.V.  
Address : Building TC, Tussendiepen 4, 9206 AD Drachten, The Netherlands  
Manufacturer : Philips Consumer Lifestyle B.V.  
Address : Building TC, Tussendiepen 4, 9206 AD Drachten, The Netherlands  
Model No. : HF3670, HF3671, HF3672, HF3673, HF3674  
FCC ID : 2APFC-HF367X  
EUT Voltage : 100-240Vac, 50/60Hz, 24W  
Test Voltage : AC 120V/60Hz  
Applicable Standard : KDB 447498D01V06  
FCC Part1.1310  
Test Result : Complied  
Performed Location : DEKRA Testing and Certification (Suzhou) Co., Ltd.  
No.99 Hongye Rd., Suzhou Industrial Park, Suzhou, 215006, Jiangsu, China  
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098  
FCC Designation Number: CN1199

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Approved By : Harry Zhao  
(Engineering Manager: Harry Zhao )

## 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 <sup>2</sup> )	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:  $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

$P_d$  = power density in mW/ cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

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

$P_d$  is the limit of MPE, 1 mW/cm<sup>2</sup>. 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	:	Wake-up Light
Test Item	:	RF Exposure Evaluation
Test Site	:	AC-6

● **Antenna Information:**

Model No.	N/A					
Antenna manufacturer	N/A					
Antenna Delivery	<input type="checkbox"/>	1*TX+1*RX	<input checked="" type="checkbox"/>	2*TX+2*RX	<input type="checkbox"/>	3*TX+3*RX
Antenna technology	<input checked="" type="checkbox"/>	SISO				
	<input type="checkbox"/>	MIMO	<input type="checkbox"/>	Basic		
			<input type="checkbox"/>	CDD		
			<input type="checkbox"/>	Sectorized		
			<input type="checkbox"/>	Beam-forming		
Antenna Type	<input checked="" type="checkbox"/>	External	<input checked="" type="checkbox"/>	Metal		
			<input type="checkbox"/>	Sectorized		
	<input checked="" type="checkbox"/>	Internal	<input type="checkbox"/>	PIFA		
			<input checked="" type="checkbox"/>	PCB		
			<input type="checkbox"/>	Ceramic Chip Antenna		
			<input type="checkbox"/>	Metal plate type F antenna		
Antenna Technology	Ant1: Integral PCB antenna, Max. 3,0 dBi Ant2: External antenna, Max. 2,8 dBi					

- **Power Density:**

**The maximum conducted tune-up power is 23.53dBm.**

Test Mode	Frequency Band (MHz)	EIRP (dBm)	Limit of Power Density S(mW/cm <sup>2</sup> )	Power Density at R = 20 cm (mW/cm <sup>2</sup> )
802.11b/g/n(20MHz)	2412~2462	25.83	1	0.076

Note:

1. The maximum power of related plane is calculated for simultaneous MPE.
2. The power density is 0.076mW/cm<sup>2</sup> for Wake-up Light without any other radio equipment.

————— The End —————