

VALIDATION OF TOTAL POWER GAIN CALCULATION

WAVX 90.9 Schuyler Falls, NY

MODEL 6014-1/1-DA

Elevation Gain of Antenna 0.46

The RMS values are calculated utilizing the data of a planimeter

Horizontal RMS value divided by the Vertical RMS value equals the Horiz. - Vert. Ratio

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|-------|-------|-------|-------|-----------|-------|
| H RMS | 0.446 | V RMS | 0.441 | H/V Ratio | 1.011 |
|-------|-------|-------|-------|-----------|-------|

Elevation Gain of Horizontal Component 0.465

Elevation Gain of Vertical Component 0.455

Horizontal Azimuth Gain equals 1/(RMS)SQ. 5.027

Vertical Azimuth Gain equals 1/(RMS/Max Vert)SQ. 5.040

Max. Vertical 0.99

***Total Horizontal Power Gain is the Elevation Gain Times the Azimuth Gain**

Total Horizontal Power Gain = 2.339

***Total Vertical Power Gain is the Elevation Gain Times the Azimuth Gain**

Total Vertical Power Gain = 2.292

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ERP divided by Horizontal Power Gain equals Antenna Input Power

2.7 KW ERP Equals 1.154 KW Antenna Input Power

Antenna Input Power times Vertical Power Gain equals Vertical ERP

1.154 KW Times 2.292 KW Equals 2.646 KW ERP

Maximum Value of the Vertical Component squared times the Maximum ERP equals the Vertical ERP

0.99 Equals 2.646 KW Vertical ERP

NOTE: Calculating the ERP of the Vertical Component by two methods validates the total power gain calculations