

Transmitter Power Output Calculation

WTCD (FM)

Channel 245C2 – 96.9 MHz

16.5 kW ERP – 267 m HAAT

Indianola, Mississippi

October 2018

Given:

Effective Radiated Power: 16.5 kW

Antenna Gain (Multiplier): 2.1332

Transmission Line Efficiency: 68.0%

Calculation:

16.5 kW Effective Radiated Power \div 2.1332 Antenna Gain = 7.735 kW Antenna Input Power

7.735 kW Antenna Input Power \div 0.68 Transmission Line Efficiency = 11.375 kW Transmitter Power Output*

* 11.375 kW Transmitter Power Output rounds to 11.5 kW per §73.212(a).