

RF Exposure Evaluation
FCCID: QRF-RAEKT2KN2
Wireless Mesh Router
Tranzeo Wireless Technologies Inc.

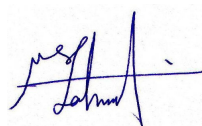
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RF Exposure Evaluation

FCC 1.1310 states the criteria listed in the table below shall be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in Section 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of Section 2.1093 of this chapter. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation".

Frequency Range (MHZ)	Electric Field Strength (V/m)	Magnetic Field Strength (A/M)	Power Density (mW/cm ²)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

EUT Operating Condition

The maximum antenna gain is 7.5 dBi at 2.4 GHz and 10.5 dBi at 5.8 GHz.

RF exposure evaluation distance calculation

2.4GHz radio with 7.5 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
2412	19.9	7.5	6.6
2437	25.2	7.5	12.2
2462	19.6	7.5	6.4

5.8GHz radio with 10.5 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
5745	22.94	10.5	13.2
5785	22.68	10.5	12.9
5825	21.78	10.5	11.6

As shown above, the minimum distance where the MPE limit is reached is 13.2 cm for the EUT.