

TPO Calculation Summary

Auxiliary Antenna Operation

Call letters: KJNW(FM) Auxiliary
City of License: Kansas City, MO
Frequency: CH203C1 (88.5 MHz)
File No: BXPED-20140430ABP
Facility ID: 8401
Applicant: University of North Western St. Paul

Operating Effective Radiated Power (ERP): 3.100 kW

Antenna Make: Electronic Research Inc. (ERI)

Antenna Model: LPX-2E-HW

No of Elements: Two (2)

Antenna COR AGL: 115 meters AGL

Antenna COR AMSL: 394 meters AMSL

Power Gain: 0.702

Log[power gain]*10 = **Antenna Gain:** -1.537 dB

Calculated Antenna Input Power: 4.416 kW

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
7/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Andrew HJ5-50 7/8" (Air)	(0.347 dB/100 ft) 20 ft	-0.069 dB
7/8 Inch End Connector	Generic (1@0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: -1.646 dB

$1 / [10^{(-1.646/10)}] =$ **CALCULATED TRANSMITTER POWER OUTPUT:** 4.529 kW