



Antenna Model: **TFU-8WB-LP/VP-R C160**

Reference Number:

Date:

Customer: **WJAC**
Location: **STATE COLLEGE**

Electrical Specifications

Polarization: **Elliptical**
Azimuth Pattern: **C160**
Antenna Input: **1-5/8 in 50 Ohm**
VSWR: Channel **1.15:1** Band **1.15:1**
Bandwidth: **470-698 MHz**
Rated Input Power: **5.0 kW (6.99 dBk) Maximum Average Power**

Mechanical Specifications

Mounting: **Side Mounted**
Environmental Protection: **Full Radome**
Height: **14.4 ft (4.4m)**
Weight: **370 lb (168 kg)** mounts excluded
Effective Projected Area: **16.6 ft² (1.5m²) TIA-222-G** Basic Wind Speed: **90 mph (145 km/h)**

Channel Specifications

| Call | Ch | Freq | Hpol ERP | Vpol ERP | TPO | Peak Gain Main Lobe Hpol | Peak Gain Main Lobe Vpol | Peak Gain at Horizontal Hpol | Peak Gain at Horizontal Vpol |
|---------|----|------|------------------------|-----------------------|-----------------------|--------------------------------|--------------------------------|------------------------------------|------------------------------------|
| W25EQ-D | 26 | 545 | 15.0 kW (11.76 dBk) | 6.82 kW (8.34 dBk) | 1.99 kW (2.99 dBk) | 9.94 (9.97dB) | 4.52 (6.55dB) | 9.41 (9.73dB) | 4.28 (6.31dB) |

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AZIMUTH PATTERN Horizontal Polarization

Proposal No.

Date

Call Letters

W25EQ-D

Channel

26

Frequency

545 MHz

Antenna Type

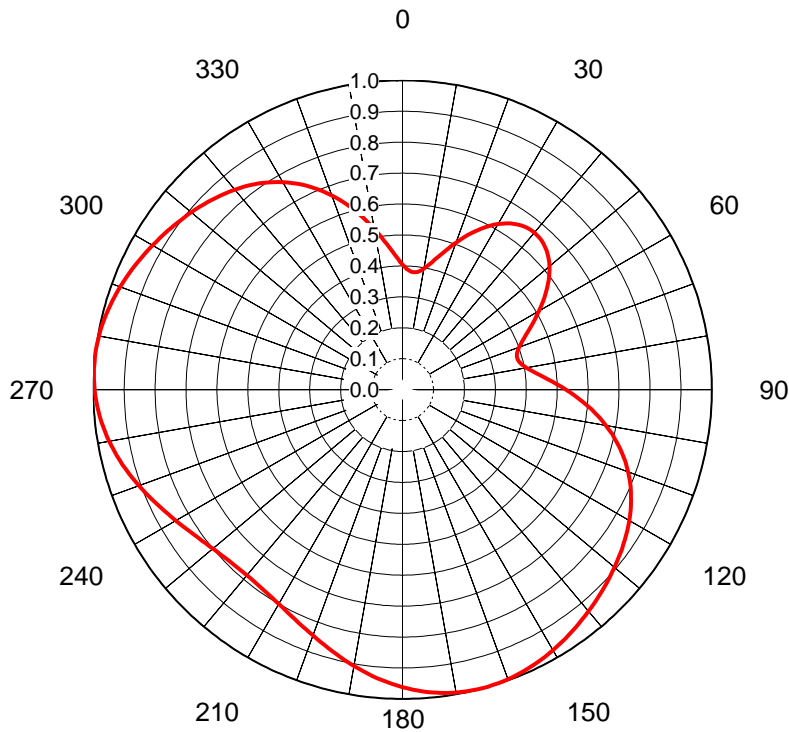
TFU-8WB-LP/VP-R C160

Gain

1.6 (2.05dB)

Calculated

Pattern Number **WB-C160-26 Hpol**



| Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0 | 0.404 | 36 | 0.655 | 72 | 0.390 | 108 | 0.758 | 144 | 0.951 | 180 | 0.962 | 216 | 0.786 | 252 | 0.920 | 288 | 0.978 | 324 | 0.820 |
| 1 | 0.397 | 37 | 0.659 | 73 | 0.387 | 109 | 0.767 | 145 | 0.955 | 181 | 0.958 | 217 | 0.785 | 253 | 0.926 | 289 | 0.975 | 325 | 0.813 |
| 2 | 0.391 | 38 | 0.661 | 74 | 0.385 | 110 | 0.776 | 146 | 0.959 | 182 | 0.953 | 218 | 0.784 | 254 | 0.931 | 290 | 0.972 | 326 | 0.806 |
| 3 | 0.386 | 39 | 0.662 | 75 | 0.385 | 111 | 0.785 | 147 | 0.962 | 183 | 0.947 | 219 | 0.783 | 255 | 0.937 | 291 | 0.968 | 327 | 0.799 |
| 4 | 0.383 | 40 | 0.663 | 76 | 0.386 | 112 | 0.793 | 148 | 0.966 | 184 | 0.942 | 220 | 0.783 | 256 | 0.943 | 292 | 0.965 | 328 | 0.791 |
| 5 | 0.381 | 41 | 0.663 | 77 | 0.389 | 113 | 0.801 | 149 | 0.969 | 185 | 0.937 | 221 | 0.783 | 257 | 0.948 | 293 | 0.961 | 329 | 0.783 |
| 6 | 0.381 | 42 | 0.661 | 78 | 0.393 | 114 | 0.808 | 150 | 0.973 | 186 | 0.931 | 222 | 0.784 | 258 | 0.953 | 294 | 0.957 | 330 | 0.775 |
| 7 | 0.383 | 43 | 0.659 | 79 | 0.399 | 115 | 0.815 | 151 | 0.976 | 187 | 0.925 | 223 | 0.785 | 259 | 0.958 | 295 | 0.953 | 331 | 0.766 |
| 8 | 0.386 | 44 | 0.656 | 80 | 0.407 | 116 | 0.822 | 152 | 0.979 | 188 | 0.919 | 224 | 0.786 | 260 | 0.963 | 296 | 0.949 | 332 | 0.757 |
| 9 | 0.391 | 45 | 0.652 | 81 | 0.415 | 117 | 0.829 | 153 | 0.982 | 189 | 0.913 | 225 | 0.788 | 261 | 0.968 | 297 | 0.945 | 333 | 0.747 |
| 10 | 0.397 | 46 | 0.647 | 82 | 0.425 | 118 | 0.835 | 154 | 0.985 | 190 | 0.907 | 226 | 0.790 | 262 | 0.972 | 298 | 0.941 | 334 | 0.737 |
| 11 | 0.405 | 47 | 0.642 | 83 | 0.435 | 119 | 0.841 | 155 | 0.987 | 191 | 0.901 | 227 | 0.792 | 263 | 0.976 | 299 | 0.937 | 335 | 0.726 |
| 12 | 0.413 | 48 | 0.635 | 84 | 0.447 | 120 | 0.847 | 156 | 0.989 | 192 | 0.895 | 228 | 0.794 | 264 | 0.980 | 300 | 0.933 | 336 | 0.715 |
| 13 | 0.423 | 49 | 0.628 | 85 | 0.459 | 121 | 0.852 | 157 | 0.992 | 193 | 0.888 | 229 | 0.797 | 265 | 0.983 | 301 | 0.929 | 337 | 0.704 |
| 14 | 0.433 | 50 | 0.620 | 86 | 0.472 | 122 | 0.857 | 158 | 0.993 | 194 | 0.882 | 230 | 0.800 | 266 | 0.986 | 302 | 0.925 | 338 | 0.692 |
| 15 | 0.444 | 51 | 0.611 | 87 | 0.486 | 123 | 0.862 | 159 | 0.995 | 195 | 0.876 | 231 | 0.804 | 267 | 0.989 | 303 | 0.921 | 339 | 0.680 |
| 16 | 0.456 | 52 | 0.602 | 88 | 0.500 | 124 | 0.867 | 160 | 0.996 | 196 | 0.870 | 232 | 0.808 | 268 | 0.991 | 304 | 0.917 | 340 | 0.668 |
| 17 | 0.468 | 53 | 0.592 | 89 | 0.514 | 125 | 0.872 | 161 | 0.998 | 197 | 0.864 | 233 | 0.812 | 269 | 0.994 | 305 | 0.913 | 341 | 0.655 |
| 18 | 0.481 | 54 | 0.581 | 90 | 0.528 | 126 | 0.877 | 162 | 0.998 | 198 | 0.858 | 234 | 0.816 | 270 | 0.995 | 306 | 0.908 | 342 | 0.642 |
| 19 | 0.493 | 55 | 0.570 | 91 | 0.543 | 127 | 0.881 | 163 | 0.999 | 199 | 0.852 | 235 | 0.820 | 271 | 0.997 | 307 | 0.904 | 343 | 0.628 |
| 20 | 0.506 | 56 | 0.559 | 92 | 0.557 | 128 | 0.886 | 164 | 0.999 | 200 | 0.846 | 236 | 0.825 | 272 | 0.998 | 308 | 0.900 | 344 | 0.614 |
| 21 | 0.519 | 57 | 0.547 | 93 | 0.572 | 129 | 0.890 | 165 | 0.999 | 201 | 0.841 | 237 | 0.830 | 273 | 0.999 | 309 | 0.896 | 345 | 0.600 |
| 22 | 0.531 | 58 | 0.535 | 94 | 0.586 | 130 | 0.894 | 166 | 0.999 | 202 | 0.835 | 238 | 0.835 | 274 | 1.000 | 310 | 0.892 | 346 | 0.586 |
| 23 | 0.544 | 59 | 0.522 | 95 | 0.600 | 131 | 0.899 | 167 | 0.998 | 203 | 0.830 | 239 | 0.841 | 275 | 1.000 | 311 | 0.887 | 347 | 0.571 |
| 24 | 0.556 | 60 | 0.510 | 96 | 0.615 | 132 | 0.903 | 168 | 0.997 | 204 | 0.825 | 240 | 0.846 | 276 | 1.000 | 312 | 0.883 | 348 | 0.557 |
| 25 | 0.568 | 61 | 0.497 | 97 | 0.628 | 133 | 0.907 | 169 | 0.996 | 205 | 0.820 | 241 | 0.852 | 277 | 1.000 | 313 | 0.879 | 349 | 0.542 |
| 26 | 0.579 | 62 | 0.484 | 98 | 0.642 | 134 | 0.911 | 170 | 0.995 | 206 | 0.816 | 242 | 0.858 | 278 | 0.999 | 314 | 0.874 | 350 | 0.528 |
| 27 | 0.590 | 63 | 0.472 | 99 | 0.655 | 135 | 0.915 | 171 | 0.993 | 207 | 0.811 | 243 | 0.864 | 279 | 0.998 | 315 | 0.869 | 351 | 0.513 |
| 28 | 0.600 | 64 | 0.460 | 100 | 0.668 | 136 | 0.919 | 172 | 0.991 | 208 | 0.807 | 244 | 0.870 | 280 | 0.997 | 316 | 0.865 | 352 | 0.499 |
| 29 | 0.609 | 65 | 0.448 | 101 | 0.681 | 137 | 0.923 | 173 | 0.988 | 209 | 0.804 | 245 | 0.876 | 281 | 0.995 | 317 | 0.860 | 353 | 0.485 |
| 30 | 0.618 | 66 | 0.437 | 102 | 0.693 | 138 | 0.927 | 174 | 0.985 | 210 | 0.800 | 246 | 0.882 | 282 | 0.994 | 318 | 0.855 | 354 | 0.471 |
| 31 | 0.626 | 67 | 0.427 | 103 | 0.705 | 139 | 0.931 | 175 | 0.982 | 211 | 0.797 | 247 | 0.889 | 283 | 0.992 | 319 | 0.849 | 355 | 0.458 |
| 32 | 0.634 | 68 | 0.417 | 104 | 0.716 | 140 | 0.935 | 176 | 0.979 | 212 | 0.794 | 248 | 0.895 | 284 | 0.989 | 320 | 0.844 | 356 | 0.446 |
| 33 | 0.640 | 69 | 0.409 | 105 | 0.727 | 141 | 0.939 | 177 | 0.975 | 213 | 0.792 | 249 | 0.901 | 285 | 0.987 | 321 | 0.838 | 357 | 0.434 |
| 34 | 0.646 | 70 | 0.401 | 106 | 0.738 | 142 | 0.943 | 178 | 0.971 | 214 | 0.790 | 250 | 0.907 | 286 | 0.984 | 322 | 0.833 | 358 | 0.423 |
| 35 | 0.651 | 71 | 0.395 | 107 | 0.748 | 143 | 0.947 | 179 | 0.967 | 215 | 0.788 | 251 | 0.913 | 287 | 0.981 | 323 | 0.826 | 359 | 0.413 |

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AZIMUTH PATTERN Vertical Polarization

Proposal No.

Date

Call Letters

W25EQ-D

Channel

26

Frequency

545 MHz

Antenna Type

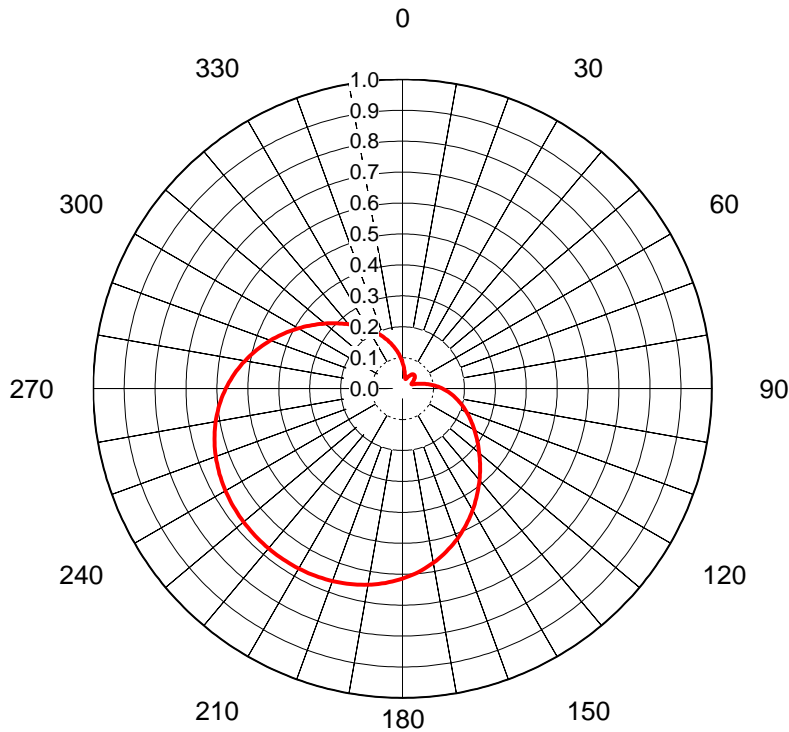
TFU-8WB-LP/VP-R C160

Gain

2.6 (4.15dB)

Calculated

Pattern Number **WB-C160-26 Vpol**



| Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value | Deg | Value |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0 | 0.084 | 36 | 0.057 | 72 | 0.051 | 108 | 0.211 | 144 | 0.413 | 180 | 0.614 | 216 | 0.674 | 252 | 0.638 | 288 | 0.468 | 324 | 0.251 |
| 1 | 0.080 | 37 | 0.058 | 73 | 0.054 | 109 | 0.216 | 145 | 0.420 | 181 | 0.618 | 217 | 0.674 | 253 | 0.635 | 289 | 0.461 | 325 | 0.246 |
| 2 | 0.075 | 38 | 0.058 | 74 | 0.058 | 110 | 0.220 | 146 | 0.427 | 182 | 0.621 | 218 | 0.674 | 254 | 0.632 | 290 | 0.455 | 326 | 0.241 |
| 3 | 0.071 | 39 | 0.058 | 75 | 0.062 | 111 | 0.225 | 147 | 0.433 | 183 | 0.625 | 219 | 0.674 | 255 | 0.629 | 291 | 0.448 | 327 | 0.237 |
| 4 | 0.067 | 40 | 0.058 | 76 | 0.066 | 112 | 0.230 | 148 | 0.440 | 184 | 0.628 | 220 | 0.674 | 256 | 0.626 | 292 | 0.442 | 328 | 0.232 |
| 5 | 0.063 | 41 | 0.058 | 77 | 0.070 | 113 | 0.234 | 149 | 0.447 | 185 | 0.631 | 221 | 0.674 | 257 | 0.623 | 293 | 0.435 | 329 | 0.227 |
| 6 | 0.059 | 42 | 0.058 | 78 | 0.075 | 114 | 0.239 | 150 | 0.453 | 186 | 0.633 | 222 | 0.674 | 258 | 0.620 | 294 | 0.429 | 330 | 0.222 |
| 7 | 0.055 | 43 | 0.058 | 79 | 0.079 | 115 | 0.244 | 151 | 0.460 | 187 | 0.636 | 223 | 0.674 | 259 | 0.617 | 295 | 0.422 | 331 | 0.218 |
| 8 | 0.051 | 44 | 0.057 | 80 | 0.084 | 116 | 0.249 | 152 | 0.466 | 188 | 0.639 | 224 | 0.674 | 260 | 0.613 | 296 | 0.416 | 332 | 0.213 |
| 9 | 0.048 | 45 | 0.056 | 81 | 0.088 | 117 | 0.254 | 153 | 0.473 | 189 | 0.641 | 225 | 0.673 | 261 | 0.610 | 297 | 0.409 | 333 | 0.208 |
| 10 | 0.044 | 46 | 0.055 | 82 | 0.093 | 118 | 0.259 | 154 | 0.480 | 190 | 0.644 | 226 | 0.673 | 262 | 0.606 | 298 | 0.402 | 334 | 0.204 |
| 11 | 0.041 | 47 | 0.054 | 83 | 0.097 | 119 | 0.264 | 155 | 0.486 | 191 | 0.646 | 227 | 0.672 | 263 | 0.602 | 299 | 0.396 | 335 | 0.199 |
| 12 | 0.039 | 48 | 0.053 | 84 | 0.102 | 120 | 0.269 | 156 | 0.492 | 192 | 0.648 | 228 | 0.672 | 264 | 0.598 | 300 | 0.389 | 336 | 0.195 |
| 13 | 0.037 | 49 | 0.052 | 85 | 0.106 | 121 | 0.274 | 157 | 0.499 | 193 | 0.650 | 229 | 0.671 | 265 | 0.594 | 301 | 0.383 | 337 | 0.190 |
| 14 | 0.035 | 50 | 0.050 | 86 | 0.111 | 122 | 0.279 | 158 | 0.505 | 194 | 0.652 | 230 | 0.671 | 266 | 0.590 | 302 | 0.377 | 338 | 0.186 |
| 15 | 0.033 | 51 | 0.049 | 87 | 0.116 | 123 | 0.284 | 159 | 0.511 | 195 | 0.654 | 231 | 0.670 | 267 | 0.585 | 303 | 0.370 | 339 | 0.181 |
| 16 | 0.033 | 52 | 0.047 | 88 | 0.120 | 124 | 0.290 | 160 | 0.517 | 196 | 0.656 | 232 | 0.669 | 268 | 0.581 | 304 | 0.364 | 340 | 0.176 |
| 17 | 0.032 | 53 | 0.046 | 89 | 0.125 | 125 | 0.295 | 161 | 0.523 | 197 | 0.658 | 233 | 0.668 | 269 | 0.576 | 305 | 0.358 | 341 | 0.172 |
| 18 | 0.033 | 54 | 0.044 | 90 | 0.129 | 126 | 0.301 | 162 | 0.529 | 198 | 0.659 | 234 | 0.668 | 270 | 0.572 | 306 | 0.351 | 342 | 0.167 |
| 19 | 0.033 | 55 | 0.042 | 91 | 0.134 | 127 | 0.307 | 163 | 0.535 | 199 | 0.661 | 235 | 0.667 | 271 | 0.567 | 307 | 0.345 | 343 | 0.163 |
| 20 | 0.034 | 56 | 0.040 | 92 | 0.139 | 128 | 0.312 | 164 | 0.540 | 200 | 0.662 | 236 | 0.666 | 272 | 0.562 | 308 | 0.339 | 344 | 0.158 |
| 21 | 0.035 | 57 | 0.039 | 93 | 0.143 | 129 | 0.318 | 165 | 0.546 | 201 | 0.663 | 237 | 0.665 | 273 | 0.556 | 309 | 0.333 | 345 | 0.154 |
| 22 | 0.037 | 58 | 0.037 | 94 | 0.148 | 130 | 0.324 | 166 | 0.551 | 202 | 0.665 | 238 | 0.663 | 274 | 0.551 | 310 | 0.327 | 346 | 0.149 |
| 23 | 0.038 | 59 | 0.035 | 95 | 0.152 | 131 | 0.330 | 167 | 0.557 | 203 | 0.666 | 239 | 0.662 | 275 | 0.546 | 311 | 0.321 | 347 | 0.145 |
| 24 | 0.040 | 60 | 0.034 | 96 | 0.157 | 132 | 0.336 | 168 | 0.562 | 204 | 0.667 | 240 | 0.661 | 276 | 0.540 | 312 | 0.315 | 348 | 0.140 |
| 25 | 0.042 | 61 | 0.033 | 97 | 0.161 | 133 | 0.342 | 169 | 0.567 | 205 | 0.668 | 241 | 0.659 | 277 | 0.535 | 313 | 0.310 | 349 | 0.135 |
| 26 | 0.044 | 62 | 0.033 | 98 | 0.166 | 134 | 0.348 | 170 | 0.572 | 206 | 0.669 | 242 | 0.658 | 278 | 0.529 | 314 | 0.304 | 350 | 0.131 |
| 27 | 0.046 | 63 | 0.032 | 99 | 0.170 | 135 | 0.355 | 171 | 0.577 | 207 | 0.669 | 243 | 0.656 | 279 | 0.523 | 315 | 0.298 | 351 | 0.126 |
| 28 | 0.047 | 64 | 0.033 | 100 | 0.175 | 136 | 0.361 | 172 | 0.582 | 208 | 0.670 | 244 | 0.655 | 280 | 0.518 | 316 | 0.293 | 352 | 0.121 |
| 29 | 0.049 | 65 | 0.033 | 101 | 0.179 | 137 | 0.367 | 173 | 0.586 | 209 | 0.671 | 245 | 0.653 | 281 | 0.512 | 317 | 0.287 | 353 | 0.117 |
| 30 | 0.050 | 66 | 0.035 | 102 | 0.184 | 138 | 0.374 | 174 | 0.591 | 210 | 0.671 | 246 | 0.651 | 282 | 0.505 | 318 | 0.282 | 354 | 0.112 |
| 31 | 0.052 | 67 | 0.036 | 103 | 0.188 | 139 | 0.380 | 175 | 0.595 | 211 | 0.672 | 247 | 0.649 | 283 | 0.499 | 319 | 0.277 | 355 | 0.107 |
| 32 | 0.053 | 68 | 0.038 | 104 | 0.193 | 140 | 0.387 | 176 | 0.599 | 212 | 0.673 | 248 | 0.647 | 284 | 0.493 | 320 | 0.272 | 356 | 0.103 |
| 33 | 0.054 | 69 | 0.041 | 105 | 0.198 | 141 | 0.393 | 177 | 0.603 | 213 | 0.673 | 249 | 0.645 | 285 | 0.487 | 321 | 0.266 | 357 | 0.098 |
| 34 | 0.055 | 70 | 0.044 | 106 | 0.202 | 142 | 0.400 | 178 | 0.607 | 214 | 0.673 | 250 | 0.642 | 286 | 0.481 | 322 | 0.261 | 358 | 0.094 |
| 35 | 0.056 | 71 | 0.047 | 107 | 0.207 | 143 | 0.407 | 179 | 0.611 | 215 | 0.674 | 251 | 0.640 | 287 | 0.474 | 323 | 0.256 | 359 | 0.089 |

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ELEVATION PATTERN

Proposal No.

Date

Call Letters **W25EQ-D**

Channel **26**

Frequency **545 MHz**

Antenna Type **TFU-8WB-LP/VP-R C160**

RMS Directivity at Main Lobe

7.9 (9.00 dB)

RMS Directivity at Horizontal

7.5 (8.75 dB)

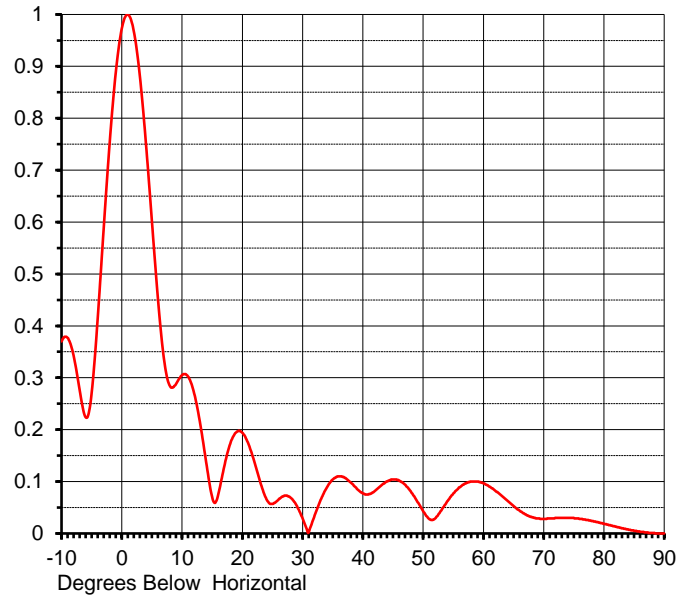
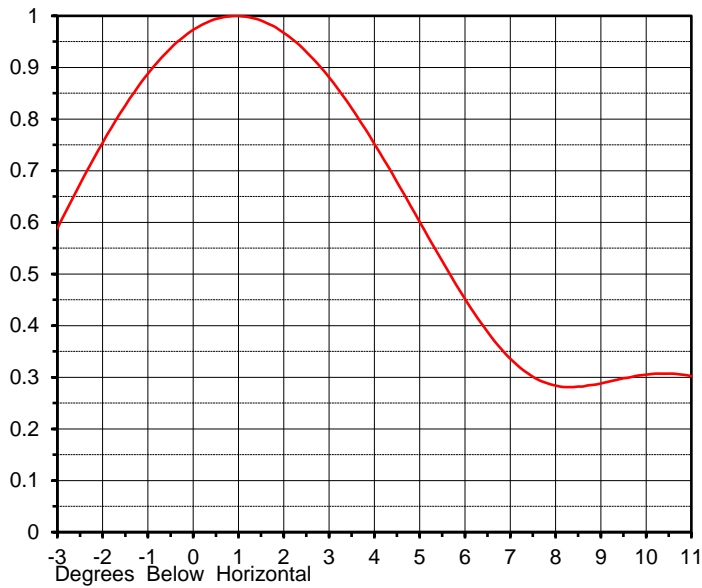
Calculated

Beam Tilt

1.05 deg

Pattern Number

08W079105-26

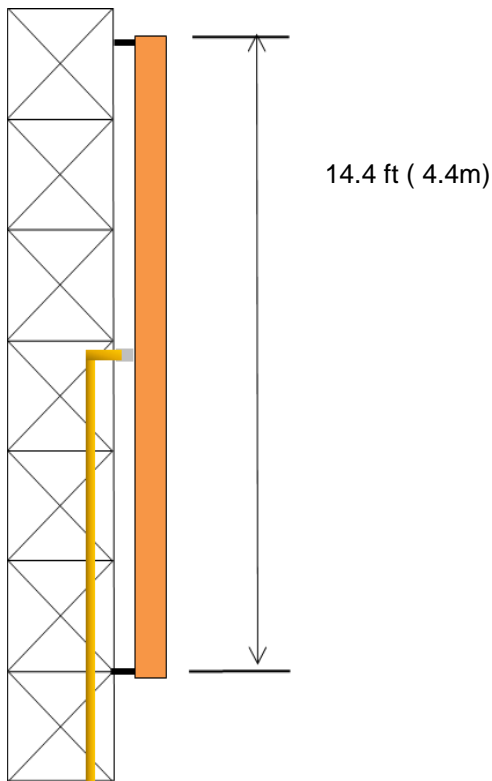


| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.370 | 10.0 | 0.305 | 30.0 | 0.029 | 50.0 | 0.043 | 70.0 | 0.028 |
| -9.0 | 0.377 | 11.0 | 0.302 | 31.0 | 0.002 | 51.0 | 0.028 | 71.0 | 0.029 |
| -8.0 | 0.343 | 12.0 | 0.270 | 32.0 | 0.035 | 52.0 | 0.029 | 72.0 | 0.030 |
| -7.0 | 0.277 | 13.0 | 0.212 | 33.0 | 0.065 | 53.0 | 0.044 | 73.0 | 0.030 |
| -6.0 | 0.224 | 14.0 | 0.137 | 34.0 | 0.088 | 54.0 | 0.062 | 74.0 | 0.030 |
| -5.0 | 0.271 | 15.0 | 0.070 | 35.0 | 0.104 | 55.0 | 0.077 | 75.0 | 0.030 |
| -4.0 | 0.414 | 16.0 | 0.075 | 36.0 | 0.110 | 56.0 | 0.089 | 76.0 | 0.028 |
| -3.0 | 0.588 | 17.0 | 0.129 | 37.0 | 0.107 | 57.0 | 0.096 | 77.0 | 0.026 |
| -2.0 | 0.754 | 18.0 | 0.173 | 38.0 | 0.098 | 58.0 | 0.100 | 78.0 | 0.024 |
| -1.0 | 0.888 | 19.0 | 0.195 | 39.0 | 0.086 | 59.0 | 0.100 | 79.0 | 0.022 |
| 0.0 | 0.973 | 20.0 | 0.194 | 40.0 | 0.077 | 60.0 | 0.097 | 80.0 | 0.019 |
| 1.0 | 1.000 | 21.0 | 0.173 | 41.0 | 0.076 | 61.0 | 0.090 | 81.0 | 0.016 |
| 2.0 | 0.967 | 22.0 | 0.138 | 42.0 | 0.082 | 62.0 | 0.082 | 82.0 | 0.013 |
| 3.0 | 0.881 | 23.0 | 0.098 | 43.0 | 0.092 | 63.0 | 0.073 | 83.0 | 0.010 |
| 4.0 | 0.752 | 24.0 | 0.066 | 44.0 | 0.100 | 64.0 | 0.063 | 84.0 | 0.008 |
| 5.0 | 0.601 | 25.0 | 0.057 | 45.0 | 0.104 | 65.0 | 0.053 | 85.0 | 0.005 |
| 6.0 | 0.452 | 26.0 | 0.065 | 46.0 | 0.102 | 66.0 | 0.044 | 86.0 | 0.003 |
| 7.0 | 0.336 | 27.0 | 0.073 | 47.0 | 0.094 | 67.0 | 0.037 | 87.0 | 0.002 |
| 8.0 | 0.284 | 28.0 | 0.069 | 48.0 | 0.080 | 68.0 | 0.032 | 88.0 | 0.001 |
| 9.0 | 0.288 | 29.0 | 0.054 | 49.0 | 0.062 | 69.0 | 0.029 | 89.0 | 0.000 |
| | | | | | | | | 90.0 | 0.000 |

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MECHANICAL SPECIFICATIONS



Proposal No.
 Date
 Call Letters **W25EQ-D**
 Channel **26**
 Frequency **545 MHz**
 Antenna Type **TFU-8WB-LP/VP-R C160**

Preliminary Specifications

Side Mounted

With Ice TIA-222-G

Basic Wind Speed 90 mph (145 km/h)

Structure Class II
 Exposure Category C
 Topography Category 1

Design Ice 0.50 in tiz= 1.31 in
 Wind Speed with Ice 40 mph

Mechanical Specifications

| | | without ice | with ice | |
|-------------------------------|--------------------|---|---|-----------------|
| Height | H2 | 14.4 ft (4.4m) | | |
| Height of Center of Radiation | H3 | 7.2 ft (2.2m) | | |
| Effective Projected Area | (EPA) _S | 16.6 ft ² (1.5m ²) | 26.9 ft ² (2.5m ²) | mounts excluded |
| Weight | W | 370 lb (168 kg) | 800 lb (363 kg) | mounts excluded |

Antenna designed in accordance with AISC specifications for design of structural steel as prescribed by TIA-222-G
 Mechanical data is based on listed criteria and should be verified by the tower engineer.

Prepared by:

Date:

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Summary

Proposal No.

Date

Call Letters **W25EQ-D**

Channel **26**

Frequency **545 MHz**

Antenna Type **TFU-8WB-LP/VP-R C160**

Antenna

| | Hpol | | Vpol | |
|-----------|---------|---------------|---------|--------------|
| ERP: | 15.0 kW | (11.76 dBk) | 6.82 kW | (8.34 dBk) |
| Peak Gain | 9.94 | (9.97 dBd) | 4.52 | (6.55 dBd) |

Antenna Input Power **1.51 kW (1.79 dBk)**

Transmission Line

| | | | |
|------------|---------------------------|--------------|--------------------|
| Type: | Flexline Air | Attenuation: | (1.20 dB) |
| Size: | 1-5/8" | Efficiency: | 75.8% |
| Impedance: | 50 Ohm | | |
| Length: | 240 ft 73.2 m | | |

Transmitter Output

1.99 kW (2.99 dBk)

Transmitter filter losses not included

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