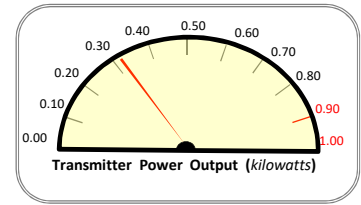


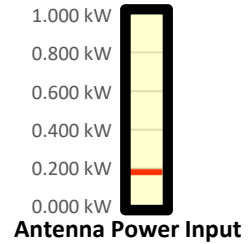
# Transmitter Power Output Worksheet

Call letters: K241CU.C  
 City of License: Fairway, KS  
 Channel: CH241D (96.1 MHz)  
 File No: BNPFT-20171201ACN  
 Facility ID: 200042  
 Applicant: Kansas City Radio, Inc.



Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Nicom USA, Inc. (NIC)  
 Antenna Model: BKY3/P-1DA(Slant45)  
 No of Elements: One (1)  
 Antenna COR AGL: 50 meters AGL  
 Antenna COR AMSL: 315 meters AMSL  
 Max Input Power: 1.00 kW



Power Gain: 4.5 dBd - 3 dBd = (1.5 dBd) due to (H&V) Configuration

Antenna Gain: 1.500 dBd

Calculated Antenna Input Power: 0.177 kW

Transmitter Rated Power: 1.000 kW

Transmitter Make/Model: Nautel VS1000

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
7/8" Foam Feedline (Tower)	Helix AVA5-50FX	(0.347 dB/100 ft)	160 ft	-0.555 dBd
Typical End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
Isocoupler	Kintronics FMC-1.5 Isocoupler		n/a	-0.200 dBd
Typical End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd
7/8" Foam Feedline (Ground)	Helix AVA5-50FX	(0.347 dB/100 ft)	400 ft	-1.388 dBd
Typical End Connector	Generic (1@0.02 dB each)		n/a	-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: -0.72 dBd

CALCULATED TRANSMITTER POWER OUTPUT: 0.295 kW

$(1 / [10^{(dB/10)/ERP}])$