

TPO Calculation Summary

Main Antenna Operation

Call letters: W262CL
 City of License: Brattleboro, VT
 Frequency: CH262D - 100.3 MHz
 File No: BPFT-20130806AAH
 Facility ID: 140890
 Applicant: Saga Communications of New England, LLC

Operating Effective Radiated Power (ERP): 0.105 kW

Antenna Make: Kathrein Scala
 Antenna Model: CL-FM(Slant-45)
 No of Elements: One (1)
 Antenna COR AGL: 27 meters AGL
 Antenna COR AMSL: 483 meters AMSL
 Power Gain: 7 dB - 3 dB = 4 dB due to (H) & (V) Configuration
 Log[power gain]*10 = Antenna Gain: 4.000 dB
 Calculated Antenna Input Power: 0.042 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
7/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dB
Antenna Side Jumper	LMR-400 (1.300 dB/100 ft)	3 ft	-0.039 dB
7/8 Inch End Coupler	Generic (1@0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Andrew 7/8" LDF5-50A (Foam) (0.364 dB/100 ft)	135 ft	-0.491 dB
7/8 Inch End Coupler	Generic (1@0.02 dB each)		-0.020 dB
Transmitter Side Jumper	LMR-400 (1.300 dB/100 ft)	12 ft	-0.156 dB
7/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: 3.234 dB

$1 / [10^{(3.234/10)}] \times \text{ERP} = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.050 \text{ kW}$

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