

W228EH - Lakewood Township

FacID# 202322 -- 93.5 MHz

**Effective Radiated Power = 250W**

TPO Calculation

<u>System Component</u>	<u>Length (ft)</u>	<u>Loss/100'</u>	<u>Gain/Loss</u>	<u>Units</u>
Antenna Gain			-3.4	dB
Altelix AX600 Transmission Line	50	-0.756	-0.378	dB
Andrew LDF4-50A Transmission Line	10	-0.64	-0.064	dB
Mated connector losses (2 sets)			-0.04	dB
Total Transmission Line Loss			-0.482	dB
Transmission Line Efficiency	Efficiency = $100 * (\text{antilog}(\text{loss}/10))$		89.5	%
Total system gain (loss)			-3.882	dB
<b>Required TPO to achieve ERP</b>	<b>TPO = <math>250W / (\text{antilog}(-3.882/10))</math></b>		<b><u>611</u></b>	<b><u>W</u></b>