



# **RF Exposure Evaluation**

## **TR-5plus Series**

### **Wireless Network Adapter**

### **Tranzeo Wireless Technologies Inc.**

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A handwritten signature in blue ink, appearing to read 'Bruce Balston'.

Bruce Balston  
EMC Engineer

A handwritten signature in blue ink, appearing to read 'Andrew Marles'.

Andrew Marles  
EMC Coordinator

## A.1 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 <sup>2</sup> )	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	30
1500-100,000	--	--	1	30

### EUT Operating Condition

Maximum EIRP is obtained with the 24 dBi grid and 26 dBi dish antenna. When using this antenna, the output of the radio is reduced to a maximum of 24 dBm as part of the hardware installation.

### RF Exposure Evaluation Distance Calculation

#### TR-5plus with 26 dBi antenna

Chan	Freq (MHz)	Output Power to Antenna (dBm)	Output Power to Antenna (mW)	Antenna Gain (dBi)	r (cm)
52	5260	7.94	6.22	20	6.9
60	5300	7.32	5.40	20	6.3
64	5320	7.19	5.24	20	6.3
149	5745	22.94	197	26	79.0
157	5785	22.68	185	26	76.6
165	5825	21.78	151	26	69.2

As shown above, the minimum distance where the MPE limit is reached is **79.0** cm for the TR-5plus product family.