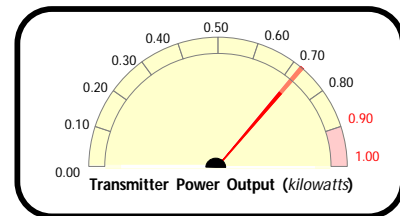


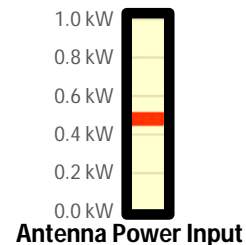
# Transmitter Power Output Worksheet

Call letters: WYHN(FM).C  
 City of License: Washington, IN  
 Channel: CH211A (90.1 MHz)  
 File No: LMS-0000167283  
 Facility ID: 762135  
 Applicant: Bible Broadcasting Network, Inc.



Effective Radiated Power (ERP): 0.420 kW

Antenna Make: Nicom USA, Inc.  
 Antenna Model: BKG88-2L  
 No of Elements: Two (2)  
 Antenna COR AGL: 43 meters AGL  
 Antenna COR AMSL: 185 meters AMSL  
 Max Input Power: 1.000 kW  
 Power Gain: 0.92  
 Antenna Gain: -0.362 dBd  
 Calculated Antenna Input Power: 0.457 kW  
 Transmitter Rated Power: 1.000 kW  
 Transmitter Make/Model: Nautel VS1



Power Gain to Antenna gain (dBd) Conversion:  
 $=\text{Log}[\text{power gain}] * 10$

## Inventory of System / Insertion Losses

Explanation	Component Make/Model	Length	Loss
Typical Type N Connector(s)	Generic (2@0.02 dB each)	n/a	-0.040 dBd
Interbay Antenna Leads	RG-213(foam)(10 ft x 2 leads) (2.000 dB/100 ft)	20 ft	-0.400 dBd
Typical Type N Connector(s)	Generic (2@0.02 dB each)	n/a	-0.040 dBd
Interbay Power Divide	Nicom Series BAC2N	n/a	-0.300 dBd
Typical Type N Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Main Feedline	Andrew LDF4-50A (0.661 dB/100 ft)	169 ft	-1.117 dBd
Typical Type N Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Wattmeter Line Section	Bird BDME Line Section Model BPME7BB-VLP	n/a	-0.050 dBd
Typical Flange Connector	L4E78 - 7/8 EIA Flange Connector (1@0.02 dB each)	n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: -2.37 dBd  
 CALCULATED TRANSMITTER POWER OUTPUT: 0.725 kW  
 (1 / [[10<sup>^</sup>(dB/10)/ERP]] )