

TEST REPORT

Product Name : CHERRY KW 300 MX
Model Number : G80-3960
FCC ID : GDDMX3960

Prepared for : Cherry Europe GmbH
Address : Cherryst. Auerbach_OPf. Germany 91275

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Table of Contents

1. TEST RESULT CERTIFICATION	3
2. EUT SPECIFICATION	5
3. TEST REQUIREMENT:	6
RF EXPOSURE EVALUATION	6
4. MEASUREMENT RESULT	7



1. TEST RESULT CERTIFICATION

Applicant : Cherry Europe GmbH
Address : Cherrysr. Auerbach_OPf. Germany 91275
Manufacturer : Zhu hai Cherry Electronics Co., Ltd
Address : No.8, Jinyuan 1st Road, Tangjiawan Town, High Tech Industial Zone, Zhuhai
City,Guangdong Province,P.R.of China
EUT : CHERRY KW 300 MX
Model Name : G80-3960
Trademark : N/A

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 : June 21, 2024 to August 06, 2024

Prepared by : Warren Deng
Warren Deng /Editor

Reviewer : Tim Dong
Tim Dong /Supervisor

Approve & Authorized Signer : Sam Lv / Manager



Modified History

Version	Report No.	Revision Date	Summary
	EDG2406210268E00402R	/	Original Report



2. EUT Specification

Characteristics	Description
Product:	CHERRY KW 300 MX
Model Number:	G80-3960
Sample:	2#
Device Type:	BLE
Modulation:	GFSK
Operating Frequency Range(s) :	2402-2480 MHz
Number of Channels:	40 channels
Transmit Power Max:	-3.49 dBm(0.000448 mW)
Antenna Gain:	2.08 dBi
Power supply:	DC 5V from USB DC 3.7V from Battery
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: 2.08 dBi

BLE

Mode	Channel Frequency (MHz)	Measured Power (dBm)	E.I.R.P(dBm)	Tune upPower (dBm)	Max tune up power(dBm)	Calculation Result	1-g SAR
2M	2402	-4.2	-2.12	-3±1	-2	0.1955764	3
	2441	-4.33	-2.25	-3±1	-2	0.1971578	3
	2480	-3.49	-1.41	-2±1	-1	0.2501819	3

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

*** End of Report ***