

## RF Exposure Report

**FCC ID: 2A9XM-GT40**

The EUT is a Projector in the 2412 ~ 2462MHz and 5745-5825 MHz frequency band.

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

### (A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6

### (B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz

### MPE calculation method

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2}$$

S: power density mW/ cm<sup>2</sup>;

P: power input to the antenna in mW;

g: numeric gain of antenna;

r: distance to centre of radiation in cm

### Unit dbuv/m@3m to mW calculation method

$$E = \text{EIRP} - 20\log(d) + 104.8$$

E: is the electric field strength in dBuv/m;

EIRP: is the equivalent isotropically radiated power in dBm;

d: is the specified measurement distance in m

### Calculated result

Mode	Max. Peak output power (dBm)	Max. Peak output power (mW)	Antenna Gain (numeric)	Power Density (S) (mW/ cm <sup>2</sup> )	Limit of Power Density (S) (mW/ cm <sup>2</sup> )
BT	0.002	1.000	2.08	0.000414	1
BLE	-0.438	0.904	2.08	0.000374	1
802.11b	15.671	38.91	2.08	0.016109	1
802.11g	13.928	26.71	2.08	0.011058	1
802.11n20	12.964	21.79	2.08	0.009021	1
802.11n40	10.773	13.95	2.08	0.005775	1
802.11a	10.85	14.16	2.25	0.006342	1
5G Wi-Fi 802.11 n20	9.66	11.25	2.25	0.005038	1
5G Wi-Fi 802.11 n40	8.79	9.57	2.25	0.004286	1
5G Wi-Fi 802.11 ac80	7.68	7.86	2.25	0.003520	1

### For BT mode

Field strength = 95.26dBuV/m @3m

$EIRP = E + 20\log(d) - 104.8 = 95.26 + 20\log 3 - 104.8 = 0.002\text{dbm} = 1.0\text{mW}$

### For BLE mode

Field strength = 94.82dBuV/m @3m

$EIRP = E + 20\log(d) - 104.8 = 94.82 + 20\log 3 - 104.8 = -0.438\text{dBm} = 0.904\text{mW}$

Note1: the antenna gain is 3.19dBi for 2.4GWIFI and 3.53dBi for 5GWIFI;

Note2: Calculated distance is 20cm, which is declared by the manufacture.