

Translator W283CT
104.5 mHz – 180 Watts – 387 M AMSL
Douglasville, GA
April 2021

Transmitter Power Output Calculation

Given:

ERP	180 Watts
Antenna Gain	1.861 (multiplier)
Shively 6812C 3-bay (DA)	
Transmission Line Efficiency	85%
Isocoupler Efficiency	97.7%

180 Watts ERP divided by the antenna gain of 1.861 = an antenna input of 96.72 Watts.

96.72 Watts divided by the transmission line efficiency of 85% = 113.78 Watts

113.78 Watts divided by the Isocoupler efficiency of 97.7% = a TPO of 116.45

Per Section 73.212(a) of the Commission's rules, 116.45 Watts rounds to 115 Watts Transmitter Power Output.