

TPO Calculation Summary

Main Antenna Operation

Call letters: W224AF
City of License: Danville, VA
Frequency: CH224D (92.7 MHz)
File No: License Modification for Revised TPO
Facility ID: 5117
Applicant: Bible Broadcasting Network, Inc.

Operating Effective Radiated Power (ERP): 0.023 kW

ANTENNA INFO

Antenna Make: NICOM
Antenna Model: BKG77/1-NDA
No of Elements: One (1)
Antenna COR AGL: 12 meters AGL
Antenna COR AMSL: 285 meters AMSL
Power Gain: 0.47
 $\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } -3.2790 \text{ dB}$

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
Generic End Connector	1 at 0.02 dB each		-0.02 dB
Transmitter to Splitter Jumper	LMR-400 (1.201 dB/100 ft)	3 ft	-0.036 dB
Generic End Connector	1 at 0.02 dB each		-0.02 dB
Main Transmission Line	LMR-400 (1.201 dB/100 ft)	43 ft	-0.516 dB
Generic End Connector	1 at 0.02 dB each		-0.02 dB

TOTAL SYSTEM GAIN/LOSS: -3.891 dB
 $1 / [10^{(-3.891 \text{ dB}/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.056 \text{ kW}$

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