

TPO Calculation Summary

Main Antenna Operation

Call letters: K261EB
City of License: Lake Charles, LA
Frequency: CH261D (100.1 MHz)
File No: BNPFT-20130327AFM
Facility ID: 156145
Applicant: Black Media Works, Inc.

Operating Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Propagation Systems, Inc. (PSI)

Antenna Model: FML-3(0.75wl)

No of Elements: Three (3)

Antenna COR AGL: 107 meters AGL

Antenna COR AMSL: 110 meters AMSL

Max Input Power: 1.5 kW

Power Gain: 1.396

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } 1.449 \text{ dBd}$

Calculated Antenna Input Power: 0.179 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
7/8 Inch Flange Connector	Generic (1@0.02 dB each)		-0.020 dBd
Main Feedline	Andrew LDF5-50A (7/8" Foam) (0.366 dB/100 ft)	200 ft	-0.732 dBd
Type N End Connector	Generic (1@0.02 dB each)		-0.020 dBd
Transmitter Side Jumper	Andrew LDF5-50A (7/8" Foam) (2.000 dB/100 ft)	3 ft	-0.060 dBd
Type N End Connector	Generic (1@0.02 dB each)		-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: 0.60 dBd

$1 / [10^{(0.60/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.218 \text{ kW}$