

W258DR - New Bedford, MA
FacID# 202288 -- 99.5 MHz
Effective Radiated Power = 128W
TPO Calculation

<u>System Component</u>	<u>Length (ft)</u>	<u>Loss/100'</u>	<u>Gain/Loss</u>	<u>Units</u>
Antenna Gain (Kathrein-Scala FMVMP)			-2	dB
LCF78-50JA Transmission Line	420	-0.35	-1.47	dB
Nicom FBP800 Bandpass Filter			-0.6	dB
Andrew FSJ4-50B RF Jumper	6	-1.038	-0.06228	dB
Total Transmission Line Loss			-2.132	dB
Transmission Line Efficiency	Efficiency = $100 * (\text{antilog}(\text{loss}/10))$		61.2	%
Total system gain (loss)			-4.132	dB
Required TPO to achieve ERP	TPO = $128W / (\text{antilog}(-4.132/10))$		<u>331</u>	<u>W</u>