5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

According to §1.1307(b)(3)(i)

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

5.2 Measurement Result

Radio	Frequency (MHz)	λ /2 Π (mm)	Distance (mm)	Exemption ERP (mW)	Maximum Conducted Power including Tune-up Tolerance (dBm)	Antenna Gain (dBi)	ERP		MPE-Based Exemption
							dBm	mW	
2.4G SRD	2405-2470	19.86	200	768	25.5	2	25.35	342.77	Compliant
5.8G SRD	5735-5865	8.34	200	768	/	/	8.32	6.79	Compliant

Note:
1. For 5.8GHz SRD chose the maximum power to do RF exposure analysis.
2. This device maximum E-Field levelof the 5.8GHz SRD is 105.67 dBμV/m at 3m, so the EIRP power is 10.47 dBm.
3. EIRP(dBm)=Field Strength of Fundamental(dBuV/m)-95.2 (dB)
4. ERP(dBm)= EIRP(dBm)-2.15(dB)
5. 2.4G and 5G SRD cannot transmit simultaneously.

Result: The device compliant the MPE-Based Exemption at 20cm distances.

===== END OF REPORT =====