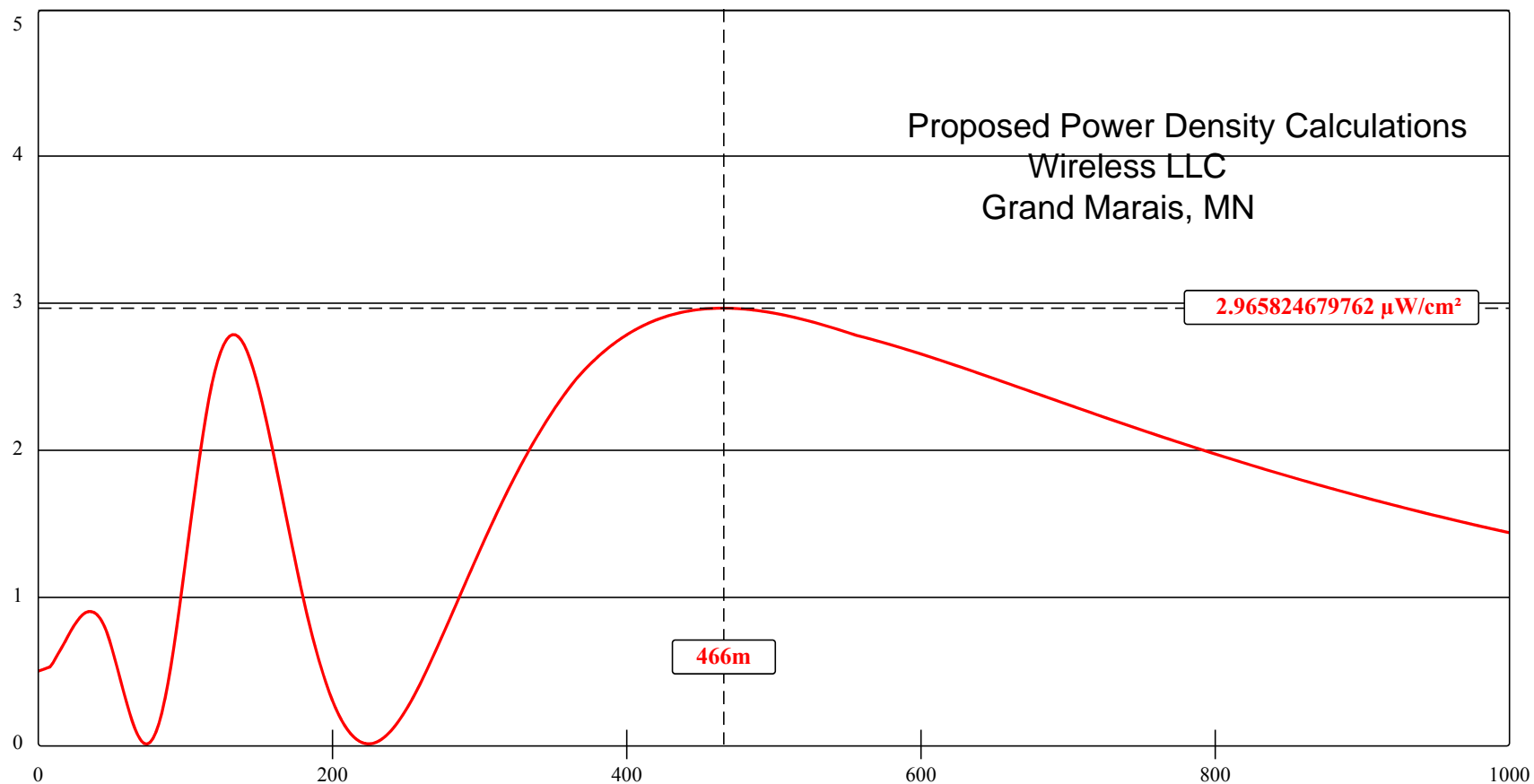


NONIONIZING RADIATION COMPLIANCE
(Page 1 of 2)
Wireless LLC
Grand Marais, MN

The proposed facilities will fully comply with the current FCC Standard with regard to human exposure to nonionizing radiation. These facilities will employ a “Twin V” style (EPA Type 2) five bay half wave spaced circularly polarized non-directional antenna that will be mounted at the 100 meter level on an existing 112.8 meter tower. The power density levels at two meters above ground level for the proposed facilities were calculated using the FCC’s “FM Model” computer program. The results of these calculations are shown in the attached figure. This figure shows that the worst case predicted power density at two meters above ground level for these facilities will be $2.97 \mu\text{W}/\text{cm}^2$, which will occur at a horizontal distance of 466 meters from the base of this tower. Since the permitted power density in the FM band is $200 \mu\text{W}/\text{cm}^2$, this amounts to only 1.49% of the permitted level for uncontrolled exposure. Since this is less than 5% of the permitted level, these facilities are excluded from environmental processing under this standard and need not be considered in conjunction with other co-located or nearby facilities in evaluating uncontrolled exposure compliance with this standard.

The applicant will take appropriate steps to insure that workers that must be on this tower will not be exposed to levels of nonionizing radiation that are in excess of the permitted level for controlled exposure. These steps will include the cessation of operation or a reduction in power, as appropriate, when work becomes necessary in areas on this tower where the power density levels are in excess of the permitted level for controlled exposure.

Because the modifications proposed in the attached application will fully comply with the FCC standard regarding human exposure to nonionizing radiation and don’t involve any tower modifications which would qualify as a major environmental action, it isn’t necessary to undertake any further environmental studies or submit an environmental assessment for these proposed modifications.



[View Tabular Results +](#)

Channel Selection	Channel 245 (96.9 MHz) ▼		
Antenna Type +	EPA Type 2: Opposed V Dipole ▼		
Height (m)	<input type="text" value="100"/>	Distance (m)	<input type="text" value="1000"/>
ERP-H (W)	<input type="text" value="25500"/>	ERP-V (W)	<input type="text" value="25500"/>
Num of Elements	<input type="text" value="5"/>	Element Spacing (λ)	<input type="text" value=".5"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	