TEST REPORT

Product Name : COB Par maxx
Model Number : E.show max TW+
FCC ID : 2A2LS-ESHOWMAXTW

Prepared for	:	ROXX GmbH
Address	:	Hansestrasse No.91|51149 Cologne|Germany
Prepared by	:	EMTEK (DONGGUAN) CO., LTD.
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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	:	COB Par maxx
Model Name	:	E.show max TW+
Trademark	:	ROXX

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	**TEST RESULT**
§ 15.247(i), § 2.1093	**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.

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

Date of Test : November 15, 2023 to January 31, 2024

Prepared by : Warren Deng /Editor

Reviewer : Tim Dong /Supervisor

Approve & Authorized Signer : Sam Lv /Manager

Modified History

Version	Report No.	Revision Date	Summary
	EDG2311150049E00502R	/	Original Report

2. EUT Specification

Characteristics	Description
Product:	COB Par maxx
Model Number:	E.show max TW+
Sample:	1#
Data Rate:	1Mbps for GFSK modulation
Modulation:	GFSK
Operating Frequency Range(s) :	2402-2480MHz
Number of Channels:	79 channels
Transmit Power Max:	-6.36 dBm(0.000231 W)
Antenna Gain:	3.51 dBi
Power supply:	AC 100-240V~50/60Hz
Evaluation applied:	☒ MPE Evaluation ☐ SAR Evaluation

3. Test Requirement

RF EXPOSURE EVALUATION

According to KDB 447498: 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: Pd= (Pout*G)\ (4*pi*R2)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1416

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

Pd the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

4. Measurement Result

ANT gain: 3.51 dBi

ANT	Frequency (MHz)	Output Power (dBm)	E.I.R.P (dBm)	Target Power W/tolerance (dBm)	Max tune up power tolerance (dBm)	Max tune up power tolerance (mW)	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)	Verdict
ANT1	2402	-6.69	-3.18	-4±1	-3	0.50	0.000224	1	PASS
ANT1	2441	-6.88	-3.37	-4±1	-3	0.50	0.000224	1	PASS
ANT1	2480	-6.36	-2.85	-3±1	-2	0.63	0.000282	1	PASS

*** End of Report ***