

TPO Calculation Summary

Main Antenna Operation

Call letters: W240AW
City of License: Kinston, NC
Frequency: CH240D (95.9 MHz)
File No: BPFT-20130513AVR
Facility ID: 5182
Applicant: Bible Broadcasting Network, Inc.

Operating Effective Radiated Power (ERP): 0.038 kW

Antenna Make: SWR
Antenna Model: FM-1
No of Elements: One (1)
Antenna COR AGL: 80 meters AGL
Antenna COR AMSL: 90 meters AMSL
Power Gain: 0.441

Log[power gain]*10 = Antenna Gain: -3.556 dB
Calculated Antenna Input Power: 0.086 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
Jumper to Antenna	LMR-400 (1.200 dB/100 ft)	3 ft	-0.036 dB
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Andrew 1/2" LDF4-50A (Foam) (0.647 dB/100 ft)	257 ft	-1.663 dB
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB
AM Isocoupler	Kintronic FMC 1.5 Isolation Transformer		-0.200 dB
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB
Main Antenna Feedline (Ground)	Andrew 1/2" LDF5-50A (Foam) (0.647 dB/100 ft)	13 ft	-0.084 dB
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: -5.639 dB
 $1 / [10^{(-5.639/10)}] =$ **CALCULATED TRANSMITTER POWER OUTPUT:** 0.139 kW