

## Transmitter Power Output Calculation

### Translator K279CR

Channel 271D – 103.7 MHz

0.250 kW ERP (DA) – 492.9 m COR AMSL

Oklahoma City, Oklahoma

August 2022

Given:

Effective Radiated Power: 0.250 kW

Antenna Gain (Multiplier): 2.51

Transmission Line Efficiency: 65.45%

Isocoupler Efficiency: 98.67%

Calculation:

0.250 kW Effective Radiated Power  $\div$  2.51 Antenna Gain = 0.09960 kW Antenna Input Power

0.09960 kW Antenna Input Power  $\div$  0.6545 Transmission Line Efficiency  $\div$  0.9867 Isocoupler Efficiency = 0.1542 kW Transmitter Power Output\*

\* 0.1542 kW rounds to 0.155 kW per §73.212(a)