

Engineering Statement
In Support of an
Application for a Construction Permit
KWIC, Topeka, Kansas

KKBZ Protected/KWIC Interfering FM Overlap Study

KKBZ
Channel = 257C2
Max ERP = 50 kW
RCAMSL = 468 M
N. Lat = 40 33 12
W. Lng = 95 07 18

KWIC
Channel = 257C3
Max ERP = 6 kW
RCAMSL = 427.3 M
N. Lat = 39 03 50
W. Lng = 95 45 49

Protected
60 dBu

Interfering
40 dBu

| Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Azimuth (degrees) | ERP (kW) | HAAT (m) | Dist (km) | Actual (dBu) |
|----------------------|-------------|-------------|--------------|----------------------|-------------|-------------|--------------|-----------------|
| 000.0 | 050.0000 | 0126.5 | 048.9 | 014.1 | 006.0000 | 0130.6 | 221.2 | 15.6 |
| 010.0 | 050.0000 | 0117.5 | 047.6 | 016.2 | 006.0000 | 0133.2 | 221.4 | 15.6 |
| 020.0 | 050.0000 | 0117.4 | 047.6 | 018.4 | 006.0000 | 0134.5 | 221.8 | 15.6 |
| 030.0 | 050.0000 | 0124.7 | 048.7 | 020.5 | 006.0000 | 0134.4 | 222.1 | 15.5 |
| 040.0 | 050.0000 | 0136.8 | 050.4 | 022.7 | 006.0000 | 0131.0 | 221.8 | 15.5 |
| 050.0 | 050.0000 | 0150.6 | 052.3 | 025.1 | 006.0000 | 0130.9 | 220.5 | 15.7 |
| 060.0 | 050.0000 | 0157.1 | 053.1 | 027.3 | 006.0000 | 0132.4 | 216.8 | 16.4 |
| 070.0 | 050.0000 | 0153.1 | 052.6 | 029.2 | 006.0000 | 0134.4 | 211.0 | 17.5 |
| 080.0 | 050.0000 | 0146.1 | 051.7 | 030.8 | 006.0000 | 0136.6 | 204.0 | 18.8 |
| 090.0 | 050.0000 | 0154.6 | 052.8 | 032.6 | 006.0000 | 0136.8 | 197.4 | 19.8 |
| 100.0 | 050.0000 | 0159.6 | 053.4 | 034.1 | 006.0000 | 0138.4 | 189.6 | 21.3 |
| 110.0 | 050.0000 | 0158.6 | 053.3 | 035.1 | 006.0000 | 0138.7 | 180.8 | 22.9 |
| 120.0 | 050.0000 | 0167.1 | 054.3 | 036.0 | 006.0000 | 0139.0 | 171.9 | 24.5 |
| 130.0 | 050.0000 | 0163.6 | 053.9 | 035.9 | 006.0000 | 0139.0 | 162.4 | 26.2 |
| 140.0 | 050.0000 | 0167.2 | 054.3 | 035.6 | 006.0000 | 0138.9 | 153.1 | 27.8 |
| 150.0 | 050.0000 | 0163.7 | 053.9 | 034.3 | 006.0000 | 0138.5 | 144.3 | 29.2 |
| 160.0 | 050.0000 | 0164.2 | 054.0 | 032.3 | 006.0000 | 0136.6 | 136.3 | 30.7 |
| 170.0 | 050.0000 | 0176.3 | 055.2 | 029.9 | 006.0000 | 0135.5 | 128.5 | 32.2 |
| 180.0 | 050.0000 | 0169.8 | 054.6 | 026.2 | 006.0000 | 0131.4 | 123.8 | 33.0 |
| 190.0 | 050.0000 | 0155.5 | 052.9 | 021.8 | 006.0000 | 0132.4 | 122.2 | 33.3 |
| 200.0 | 050.0000 | 0142.5 | 051.2 | 017.6 | 006.0000 | 0134.6 | 123.2 | 33.2 |
| 210.0 | 050.0000 | 0133.6 | 049.9 | 013.7 | 006.0000 | 0130.2 | 125.8 | 32.6 |
| 220.0 | 050.0000 | 0139.1 | 050.7 | 010.0 | 006.0000 | 0122.1 | 128.5 | 31.8 |
| 230.0 | 050.0000 | 0137.9 | 050.5 | 006.9 | 006.0000 | 0125.1 | 133.9 | 30.9 |
| 240.0 | 050.0000 | 0146.5 | 051.7 | 004.2 | 006.0000 | 0128.8 | 139.9 | 29.8 |
| 250.0 | 050.0000 | 0153.1 | 052.6 | 002.2 | 006.0000 | 0130.0 | 147.5 | 28.4 |
| 260.0 | 050.0000 | 0147.9 | 051.9 | 001.4 | 006.0000 | 0131.2 | 156.4 | 27.0 |
| 270.0 | 050.0000 | 0144.2 | 051.4 | 001.2 | 006.0000 | 0131.5 | 165.4 | 25.4 |
| 280.0 | 050.0000 | 0143.5 | 051.3 | 001.4 | 006.0000 | 0131.1 | 174.3 | 23.8 |
| 290.0 | 050.0000 | 0139.7 | 050.8 | 002.2 | 006.0000 | 0129.9 | 182.9 | 22.3 |
| 300.0 | 050.0000 | 0142.0 | 051.1 | 003.1 | 006.0000 | 0129.3 | 191.2 | 20.7 |
| 310.0 | 050.0000 | 0141.5 | 051.0 | 004.5 | 006.0000 | 0128.6 | 198.8 | 19.4 |
| 320.0 | 050.0000 | 0143.1 | 051.3 | 006.0 | 006.0000 | 0127.3 | 205.8 | 18.3 |
| 330.0 | 050.0000 | 0136.0 | 050.3 | 007.9 | 006.0000 | 0121.1 | 211.0 | 17.2 |
| 340.0 | 050.0000 | 0133.9 | 050.0 | 009.9 | 006.0000 | 0121.8 | 215.7 | 16.4 |
| 350.0 | 050.0000 | 0129.2 | 049.3 | 012.0 | 006.0000 | 0127.7 | 218.9 | 16.0 |