



402 Tenth Avenue • PO Box 367 • Haddon Heights, NJ 08035

Engineering Report
Transmitter Power Calculation
W221EQ Front Royal, VA
May 2023

Effective Radiated Power	250 Watts
Antenna Type	Radiotech Moxon -1 Array 1 Bay
Antenna Gain	2.79 X
Antenna Input Power	86.2 Watts
Transmission Line	LMR-600 @ -2.39 db/100 m
Length	15.3 m
Efficiency	91.9%
Power at line input	93.798 Watts
Transmission Line	LMR-400 @ -3.7 db/100 m
Length	15.3 m
Efficiency	87.5%
Power at line input	107.17 Watts
Fittings 6 at 0.05db = 0.3db	93.3%
Transmitter Power Input Required	114.89 Watts
For Rated ERP (Rounded Per 73.212)	115.0 Watts