



RF Exposure Evaluation

FCCID: QRF-GNADX2NT4

Wireless Mesh Router

Tranzeo Wireless Technologies Inc.

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Report No.: 070709.1

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A handwritten signature in blue ink that appears to read "Andrew Marles".

Andrew Marles
EMC Manager

A handwritten signature in blue ink that appears to read "Andrei Moldavanov".

Andrei Moldavanov
EMC Engineer

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 12 dBi at 2.4 GHz and 32 dBi at 5.8 GHz.

RF exposure evaluation distance calculation

2.4GHz radio with 12 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
2412	17.92	12	8.8
2437	21.45	12	13.3
2462	17.74	12	8.6

4.9/5.8 GHz radio, 4.9 GHz band with 32 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
4940	18.78	32	97.3
4965	18.98	32	99.8
4990	19.75	32	108.9

4.9/5.8 GHz radio, 5.8 GHz band with 32 dBi antenna

Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
5745	22.00	32	141.2
5785	21.53	32	144.8
5825	21.61	32	135.2

As shown above, the minimum distance where the MPE limit is reached is 144.8 cm for the EUT.