

EXHIBIT C - RF EXPOSURE EVALUATION

Maximum Permissible Exposure (MPE)

Applicable Standard

According to subpart §1.1310,15.247(i) 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 (MHz) | Antenna Gain ▲ | | Conducted output power including Tune-up Tolerance ▲ | | Evaluation Distance (cm) | Power Density (mW/cm ²) | MPE Limit (mW/cm ²) |
|-----------|-----------------|----------------|-----------|--|--------|--------------------------|-------------------------------------|---------------------------------|
| | | (dBi) | (numeric) | (dBm) | (mW) | | | |
| 2.4G WiFi | 2412-2462 | 2.32 | 1.71 | 23.0 | 199.53 | 20.00 | 0.068 | 1.0 |
| BLE | 2402-2480 | 2.32 | 1.71 | 7.0 | 5.01 | 20.00 | 0.002 | 1.0 |
| Lora | 902.8-927.3 | 3.86 | 2.43 | 20.5 | 112.20 | 20.00 | 0.054 | 0.6 |

Note:

The Antenna Gain and Conducted output power including Tune-up Tolerance provided by manufacturer

Simultaneous transmission:

BLE and 2.4G Wifi can't transmit simultaneously, but BLE or 2.4G Wifi can transmit simultaneously with Lora:

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

$$S_{\text{2.4G Wifi}}/S_{\text{limit-2.4G Wifi}} + S_{\text{Lora}}/S_{\text{limit-Lora}}$$

$$=0.068/1.0+0.054/0.6$$

$$=0.16$$

$$< 1.0$$

Result: The device meet FCC MPE at 20 cm distance

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