

## RF EXPOSURE REPORT



**FCC Applicant:** FNATIC GEAR LIMITED  
2 Ebor St, London, E1 6AW,UK  
**FCC Manufacturer:** FNATIC GEAR LIMITED  
2 Ebor St, London, E1 6AW,UK  
**Product Name:** Wireless Mouse  
**Brand Name:** FNATIC  
**Model No.:** C-MS0003  
**Model Difference:** N/A  
**Report Number:** E2/2021/A0030  
**FCC ID** 2A3COC-MS0003  
**Issue Date:** December 21, 2021  
**Date of EUT Received:** October 7, 2021

Approved By

John Yeh

**We hereby certify that:**

**The above equipment was evaluate by SGS Taiwan Ltd. The evaluation in this report is in compliance with FCC Rule Part §2.1093.**

**The results of this report relate only to the sample identified in this report.**

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.  
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## Revision History

Report Number	Revision	Description	Issue Date	Revised By
E2/2021/A0030	00	Original	December 21, 2021	Carol Li

**Note:** 1. The product does not support simultaneous transmission configuration.

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## 1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

### 1.1 Product Description

<b>Product Name:</b>	Wireless Mouse
<b>Brand Name:</b>	FNATIC
<b>Model No.:</b>	C-MS0003
<b>Model Difference:</b>	N/A
<b>Hardware Version:</b>	20210714
<b>Firmware Version:</b>	52833V07
<b>Power Supply:</b>	3.7Vdc from battery

### 1.2 Antenna Information:

#### 1.2.1 BLE / 2.4GHz

Antenna Type	Brand	Antenna Model No.	Freq. (MHz)	Peak Antenna Gain (dBi)
Embedded	FNATIC	C-MS0003	2400-2500	1.73

**Note:** Antenna information is provided by the applicant.

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## 2 RF EXPOSURE EVALUATION FOR PORTABLE CONDITIONS

### 2.1 FCC Standard Applicable:

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

As per KDB 447498 D01 4.3.1,

Step a: For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})]$

$[\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g Head & Body SAR and  $\leq 7.5$  for 10-g extremity Hand 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 calculation
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

### 2.2 Measurement Result for BLE:

<b>Step a:</b>					
This is a portable device and the max. output power including tune-up tolerance is 1.009 (mW), lower than the threshold given and derived as formula given above, where					
$=1.009(\text{mW})/5(\text{mm}) \times \sqrt{2.402(\text{GHz})} = 0.313 < 3.0$					
Frequency (MHz)	Max. output power including tune-up tolerance(dBm)	Max. output power including tune-up tolerance(mW)	Distance (mm)	Result	$\leq 3.0$ for 1-g SAR
2402	0.04	1.009	5	0.313	TRUE

As the result of calculation result indicates, the RF exposure generating from given transmitter (transmitter employed digital modulation) can be excluded from SAR measurement, and is deemed compliant with RF exposure as per FCC.

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### 2.3 Measurement Result for 2.4GHz:

$$\text{EIRP[dBm]} = \text{E[dBuV/m]} + 20\log(\text{d[meters]}) - 104.77$$

Freq.	Detector	Spectrum	Factor	Actual	Limit	Margin
	Mode	Reading Level		FS	@3m	
MHz	PK/QP/AV	dBμV	dB	dBμV/m	dBμV/m	dB
2475.244	Peak	97.32	3.87	101.20	114.00	-12.80

Freq. (MHz)	Field strength (dBuV/m@3m)	Conducted power (dBm)	Conducted power (mW)	Exemption Limit (mW)
2475.244	101.20	4.24	2.655	4

~End of the Report~

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