

# **RF Exposure Report**

Report No.: SABDKG-WTW-P21060167

FCC ID: JNZVR0028

Test Model: VR0028

Received Date: June 21, 2021

Test Date: June 25 to 30, 2021

**Issued Date:** Aug. 10, 2021

Applicant: Logitech Far East Ltd

Address: 7700 Gateway Boulevard Newark California United States

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

Hsin Chu Laboratory

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,

Taiwar

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,

Taiwan

FCC Registration / Designation Number:

. 723255 / TW2022





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### **Release Control Record**

| Issue No.            | Description       | Date Issued   |
|----------------------|-------------------|---------------|
| SABDKG-WTW-P21060167 | Original release. | Aug. 10, 2021 |



#### **Certificate of Conformity** 1

Product: TAP Scheduler

Brand: Logitech

Test Model: VR0028

Sample Status: Engineering sample

Applicant: Logitech Far East Ltd

**Test Date:** June 25 to 30, 2021

Standards: FCC Part 2 (Section 2.1091)

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 EMC characteristics under the conditions specified in this report.

Phoenix Huang / Specialist Aug. 10, 2021

Approved by: Date:

Clark Lin / Technical Manager



### 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

| Frequency Range<br>(MHz)                              |       |        | Power Density<br>(mW/cm <sup>2</sup> ) | Average Time (minutes) |  |  |
|---|-------|--------|--|------------------------|--|--|
| Limits For General Population / Uncontrolled Exposure |       |        |  |                        |  |  |
| 0.3-1.34  | 614   | 1.63   | (100)*                                 | 30                     |  |  |
| 1.34-30   | 824/f | 2.19/f | (180/f <sup>2</sup> )*                 | 30                     |  |  |
| 30-300  | 27.5  | 0.073  | 0.2                                    | 30                     |  |  |
| 300-1500  |       |        | f/1500                                 | 30                     |  |  |
| 1500-100,000  |       |        | 1.0                                    | 30                     |  |  |

f = Frequency in MHz; \*Plane-wave equivalent power density

#### 2.2 MPE Calculation Formula

 $Pd = (Pout*G) / (4*pi*r^2)$ 

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

#### 2.3 Classification

The antenna of this product, under normal use condition, is at least 20 cm away from the body of the user. So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain

| Brand | Model       | Antenna Net<br>Gain (dBi) | Frequency<br>Range (GHz) | Antenna Type | Connector Type |
|-------|-------------|---------------------------|--------------------------|--------------|----------------|
|       | S0A260020A0 | 3                         | 2.4~2.4835               |              | None           |
|       |             | 4.06                      | 5.15~5.25                |              |                |
| FIH   |             | 3.99                      | 5.25~5.35                | Monopole     |                |
|       |             | 2.95                      | 5.47~5.725               |              |                |
|       |             | 1.9                       | 5.725~5.85               |              |                |

<sup>\*</sup>The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.



#### 2.5 Calculation Result of Maximum Conducted Power

| Operation<br>Mode  | Evaluation<br>Frequency<br>(MHz) | Max. Average<br>Power<br>(mW) | Antenna Gain<br>(dBi) | Distance<br>(cm) | Power Density<br>(mW/cm²) | Limit<br>(mW/cm²) |
|--------------------|----------------------------------|-------------------------------|-----------------------|------------------|---------------------------|-------------------|
| WLAN<br>(2.4GHz)   | 2412~2462                        | 146.893                       | 3                     | 20               | 0.05831                   | 1                 |
| WLAN<br>(U-NII-1)  | 5180~5240                        | 98.628                        | 4.06                  | 20               | 0.04997                   | 1                 |
| WLAN<br>(U-NII-2A) | 5260~5320                        | 99.312                        | 3.99                  | 20               | 0.04951                   | 1                 |
| WLAN<br>(U-NII-2C) | 5500~5720                        | 91.833                        | 2.95                  | 20               | 0.03604                   | 1                 |
| WLAN<br>(U-NII-3)  | 5745~5825                        | 93.541                        | 1.9                   | 20               | 0.02882                   | 1                 |
| BT-EDR             | 2402~2480                        | 3.516                         | 3                     | 20               | 0.0014                    | 1                 |
| BT-LE              | 2402~2480                        | 1.556                         | 3                     | 20               | 0.00062                   | 1                 |

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

### Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN (2.4GHz) + WLAN (5GHz) = 0.05831 / 1 + 0.04997 / 1 = 0.10828

WLAN (2.4GHz) + Bluetooth = 0.05831 / 1 + 0.0014 / 1 = 0.05971

WLAN (5GHz) + Bluetooth = 0.04997 / 1 + 0.0014 / 1 = 0.05137

Therefore the maximum calculations of above situations are less than the "1" limit.

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