

TPO Calculation Summary

Main Antenna Operation

Call letters: W235BN
City of License: Grand Rapids, MI
Frequency: CH235D (94.9 MHz)
File No: BPFT-20110307AAL
Facility ID: 147568
Applicant: WYGR, LLC

Operating Effective Radiated Power (ERP): 0.250 kW

ANTENNA INFO

Antenna Make: PSI, Inc.
Antenna Model: PSI J711FM-1011(DA)
No of Elements: One (1) Composite Bay
Antenna COR AGL: 125 meters AGL
Antenna COR AMSL: 311 meters AMSL
Power Gain: 1.1

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } 0.4139 \text{ dB}$

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
Generic End Connector	1 at 0.02 dB each		-0.02 dB
Main Transmission Line	Andrew 7/8" Foam LDF5-50A (0.354dB/100 ft)	426 ft	-1.508 dB
Generic End Connector	1 at 0.02 dB each		-0.02 dB
Transmitter-side Jumper	RG8 flex (1.9609 dB/100 ft)	3.5 ft	-0.067 dB
Generic End Connector	1 at 0.02 dB each		-0.02 dB

TOTAL SYSTEM GAIN/LOSS: -1.221 dB

$1 / [[10^{(-1.221/10)}] / \text{ERP}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.331 \text{ kW}$

Munn-Reese, Inc.

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