

TPO Calculation Summary

Main Antenna Operation

Call letters: WYFS(FM)
City of License: Savannah, GA
Frequency: CH208C1 (89.5 MHz)
File No: Special Temporary Authorization Request
Facility ID: 5163
Applicant: Bible Broadcasting Network, Inc.

Operating Effective Radiated Power (ERP): 1.000 kW

Antenna Make: Nicom USA, Inc.

Antenna Model: BKG77/1

No of Elements: One (1)

Antenna COR AGL: 152 meters AGL

Antenna COR AMSL: 158 meters AMSL

Max Input Power: 1.0 kW

Power Gain: 0.47

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } -3.279 \text{ dBd}$

Calculated Antenna Input Power: 2.128 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
3/8 Inch Connector	Generic (1@0.02 dB each)		-0.020 dBd
Antenna Side Jumper	Andrew Superflex ETS2-50 (1.147 dB/100 ft)	3 ft	-0.034 dBd
3/8 to 1 5/8 Inch Coupler	Generic (2@0.02 dB each)		-0.040 dBd
Main Feedline	Andrew LDF7-50A (1 5/8" Foam) (0.190 dB/100 ft)	515 ft	-0.979 dBd
1 5/8 Inch Connector	Generic (1@0.02 dB each)		-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: -4.37 dBd

$1 / [10^{(-4.37/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 2.736 \text{ kW}$