

## Transmitter Power Output Calculation

### KLAB (FM) Auxiliary Antenna

Channel 266C3 – 101.1 MHz  
5.1 kW ERP – 455.0 m COR AMSL  
Siloam Springs, Arkansas  
July 2020

Given:

Effective Radiated Power: 5.1 kW

Antenna Gain (Multiplier): 2.1

Transmission Line Efficiency: 82.99%

Connector Efficiency: 98.62%

Calculation:

5.1 kW Effective Radiated Power  $\div$  2.1 Antenna Gain = 2.4286 kW Antenna Input Power

2.4286 kW Antenna Input Power  $\div$  0.8299 Transmission Line Efficiency  $\div$  0.9862 Connector Efficiency = 2.97 kW Transmitter Power Output\*

\* 2.97 kW rounds to 3.0 kW per §73.212(a)