

## **Transmitter Power Output Calculation**

### **Translator W290DG**

Channel 290D – 105.9 MHz

0.250 kW ERP – 168.2 m COR AMSL

Dothan, Alabama

April 2022

Given:

Effective Radiated Power: 0.250 kW

Antenna Gain (Multiplier): 1.0

Transmission Line Efficiency: 75.55%

Jumper Efficiency: 99.40%

Calculation:

0.250 kW Effective Radiated Power  $\div$  1.0 Antenna Gain = 0.250 kW Antenna Input Power

0.250 kW Antenna Input Power  $\div$  0.7555 Transmission Line Efficiency  $\div$  0.9940 Jumper Efficiency = 0.3329 kW Transmitter Power Output\*

\* 0.3329 kW Transmitter Power Output rounds to 0.330 kW per §73.212(a).