

APPLICATION FOR STATION LICENSE
WOOE, INC.
W296DQ FM TRANSLATOR STATION
CH 296D – 107.1 MHZ – 0.25 KW
DOTHAN, ALABAMA
March 2018

TPO Calculations

Effective Radiated Power:

Horizontal 0.250 kilowatts

Vertical 0.250 kilowatts

| <u>System Component</u> | <u>Length (ft)</u> | <u>Loss/100'</u> | <u>Gain/Loss</u> | <u>Units</u> |
|---|---|-------------------------|-------------------------|---------------------|
| Jampro JLLP-1 (Numeric Power Gain = 0.475) | | | -3.23 | db |
| RFS LCF78-50JA Transmission Line | 266 | - 0.358 | -0.95228 | db |
| Transmission Line Efficiency = $100 \cdot (10^{-(\text{loss}/10)})$ | | | 80.3 | % |
| Total System Gain/Loss | | | - 4.18228 | db |
| Required TPO to achieve ERP | TPO = $0.250\text{kW} / (10^{-(4.18228/10)})$ | | <u>0.655</u> | <u>kW</u> |