

TEST REPORT

Product Name : LED Wash Light
Model Number : NEO
FCC ID : 2A2LS-NEO

Prepared for : ROXX GmbH
Address : Hansestrasse No. 91 | 51149 Cologne | Germany

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1. TEST RESULT CERTIFICATION

Applicant : ROXX GmbH
Address : Hansestrasse No. 91 | 51149 Cologne | Germany
Manufacturer : ROXX GmbH
Address : Hansestrasse No. 91 | 51149 Cologne | Germany
EUT : LED Wash Light
Model Name : NEO
Trademark : 

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093, 1.1307(b)(1)	PASS

The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093, 1.1307(b)(1).

The test results of this report relate only to the tested sample identified in this report

Date of Test : July 02, 2024 to August 23, 2024

Prepared by :



Warren Deng /Editor

Reviewer :



Galen Xlao /Supervisor

Approve & Authorized Signer :


Sam Lv /Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2407020186E00502R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	LED Wash Light
Model Number:	NEO
Sample:	1#
Modulation:	GFSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	79 channels
Transmit Power Max:	-0.7 dBm(0.000851 W)
Antenna Gain:	2.45 dBi
Power supply:	AC 100-240V~50/60Hz
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

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
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

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 = Numeric gain of the antenna relative to isotropic antenna

π =3.1416

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

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

4. Measurement Result

Antenna gain:
2.4G: 2.45 dBi

Mode	Frequency (MHz)	Output Power(dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)
GFSK	2402	-0.7	1.75	1±1	2	1.58	0.000554	1
	2441	-1.84	0.61	0±1	1	1.26	0.000440	1
	2480	-3.6	-1.15	-2±1	-1	0.79	0.000278	1

According to KDB 447498, no stand-alone required for Thread & BLE antenna, and no simultaneous SAR measurement is required.

*** End of Report ***