

## Transmitter Power Calculations W282AZ Greensburg Indiana

The transmitting antenna is a 4 bay .7062 Wavelength spaced antenna system. The gain figure for the antenna is **1.17 db**.

Losses for the entire transmission system include the antenna cable to feed the antenna and the combiner system.

### Loss of Cable

63 meters of ½ inch C type cable produces 1.87 db loss from the combiner to the antenna system. Total cable loss is **1.87 db**.

The combiner (.8 mhz spacing) has a loss factor measured at 2db. Total combiner loss is **2db**.

Total gain is **1.17**. Total Loss is **3.87** db.

Transmitter Power 51 watts – total loss 3.87 = 27.39 watts.

Transmitter Power of **51** watts into the combiner and antenna equals **27.39** watts output. 27.39 watts rounds downward to 27 watts.

The transmitter is capable of 100 watts total power output and will operate at 51 watts.

The Licensed Power Output is 27 watts.