

## TPO Calculations for W212CL

### System Losses:

1. Transmission line – (Andrew LDF4-50A 40 meters) .85 dB
2. Bandpass Cavity (Telewave TBPC 1008-1) 1 dB
3. SuperFlex 2 -(Andrew FSJ4-50B) .2dB
4. Polyphaser .1dB
5. Low Pass Isolator (Telewave T1030) .3dB

Total System losses: 2.25 dB

Antenna Gain (Scala GPFM): 0

Net Loss:  $2.25 - 0 = 2.25$  dB

ERP = 170 Watts

Convert to dBm

$10\log(170/.001) = 52.3$  dBm

TPO

$52.3 \text{ dBm} + 2.25 = 54.55 \text{ dBm}$

Convert to Watts

$10^{(54.55/10)} \cdot .001 = 285$  watts