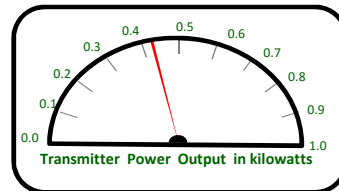
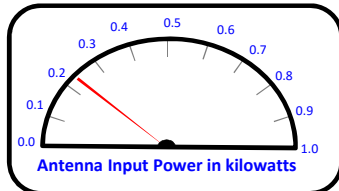


TPO Calculation Summary

Main Antenna Operation

Call letters: K264CD.C
City of License: Des Moines, IA
Frequency: CH264D (100.7 MHz)
File No: BNPFT-20150514AAD
Facility ID: 146022
Applicant: University of Northwestern St. Paul



Operating Effective Radiated Power (ERP): 0.099 kW

Antenna Make: Nicom USA Inc.
Antenna Model: BKG77-1
No of Elements: One (1)
Antenna COR AGL: 120 meters AGL
Antenna COR AMSL: 388 meters AMSL
Max Input Power: 1.0 kW
Power Gain: 0.47

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } -3.279 \text{ dBd}$

Calculated Antenna Input Power: 0.211 kW
Transmitter Make/Model: Nautel VS-1
Transmitter Rated Power: 1.000 kW

System Loss Info:

Description	Component Make/Model	Length	Loss
1/2 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
Main Feedline (tower)	Andrew LDF4-50A (1/2" Foam)	394 ft	-2.612 dBd
Main Feedline (ground)	Andrew LDF4-50A (1/2" Foam)	26 ft	-0.172 dBd
1/2 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
Lightning Arrestor	Polyphaser Model IS-B50HN-CO		-0.100 dBd
1/2 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd
90 Degree Elbow	Generic (1@0.02 dB each)		-0.020 dBd
1/2 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dBd

TOTAL SYSTEM GAIN/LOSS: -6.26 dBd

$1 / [10^{(-6.26/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.419 \text{ kW}$