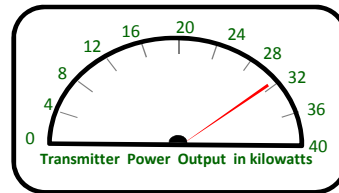
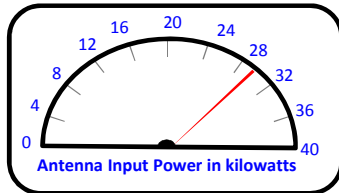


TPO Calculation Summary

Main Antenna Operation

Call letters: WYBK(FM)
City of License: Chattanooga, TN
Frequency: CH209C1 (89.7 MHz)
File No: BMLED-20080815ABL (License Modification)
Facility ID: 65216
Applicant: Bible Broadcasting Network, Inc.



Operating Effective Radiated Power (ERP): 100.0 kW

Antenna Make: Shively Labs, Inc.

Antenna Model: 6810-6

No of Elements: Six (6)

Antenna COR AGL: 51 meters AGL

Antenna COR AMSL: 655 meters AMSL

Max Input Power: 40.0 kW

Power Gain: 3.28

$\text{Log}[\text{power gain}] * 10 = \text{Antenna Gain: } 5.159 \text{ dB}$

Calculated Antenna Input Power: 30.488 kW

Transmitter Make/Model: Nautel VS300

Transmitter Rated Power: 40.0 kW

System Loss Info:

Description	Component Make/Model	Length	Loss
3 Inch End Connector	Generic (1@0.01 dB each)		-0.010 dB
Main Antenna Feedline (Tower)	Andrew 3" HJ8-50B (Air) (0.136 dB/100 ft)	175 ft	-0.238 dB
3 Inch End Connector	Generic (1@0.01 dB each)		-0.010 dB

TOTAL SYSTEM GAIN/LOSS: 4.901 dB

$1 / [10^{(4.901/10)}] = \text{CALCULATED TRANSMITTER POWER OUTPUT: } 32.354 \text{ kW}$