

KHGI-TV
Channel 18 - Kearney NE
ERP = 1000000.00 WATTS

APPENDIX A

Maximum ERP 1000 kW

Polarization ----- 2 Circular
 Antenna Height Above Ground -- 345.1 meters 1132.2 feet
 FCC Uncontrolled RFR Limit ---- 331.33 $\mu\text{W}/\text{cm}^2$

Maximum Computed Power Density 0.219 $\mu\text{W}/\text{cm}^2$
 0.07% of limit

| Angle Below Horizontal (degrees) | <Point X> Horiz Distance from tower to 2 m AGL (meters) | Slant Distance from antenna to Point X (meters) | Vertical Pattern (REL. FIELD) | KHGI-TV ERP (kW) | KHGI-TV Calculated Power Density $\mu\text{W}/\text{cm}^2$ | Percent Limit | Limit Exceeded? |
|---|---|--|-------------------------------------|------------------------|--|------------------|--------------------|
| 1 | | | 1.000 | 1000.0000 | | | |
| 5 | 3921.7 | 3936.6 | 0.160 | 25.6000 | 0.110 | 0.03% | No |
| 10 | 1945.8 | 1975.8 | 0.075 | 5.6250 | 0.096 | 0.03% | No |
| 15 | 1280.5 | 1325.6 | 0.031 | 0.9610 | 0.037 | 0.01% | No |
| 20 | 942.7 | 1003.2 | 0.027 | 0.7290 | 0.048 | 0.01% | No |
| 25 | 735.8 | 811.8 | 0.042 | 1.7640 | 0.179 | 0.05% | No |
| 30 | 594.3 | 686.2 | 0.008 | 0.0640 | 0.009 | 0.00% | No |
| 35 | 490.0 | 598.2 | 0.032 | 1.0240 | 0.191 | 0.06% | No |
| 40 | 408.9 | 533.8 | 0.028 | 0.7840 | 0.184 | 0.06% | No |
| 45 | 343.1 | 485.2 | 0.020 | 0.4000 | 0.113 | 0.03% | No |
| 50 | 287.9 | 447.9 | 0.023 | 0.5290 | 0.176 | 0.05% | No |
| 55 | 240.2 | 418.8 | 0.024 | 0.5760 | 0.219 | 0.07% | No |
| 60 | 198.1 | 396.2 | 0.009 | 0.0810 | 0.034 | 0.01% | No |
| 65 | 160.0 | 378.6 | 0.018 | 0.3240 | 0.151 | 0.05% | No |
| 70 | 124.9 | 365.1 | 0.017 | 0.2890 | 0.145 | 0.04% | No |
| 75 | 91.9 | 355.2 | 0.013 | 0.1690 | 0.089 | 0.03% | No |
| 80 | 60.5 | 348.4 | 0.005 | 0.0250 | 0.014 | 0.00% | No |
| 85 | 30.0 | 344.4 | 0.003 | 0.0090 | 0.005 | 0.00% | No |
| 90 | 0.0 | 343.1 | 0.000 | 0.0000 | 0.000 | 0.00% | No |

