

**EXHIBIT #12**  
**TRANSMITTER OUTPUT POWER**

Northern Arizona University  
K291AL  
Prescott, Arizona  
License to Cover  
BNPFT-20030828ARG

CH 291D

0.01 kW H & V

Transmission line efficiency = 91.3% - Andrew 1/2" Heliax HJ4-50 Air line

Power Gain of Antenna = 0.46 – Bext TFC2K

ERP = 0.01 kW H & V

TPO = ERP/(efficiency\*gain)

TPO = 0.01/(0.913\*0.46)

TPO = 0.0238 kW