

RF EXPOSURE REPORT



Applicant: GOOGLE LLC
1600 Amphitheatre Parkway Mountain View, CA 94043
Product Name: Wireless Streaming Device
Brand Name: GOOGLE
Model No.: GJQ9T
Model Difference: N/A
Report Number: ER/2021/40065
FCC ID: A4RGJQ9T
Issue Date: July 7, 2021
Date of EUT Received: February 19, 2021

Approved By _____

John Yeh
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 §2.1091.

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
ER/2021/40065	00	Original.	July 7, 2021	Elle Chang

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

Product Name:	Wireless Streaming Device
Brand Name:	GOOGLE
Model No.:	GJQ9T
Model Difference:	N/A
Hardware Version:	N/A
Firmware Version:	N/A
EUT Series No.:	Conducted: G1878051 Radiated: G1878050
Power Supply:	USB 5V

1.2 Antenna Information:

1.2.1 BT / WLAN 2.4GHz

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
Dipole	N/A	N/A	2.4GHz	2.13

1.2.2 WLAN 5GHz

Antenna Type	Supplier	Antenna Part No.	Main / Aux	Operating Frequency (MHz)	Peak Antenna Gain (dBi)
Dipole	N/A	N/A	Main	5150~5250	2.19
				5250~5350	1.97
				5470~5725	0.13
				5725~5850	0.06

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2 FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
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
1500-100000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equipment power density

Prediction of MPE limit at a given distance

$$S = PG / 4\pi R^2$$

Where: S = Power density

P = Power input to antenna

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

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2.2 Power Density Calculation (Worst Case)

FCC Standalone MPE

Operation Mode	Evaluation Frequency (MHz)	Operation Distance (cm)	Max. output Power With Tolerance (dBm)	Antenna Gain (dBi)	Max. output Power EIRP (mW)	Power Density (PD) (mW/cm ²)	Limit (mW/cm ²)	Pass / Fail	Power Density / Limit
BLE	2480.00	20	9	2.13	12.97	0.0026	1.000	Pass	0.003
WLAN 2.4G	2442.00	20	19.5	2.13	145.55	0.029	1.000	Pass	0.029
WLAN 5G	5180.00	20	18	2.19	104.47	0.021	1.000	Pass	0.021

~ End of Report ~

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