RF Exposure Report

Report No.: SA190606C07A

FCC ID: A4R-H2C

Test Model: H2C

Received Date: Dec. 25, 2019

Date of Evaluation: Apr. 05, 2020

Issued Date: Apr. 08, 2020

Applicant: Google LLC

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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: 788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
SA190606C07A	Original Release	Apr. 08, 2020

1 Certificate of Conformity

Product: Interactive media streaming device

Test Model: H2C

Sample Status: Production Unit

Applicant: Google LLC

Date of Evaluation: Apr. 05, 2020

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

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.

Prepared by : _Lena Wang_ , **Date:** Apr. 08, 2020

Lena Wang / Specialist

Approved by : , **Date:** Apr. 08, 2020

Dylan Chiou / Senior Project Engineer

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/cm^2

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 20cm away from the body of the user.
So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

Ant. No.	Model	Type	Connector	Antenna Gain (dBi)				
				2.4~2.4835 GHz	5.15~5.25 GHz	5.25~5.35 GHz	5.47~5.725 GHz	5.725~5.85 GHz
1	N/A	PIFA	N/A	0.79	4.06	3.10	5.15	5.23
2	N/A	PIFA	N/A	1.39	3.00	2.69	5.35	5.29

2.5 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN	2412-2462	18.50	1.39	20	0.019	1.00
	5180-5240	22.00	4.06	20	0.080	1.00
	5260-5320	23.00	3.10	20	0.081	1.00
	5500-5700	21.50	5.35	20	0.096	1.00
	5745-5825	22.50	5.29	20	0.120	1.00
BT	2402-2480	3.5	1.39	20	0.0006	1.00

Conclusion:

The formula of calculated the MPE is:

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

CPD = Calculation power density

LPD = Limit of power density

WLAN + BT = 0.120 / 1 + 0.0006 / 1 = 0.1206

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

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