



EMC Test Data

Client:	Google Inc.	Job Number:	JD104891
Model:	Model H0A	T-Log Number:	T104956
Contact:	Dominik Mente	Project Manager:	Deepa Shetty
Standard:	FCC 15.247 / 15.407 / RSS-247	Project Coordinator:	-
		Class:	N/A

Maximum Permissible Exposure

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 8/8/2017

Test Engineer: Mark Hill

General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4 \pi d^2)$$

Where: S is power density (W/m^2), P is output power (W), G is antenna gain relative to isotropic, d is separation distance from the transmitting antenna (m).

Summary of Results

Device complies with Power Density requirements at 20cm separation:	Yes
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Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Note: Power values from maximum power plus tune-up tolerance

FCC ID: A4RH0A
IC: 10395A-H0A

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FCC MPE Calculation

Use: General

Antenna: Two internal antennas: 4.0dBi and 3.4dBi @ 2.4GHz, 3.7dBi and 3.5dBi @ 5GHz; Tx/Rx diversity

Freq. MHz	EUT Power		Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²
	dBm	mW*						
2440	5.7	3.7	0	4	5.7	9.33	0.002	1.000
2440	5.8	3.8	0	4	5.8	9.55	0.002	1.000
2437	18.8	75.9	0	4	18.8	190.55	0.038	1.000
5200	15.9	38.9	0	3.7	15.9	91.20	0.018	1.000
5300	15.8	38.0	0	3.7	15.8	89.13	0.018	1.000
5580	16.1	40.7	0	3.7	16.1	95.50	0.019	1.000
5785	18.8	75.9	0	3.7	18.8	177.83	0.035	1.000

Simultaneous Transmission - 802.11 and Bluetooth - using worse case operation

Freq. MHz	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²	% of limit
2440	0.002	1.000	0.2
2437	0.038	1.000	3.8

Total: 4.0

Industry Canada MPE Calculation

Use: General

Antenna: Two internal antennas: 4.0dBi and 3.4dBi @ 2.4GHz, 3.7dBi and 3.5dBi @ 5GHz; Tx/Rx diversity

Freq. MHz	EUT Power		Cable Loss Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²
	dBm	mW*						
2440	5.7	3.7	0	4	5.7	9.33	0.002	0.541
2440	5.8	3.8	0	4	5.8	9.55	0.002	0.541
2437	18.8	75.9	0	4	18.8	190.55	0.038	0.540
5200	15.9	38.9	0	3.7	15.9	91.20	0.018	0.907
5300	15.8	38.0	0	3.7	15.8	89.13	0.018	0.919
5580	16.1	40.7	0	3.7	16.1	95.50	0.019	0.952
5785	18.8	75.9	0	3.7	18.8	177.83	0.035	0.976

Simultaneous Transmission - 802.11 and Bluetooth - using worse case operation

Freq. MHz	Power Density (S) at 20 cm mW/cm ²	MPE Limit at 20 cm mW/cm ²	% of limit
2440	0.002	0.541	0.4
2437	0.038	0.540	7

Total: 7.4