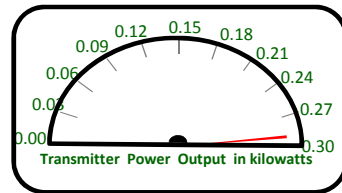
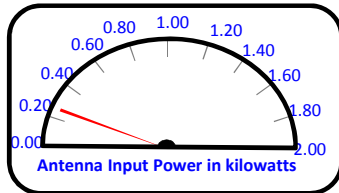


# TPO Calculation Summary

## Main Antenna Operation

**Call letters:** W231BR  
**City of License:** Manchester, NH  
**Frequency:** CH231D (94.1 MHz)  
**File No:** BPFT-20140602BCI  
**Facility ID:** 140894  
**Applicant:** Saga Communications of New England, LLC



**Operating Effective Radiated Power (ERP):** 0.250 kW

**Antenna Make:** Nicom  
**Antenna Model:** BKY3/P(Slant45)  
**No of Elements:** One (1)  
**Antenna COR AGL:** 79 meters AGL  
**Antenna COR AMSL:** 142 meters AMSL  
**Max Input Power:** 2.0 kW

**Power Gain:** 1.122 (4.5 dB - 3 dB)

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain:}$  0.500 dB

**Calculated Antenna Input Power:** 0.223 kW

**Transmitter Make/Model:** Crown 300

**Transmitter Rated Power:** 0.300 kW

### System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB
Main Antenna Feedline	RFS 1/2" ICA12-50JPL (Air)	(0.665 dB/100 ft) 170 ft	-1.131 dB
1/2 Inch End Connector	Generic (1 @0.02 dB each)		-0.020 dB

**TOTAL SYSTEM GAIN/LOSS:** -0.671 dB

$1 / [10^{(-0.671/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT:}$  0.292 kW