

## **Transmitter Power Output Calculation**

### **Translator W225BN**

Channel 225D – 92.9 MHz

0.250 kW ERP – 182 m COR AMSL

Corinth, Mississippi

September 2015

Given:

Effective Radiated Power: 0.250 kW

Antenna Gain (Multiplier): 0.9

Transmission Line Efficiency: 79%

Isocoupler Efficiency: 95.5% (0.2 dB)

Calculation:

0.250 kW Effective Radiated Power  $\div$  0.9 Antenna Gain = 0.278 kW Antenna Input Power

0.278 kW Antenna Input Power  $\div$  0.79 Transmission Line Efficiency  $\div$  0.955 Isocoupler Efficiency = 0.368 kW Transmitter Power Output\*

\* 0.368 kW Transmitter Power Output rounds to 0.370 kW per §73.212(a).