

Proposal Number

Revision: 1

Date

5-Aug-14

Call Letters

WPXA

Channel 31

Location

Rome, GA

Customer

Ion

Antenna Type

TFU-14JTH-R 6T180 (SP)

ELEVATION PATTERN

RMS Gain at Main Lobe

14.00 (11.46 dB)

Beam Tilt

1.00 deg

RMS Gain at Horizontal

11.50 (10.61 dB)

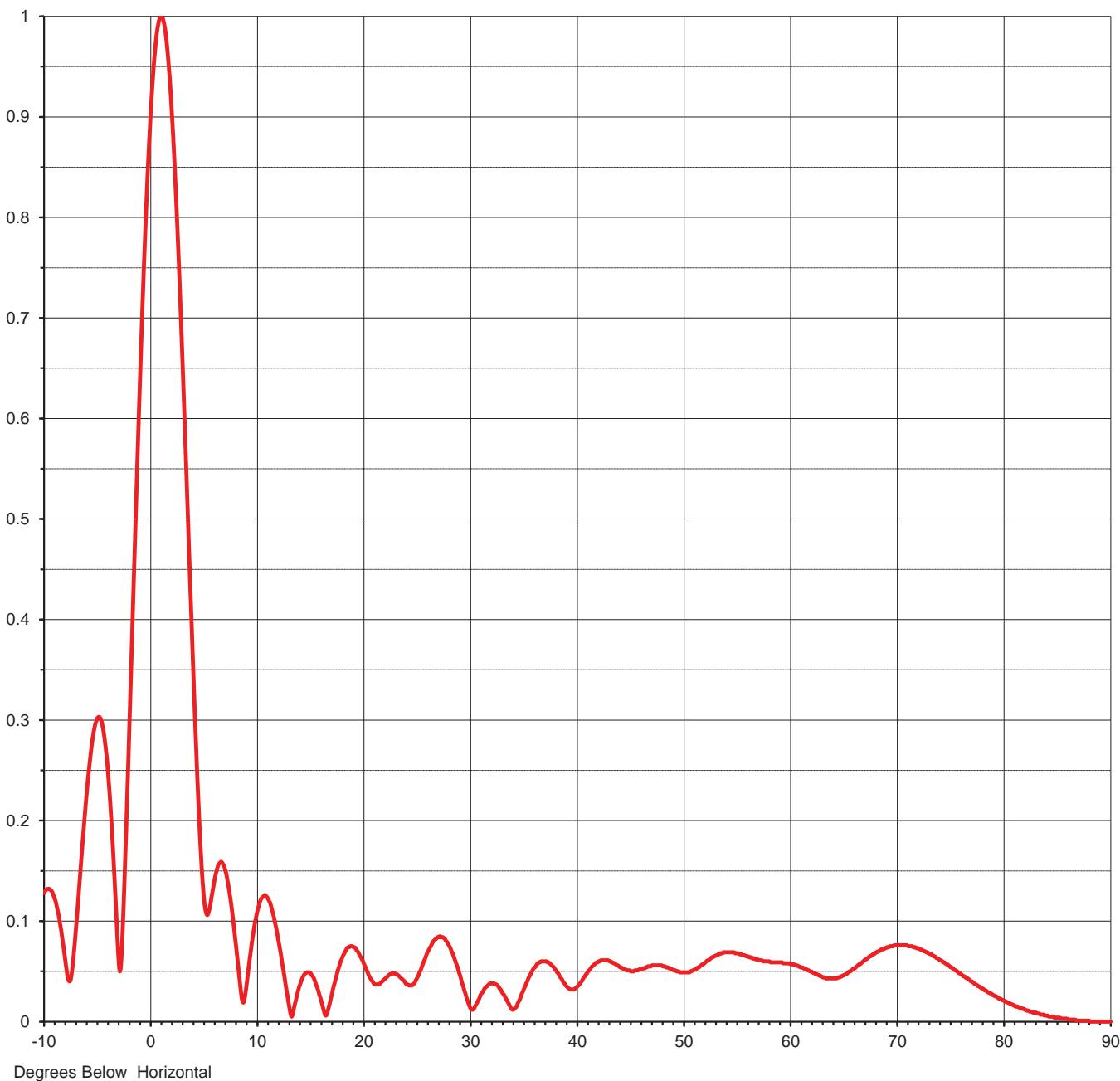
Frequency

575.00 MHz

Calculated / Measured

Calculated

Drawing #

14J140100-90

Degrees Below Horizontal



Proposal Number

Revision: 1

Date

5-Aug-14

Call Letters

WPXA

Channel 31

Location

Rome, GA

Customer

Ion

Antenna Type

TFU-14JTH-R 6T180 (SP)

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **14J140100-90**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.128 | 2.4 | 0.814 | 10.6 | 0.124 | 30.5 | 0.015 | 51.0 | 0.051 | 71.5 | 0.074 |
| -9.5 | 0.132 | 2.6 | 0.763 | 10.8 | 0.126 | 31.0 | 0.026 | 51.5 | 0.054 | 72.0 | 0.073 |
| -9.0 | 0.122 | 2.8 | 0.708 | 11.0 | 0.124 | 31.5 | 0.034 | 52.0 | 0.058 | 72.5 | 0.070 |
| -8.5 | 0.097 | 3.0 | 0.650 | 11.5 | 0.110 | 32.0 | 0.038 | 52.5 | 0.062 | 73.0 | 0.068 |
| -8.0 | 0.060 | 3.2 | 0.590 | 12.0 | 0.085 | 32.5 | 0.037 | 53.0 | 0.065 | 73.5 | 0.065 |
| -7.5 | 0.042 | 3.4 | 0.528 | 12.5 | 0.053 | 33.0 | 0.030 | 53.5 | 0.068 | 74.0 | 0.061 |
| -7.0 | 0.094 | 3.6 | 0.466 | 13.0 | 0.020 | 33.5 | 0.021 | 54.0 | 0.069 | 74.5 | 0.058 |
| -6.5 | 0.163 | 3.8 | 0.405 | 13.5 | 0.012 | 34.0 | 0.012 | 54.5 | 0.069 | 75.0 | 0.054 |
| -6.0 | 0.228 | 4.0 | 0.345 | 14.0 | 0.034 | 34.5 | 0.018 | 55.0 | 0.068 | 75.5 | 0.051 |
| -5.5 | 0.278 | 4.2 | 0.288 | 14.5 | 0.047 | 35.0 | 0.030 | 55.5 | 0.067 | 76.0 | 0.047 |
| -5.0 | 0.302 | 4.4 | 0.235 | 15.0 | 0.049 | 35.5 | 0.043 | 56.0 | 0.065 | 76.5 | 0.043 |
| -4.5 | 0.293 | 4.6 | 0.188 | 15.5 | 0.040 | 36.0 | 0.053 | 56.5 | 0.063 | 77.0 | 0.040 |
| -4.0 | 0.247 | 4.8 | 0.149 | 16.0 | 0.024 | 36.5 | 0.059 | 57.0 | 0.062 | 77.5 | 0.036 |
| -3.5 | 0.164 | 5.0 | 0.121 | 16.5 | 0.006 | 37.0 | 0.060 | 57.5 | 0.060 | 78.0 | 0.033 |
| -3.0 | 0.060 | 5.2 | 0.108 | 17.0 | 0.024 | 37.5 | 0.058 | 58.0 | 0.060 | 78.5 | 0.029 |
| -2.8 | 0.055 | 5.4 | 0.108 | 17.5 | 0.045 | 38.0 | 0.052 | 58.5 | 0.059 | 79.0 | 0.026 |
| -2.6 | 0.100 | 5.6 | 0.117 | 18.0 | 0.062 | 38.5 | 0.044 | 59.0 | 0.059 | 79.5 | 0.023 |
| -2.4 | 0.160 | 5.8 | 0.130 | 18.5 | 0.073 | 39.0 | 0.036 | 59.5 | 0.058 | 80.0 | 0.021 |
| -2.2 | 0.226 | 6.0 | 0.142 | 19.0 | 0.075 | 39.5 | 0.032 | 60.0 | 0.058 | 80.5 | 0.018 |
| -2.0 | 0.295 | 6.2 | 0.151 | 19.5 | 0.070 | 40.0 | 0.034 | 60.5 | 0.056 | 81.0 | 0.016 |
| -1.8 | 0.365 | 6.4 | 0.157 | 20.0 | 0.060 | 40.5 | 0.040 | 61.0 | 0.054 | 81.5 | 0.014 |
| -1.6 | 0.436 | 6.6 | 0.159 | 20.5 | 0.047 | 41.0 | 0.048 | 61.5 | 0.052 | 82.0 | 0.012 |
| -1.4 | 0.506 | 6.8 | 0.156 | 21.0 | 0.038 | 41.5 | 0.055 | 62.0 | 0.050 | 82.5 | 0.010 |
| -1.2 | 0.575 | 7.0 | 0.150 | 21.5 | 0.037 | 42.0 | 0.059 | 62.5 | 0.047 | 83.0 | 0.009 |
| -1.0 | 0.641 | 7.2 | 0.140 | 22.0 | 0.042 | 42.5 | 0.061 | 63.0 | 0.045 | 83.5 | 0.007 |
| -0.8 | 0.704 | 7.4 | 0.127 | 22.5 | 0.047 | 43.0 | 0.061 | 63.5 | 0.043 | 84.0 | 0.006 |
| -0.6 | 0.763 | 7.6 | 0.112 | 23.0 | 0.048 | 43.5 | 0.058 | 64.0 | 0.043 | 84.5 | 0.005 |
| -0.4 | 0.816 | 7.8 | 0.094 | 23.5 | 0.044 | 44.0 | 0.055 | 64.5 | 0.044 | 85.0 | 0.004 |
| -0.2 | 0.864 | 8.0 | 0.075 | 24.0 | 0.038 | 44.5 | 0.052 | 65.0 | 0.046 | 85.5 | 0.003 |
| 0.0 | 0.905 | 8.2 | 0.055 | 24.5 | 0.036 | 45.0 | 0.051 | 65.5 | 0.050 | 86.0 | 0.002 |
| 0.2 | 0.939 | 8.4 | 0.035 | 25.0 | 0.042 | 45.5 | 0.051 | 66.0 | 0.053 | 86.5 | 0.002 |
| 0.4 | 0.966 | 8.6 | 0.020 | 25.5 | 0.054 | 46.0 | 0.052 | 66.5 | 0.057 | 87.0 | 0.001 |
| 0.6 | 0.986 | 8.8 | 0.023 | 26.0 | 0.068 | 46.5 | 0.054 | 67.0 | 0.062 | 87.5 | 0.001 |
| 0.8 | 0.997 | 9.0 | 0.038 | 26.5 | 0.078 | 47.0 | 0.055 | 67.5 | 0.065 | 88.0 | 0.001 |
| 1.0 | 1.000 | 9.2 | 0.056 | 27.0 | 0.084 | 47.5 | 0.056 | 68.0 | 0.069 | 88.5 | 0.000 |
| 1.2 | 0.995 | 9.4 | 0.072 | 27.5 | 0.084 | 48.0 | 0.056 | 68.5 | 0.072 | 89.0 | 0.000 |
| 1.4 | 0.983 | 9.6 | 0.087 | 28.0 | 0.077 | 48.5 | 0.054 | 69.0 | 0.074 | 89.5 | 0.000 |
| 1.6 | 0.962 | 9.8 | 0.094 | 28.5 | 0.065 | 49.0 | 0.052 | 69.5 | 0.075 | 90.0 | 0.000 |
| 1.8 | 0.935 | 10.0 | 0.105 | 29.0 | 0.049 | 49.5 | 0.050 | 70.0 | 0.076 | | |
| 2.0 | 0.900 | 10.2 | 0.114 | 29.5 | 0.031 | 50.0 | 0.049 | 70.5 | 0.076 | | |
| 2.2 | 0.860 | 10.4 | 0.121 | 30.0 | 0.015 | 50.5 | 0.049 | 71.0 | 0.075 | | |

This document contains proprietary and confidential information of Dielectric . It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

Proposal Number

Revision: 1

Date

5-Aug-14

Call Letters

WPXA

Channel

31

Location

Rome, GA

Customer

Ion

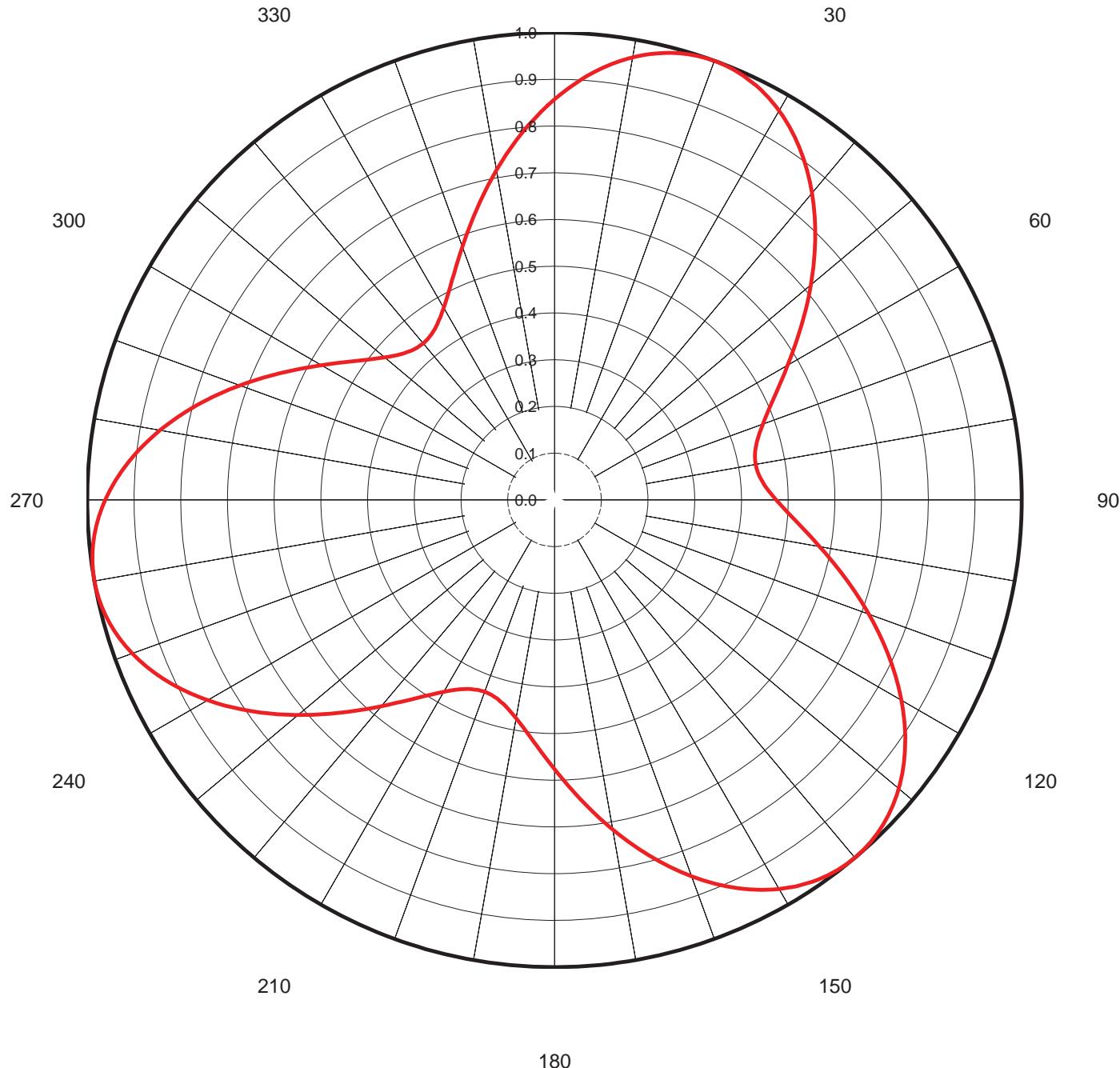
Antenna Type

TFU-14JTH-R 6T180 (SP)

AZIMUTH PATTERN

Gain **1.80**
 Calculated / Measured **(2.55 dB)**
Calculated

Frequency **575.00 MHz**
 Drawing # **TFU-6T180-D31**





Proposal Number

Revision: 1

Date

5-Aug-14

Call Letters

WPXA

Channel

31

Location

Rome, GA

Customer

Ion

Antenna Type

TFU-14JTH-R 6T180 (SP)

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-6T180-D31**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 | 0.857 | 45 | 0.789 | 90 | 0.474 | 135 | 0.990 | 180 | 0.576 | 225 | 0.644 | 270 | 0.962 | 315 | 0.447 | | |
| 1 | 0.870 | 46 | 0.775 | 91 | 0.482 | 136 | 0.994 | 181 | 0.564 | 226 | 0.658 | 271 | 0.953 | 316 | 0.443 | | |
| 2 | 0.882 | 47 | 0.760 | 92 | 0.490 | 137 | 0.996 | 182 | 0.552 | 227 | 0.672 | 272 | 0.945 | 317 | 0.441 | | |
| 3 | 0.894 | 48 | 0.746 | 93 | 0.499 | 138 | 0.998 | 183 | 0.540 | 228 | 0.687 | 273 | 0.936 | 318 | 0.438 | | |
| 4 | 0.905 | 49 | 0.731 | 94 | 0.508 | 139 | 0.999 | 184 | 0.529 | 229 | 0.702 | 274 | 0.927 | 319 | 0.438 | | |
| 5 | 0.916 | 50 | 0.716 | 95 | 0.519 | 140 | 1.000 | 185 | 0.519 | 230 | 0.716 | 275 | 0.916 | 320 | 0.437 | | |
| 6 | 0.927 | 51 | 0.702 | 96 | 0.529 | 141 | 0.999 | 186 | 0.508 | 231 | 0.731 | 276 | 0.905 | 321 | 0.438 | | |
| 7 | 0.936 | 52 | 0.687 | 97 | 0.540 | 142 | 0.998 | 187 | 0.499 | 232 | 0.746 | 277 | 0.894 | 322 | 0.438 | | |
| 8 | 0.945 | 53 | 0.672 | 98 | 0.552 | 143 | 0.996 | 188 | 0.490 | 233 | 0.760 | 278 | 0.882 | 323 | 0.441 | | |
| 9 | 0.953 | 54 | 0.658 | 99 | 0.564 | 144 | 0.994 | 189 | 0.482 | 234 | 0.775 | 279 | 0.870 | 324 | 0.443 | | |
| 10 | 0.962 | 55 | 0.644 | 100 | 0.576 | 145 | 0.990 | 190 | 0.474 | 235 | 0.789 | 280 | 0.857 | 325 | 0.447 | | |
| 11 | 0.968 | 56 | 0.630 | 101 | 0.589 | 146 | 0.986 | 191 | 0.468 | 236 | 0.803 | 281 | 0.844 | 326 | 0.451 | | |
| 12 | 0.975 | 57 | 0.616 | 102 | 0.602 | 147 | 0.981 | 192 | 0.461 | 237 | 0.817 | 282 | 0.831 | 327 | 0.456 | | |
| 13 | 0.981 | 58 | 0.602 | 103 | 0.616 | 148 | 0.975 | 193 | 0.456 | 238 | 0.831 | 283 | 0.817 | 328 | 0.461 | | |
| 14 | 0.986 | 59 | 0.589 | 104 | 0.630 | 149 | 0.968 | 194 | 0.451 | 239 | 0.844 | 284 | 0.803 | 329 | 0.468 | | |
| 15 | 0.990 | 60 | 0.576 | 105 | 0.644 | 150 | 0.962 | 195 | 0.447 | 240 | 0.857 | 285 | 0.789 | 330 | 0.474 | | |
| 16 | 0.994 | 61 | 0.564 | 106 | 0.658 | 151 | 0.953 | 196 | 0.443 | 241 | 0.870 | 286 | 0.775 | 331 | 0.482 | | |
| 17 | 0.996 | 62 | 0.552 | 107 | 0.672 | 152 | 0.945 | 197 | 0.441 | 242 | 0.882 | 287 | 0.760 | 332 | 0.490 | | |
| 18 | 0.998 | 63 | 0.540 | 108 | 0.687 | 153 | 0.936 | 198 | 0.438 | 243 | 0.894 | 288 | 0.746 | 333 | 0.499 | | |
| 19 | 0.999 | 64 | 0.529 | 109 | 0.702 | 154 | 0.927 | 199 | 0.438 | 244 | 0.905 | 289 | 0.731 | 334 | 0.508 | | |
| 20 | 1.000 | 65 | 0.519 | 110 | 0.716 | 155 | 0.916 | 200 | 0.437 | 245 | 0.916 | 290 | 0.716 | 335 | 0.519 | | |
| 21 | 0.999 | 66 | 0.508 | 111 | 0.731 | 156 | 0.905 | 201 | 0.438 | 246 | 0.927 | 291 | 0.702 | 336 | 0.529 | | |
| 22 | 0.998 | 67 | 0.499 | 112 | 0.746 | 157 | 0.894 | 202 | 0.438 | 247 | 0.936 | 292 | 0.687 | 337 | 0.540 | | |
| 23 | 0.996 | 68 | 0.490 | 113 | 0.760 | 158 | 0.882 | 203 | 0.441 | 248 | 0.945 | 293 | 0.672 | 338 | 0.552 | | |
| 24 | 0.994 | 69 | 0.482 | 114 | 0.775 | 159 | 0.870 | 204 | 0.443 | 249 | 0.953 | 294 | 0.658 | 339 | 0.564 | | |
| 25 | 0.990 | 70 | 0.474 | 115 | 0.789 | 160 | 0.857 | 205 | 0.447 | 250 | 0.962 | 295 | 0.644 | 340 | 0.576 | | |
| 26 | 0.986 | 71 | 0.468 | 116 | 0.803 | 161 | 0.844 | 206 | 0.451 | 251 | 0.968 | 296 | 0.630 | 341 | 0.589 | | |
| 27 | 0.981 | 72 | 0.461 | 117 | 0.817 | 162 | 0.831 | 207 | 0.456 | 252 | 0.975 | 297 | 0.616 | 342 | 0.602 | | |
| 28 | 0.975 | 73 | 0.456 | 118 | 0.831 | 163 | 0.817 | 208 | 0.461 | 253 | 0.981 | 298 | 0.602 | 343 | 0.616 | | |
| 29 | 0.968 | 74 | 0.451 | 119 | 0.844 | 164 | 0.803 | 209 | 0.468 | 254 | 0.986 | 299 | 0.589 | 344 | 0.630 | | |
| 30 | 0.962 | 75 | 0.447 | 120 | 0.857 | 165 | 0.789 | 210 | 0.474 | 255 | 0.990 | 300 | 0.576 | 345 | 0.644 | | |
| 31 | 0.953 | 76 | 0.443 | 121 | 0.870 | 166 | 0.775 | 211 | 0.482 | 256 | 0.994 | 301 | 0.564 | 346 | 0.658 | | |
| 32 | 0.945 | 77 | 0.441 | 122 | 0.882 | 167 | 0.760 | 212 | 0.490 | 257 | 0.996 | 302 | 0.552 | 347 | 0.672 | | |
| 33 | 0.936 | 78 | 0.438 | 123 | 0.894 | 168 | 0.746 | 213 | 0.499 | 258 | 0.998 | 303 | 0.540 | 348 | 0.687 | | |
| 34 | 0.927 | 79 | 0.438 | 124 | 0.905 | 169 | 0.731 | 214 | 0.508 | 259 | 0.999 | 304 | 0.529 | 349 | 0.702 | | |
| 35 | 0.916 | 80 | 0.437 | 125 | 0.916 | 170 | 0.716 | 215 | 0.519 | 260 | 1.000 | 305 | 0.519 | 350 | 0.716 | | |
| 36 | 0.905 | 81 | 0.438 | 126 | 0.927 | 171 | 0.702 | 216 | 0.529 | 261 | 0.999 | 306 | 0.508 | 351 | 0.731 | | |
| 37 | 0.894 | 82 | 0.438 | 127 | 0.936 | 172 | 0.687 | 217 | 0.540 | 262 | 0.998 | 307 | 0.499 | 352 | 0.746 | | |
| 38 | 0.882 | 83 | 0.441 | 128 | 0.945 | 173 | 0.672 | 218 | 0.552 | 263 | 0.996 | 308 | 0.490 | 353 | 0.760 | | |
| 39 | 0.870 | 84 | 0.443 | 129 | 0.953 | 174 | 0.658 | 219 | 0.564 | 264 | 0.994 | 309 | 0.482 | 354 | 0.775 | | |
| 40 | 0.857 | 85 | 0.447 | 130 | 0.962 | 175 | 0.644 | 220 | 0.576 | 265 | 0.990 | 310 | 0.474 | 355 | 0.789 | | |
| 41 | 0.844 | 86 | 0.451 | 131 | 0.968 | 176 | 0.630 | 221 | 0.589 | 266 | 0.986 | 311 | 0.468 | 356 | 0.803 | | |
| 42 | 0.831 | 87 | 0.456 | 132 | 0.975 | 177 | 0.616 | 222 | 0.602 | 267 | 0.981 | 312 | 0.461 | 357 | 0.817 | | |
| 43 | 0.817 | 88 | 0.461 | 133 | 0.981 | 178 | 0.602 | 223 | 0.616 | 268 | 0.975 | 313 | 0.456 | 358 | 0.831 | | |
| 44 | 0.803 | 89 | 0.468 | 134 | 0.986 | 179 | 0.589 | 224 | 0.630 | 269 | 0.968 | 314 | 0.451 | 359 | 0.844 | | |

This document contains proprietary and confidential information of Dielectric . It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.