

APPLICATION FOR STATION LICENSE
WOOF, 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 = $100 \times (10^{-(\text{loss}/10)})$			80.3	%
Total System Gain/Loss			- 4.18228	db
Required TPO to achieve ERP	$\text{TPO} = 0.250\text{kW} / (10^{-(4.18228/10)})$		<u>0.655</u>	<u>kW</u>