

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

Northern Arizona University  
K228EA  
Payson, Arizona  
License to Cover  
BMPFT-20060706AET

CH 228D

0.01 kW H & V

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

Power Gain of Antenna = 0.46 – Shively 6812

ERP = 0.01 kW H & V

$TPO = ERP / (\text{efficiency} * \text{gain})$

$TPO = 0.01 / (0.913 * 0.46)$

TPO = 0.0238 kW