

^ Click to change

## SYSTEM POWER ANALYSIS

---

**W229DE****93.7 MHz.****Fond du Lac, WI****TRANSMISSION SYSTEM:****VERTICAL RUN:**

**Type:** Andrew AVA5-50J 7/8 in. Foam Line  
**Length:** 100 feet  
**Attenuation:** 0.3306 dB/100-feet  
**Loss this section:** 0.331 dB

**HORIZONTAL RUN:**

**Type:** Andrew AVA5-50J 7/8 in. Foam Line  
**Length:** 90 feet  
**Attenuation:** 0.3306 dB/100 Feet  
**Loss this section:** 0.298 dB

**TOTAL TRANSMISSION SYSTEM:**

**Total Attenuation:** 0.63 dB  
**Coax Efficiency:** 86.53% %  
**Coax Power Rating:** 7.94 kW  
**\*Coax Safety Factor:** 11.02 dB \*

**OTHER LOSSES AND DERATING INFO:**

**Filter Loss:** 0.00 dB  
**Connector Loss:** 0.1 dB  
**Antenna Height AMSL:** 0 Ft  
**Ambient Temperature:** 68 °F  
**Derated for 1.3:1 VSWR** 6.11 kW  
**Derated for Elevation** 6.11 kW  
**Derated for Temperature** 6.11 kW  
**Safety Amount (Derate-TPO)** 5.48 kW \*\*

**STATION ERP:**

**kW:** 0.25  
**dBk:** -6.02

**ANTENNA DETAIL****CP**

**Brand** Shively  
**Bays** 1  
**Spacing** 1

**ANTENNA POWER GAIN:**

**Numeric:** 0.460  
**dBd:** -0.362

**ANTENNA INPUT POWER:**

**kW:** 0.543  
**dBk:** -2.648

**Total System Losses:**

**dBk:** 0.728

**TRANSMITTER POWER OUTPUT:**

**kW:** 0.643  
**dBk:** -1.920

**Date:** 22-Aug-2018

Provided by Bobgroome.us who is not responsible for errors of any kind

\* Not including altitude, temperature and VSWR safety margin.

\*\* The kW Difference number should be over 0 to allow for a VSWR of 1.3:1 at the load.

The antenna gains are approximate; Not all makes have gains for all configurations.

This program does not check for the correct connectors nor antenna input power rating.

Errors occur for non logical arrays; ie: one bay half wave is not possible

\* & \*\* If cell/value is red, coax not large enough