RF Exposure Evaluation Report

Product	:	RollerMouse mobile
Trade mark	:	CONTOUR
Model/Type reference	:	RM-Mobile
Series Model Number	:	RM-Mobile2, RM-Mobile-Mini, RM-Mobile-CN
Report Number	:	EED32M80145501
FCC ID	:	2AG6O-RMOB
Date of Issue	:	Jan. 26, 2021
Test Standards	:	47 CFR Part 15 Subpart C
Test result	:	PASS

Prepared for:

CONTOUR (GUANGZHOU) DESIGN, INC.
Building B21-2F, Huachuang Animation Park, Panyu, GZ, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China
TEL: +86-755-3368 3668
FAX: +86-755-3368 3385

Compiled by:	Ken Cai	Reviewed by:	Aaron Ma
Approved by:	David Wang	Date:	Jan. 26, 2021

Check No.:7025241220

2 Version

Version No.	Date	Description
00	Jan. 26, 2021	Original

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4 General Information

4.1 Client Information

Applicant:	CONTOUR (GUANGZHOU) DESIGN, INC.
Address of Applicant:	Building B21-2F, Huachuang Animation Park, Panyu, GZ, China
Manufacturer:	CONTOUR (GUANGZHOU) DESIGN, INC.
Address of Manufacturer:	Building B21-2F, Huachuang Animation Park, Panyu, GZ, China
Factory:	CONTOUR (GUANGZHOU) DESIGN, INC.
Address of Factory:	Building B21-2F, Huachuang Animation Park, Panyu, GZ, China

4.2 General Description of EUT

Product Name:	RollerMouse mobile
Model No.(EUT):	RM-Mobile
Series Model Number	RM-Mobile2, RM-Mobile-Mini, RM-Mobile-CN
Trade Mark:	CONTOUR
EUT Supports Radios application:	5.1(BLE)+2.4G

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	BLE:nRFgo Studio 2.4G:Default
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Power Supply:	Battery:Lithium Battery 3.7V
Max Conducted Peak Output Power:	BLE:-2.46dBm 2.4G:-5.00dBm
	The Max Conducted Peak Output Power data refer to the report EED32M80145501/EED32M80145502
Sample Received Date:	Dec. 25, 2020
Sample tested Date:	Dec. 25, 2020 to Jan. 27, 2021
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

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.

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:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation[17]

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

5.1.2 EUT RF Exposure

The BLE tune-up power is -2.5 dBm +/- 0.5dB, therefore the highest tune-up power is

-2.0 dBm (0.63 mW) @ 2480 MHz

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

So,

(0.63mW / 5mm) * (2.480GHz ^0.5)= 0.2

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * [√f(GHz)] = 0.2 < 3.0

The 2.4G Max Conducted Peak Output Power is 90.2dBuV/m in lowest channel(2.402GHz);

The best case gain of the antenna is 0dBi.

EIRP= 90.2 -95.2= -5.00dBm

-5.00dBm logarithmic terms convert to numeric result is nearly 0.32mW

According to the formula. calculate the EIRP test result:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)]

General RF Exposure = (0.32mW / 5 mm) x √2.402GHz =0.098 < 3.0

So the SAR report is not required.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32M80145501 for EUT external and internal photos.

*** End of Report ***