



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

20 May 2002

WSTR-DT

Cincinnati, OH

TFU-24DSB-M (C)

Revision

Exhibit ONE

Channel

33

AZIMUTH PATTERN

RMS Gain at Main Lobe

1.90 (2.79 dB)

Frequency

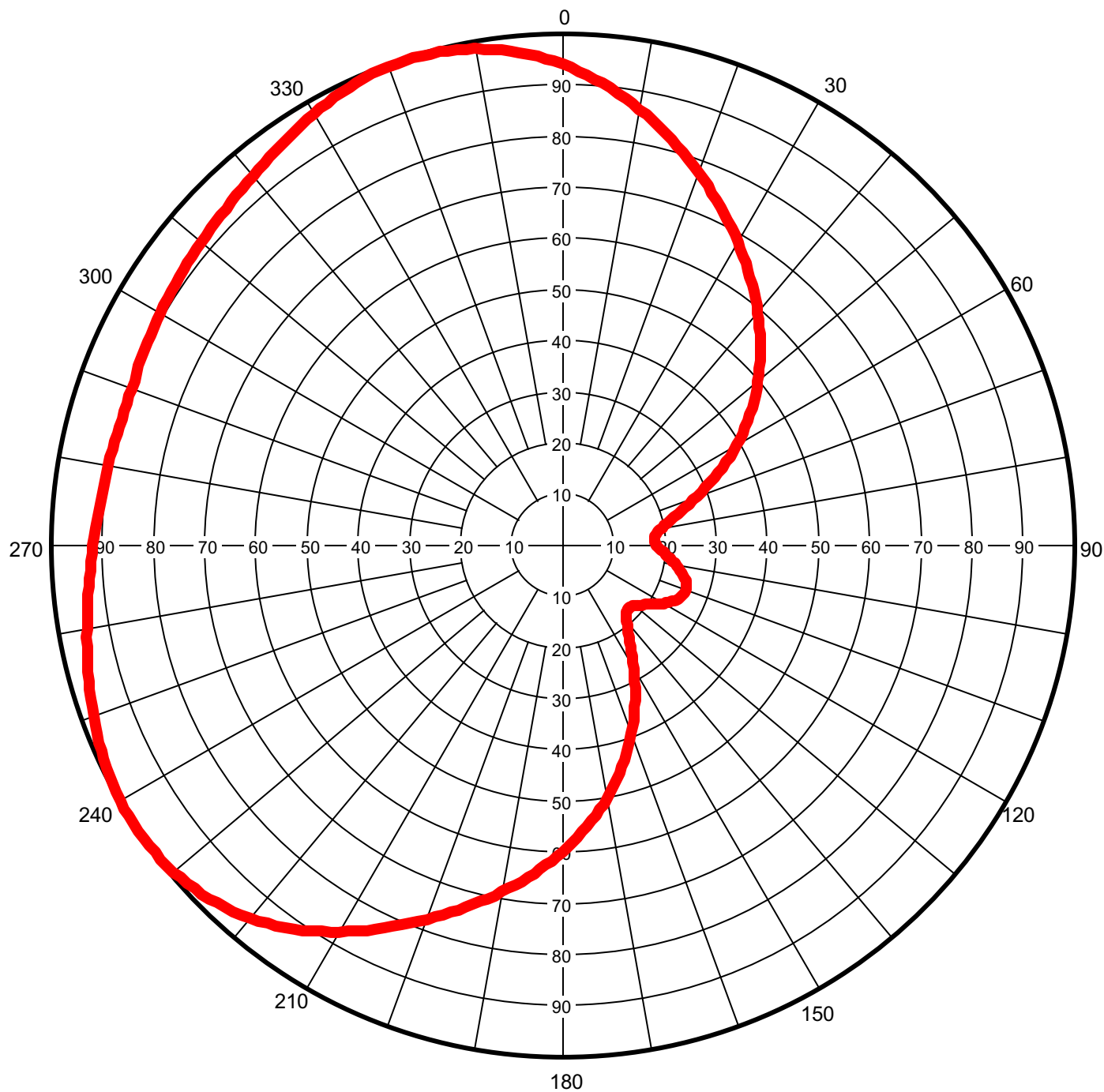
587 MHz

Calculated / Measured

Calculated

Drawing #

DSB-M



Remarks:



Exhibit No.
TWO

Date **29 Oct 2002**
 Call Letters **WSTR-DT** Channel **33**
 Location **Cincinnati, Ohio**
 Customer **WSTR Licensee, Inc.**
 Antenna Type **TFU-24DSB-M (C)**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **DSB-M**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 | 0.940 | 45 | 0.546 | 90 | 0.184 | 135 | 0.178 | 180 | 0.599 | 225 | 0.977 | 270 | 0.918 | 315 | 0.930 |
| 1 | 0.934 | 46 | 0.536 | 91 | 0.187 | 136 | 0.180 | 181 | 0.608 | 226 | 0.981 | 271 | 0.916 | 316 | 0.932 |
| 2 | 0.927 | 47 | 0.527 | 92 | 0.190 | 137 | 0.182 | 182 | 0.617 | 227 | 0.984 | 272 | 0.914 | 317 | 0.935 |
| 3 | 0.920 | 48 | 0.517 | 93 | 0.194 | 138 | 0.185 | 183 | 0.626 | 228 | 0.987 | 273 | 0.912 | 318 | 0.937 |
| 4 | 0.913 | 49 | 0.507 | 94 | 0.198 | 139 | 0.189 | 184 | 0.635 | 229 | 0.990 | 274 | 0.910 | 319 | 0.940 |
| 5 | 0.906 | 50 | 0.497 | 95 | 0.202 | 140 | 0.194 | 185 | 0.644 | 230 | 0.993 | 275 | 0.908 | 320 | 0.942 |
| 6 | 0.898 | 51 | 0.487 | 96 | 0.207 | 141 | 0.200 | 186 | 0.653 | 231 | 0.995 | 276 | 0.907 | 321 | 0.945 |
| 7 | 0.890 | 52 | 0.477 | 97 | 0.211 | 142 | 0.206 | 187 | 0.662 | 232 | 0.996 | 277 | 0.905 | 322 | 0.948 |
| 8 | 0.882 | 53 | 0.467 | 98 | 0.216 | 143 | 0.214 | 188 | 0.671 | 233 | 0.998 | 278 | 0.904 | 323 | 0.951 |
| 9 | 0.874 | 54 | 0.457 | 99 | 0.221 | 144 | 0.221 | 189 | 0.680 | 234 | 0.999 | 279 | 0.903 | 324 | 0.954 |
| 10 | 0.865 | 55 | 0.446 | 100 | 0.226 | 145 | 0.229 | 190 | 0.688 | 235 | 1.000 | 280 | 0.901 | 325 | 0.958 |
| 11 | 0.857 | 56 | 0.436 | 101 | 0.231 | 146 | 0.238 | 191 | 0.697 | 236 | 1.000 | 281 | 0.900 | 326 | 0.961 |
| 12 | 0.848 | 57 | 0.425 | 102 | 0.235 | 147 | 0.248 | 192 | 0.706 | 237 | 1.000 | 282 | 0.899 | 327 | 0.964 |
| 13 | 0.839 | 58 | 0.414 | 103 | 0.240 | 148 | 0.257 | 193 | 0.715 | 238 | 1.000 | 283 | 0.899 | 328 | 0.967 |
| 14 | 0.830 | 59 | 0.403 | 104 | 0.244 | 149 | 0.267 | 194 | 0.724 | 239 | 0.999 | 284 | 0.898 | 329 | 0.971 |
| 15 | 0.821 | 60 | 0.392 | 105 | 0.247 | 150 | 0.278 | 195 | 0.733 | 240 | 0.998 | 285 | 0.897 | 330 | 0.974 |
| 16 | 0.812 | 61 | 0.381 | 106 | 0.250 | 151 | 0.289 | 196 | 0.742 | 241 | 0.997 | 286 | 0.897 | 331 | 0.977 |
| 17 | 0.803 | 62 | 0.370 | 107 | 0.253 | 152 | 0.300 | 197 | 0.751 | 242 | 0.996 | 287 | 0.896 | 332 | 0.980 |
| 18 | 0.794 | 63 | 0.358 | 108 | 0.255 | 153 | 0.311 | 198 | 0.760 | 243 | 0.994 | 288 | 0.896 | 333 | 0.983 |
| 19 | 0.784 | 64 | 0.347 | 109 | 0.256 | 154 | 0.322 | 199 | 0.769 | 244 | 0.992 | 289 | 0.896 | 334 | 0.985 |
| 20 | 0.775 | 65 | 0.335 | 110 | 0.257 | 155 | 0.334 | 200 | 0.778 | 245 | 0.990 | 290 | 0.895 | 335 | 0.988 |
| 21 | 0.766 | 66 | 0.324 | 111 | 0.256 | 156 | 0.346 | 201 | 0.788 | 246 | 0.987 | 291 | 0.897 | 336 | 0.990 |
| 22 | 0.757 | 67 | 0.313 | 112 | 0.255 | 157 | 0.357 | 202 | 0.797 | 247 | 0.985 | 292 | 0.898 | 337 | 0.992 |
| 23 | 0.748 | 68 | 0.302 | 113 | 0.253 | 158 | 0.369 | 203 | 0.807 | 248 | 0.982 | 293 | 0.900 | 338 | 0.993 |
| 24 | 0.739 | 69 | 0.291 | 114 | 0.251 | 159 | 0.381 | 204 | 0.816 | 249 | 0.979 | 294 | 0.901 | 339 | 0.994 |
| 25 | 0.730 | 70 | 0.280 | 115 | 0.248 | 160 | 0.393 | 205 | 0.826 | 250 | 0.976 | 295 | 0.902 | 340 | 0.995 |
| 26 | 0.720 | 71 | 0.270 | 116 | 0.245 | 161 | 0.404 | 206 | 0.835 | 251 | 0.973 | 296 | 0.904 | 341 | 0.996 |
| 27 | 0.711 | 72 | 0.260 | 117 | 0.241 | 162 | 0.415 | 207 | 0.845 | 252 | 0.970 | 297 | 0.905 | 342 | 0.996 |
| 28 | 0.702 | 73 | 0.250 | 118 | 0.236 | 163 | 0.427 | 208 | 0.854 | 253 | 0.967 | 298 | 0.906 | 343 | 0.996 |
| 29 | 0.693 | 74 | 0.241 | 119 | 0.232 | 164 | 0.438 | 209 | 0.863 | 254 | 0.964 | 299 | 0.907 | 344 | 0.996 |
| 30 | 0.684 | 75 | 0.232 | 120 | 0.227 | 165 | 0.449 | 210 | 0.873 | 255 | 0.960 | 300 | 0.908 | 345 | 0.995 |
| 31 | 0.675 | 76 | 0.224 | 121 | 0.222 | 166 | 0.460 | 211 | 0.882 | 256 | 0.957 | 301 | 0.910 | 346 | 0.993 |
| 32 | 0.666 | 77 | 0.216 | 122 | 0.217 | 167 | 0.470 | 212 | 0.890 | 257 | 0.954 | 302 | 0.911 | 347 | 0.992 |
| 33 | 0.657 | 78 | 0.209 | 123 | 0.212 | 168 | 0.481 | 213 | 0.899 | 258 | 0.951 | 303 | 0.912 | 348 | 0.990 |
| 34 | 0.648 | 79 | 0.203 | 124 | 0.207 | 169 | 0.491 | 214 | 0.907 | 259 | 0.947 | 304 | 0.913 | 349 | 0.988 |
| 35 | 0.639 | 80 | 0.197 | 125 | 0.202 | 170 | 0.502 | 215 | 0.916 | 260 | 0.944 | 305 | 0.914 | 350 | 0.985 |
| 36 | 0.630 | 81 | 0.192 | 126 | 0.198 | 171 | 0.512 | 216 | 0.923 | 261 | 0.941 | 306 | 0.916 | 351 | 0.982 |
| 37 | 0.620 | 82 | 0.188 | 127 | 0.194 | 172 | 0.522 | 217 | 0.931 | 262 | 0.938 | 307 | 0.917 | 352 | 0.979 |
| 38 | 0.611 | 83 | 0.184 | 128 | 0.190 | 173 | 0.532 | 218 | 0.938 | 263 | 0.935 | 308 | 0.918 | 353 | 0.975 |
| 39 | 0.602 | 84 | 0.182 | 129 | 0.186 | 174 | 0.542 | 219 | 0.945 | 264 | 0.933 | 309 | 0.920 | 354 | 0.971 |
| 40 | 0.593 | 85 | 0.180 | 130 | 0.183 | 175 | 0.552 | 220 | 0.951 | 265 | 0.930 | 310 | 0.921 | 355 | 0.967 |
| 41 | 0.583 | 86 | 0.179 | 131 | 0.181 | 176 | 0.561 | 221 | 0.957 | 266 | 0.927 | 311 | 0.923 | 356 | 0.962 |
| 42 | 0.574 | 87 | 0.179 | 132 | 0.179 | 177 | 0.571 | 222 | 0.963 | 267 | 0.925 | 312 | 0.925 | 357 | 0.957 |
| 43 | 0.565 | 88 | 0.180 | 133 | 0.178 | 178 | 0.580 | 223 | 0.968 | 268 | 0.922 | 313 | 0.926 | 358 | 0.952 |
| 44 | 0.555 | 89 | 0.182 | 134 | 0.178 | 179 | 0.590 | 224 | 0.972 | 269 | 0.920 | 314 | 0.928 | 359 | 0.946 |

Remarks:



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

20 May 2002

WSTR-DT

Cincinnati, OH

TFU-24DSB-M (C)

Revision

Exhibit THREE

Channel

33

ELEVATION PATTERN

RMS Gain at Main Lobe

24.0 (13.80 dB)

Beam Tilt

1.00 Degrees

RMS Gain at Horizontal

11.9 (10.76 dB)

Frequency

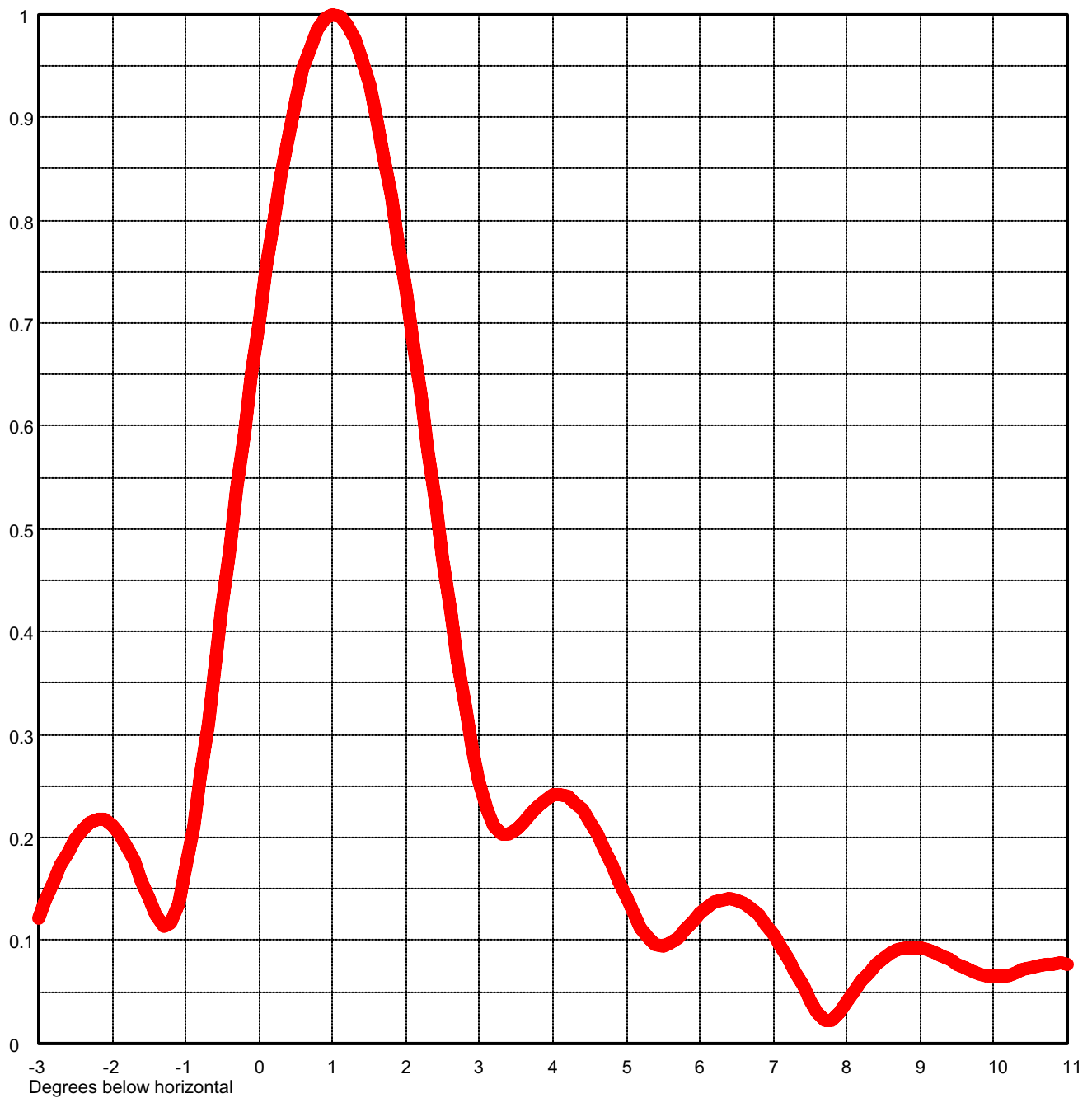
587.00 MHz

Calculated / Measured

Calculated

Drawing #

24B240100



Remarks:



Proposal Number

Date

Call Letters

Location

Customer

Antenna Type

20 May 2002

WSTR-DT

Cincinnati, OH

TFU-24DSB-M (C)

Revision

Exhibit FOUR

Channel

33

ELEVATION PATTERN

RMS Gain at Main Lobe

24.0 (13.80 dB)

RMS Gain at Horizontal

11.9 (10.76 dB)

Calculated / Measured

Calculated

Beam Tilt

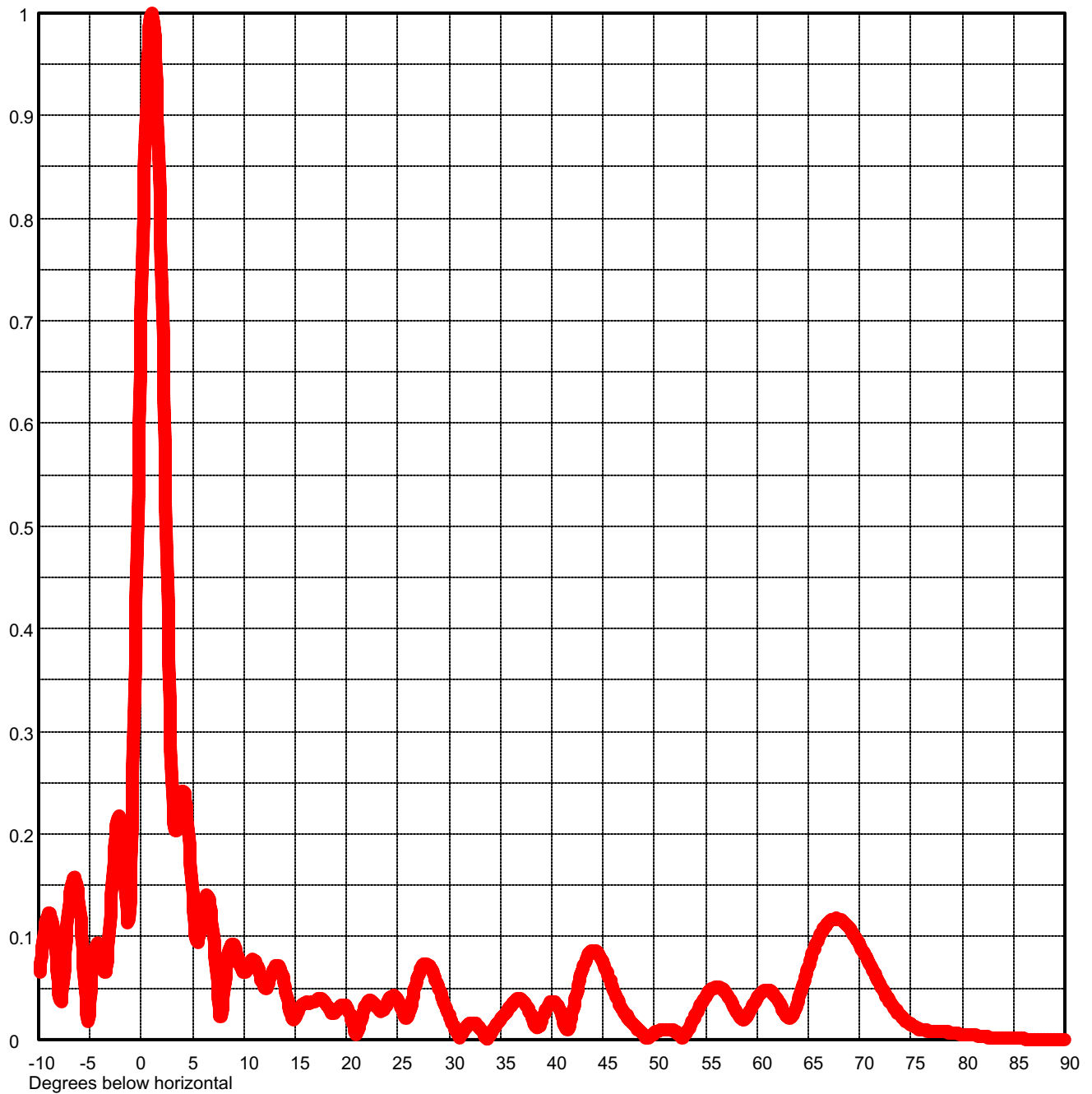
1.00 Degrees

Frequency

587.00 MHz

Drawing #

24B240100



Remarks:



Exhibit No.
FIVE

Date **11 Oct 2002**
 Call Letters **WSTR-DT** Channel **33**
 Location **Cincinnati, Ohio**
 Customer **WSTR Licensee, Inc.**
 Antenna Type **TFU-24DSC-R C170**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **24Q190075-90**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.184 | 2.4 | 0.584 | 10.6 | 0.111 | 30.5 | 0.028 | 51.0 | 0.050 | 71.5 | 0.017 |
| -9.5 | 0.190 | 2.6 | 0.511 | 10.8 | 0.110 | 31.0 | 0.025 | 51.5 | 0.064 | 72.0 | 0.015 |
| -9.0 | 0.206 | 2.8 | 0.442 | 11.0 | 0.111 | 31.5 | 0.011 | 52.0 | 0.076 | 72.5 | 0.013 |
| -8.5 | 0.227 | 3.0 | 0.378 | 11.5 | 0.119 | 32.0 | 0.012 | 52.5 | 0.084 | 73.0 | 0.011 |
| -8.0 | 0.241 | 3.2 | 0.322 | 12.0 | 0.132 | 32.5 | 0.036 | 53.0 | 0.088 | 73.5 | 0.008 |
| -7.5 | 0.236 | 3.4 | 0.274 | 12.5 | 0.136 | 33.0 | 0.055 | 53.5 | 0.090 | 74.0 | 0.007 |
| -7.0 | 0.204 | 3.6 | 0.235 | 13.0 | 0.120 | 33.5 | 0.067 | 54.0 | 0.088 | 74.5 | 0.008 |
| -6.5 | 0.148 | 3.8 | 0.203 | 13.5 | 0.083 | 34.0 | 0.071 | 54.5 | 0.086 | 75.0 | 0.012 |
| -6.0 | 0.081 | 4.0 | 0.180 | 14.0 | 0.034 | 34.5 | 0.069 | 55.0 | 0.083 | 75.5 | 0.016 |
| -5.5 | 0.022 | 4.2 | 0.162 | 14.5 | 0.016 | 35.0 | 0.065 | 55.5 | 0.080 | 76.0 | 0.020 |
| -5.0 | 0.012 | 4.4 | 0.150 | 15.0 | 0.050 | 35.5 | 0.062 | 56.0 | 0.079 | 76.5 | 0.024 |
| -4.5 | 0.007 | 4.6 | 0.142 | 15.5 | 0.063 | 36.0 | 0.063 | 56.5 | 0.079 | 77.0 | 0.028 |
| -4.0 | 0.028 | 4.8 | 0.137 | 16.0 | 0.054 | 36.5 | 0.070 | 57.0 | 0.080 | 77.5 | 0.031 |
| -3.5 | 0.072 | 5.0 | 0.134 | 16.5 | 0.029 | 37.0 | 0.081 | 57.5 | 0.083 | 78.0 | 0.034 |
| -3.0 | 0.094 | 5.2 | 0.132 | 17.0 | 0.002 | 37.5 | 0.096 | 58.0 | 0.085 | 78.5 | 0.036 |
| -2.8 | 0.090 | 5.4 | 0.130 | 17.5 | 0.022 | 38.0 | 0.110 | 58.5 | 0.088 | 79.0 | 0.037 |
| -2.6 | 0.077 | 5.6 | 0.128 | 18.0 | 0.031 | 38.5 | 0.120 | 59.0 | 0.089 | 79.5 | 0.038 |
| -2.4 | 0.058 | 5.8 | 0.125 | 18.5 | 0.028 | 39.0 | 0.123 | 59.5 | 0.089 | 80.0 | 0.038 |
| -2.2 | 0.049 | 6.0 | 0.121 | 19.0 | 0.018 | 39.5 | 0.118 | 60.0 | 0.086 | 80.5 | 0.038 |
| -2.0 | 0.077 | 6.2 | 0.117 | 19.5 | 0.011 | 40.0 | 0.105 | 60.5 | 0.082 | 81.0 | 0.038 |
| -1.8 | 0.134 | 6.4 | 0.112 | 20.0 | 0.011 | 40.5 | 0.088 | 61.0 | 0.075 | 81.5 | 0.037 |
| -1.6 | 0.206 | 6.6 | 0.108 | 20.5 | 0.024 | 41.0 | 0.068 | 61.5 | 0.067 | 82.0 | 0.035 |
| -1.4 | 0.288 | 6.8 | 0.106 | 21.0 | 0.052 | 41.5 | 0.051 | 62.0 | 0.057 | 82.5 | 0.033 |
| -1.2 | 0.377 | 7.0 | 0.105 | 21.5 | 0.085 | 42.0 | 0.039 | 62.5 | 0.046 | 83.0 | 0.031 |
| -1.0 | 0.470 | 7.2 | 0.106 | 22.0 | 0.114 | 42.5 | 0.034 | 63.0 | 0.036 | 83.5 | 0.029 |
| -0.8 | 0.564 | 7.4 | 0.109 | 22.5 | 0.133 | 43.0 | 0.032 | 63.5 | 0.025 | 84.0 | 0.026 |
| -0.6 | 0.656 | 7.6 | 0.112 | 23.0 | 0.137 | 43.5 | 0.034 | 64.0 | 0.016 | 84.5 | 0.024 |
| -0.4 | 0.742 | 7.8 | 0.115 | 23.5 | 0.128 | 44.0 | 0.037 | 64.5 | 0.009 | 85.0 | 0.021 |
| -0.2 | 0.819 | 8.0 | 0.118 | 24.0 | 0.111 | 44.5 | 0.040 | 65.0 | 0.003 | 85.5 | 0.018 |
| 0.0 | 0.885 | 8.2 | 0.119 | 24.5 | 0.095 | 45.0 | 0.041 | 65.5 | 0.002 | 86.0 | 0.015 |
| 0.2 | 0.937 | 8.4 | 0.119 | 25.0 | 0.084 | 45.5 | 0.038 | 66.0 | 0.003 | 86.5 | 0.013 |
| 0.4 | 0.975 | 8.6 | 0.119 | 25.5 | 0.079 | 46.0 | 0.032 | 66.5 | 0.004 | 87.0 | 0.010 |
| 0.6 | 0.996 | 8.8 | 0.118 | 26.0 | 0.079 | 46.5 | 0.023 | 67.0 | 0.002 | 87.5 | 0.008 |
| 0.8 | 1.000 | 9.0 | 0.117 | 26.5 | 0.082 | 47.0 | 0.013 | 67.5 | 0.000 | 88.0 | 0.006 |
| 1.0 | 0.988 | 9.2 | 0.116 | 27.0 | 0.086 | 47.5 | 0.005 | 68.0 | 0.003 | 88.5 | 0.004 |
| 1.2 | 0.960 | 9.4 | 0.116 | 27.5 | 0.086 | 48.0 | 0.003 | 68.5 | 0.006 | 89.0 | 0.002 |
| 1.4 | 0.919 | 9.6 | 0.115 | 28.0 | 0.076 | 48.5 | 0.004 | 69.0 | 0.010 | 89.5 | 0.001 |
| 1.6 | 0.865 | 9.8 | 0.115 | 28.5 | 0.057 | 49.0 | 0.001 | 69.5 | 0.013 | 90.0 | 0.000 |
| 1.8 | 0.802 | 10.0 | 0.115 | 29.0 | 0.030 | 49.5 | 0.008 | 70.0 | 0.015 | | |
| 2.0 | 0.733 | 10.2 | 0.114 | 29.5 | 0.005 | 50.0 | 0.020 | 70.5 | 0.017 | | |
| 2.2 | 0.659 | 10.4 | 0.113 | 30.0 | 0.019 | 50.5 | 0.035 | 71.0 | 0.017 | | |

Remarks: