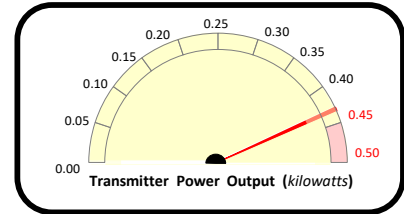


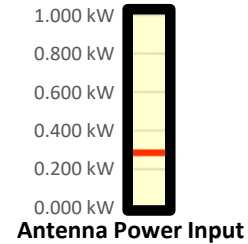
# Transmitter Power Output Worksheet

**Call letters:** K208CK.C  
**City of License:** Scottsbluff, NE  
**Channel:** CH208D (89.5 MHz)  
**File No:** LMS-0000145944  
**Facility ID:** 81603  
**Applicant:** Bible Broadcasting Network, Inc.



**Effective Radiated Power (ERP):** 0.250 kW

**Antenna Make:** Nicom USA, Inc.  
**Antenna Model:** BKG77/2L (DA) (0.85WL)  
**No of Elements:** Two (2)  
**Antenna COR AGL:** 23.0 meters AGL  
**Antenna COR AMSL:** 1310.3 meters AGL  
**Max Input Power:** 1.000 kW



**Power Gain:** 0.9  
**Antenna Gain:** -0.458 dBd  
**Calculated Antenna Input Power:** 0.278 kW  
**Transmitter Rated Power:** 0.500 kW  
**Transmitter Make/Model:** Crown 500

**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 End Connector(s)	Generic (2@0.02 dB each)	n/a	-0.040 dBd
Interbay Antenna Leads	RG-213(foam) (12ft x 2 leads) (2.000 dB/100 ft)	24 ft	-0.480 dBd
Typical End 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 End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Main Feedline (1/2" Foam)	LMR-600 (0.800 dB/100 ft)	94 ft	-0.752 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Lightning Arrestor	Polyphaser IS-50NX-CO (or equivalent)	n/a	-0.100 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Jumper to Transmitter	RG-214 (2.200 dB/100 ft)	6 ft	-0.132 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd

**TOTAL SYSTEM GAIN/LOSS:** -2.38 dBd  
**CALCULATED TRANSMITTER POWER OUTPUT:** 0.433 kW  
 $(1 / [10^{(-2.38/10)} / \text{ERP}])$