

TPO Calculation Summary

Main Antenna Operation

Call letters: W262BK
City of License: Waynesboro, VA
Frequency: CH262D (100.3 MHz)
File No: BPFT-20150709AAJ
Facility ID: 139550
Applicant: Tidewater Communications LLC.

Operating Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Kathrein Scala Division

Antenna Model: CA2-FM(V)

No of Elements: One (1)

Antenna COR AGL: 25 meters AGL

Antenna COR AMSL: 739 meters AMSL

Max Input Power: 0.25 kW

Power Gain: 2.512

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } 4.000 \text{ dB}$

Calculated Antenna Input Power: 0.100 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
1/2 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Andrew 1/2" LDF4-50A (Foam) (0.662 dB/100 ft)	100 ft	-0.662 dB
1/2 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: 3.298 dB

$1 / [10^{(3.298/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.117 \text{ kW}$