

EXHIBIT C - RF EXPOSURE EVALUATION

Maximum Permissible Exposure (MPE)

Applicable Standard

According to subpart §1.1310, 15.247(i) and 15.407(f) systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
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;

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

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g., mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		Conducted Output Power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm2)	MPE Limit (mW/cm2)
		(dBi)	(numeric)	(dBm)	(mW)			
2.4GHz WIFI	2412-2462	7.33	5.408	26.0	398.11	20	0.428	1.00
5GHz WIFI	5150-5250	7.54	5.675	23	199.53	20	0.225	1.00
	5250-5350	7.46	5.572	19.5	89.13	20	0.099	1.00
	5470-5725	7.69	5.875	19.3	85.11	20	0.100	1.00
	5725-5850	7.29	5.358	25	316.23	20	0.337	1.00
6GHz WIFI	5925-6425	7.59	5.741	21	125.89	20	0.144	1.00
	6425-6525	7.31	5.383	21	125.89	20	0.135	1.00
	6525-6875	8.00	6.310	20	100.00	20	0.126	1.00
	6875-7125	8.29	6.745	19	79.43	20	0.107	1.00

Note: The Conducted Output Power including Tune-up Tolerance was provided by manufacturer.

For Simultaneous transmission:

2.4GHz WIFI, 5GHz WIFI and 6GHz WIFI can transmit simultaneously:

$$\text{Sum Power Density} = \text{Seq}_{2.4\text{GHz WIFI}} / \text{Seq}_{2.4\text{GHz WIFI Limit}} + \text{Seq}_{5\text{GHz WIFI}} / \text{Seq}_{5\text{GHz WIFI Limit}} + \text{Seq}_{6\text{GHz WIFI}} / \text{Seq}_{6\text{GHz WIFI Limit}} = 0.910 < 1$$

So $\text{Sum}_{\text{Seq}} < 1.0$

Result: The device meets FCC MPE at 20 cm distance

***** END OF REPORT *****