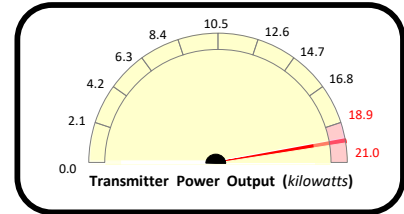


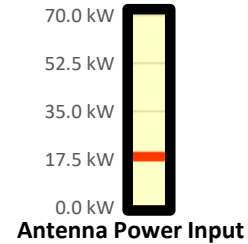
# Transmitter Power Output Worksheet

Call letters: KHYY (FM) .C  
 City of License: Minatare, NE  
 Channel: CH297C0 (107.3 MHz)  
 File No: LMS-0000100427  
 Facility ID: 164136  
 Applicant: Nebraska Rural Radio Association



Effective Radiated Power (ERP): 100.000 kW

Antenna Make: Jampro Antennas, Inc.  
 Antenna Model: JCPB-20HR-.5RFR  
 No of Elements: Twenty (20)  
 Antenna COR AGL: 137 meters AGL  
 Antenna COR AMSL: 1630 meters AMSL  
 Max Input Power: 70.000 kW



Power Gain: 5.7  
 Antenna Gain: 7.559 dBd  
 Calculated Antenna Input Power: 17.544 kW  
 Transmitter Rated Power: 21.000 kW  
 Transmitter Make/Model: Rohde & Schwarz THR9-4

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

## Inventory of System / Insertion Losses

Explanation	Component Make/Model		Length	Loss
Main Feedline (5" Air)	Andrew HJ9-50 Heliax	(0.074 dB/100 ft)	465 ft	-0.344 dBd
CONSTANT IMPEDANCE COMBINER	Jampro Model RCCC-621-FM3H / RCCS-633-2.0H		n/a	-0.200 dBd

TOTAL SYSTEM GAIN/LOSS: 7.01 dBd  
 CALCULATED TRANSMITTER POWER OUTPUT: 19.885 kW  
 $(1 / [10^{(7.01/10)} / \text{ERP}])$