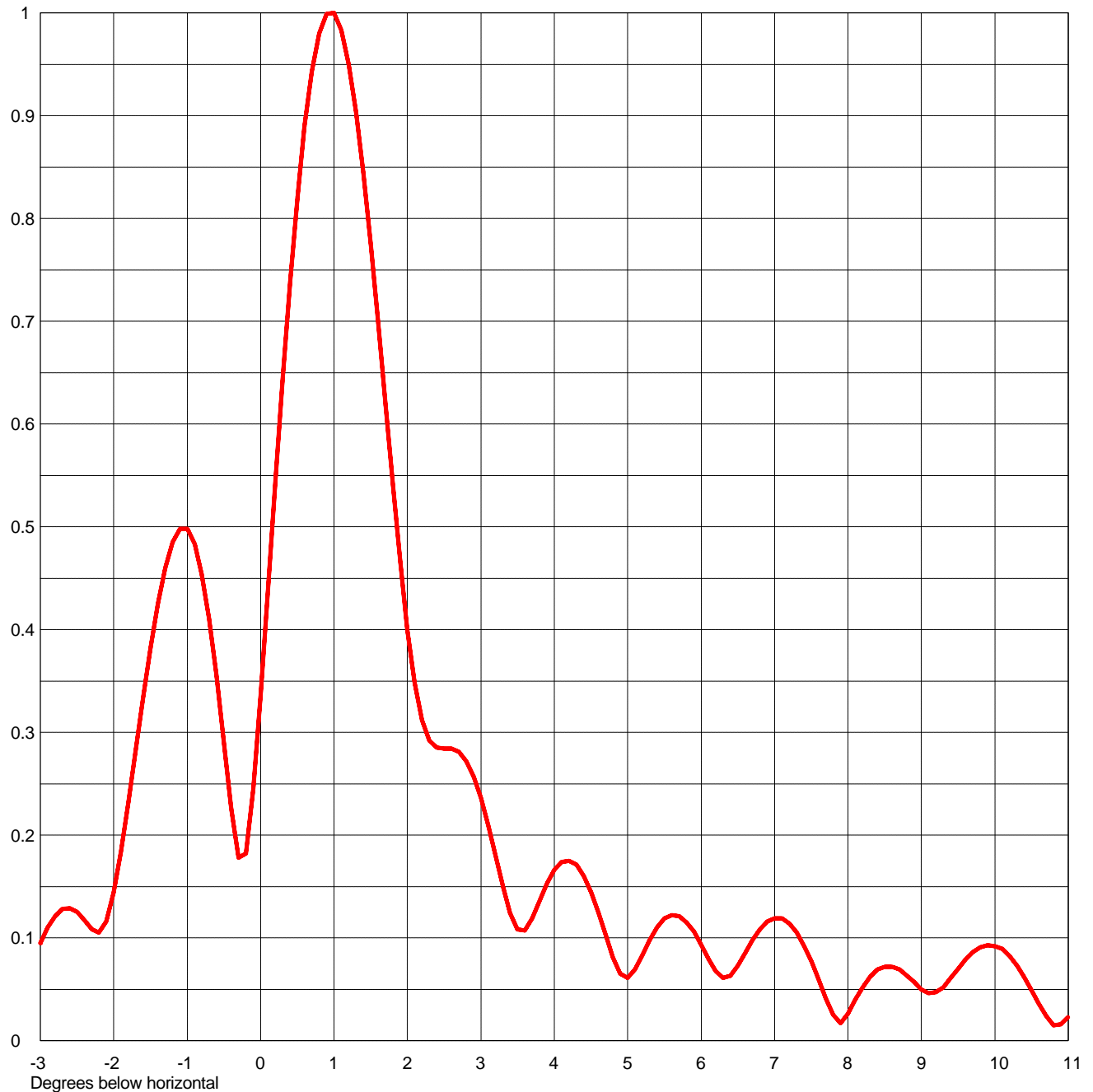




| | | | |
|-----------------|--------------------------|----------|-----------|
| Proposal Number | | Revision | |
| Date | 10 May 2002 | | |
| Call Letters | KQCA-DT | Channel | 46 |
| Location | Stockton, CA | | |
| Customer | | | |
| Antenna Type | TUG-O5-16/80H-2-B | | |

ELEVATION PATTERN

| | | | |
|------------------------|------------------------|-----------|-----------------------|
| RMS Gain at Main Lobe | 31.7 (15.01 dB) | Beam Tilt | 1.00 Degrees |
| RMS Gain at Horizontal | 3.6 (5.56 dB) | Frequency | 665.00 MHz |
| Calculated / Measured | Calculated | Drawing # | 16U316100-B665 |



Remarks:



Proposal Number

Revision

Date

10 May 2002

Call Letters

KQCA-DT

Channel

46

Location

Stockton, CA

Customer

Antenna Type

TUG-O5-16/80H-2-B

ELEVATION PATTERN

RMS Gain at Main Lobe

31.7 (15.01 dB)

Beam Tilt

1.00 Degrees

RMS Gain at Horizontal

3.6 (5.56 dB)

Frequency

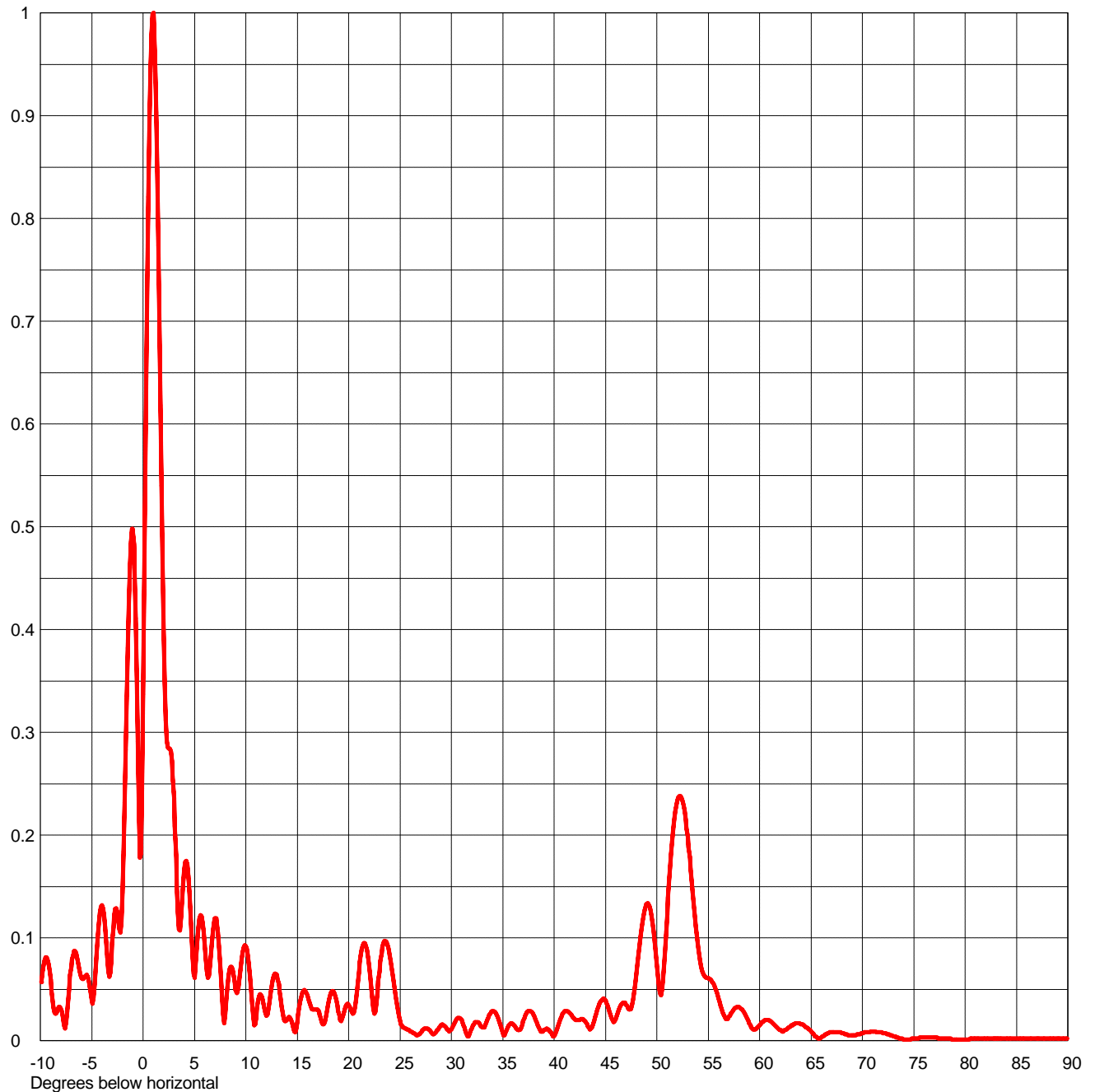
665.00 MHz

Calculated / Measured

Calculated

Drawing #

16U316100-90-B665



Remarks:



Proposal Number
 Date **10 May 2002**
 Call Letters **KQCA-DT** Channel **46**
 Location **Stockton, CA**
 Customer
 Antenna Type **TUG-O5-16/80H-2-B**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **16U316100-B665**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.048 | 2.4 | 0.285 | 10.6 | 0.036 | 30.5 | 0.021 | 51.0 | 0.123 | 71.5 | 0.008 |
| -9.5 | 0.081 | 2.6 | 0.284 | 10.8 | 0.015 | 31.0 | 0.020 | 51.5 | 0.194 | 72.0 | 0.007 |
| -9.0 | 0.059 | 2.8 | 0.272 | 11.0 | 0.023 | 31.5 | 0.006 | 52.0 | 0.234 | 72.5 | 0.006 |
| -8.5 | 0.026 | 3.0 | 0.236 | 11.5 | 0.044 | 32.0 | 0.012 | 52.5 | 0.233 | 73.0 | 0.004 |
| -8.0 | 0.031 | 3.2 | 0.179 | 12.0 | 0.024 | 32.5 | 0.018 | 53.0 | 0.198 | 73.5 | 0.003 |
| -7.5 | 0.018 | 3.4 | 0.124 | 12.5 | 0.053 | 33.0 | 0.013 | 53.5 | 0.144 | 74.0 | 0.001 |
| -7.0 | 0.072 | 3.6 | 0.107 | 13.0 | 0.064 | 33.5 | 0.020 | 54.0 | 0.093 | 74.5 | 0.001 |
| -6.5 | 0.085 | 3.8 | 0.136 | 13.5 | 0.033 | 34.0 | 0.029 | 54.5 | 0.065 | 75.0 | 0.002 |
| -6.0 | 0.061 | 4.0 | 0.166 | 14.0 | 0.020 | 34.5 | 0.023 | 55.0 | 0.061 | 75.5 | 0.002 |
| -5.5 | 0.064 | 4.2 | 0.175 | 14.5 | 0.017 | 35.0 | 0.007 | 55.5 | 0.056 | 76.0 | 0.003 |
| -5.0 | 0.038 | 4.4 | 0.160 | 15.0 | 0.019 | 35.5 | 0.013 | 56.0 | 0.041 | 76.5 | 0.003 |
| -4.5 | 0.086 | 4.6 | 0.124 | 15.5 | 0.046 | 36.0 | 0.016 | 56.5 | 0.025 | 77.0 | 0.003 |
| -4.0 | 0.132 | 4.8 | 0.081 | 16.0 | 0.044 | 36.5 | 0.010 | 57.0 | 0.023 | 77.5 | 0.002 |
| -3.5 | 0.081 | 5.0 | 0.061 | 16.5 | 0.030 | 37.0 | 0.019 | 57.5 | 0.030 | 78.0 | 0.002 |
| -3.0 | 0.095 | 5.2 | 0.083 | 17.0 | 0.030 | 37.5 | 0.029 | 58.0 | 0.033 | 78.5 | 0.002 |
| -2.8 | 0.121 | 5.4 | 0.110 | 17.5 | 0.016 | 38.0 | 0.025 | 58.5 | 0.027 | 79.0 | 0.001 |
| -2.6 | 0.129 | 5.6 | 0.122 | 18.0 | 0.035 | 38.5 | 0.013 | 59.0 | 0.017 | 79.5 | 0.001 |
| -2.4 | 0.117 | 5.8 | 0.115 | 18.5 | 0.048 | 39.0 | 0.010 | 59.5 | 0.011 | 80.0 | 0.001 |
| -2.2 | 0.105 | 6.0 | 0.093 | 19.0 | 0.029 | 39.5 | 0.011 | 60.0 | 0.015 | 80.5 | 0.002 |
| -2.0 | 0.144 | 6.2 | 0.068 | 19.5 | 0.025 | 40.0 | 0.004 | 60.5 | 0.020 | 81.0 | 0.002 |
| -1.8 | 0.232 | 6.4 | 0.063 | 20.0 | 0.035 | 40.5 | 0.018 | 61.0 | 0.019 | 81.5 | 0.002 |
| -1.6 | 0.334 | 6.6 | 0.085 | 20.5 | 0.027 | 41.0 | 0.029 | 61.5 | 0.015 | 82.0 | 0.002 |
| -1.4 | 0.425 | 6.8 | 0.108 | 21.0 | 0.067 | 41.5 | 0.027 | 62.0 | 0.010 | 82.5 | 0.002 |
| -1.2 | 0.485 | 7.0 | 0.119 | 21.5 | 0.095 | 42.0 | 0.021 | 62.5 | 0.010 | 83.0 | 0.002 |
| -1.0 | 0.498 | 7.2 | 0.114 | 22.0 | 0.073 | 42.5 | 0.020 | 63.0 | 0.014 | 83.5 | 0.002 |
| -0.8 | 0.454 | 7.4 | 0.092 | 22.5 | 0.026 | 43.0 | 0.019 | 63.5 | 0.017 | 84.0 | 0.002 |
| -0.6 | 0.356 | 7.6 | 0.060 | 23.0 | 0.068 | 43.5 | 0.011 | 64.0 | 0.016 | 84.5 | 0.002 |
| -0.4 | 0.226 | 7.8 | 0.025 | 23.5 | 0.097 | 44.0 | 0.023 | 64.5 | 0.013 | 85.0 | 0.002 |
| -0.2 | 0.182 | 8.0 | 0.026 | 24.0 | 0.083 | 44.5 | 0.038 | 65.0 | 0.009 | 85.5 | 0.002 |
| 0.0 | 0.337 | 8.2 | 0.052 | 24.5 | 0.048 | 45.0 | 0.039 | 65.5 | 0.004 | 86.0 | 0.002 |
| 0.2 | 0.545 | 8.4 | 0.069 | 25.0 | 0.019 | 45.5 | 0.025 | 66.0 | 0.003 | 86.5 | 0.002 |
| 0.4 | 0.739 | 8.6 | 0.072 | 25.5 | 0.012 | 46.0 | 0.021 | 66.5 | 0.006 | 87.0 | 0.002 |
| 0.6 | 0.890 | 8.8 | 0.063 | 26.0 | 0.009 | 46.5 | 0.035 | 67.0 | 0.008 | 87.5 | 0.002 |
| 0.8 | 0.980 | 9.0 | 0.050 | 26.5 | 0.006 | 47.0 | 0.035 | 67.5 | 0.008 | 88.0 | 0.002 |
| 1.0 | 1.000 | 9.2 | 0.047 | 27.0 | 0.007 | 47.5 | 0.031 | 68.0 | 0.007 | 88.5 | 0.002 |
| 1.2 | 0.950 | 9.4 | 0.061 | 27.5 | 0.012 | 48.0 | 0.064 | 68.5 | 0.006 | 89.0 | 0.002 |
| 1.4 | 0.843 | 9.6 | 0.079 | 28.0 | 0.009 | 48.5 | 0.109 | 69.0 | 0.005 | 89.5 | 0.002 |
| 1.6 | 0.698 | 9.8 | 0.091 | 28.5 | 0.008 | 49.0 | 0.133 | 69.5 | 0.006 | 90.0 | 0.002 |
| 1.8 | 0.540 | 10.0 | 0.092 | 29.0 | 0.015 | 49.5 | 0.121 | 70.0 | 0.007 | | |
| 2.0 | 0.400 | 10.2 | 0.082 | 29.5 | 0.013 | 50.0 | 0.074 | 70.5 | 0.008 | | |
| 2.2 | 0.312 | 10.4 | 0.062 | 30.0 | 0.011 | 50.5 | 0.050 | 71.0 | 0.009 | | |

Remarks: