

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:

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

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

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