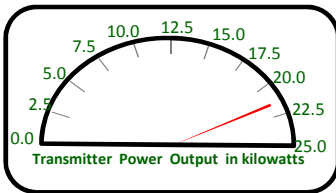
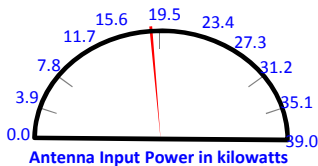


TPO Calculation Summary Main Antenna Operation

PRELIMINARY - NOT FINAL!!!

Call letters: **WKOA(FM)**
City of License: **Lafayette, IN.**
Frequency: **CH287B 105.3 MHz.**
File No: **BPH-20140310AAG**
Facility ID: **71064**
Applicant: **WASK,Inc.**



Operating Effective Radiated Power (ERP): **50.0 kW**

Antenna Make: **ERI**
Antenna Model: **SHPX-5AC**
No of Elements: **Five (5)**
Antenna COR AGL: **144 meters AGL**
Antenna COR AMSL: **344 meters AMSL**
Max Input Power: **39.0 kW**
Power Gain: **2.7154**

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } 4.338 \text{ dB}$

Calculated Antenna Input Power: **18.413 kW**

Transmitter Make/Model: **Broadcast Electronics**

System Loss Info:

<u>Description</u>	<u>Component Make/Model</u>	<u>Length</u>	<u>Loss</u>
3-1/8 Inch End Connector	Generic (1 @ 0.02 dB each)		-0.020 dB
Main Antenna Feedline (Tower)	Andrew 3.0" HJ8-50A (Air) (0.148 dB/100 ft)	480 ft	-0.710 dB
3-1/8 Inch End Connector	Generic (1 @ 0.02 dB each)		-0.020 dB

TOTAL SYSTEM GAIN/LOSS: **3.588 dB**

$1 / [10^{(3.588/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 21.886 \text{ kW}$

Yellow Highlighted Text Denotes Sample (generic) Values Requiring Verification