

RF Exposure Evaluation

FCCID: QRF-QSFNYON3

Wireless Network Adapter

Tranzeo Wireless Technologies Inc.

Date: 4 April, 2007

Report No.: 040407.1

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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 20 dBi at 5.2 and 5.4 GHz.

RF exposure evaluation distance calculation

EUT with 20 dBi antenna

Mode OFDM/ Channel BW = 20MHz			
Freq (MHz)	Output Power to Antenna (dBm)	Antenna Gain (dBi)	r (cm)
5260	8.54	20	7.5
5300	8.87	20	8.0
5320	8.70	20	7.5
5500	8.66	20	7.5
5600	9.76	20	8.5
5700	9.60	20	8.5

As shown above, the minimum distance where the MPE limit is reached is 8.5 cm for the EUT. Note that for fixed location transmitters such as an access point, the minimum separation distance is 20 cm even if the calculations indicate that the MPE distance may be less.