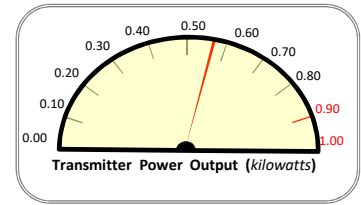


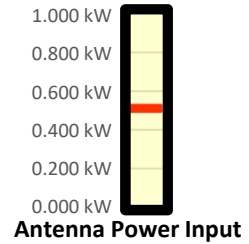
# Transmitter Power Output Worksheet

Call letters: K224FL.C  
 City of License: Cozad, NE  
 Channel: CH224D (92.7 MHz)  
 File No: BNPFT-20171201AFT  
 Facility ID: 200028  
 Applicant: Nebraska Rural Radio Association



Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Nicom USA, Inc. (NIC)  
 Antenna Model: BKG1/P-1L (Slant45) (NDA)  
 No of Elements: One (1)  
 Antenna COR AGL: 44 meters AGL  
 Antenna COR AMSL: 783 meters AMSL  
 Max Input Power: 1.00 kW



Power Gain: 0 dBd - 3 dBd = (-3 dBd) due to (H&V) Configuration

Antenna Gain: -3.000 dBd

Calculated Antenna Input Power: 0.499 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 End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Jumper to Antenna	SCF12-50JFN (Superflex) (0.978 dB/100 ft)	6 ft	-0.059 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
7/8" Foam Feedline	Cellflex LCF78-50JA (0.345 dB/100 ft)	140 ft	-0.483 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd
Jumper to Transmitter	SCF12-50JFN (Superflex) (0.978 dB/100 ft)	6 ft	-0.059 dBd
Typical End Connector	Generic (1@0.02 dB each)	n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: -3.68 dBd

CALCULATED TRANSMITTER POWER OUTPUT: 0.583 kW

$(1 / [10^{(3.68/10)}])$