

Transmitter Power Output Calculation Translator K225CS

Channel 225D – 92.9 MHz
0.250 kW ERP – 432 m COR AMSL
Joplin, Missouri
October 2019

Given:

Effective Radiated Power: 0.250 kW
Antenna Gain (Multiplier): 0.42
Transmission Line Efficiency: 68.0%
Connector Efficiency: 98.57%
Isocoupler Efficiency: 91.20%

Calculation:

0.250 kW Effective Radiated Power \div 0.42 Antenna Gain = 0.595 kW Antenna Input Power

0.595 kW Antenna Input Power \div 0.68 Transmission Line Efficiency \div 0.9857 Connector Efficiency \div 0.912 Isocoupler Efficiency = 0.973 kW Transmitter Power Output*

* 0.973 kW Transmitter Power Output rounds to 0.970 kW per §73.212(a).