

Translator W271DK
102.1 mHz – 250 Watts – 434.7 M AMSL
Dallas, GA
September 2021

Transmitter Power Output Calculation

Given:

ERP	250 Watts
Antenna Gain	2.51 (multiplier)
Shively 6812C 3-bay (DA)	
Transmission Line Efficiency	61%
Connector Efficiency	99.2%

250 Watts ERP divided by the antenna gain of 2.51 = an antenna input of 99.6 Watts.

99.6 Watts divided by the transmission line efficiency of 61% = 163.278 Watts

163.278 Watts divided by the connector efficiency of 99.2% = a TPO of 164.59 Watts

Per Section 73.212(a) of the Commission's rules, 164.59 Watts rounds to 165 Watts Transmitter Power Output.