



EMC Test Data

Client: Google Inc	Job Number: JD101591
Model: H0ME	T-Log Number: T102213
	Project Manager: Deepa Shetty
Contact: Dominik Mentel	Project Coordinator: -
Standard: FCC 15.247/15.407/RSS-247	Class: N/A

Maximum Permissible Exposure / SAR Exclusion

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: 8/25/2016
 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/m²), 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: A4RH0ME
 IC: 10395A-H0ME



EMC Test Data

Client: Google Inc	Job Number: JD101591
Model: HOME	T-Log Number: T102213
	Project Manager: Deepa Shetty
Contact: Dominik Mente	Project Coordinator: -
Standard: FCC 15.247/15.407/RSS-247	Class: N/A

FCC MPE Calculation

Use: General

Antenna: Antenna (1,2): 2.7 dBi and 3.3dBi max @ 2.4GHz, 5.3dBi and 5.7dBi @ 5GHz

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	7.6	5.8	0	3.3	7.6	12.30	0.002	1.000
2437	19.0	79.4	0	3.3	19.0	169.82	0.034	1.000
5200	17.0	50.1	0	5.7	17.0	186.21	0.037	1.000
5300	16.0	39.8	0	5.7	16.0	147.91	0.029	1.000
5580	16.0	39.8	0	5.7	16.0	147.91	0.029	1.000
5785	16.0	39.8	0	5.7	16.0	147.91	0.029	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
5200	0.048	1.000	4.8

Total: 5.0

Industry Canada MPE Calculation

Use: General

Antenna: Antenna (1,2): 2.7 dBi and 3.3dBi max @ 2.4GHz, 5.3dBi and 5.7dBi @ 5GHz

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	7.6	5.8	0	3.3	7.6	12.30	0.002	0.541
2437	19.0	79.4	0	3.3	19.0	169.82	0.034	0.540
5200	17.0	50.1	0	5.7	17.0	186.21	0.037	0.907
5300	16.0	39.8	0	5.7	16.0	147.91	0.029	0.919
5580	16.0	39.8	0	5.7	16.0	147.91	0.029	0.952
5785	16.0	39.8	0	5.7	16.0	147.91	0.029	0.976

Note - highest gain used for all calculations as worse case.

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	0.3
5200	0.048	0.907	5.3

Total: 5.6