

Horizontal Polarization AZIMUTH PATTERN

Exhibit No.

Date 4 Jun 2017

Call Letters KHPL-CD

Channel 15

Antenna Type DLP-12B

Location LA GRANGE, TX

Customer

Gain 1.7 (2.30 dB)

Calculated

Drawing # b-pattern

| Deg | Value |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0 | 1.000 | 36 | 0.933 | 72 | 0.768 | 108 | 0.636 | 144 | 0.652 | 180 | 0.692 | 216 | 0.652 | 252 | 0.636 | 288 | 0.768 | 324 | 0.933 | | | | |
| 1 | 1.000 | 37 | 0.929 | 73 | 0.763 | 109 | 0.635 | 145 | 0.654 | 181 | 0.692 | 217 | 0.650 | 253 | 0.638 | 289 | 0.773 | 325 | 0.936 | | | | |
| 2 | 1.000 | 38 | 0.925 | 74 | 0.758 | 110 | 0.633 | 146 | 0.655 | 182 | 0.692 | 218 | 0.649 | 254 | 0.639 | 290 | 0.778 | 326 | 0.940 | | | | |
| 3 | 0.999 | 39 | 0.922 | 75 | 0.753 | 111 | 0.632 | 147 | 0.657 | 183 | 0.692 | 219 | 0.647 | 255 | 0.641 | 291 | 0.783 | 327 | 0.943 | | | | |
| 4 | 0.999 | 40 | 0.918 | 76 | 0.748 | 112 | 0.631 | 148 | 0.659 | 184 | 0.692 | 220 | 0.646 | 256 | 0.643 | 292 | 0.788 | 328 | 0.946 | | | | |
| 5 | 0.999 | 41 | 0.914 | 77 | 0.743 | 113 | 0.630 | 149 | 0.661 | 185 | 0.691 | 221 | 0.644 | 257 | 0.646 | 293 | 0.793 | 329 | 0.950 | | | | |
| 6 | 0.998 | 42 | 0.910 | 78 | 0.738 | 114 | 0.629 | 150 | 0.662 | 186 | 0.691 | 222 | 0.642 | 258 | 0.648 | 294 | 0.798 | 330 | 0.953 | | | | |
| 7 | 0.997 | 43 | 0.906 | 79 | 0.734 | 115 | 0.628 | 151 | 0.664 | 187 | 0.690 | 223 | 0.641 | 259 | 0.651 | 295 | 0.803 | 331 | 0.956 | | | | |
| 8 | 0.997 | 44 | 0.902 | 80 | 0.729 | 116 | 0.628 | 152 | 0.666 | 188 | 0.690 | 224 | 0.639 | 260 | 0.653 | 296 | 0.808 | 332 | 0.959 | | | | |
| 9 | 0.996 | 45 | 0.897 | 81 | 0.724 | 117 | 0.627 | 153 | 0.667 | 189 | 0.689 | 225 | 0.638 | 261 | 0.656 | 297 | 0.813 | 333 | 0.962 | | | | |
| 10 | 0.995 | 46 | 0.893 | 82 | 0.720 | 118 | 0.627 | 154 | 0.669 | 190 | 0.689 | 226 | 0.637 | 262 | 0.659 | 298 | 0.818 | 334 | 0.964 | | | | |
| 11 | 0.993 | 47 | 0.889 | 83 | 0.715 | 119 | 0.627 | 155 | 0.670 | 191 | 0.688 | 227 | 0.635 | 263 | 0.662 | 299 | 0.823 | 335 | 0.967 | | | | |
| 12 | 0.992 | 48 | 0.884 | 84 | 0.711 | 120 | 0.627 | 156 | 0.672 | 192 | 0.687 | 228 | 0.634 | 264 | 0.665 | 300 | 0.828 | 336 | 0.970 | | | | |
| 13 | 0.991 | 49 | 0.880 | 85 | 0.707 | 121 | 0.627 | 157 | 0.673 | 193 | 0.686 | 229 | 0.633 | 265 | 0.668 | 301 | 0.833 | 337 | 0.972 | | | | |
| 14 | 0.990 | 50 | 0.875 | 86 | 0.702 | 122 | 0.627 | 158 | 0.675 | 194 | 0.685 | 230 | 0.632 | 266 | 0.672 | 302 | 0.837 | 338 | 0.974 | | | | |
| 15 | 0.988 | 51 | 0.871 | 87 | 0.698 | 123 | 0.627 | 159 | 0.676 | 195 | 0.684 | 231 | 0.631 | 267 | 0.675 | 303 | 0.842 | 339 | 0.977 | | | | |
| 16 | 0.986 | 52 | 0.866 | 88 | 0.694 | 124 | 0.628 | 160 | 0.678 | 196 | 0.683 | 232 | 0.630 | 268 | 0.679 | 304 | 0.847 | 340 | 0.979 | | | | |
| 17 | 0.985 | 53 | 0.861 | 89 | 0.690 | 125 | 0.628 | 161 | 0.679 | 197 | 0.682 | 233 | 0.629 | 269 | 0.682 | 305 | 0.852 | 341 | 0.981 | | | | |
| 18 | 0.983 | 54 | 0.857 | 90 | 0.686 | 126 | 0.629 | 162 | 0.680 | 198 | 0.680 | 234 | 0.629 | 270 | 0.686 | 306 | 0.857 | 342 | 0.983 | | | | |
| 19 | 0.981 | 55 | 0.852 | 91 | 0.682 | 127 | 0.629 | 163 | 0.682 | 199 | 0.679 | 235 | 0.628 | 271 | 0.690 | 307 | 0.861 | 343 | 0.985 | | | | |
| 20 | 0.979 | 56 | 0.847 | 92 | 0.679 | 128 | 0.630 | 164 | 0.683 | 200 | 0.678 | 236 | 0.628 | 272 | 0.694 | 308 | 0.866 | 344 | 0.986 | | | | |
| 21 | 0.977 | 57 | 0.842 | 93 | 0.675 | 129 | 0.631 | 165 | 0.684 | 201 | 0.676 | 237 | 0.627 | 273 | 0.698 | 309 | 0.871 | 345 | 0.988 | | | | |
| 22 | 0.974 | 58 | 0.837 | 94 | 0.672 | 130 | 0.632 | 166 | 0.685 | 202 | 0.675 | 238 | 0.627 | 274 | 0.702 | 310 | 0.875 | 346 | 0.990 | | | | |
| 23 | 0.972 | 59 | 0.833 | 95 | 0.668 | 131 | 0.633 | 167 | 0.686 | 203 | 0.673 | 239 | 0.627 | 275 | 0.707 | 311 | 0.880 | 347 | 0.991 | | | | |
| 24 | 0.970 | 60 | 0.828 | 96 | 0.665 | 132 | 0.634 | 168 | 0.687 | 204 | 0.672 | 240 | 0.627 | 276 | 0.711 | 312 | 0.884 | 348 | 0.992 | | | | |
| 25 | 0.967 | 61 | 0.823 | 97 | 0.662 | 133 | 0.635 | 169 | 0.688 | 205 | 0.670 | 241 | 0.627 | 277 | 0.715 | 313 | 0.889 | 349 | 0.993 | | | | |
| 26 | 0.964 | 62 | 0.818 | 98 | 0.659 | 134 | 0.637 | 170 | 0.689 | 206 | 0.669 | 242 | 0.627 | 278 | 0.720 | 314 | 0.893 | 350 | 0.995 | | | | |
| 27 | 0.962 | 63 | 0.813 | 99 | 0.656 | 135 | 0.638 | 171 | 0.689 | 207 | 0.667 | 243 | 0.627 | 279 | 0.724 | 315 | 0.897 | 351 | 0.996 | | | | |
| 28 | 0.959 | 64 | 0.808 | 100 | 0.653 | 136 | 0.639 | 172 | 0.690 | 208 | 0.666 | 244 | 0.628 | 280 | 0.729 | 316 | 0.902 | 352 | 0.997 | | | | |
| 29 | 0.956 | 65 | 0.803 | 101 | 0.651 | 137 | 0.641 | 173 | 0.690 | 209 | 0.664 | 245 | 0.628 | 281 | 0.734 | 317 | 0.906 | 353 | 0.997 | | | | |
| 30 | 0.953 | 66 | 0.798 | 102 | 0.648 | 138 | 0.642 | 174 | 0.691 | 210 | 0.662 | 246 | 0.629 | 282 | 0.738 | 318 | 0.910 | 354 | 0.998 | | | | |
| 31 | 0.950 | 67 | 0.793 | 103 | 0.646 | 139 | 0.644 | 175 | 0.691 | 211 | 0.661 | 247 | 0.630 | 283 | 0.743 | 319 | 0.914 | 355 | 0.999 | | | | |
| 32 | 0.946 | 68 | 0.788 | 104 | 0.643 | 140 | 0.646 | 176 | 0.692 | 212 | 0.659 | 248 | 0.631 | 284 | 0.748 | 320 | 0.918 | 356 | 0.999 | | | | |
| 33 | 0.943 | 69 | 0.783 | 105 | 0.641 | 141 | 0.647 | 177 | 0.692 | 213 | 0.657 | 249 | 0.632 | 285 | 0.753 | 321 | 0.922 | 357 | 0.999 | | | | |
| 34 | 0.940 | 70 | 0.778 | 106 | 0.639 | 142 | 0.649 | 178 | 0.692 | 214 | 0.655 | 250 | 0.633 | 286 | 0.758 | 322 | 0.925 | 358 | 1.000 | | | | |
| 35 | 0.936 | 71 | 0.773 | 107 | 0.638 | 143 | 0.650 | 179 | 0.692 | 215 | 0.654 | 251 | 0.635 | 287 | 0.763 | 323 | 0.929 | 359 | 1.000 | | | | |

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ELEVATION PATTERN

Exhibit No.

Date **4 Jun 2017**
 Call Letters **KHPL-CD**
 Channel **15**
 Antenna Type **DLP-12B**
 Location **LA GRANGE, TX**
 Customer

RMS Gain at Main Lobe

12.0 (10.79 dB)

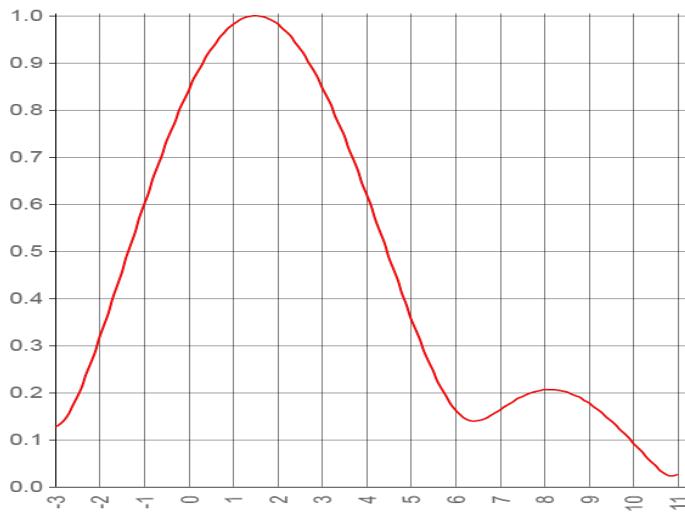
Beam Tilt

1.5 Degrees

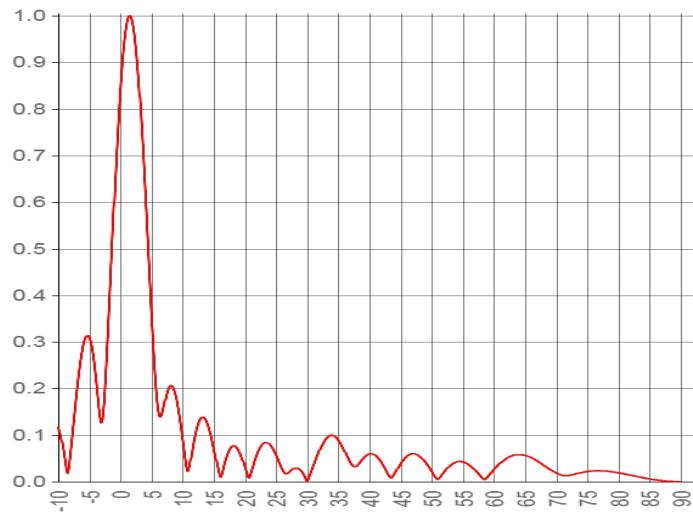
RMS Gain at Horizontal

8.5 (9.30 dB)

Drawing #

12D120150**Calculated**

Degrees below horizontal



Degrees below horizontal

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10 | 0.118 | 10 | 0.093 | 30 | 0.000 | 50 | 0.022 | 70 | 0.019 |
| -9 | 0.055 | 11 | 0.026 | 31 | 0.034 | 51 | 0.005 | 71 | 0.014 |
| -8 | 0.064 | 12 | 0.100 | 32 | 0.068 | 52 | 0.021 | 72 | 0.013 |
| -7 | 0.192 | 13 | 0.137 | 33 | 0.092 | 53 | 0.035 | 73 | 0.016 |
| -6 | 0.289 | 14 | 0.124 | 34 | 0.100 | 54 | 0.043 | 74 | 0.019 |
| -5 | 0.309 | 15 | 0.072 | 35 | 0.089 | 55 | 0.043 | 75 | 0.022 |
| -4 | 0.229 | 16 | 0.011 | 36 | 0.066 | 56 | 0.036 | 76 | 0.023 |
| -3 | 0.127 | 17 | 0.051 | 37 | 0.039 | 57 | 0.024 | 77 | 0.024 |
| -2 | 0.314 | 18 | 0.076 | 38 | 0.034 | 58 | 0.009 | 78 | 0.023 |
| -1 | 0.598 | 19 | 0.067 | 39 | 0.050 | 59 | 0.011 | 79 | 0.021 |
| 0 | 0.842 | 20 | 0.031 | 40 | 0.059 | 60 | 0.026 | 80 | 0.019 |
| 1 | 0.981 | 21 | 0.020 | 41 | 0.056 | 61 | 0.040 | 81 | 0.017 |
| 2 | 0.983 | 22 | 0.060 | 42 | 0.040 | 62 | 0.050 | 82 | 0.014 |
| 3 | 0.850 | 23 | 0.082 | 43 | 0.016 | 63 | 0.056 | 83 | 0.011 |
| 4 | 0.621 | 24 | 0.079 | 44 | 0.016 | 64 | 0.058 | 84 | 0.008 |
| 5 | 0.360 | 25 | 0.057 | 45 | 0.039 | 65 | 0.056 | 85 | 0.006 |
| 6 | 0.163 | 26 | 0.027 | 46 | 0.055 | 66 | 0.051 | 86 | 0.004 |
| 7 | 0.163 | 27 | 0.019 | 47 | 0.060 | 67 | 0.044 | 87 | 0.002 |
| 8 | 0.206 | 28 | 0.029 | 48 | 0.055 | 68 | 0.035 | 88 | 0.001 |
| 9 | 0.178 | 29 | 0.023 | 49 | 0.041 | 69 | 0.026 | 89 | 0.000 |

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Mechanicals

Exhibit No.

Date **4 Jun 2017**
Call Letters **KHPL-CD**
Channel **15**
Antenna Type **DLP-12B**
Location **LA GRANGE, TX**
Customer

Preliminary Specifications

Side Mounted

Mechanical Specification without ice TIA-222-G

Basic Wind Speed 90 mph

Structure Class II
Exposure Category C
Topography Category 1

Mechanical Specifications

| | | |
|---------------------------------|--------|--|
| Height less Lightning Protector | (H2) | 18.6 ft (5.7 m) |
| Center of Radiation | (H3) | 10.3 ft (3.1 m) |
| Effective Projected Area | (EPA)s | 14.1 ft ² (4.3 m ²) |
| Weight | W | 125.4 lbs |

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