

RF Exposure Evaluation Report

Report Reference No......: **MTEB23070313-H**

FCC ID..... : **2BCEH-CMK323**

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Applicant's name.....: **Zhangzhou Easepal Electronics Co.,Ltd.**

Address: 2nd Floor,No. 6 building,Easepal Factory. No.228 Jiaosong Road,
Jiaomei Town, Zhangzhou.Taiwanese Investment Zone.Zhangzhou
City,Fujian Province, 363107, P.R.China

Test specification/ Standard: **47 CFR Part 1.1307**
47 CFR Part 2.1093

TRF Originator.....: Shenzhen Most Technology Service Co., Ltd.

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Test item description: MESSAGE DEVICE

Trade Mark: CASADA

Model/Type reference.....: CMK-323

Listed Models: Quattromed V Braintronics,Y60760

Modulation Type.....: GFSK
GFSK, $\pi/4$ DQPSK, 8DPSK

Operation Frequency.....: From 2402MHz to 2480MHz

Hardware Version.....: BT4.2 BLE

Software Version: V1.0

Rating: DC 24V (by Adapter)

Result.....: PASS

TEST REPORT

Equipment under Test : MESSAGE DEVICE

Model /Type : CMK-323

Listed Models Quattromed V Braintronics,Y60760

Remark Only the model name is different, and the input voltage, product structure, emission module, PCB board, PCB layout, circuit principle and appearance are consistent.

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Manufacturer : **Zhangzhou Easepal Electronics Co.,Ltd.**

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Test Result:	PASS
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2023.07.28	Initial Issue	Alisa Luo

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. 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.

2.1.2 Limits

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

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$
 ≤ 3.0 for 1-g SAR and ≤ 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 calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 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

2.1.3 EUT RF Exposure

Measurement Data

BT classic

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	2.945	2.945 ± 1	3.945
Middle(2441MHz)	2.893	2.893 ± 1	3.893
Highest(2480MHz)	2.502	2.502 ± 1	3.502

$\pi/4$ DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	3.119	3.119 ± 1	4.119
Middle(2441MHz)	2.369	2.369 ± 1	3.369
Highest(2480MHz)	1.884	1.884 ± 1	2.884

8DPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	3.392	3.392 ± 1	4.392
Middle(2441MHz)	2.446	2.446 ± 1	3.446
Highest(2480MHz)	2.818	2.818 ± 1	3.818

Worst case: 8DPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Highest(2402MHz)	3.392	4.392	2.75	0.85	3.0	Yes

BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power
			(dBm)
Lowest(2402MHz)	3.112	3.112 ± 1	4.112
Middle(2440MHz)	2.970	2.970 ± 1	3.97
Highest(2480MHz)	2.511	2.511 ± 1	3.511

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold	SAR Test Exclusion
		(dBm)	(mW)			
Highest(2402MHz)	3.112	4.112	1.48	0.46	3.0	Yes

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