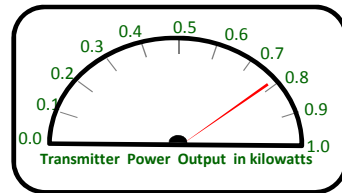
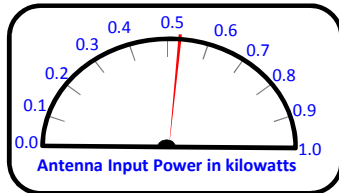


TPO Calculation Summary

Main Antenna Operation

Call letters: K238BA
City of License: Mitchell, SD
Frequency: CH238D (95.5 MHz)
File No: BPFT-20141001CCH
Facility ID: 148217
Applicant: Saga Communications of South Dakota, LLC



Operating Effective Radiated Power (ERP): 0.250 kW

Antenna Make: Nicom USA Inc.
Antenna Model: BKG/77-1(NDA)
No of Elements: One (1)
Antenna COR AGL: 78 meters AGL
Antenna COR AMSL: 486 meters AMSL
Max Input Power: 1.0 kW
Power Gain: 0.47

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

Calculated Antenna Input Power: 0.532 kW

Transmitter Make/Model: TBD

Transmitter Rated Power: 1.0 kW

System Loss Info:

Description	Component Make/Model	Length	Loss
7/8 Inch End Connector	Generic (1 @ 0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Cablewave LCF78-50JA 7/8" (Foam) (0.345 dB/100 ft)	300 ft	-1.035 dB
7/8 Inch End Connector	Generic (1 @ 0.02 dB each)		-0.020 dB
FM Multifrequency Diplexer	Microwave Filter Co. Model 191669 Diplexer		-0.500 dB
7/8 Inch End Connector	Generic (1 @ 0.02 dB each)		-0.020 dB
Transmitter Side Jumper	RG-8 (1.900 dB/100 ft)	10 ft	-0.190 dB
7/8 Inch End Connector	Generic (1 @ 0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: -5.084 dB

$1 / [10^{(-5.084/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 0.806 \text{ kW}$