

# RF Exposure Evaluation Report

**Product** : Nanoleaf Remote  
**Trade mark** : Nanoleaf  
**Model/Type reference** : NL26-0001, NL26-XXXX  
**Serial Number** : N/A  
**Report Number** : EED32J00292102  
**FCC ID** : 2AEWY-NL26  
**Date of Issue** : Jan. 30, 2018  
47 CFR Part 1.1307  
**Test Standards** : 47 CFR Part 2.1093  
KDB447498D01 v06  
**Test result** : PASS

Prepared for:

**NANOGRID LIMITED**

**ROOM 1405, 135 BONHAM STRAND TRADE CENTRE,  
135 BONHAM STRAND, SHEUNG WAN, HONG KONG**

Prepared by:

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Date:

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Check No.:2457547922



## 2 Version

Version No.	Date	Description
00	Jan. 30, 2018	Original

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## 4 General Information

### 4.1 Client Information

Applicant:	NANOGRID LIMITED
Address of Applicant:	ROOM 1405, 135 BONHAM STRAND TRADE CENTRE, 135 BONHAM STRAND, SHEUNG WAN, HONG KONG
Manufacturer:	NANOGRID LIMITED
Address of Manufacturer:	ROOM 1405, 135 BONHAM STRAND TRADE CENTRE, 135 BONHAM STRAND, SHEUNG WAN, HONG KONG
Factory:	Seveco Global Limited
Address of Factory:	No. 1, Jianxiang Street, Hanxishui Village, Chashan Town, Dongguan City, Guangdong Province, P.R. China,

### 4.2 General Description of EUT

Product Name:	Nanoleaf Remote
Model No.(EUT):	NL26-0001, NL26-XXXX
Test Model No.:	NL26-0001
Trade Mark:	Nanoleaf
EUT Supports Radios application:	BT: 4.2 Signal mode, 2402-2480MHz

### 4.3 Product Specification subjective to this standard

Frequency Range:	2402-2480MHz
Modulation Type:	GFSK
Test Power Grade:	TX 0
Test Software of EUT:	Secure CRT
Antenna Type:	PCB Antenna
Antenna Gain:	2.15dBi
Hardware Version:	PCB-FZ021-V2.2
Firmware Version:	0.8.4
Power Supply:	Battery:2*1.5(AA)=3.0V
Output Power:	-1.303dBm The data refer to the report No.EED32J00292101
Sample Received Date:	Dec. 20, 2017
Sample tested Date:	Dec. 20, 2017 to Jan. 29, 2018
Remark:	<p>The tested sample(s) and the sample information are provided by the client.</p> <p>Model No.:NL26-0001, NL26-XXXX</p> <p>Only the model L26-0001 was tested, 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> "X" denote country or/and region codes where each "X" to be replaced by the alphanumeric codes from 0 - 9 or A - Z, which are only for marketing purposes.</p>

#### **4.4 Test Location**

All tests were performed at:

Centre Testing International Group Co., Ltd.

Hongwei Industrial Zone, Bao'an 70 District, Shenzhen, Guangdong, China 518101

Telephone: +86 (0) 755 3368 3668 Fax: +86 (0) 755 3368 3385

No tests were sub-contracted.

FCC Designation No.: CN1164

#### **4.5 Deviation from Standards**

None.

#### **4.6 Abnormalities from Standard Conditions**

None.

#### **4.7 Other Information Requested by the Customer**

None.



## 5 SAR Evaluation

### 5.1 RF Exposure Compliance Requirement

#### 5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06  
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 5.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where  $f(\text{GHz})$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

#### 5.1.3 EUT RF Exposure

The Maximum Conducted Output Power is -1.303dBm;

The best case gain of the antenna is 2.15dBi.

$\text{EIRP} = -1.303\text{dBm} + 2.15\text{dBi} = 0.847\text{dBm}$

8.0dBm logarithmic terms convert to numeric result is nearly 1.215mW

According to the formula. calculate the EIRP test result:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$

General RF Exposure =  $(1.215\text{mW} / 5 \text{ mm}) \times \sqrt{2.480\text{GHz}} = 0.383$  ①

SAR requirement:

$S = 3.0$  ② ;

①  $<$  ②.

So the SAR report is not required.

## PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32J00292101 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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