

# TPO Calculation Summary

## Main Antenna Operation

Call letters: K218EB  
City of License: Greenville, TX  
Frequency: CH218D (91.5 MHz)  
File No: BPFT-20150424AAS  
Facility ID: 88467  
Applicant: Bible Broadcasting Network, Inc.

Operating Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Propagation Systems Inc. (PSI)

Antenna Model: FML-2

No of Elements: Two (2)

Antenna COR AGL: 53 meters AGL

Antenna COR AMSL: 208 meters AMSL

Max Input Power: 1.0 kW

Power Gain: 0.959

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } -0.182 \text{ dB}$

Calculated Antenna Input Power: 0.261 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)	(0.631 dB/100 ft) 207 ft	-1.306 dB
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: -1.528 dB

$1 / [10^{(-1.528/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.355 \text{ kW}$