

## RF Exposure Report

**Report No.:** MFBEMX-WTW-P22010729 R1

**FCC ID:** C3K2031

**Test Model:** 2031

**Received Date:** 2022/4/26

**Test Date:** 2022/4/28 ~ 2022/5/10

**Issued Date:** 2022/6/20

**Applicant:** MICROSOFT CORPORATION

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

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**FCC Registration /  
Designation Number:** 198487 / TW2021



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## Table of Contents

Release Control Record .....	3
1 Certificate of Conformity .....	4
2 Evaluation Result .....	5
3 SAR Test Exclusion Thresholds.....	6
4 Conclusion .....	6

### Release Control Record

Issue No.	Description	Date Issued
MFBEMX-WTW-P22010729	Original release.	2022/6/14
MFBEMX-WTW-P22010729 R1	Modify the statement of test report on page 1.	2022/6/20

## 1 Certificate of Conformity

**Product:** Adaptive Hub

**Brand:** Microsoft

**Test Model:** 2031

**Sample Status:** Engineering sample

**Applicant:** MICROSOFT CORPORATION

**Test Date:** 2022/4/28 ~ 2022/5/10

**Standards:** FCC Part 2 (Section 2.1093)

**References Test Guidance:** KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

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Annie Chang / Senior Specialist

**Approved by :** Jeremy Lin, **Date:** 2022/6/20  
Jeremy Lin / Project Engineer

## 2 Evaluation Result

Following FCC KDB 447498 D01 “General SAR test exclusion guidance”

The corresponding SAR Exclusion Threshold condition, listed below:

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:  
[[max. power of channel, including tune-up tolerance, mW]/(min. test separation distance, mm)]  $\cdot [\sqrt{f(\text{GHz})}]$   
 $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  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 calculation.
  - The result is rounded to one decimal place for comparison. The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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) At 100 MHz to 6 GHz and for test separation distances  $> 50$  mm, the SAR test exclusion threshold is determined according to the following:
  - a) [Threshold at 50 mm in step 1) + (test separation distance - 50mm)  $\cdot$  ( f(MHz)/150)] mW, at 100MHz to 1500 MHz
  - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)  $\cdot$  10] mW at  $> 1500$  MHz and  $\leq 6$  GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
  - a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50$  mm and  $< 200$  mm.
  - b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq 50$  mm.
  - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

### 3 SAR Test Exclusion Thresholds

Maximum measured transmitter power:

Antenna No.	Function	Frequency (GHz)	AV Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value <sup>(NOTE 3)</sup>	10-g extremity SAR test exclusion thresholds	Result
Antenna 1	BT LE	2.402-2.480	0.7362	5	0.228	7.5	Pass
Antenna 2	BT LE	2.402-2.480	0.9354	5	0.290	7.5	Pass

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The antenna type is listed as below.  
 Antenna 1: Chip antenna with 0.87dBi gain.  
 Antenna 2: Chip antenna with 1.05dBi gain.
3. Calculate SAR test exclusion thresholds from condition "1" formulas.

### 4 Conclusion

Since Source-base time average power is below SAR test exclusion power thresholds, the SAR evaluation is not required.

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