

RF Exposure Report

Report No.: SABDKG-WTW-P21060168

FCC ID: JNZVR0029

Test Model: VR0029

Received Date: June 21, 2021

Test Date: June 24, 2021

Issued Date: Aug. 11, 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
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**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
SABDKG-WTW-P21060168	Original release.	Aug. 11, 2021

1 Certificate of Conformity

Product: TAP IP
Brand: Logitech
Test Model: VR0029
Sample Status: Engineering sample
Applicant: Logitech Far East Ltd
Test Date: June 24, 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.

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Cherry Chuo / Specialist

Approved by : Clark Lin , **Date:** Aug. 11, 2021
Clark Lin / Technical Manager

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	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 ²)*	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/cm²

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 Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type
FIH	S0A602600A0	2.73	2.4~2.4835	Monopole	none
		2.97	5.15~5.25		
		2.35	5.25~5.35		
		3	5.47~5.725		
		2.64	5.725~5.85		

*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 Mode	Evaluation Frequency (MHz)	Max. Average Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN (2.4GHz)	2412~2462	223.357	2.73	20	0.08332	1
WLAN (U-NII-1)	5180~5240	86.298	2.97	20	0.03402	1
WLAN (U-NII-2A)	5260~5320	90.365	2.35	20	0.03088	1
WLAN (U-NII-2C)	5500~5720	94.406	3	20	0.03747	1
WLAN (U-NII-3)	5745~5825	95.719	2.64	20	0.03497	1
BT-EDR	2402~2480	3.532	2.73	20	0.00132	1
BT-LE	2402~2480	1.528	2.73	20	0.00057	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:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

$WLAN (2.4GHz) + WLAN (5GHz) = 0.08332 / 1 + 0.03747 / 1 = 0.12079$

$WLAN (2.4GHz) + Bluetooth = 0.08332 / 1 + 0.00132 / 1 = 0.08464$

$WLAN (5GHz) + Bluetooth = 0.03747 / 1 + 0.00132 / 1 = 0.03879$

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

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