

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*(antilog(loss/10)) | | 61.2 | % |
| Total system gain (loss) | | | -4.132 | dB |
| Required TPO to achieve ERP | TPO = 128W/(antilog(-4.132/10)) | | 331 | W |