

TPO Calculation Summary

Main Antenna Operation

Call letters: W261CV
City of License: Harrisonburg, VA
Frequency: CH261D (100.1 MHz)
File No: BPFT-20151029AFO
Facility ID: 139550
Applicant: Tidewater Communications LLC.

Operating Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Propagation Systems, Inc. (PSI)

Antenna Model: PSIFML-1A-DA

No of Elements: One (1)

Antenna COR AGL: 12 meters AGL

Antenna COR AMSL: 974 meters AMSL

Max Input Power: 0.75 kW

Power Gain: 0.61

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } -2.147 \text{ dB}$

Calculated Antenna Input Power: 0.410 kW

Transmitter Make/Model: Gates Air FAX-1K

Transmitter Rated Power: 1.000 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
Type N End Connector	Generic (1@0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Andrew 7/8" LDF5-50A (Foam) (0.364 dB/100 ft)	170 ft	-0.619 dB
Type N End Connector	Generic (1@0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: -2.806 dB

$1 / [10^{(-2.806/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.477 \text{ kW}$