



## Elevation Pattern

Scale: Linear

Units: Field, Relative

## Systems With Reliability

CLIENT: *PHIL\_23\_10*

Date: 1/21/2019

ANTENNA TYPE: **FMEC/3-0.85WS**

FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 3.031/4.816 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 3.031/4.816 dBd

Null Fill(s)(%) : 0, 0, 0

# Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
90.0	.073 (-22.791)	52.0	.007 (-42.501)	14.0	.503 (-5.969 )
89.0	.084 (-21.529)	51.0	.015 (-36.736)	13.0	.561 (-5.024 )
88.0	.095 (-20.439)	50.0	.037 (-28.616)	12.0	.617 (-4.192 )
87.0	.106 (-19.486)	49.0	.06 (-24.452)	11.0	.671 (-3.459 )
86.0	.117 (-18.644)	48.0	.083 (-21.64)	10.0	.723 (-2.814 )
85.0	.127 (-17.894)	47.0	.106 (-19.53)	9.8	.733 (-2.695 )
84.0	.138 (-17.225)	46.0	.128 (-17.857)	9.6	.743 (-2.579 )
83.0	.147 (-16.625)	45.0	.15 (-16.489)	9.4	.753 (-2.466 )
82.0	.157 (-16.086)	44.0	.171 (-15.35)	9.2	.762 (-2.356 )
81.0	.166 (-15.604)	43.0	.191 (-14.394)	9.0	.772 (-2.249 )
80.0	.174 (-15.173)	42.0	.209 (-13.59)	8.8	.781 (-2.145 )
79.0	.182 (-14.79)	41.0	.226 (-12.916)	8.6	.79 (-2.043 )
78.0	.189 (-14.451)	40.0	.241 (-12.361)	8.4	.799 (-1.945 )
77.0	.196 (-14.156)	39.0	.254 (-11.914)	8.2	.808 (-1.849 )
76.0	.202 (-13.902)	38.0	.264 (-11.569)	8.0	.817 (-1.756 )
75.0	.207 (-13.689)	37.0	.271 (-11.325)	7.8	.825 (-1.666 )
74.0	.211 (-13.517)	36.0	.276 (-11.181)	7.6	.834 (-1.578 )
73.0	.214 (-13.384)	35.0	.277 (-11.139)	7.4	.842 (-1.493 )
72.0	.216 (-13.292)	34.0	.275 (-11.205)	7.2	.85 (-1.411 )
71.0	.218 (-13.242)	33.0	.27 (-11.387)	7.0	.858 (-1.331 )
70.0	.218 (-13.235)	32.0	.26 (-11.698)	6.8	.866 (-1.254 )
69.0	.217 (-13.273)	31.0	.247 (-12.158)	6.6	.873 (-1.179 )
68.0	.215 (-13.358)	30.0	.229 (-12.794)	6.4	.88 (-1.107 )
67.0	.211 (-13.495)	29.0	.208 (-13.649)	6.2	.887 (-1.037 )
66.0	.207 (-13.686)	28.0	.182 (-14.789)	6.0	.894 (-0.97 )
65.0	.201 (-13.937)	27.0	.153 (-16.329)	5.8	.901 (-0.905 )
64.0	.194 (-14.255)	26.0	.119 (-18.487)	5.6	.908 (-0.842 )
63.0	.185 (-14.647)	25.0	.082 (-21.766)	5.4	.914 (-0.782 )
62.0	.175 (-15.125)	24.0	.04 (-27.854)	5.2	.92 (-0.724 )
61.0	.164 (-15.702)	23.0	.004 (-47.764)	5.0	.926 (-0.669 )
60.0	.151 (-16.397)	22.0	.052 (-25.703)	4.8	.932 (-0.616 )
59.0	.137 (-17.236)	21.0	.103 (-19.784)	4.6	.937 (-0.565 )
58.0	.122 (-18.256)	20.0	.156 (-16.154)	4.4	.942 (-0.516 )
57.0	.106 (-19.513)	19.0	.211 (-13.514)	4.2	.947 (-0.47 )
56.0	.088 (-21.099)	18.0	.268 (-11.438)	4.0	.952 (-0.426 )
55.0	.069 (-23.178)	17.0	.326 (-9.73)	3.8	.957 (-0.384 )
54.0	.05 (-26.091)	16.0	.385 (-8.288)	3.6	.961 (-0.344 )
53.0	.029 (-30.772)	15.0	.444 (-7.048)	3.4	.965 (-0.307 )

## Systems With Reliability

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FREQUENCY: 98.1 MHz

PATTERN POL.: Circular

DIRECTIVITY(Peak): 3.031/4.816 dBd

Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 3.031/4.816 dBd

Null Fill(s)(%) : 0, 0, 0

# Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
3.2	.969 (-0.271)	-4.4	.942 (-0.516)	-12.0	.617 (-4.192 )
3.0	.973 (-0.238)	-4.6	.937 (-0.565)	-12.2	.606 (-4.35 )
2.8	.976 (-0.208)	-4.8	.932 (-0.616)	-12.4	.595 (-4.512 )
2.6	.98 (-0.179)	-5.0	.926 (-0.669)	-12.6	.584 (-4.678 )
2.4	.983 (-0.152)	-5.2	.92 (-0.724)	-12.8	.572 (-4.849 )
2.2	.985 (-0.128)	-5.4	.914 (-0.782)	-13.0	.561 (-5.024 )
2.0	.988 (-0.106)	-5.6	.908 (-0.842)	-13.2	.549 (-5.203 )
1.8	.99 (-0.086)	-5.8	.901 (-0.905)	-13.4	.538 (-5.387 )
1.6	.992 (-0.068)	-6.0	.894 (-0.97)	-13.6	.526 (-5.576 )
1.4	.994 (-0.052)	-6.2	.887 (-1.037)	-13.8	.515 (-5.77 )
1.2	.996 (-0.038)	-6.4	.88 (-1.107)	-14.0	.503 (-5.969 )
1.0	.997 (-0.026)	-6.6	.873 (-1.179)	-14.2	.491 (-6.174 )
.8	.998 (-0.017)	-6.8	.866 (-1.254)	-14.4	.48 (-6.383 )
.6	.999 (-0.009)	-7.0	.858 (-1.331)	-14.6	.468 (-6.599 )
.4	1.00 (-0.004)	-7.2	.85 (-1.411)	-14.8	.456 (-6.82 )
.2	1.00 (-0.001)	-7.4	.842 (-1.493)	-15.0	.444 (-7.048 )
.0	1.00 (0)	-7.6	.834 (-1.578)	-15.2	.432 (-7.282 )
-.2	1.00 (-0.001)	-7.8	.825 (-1.666)	-15.4	.421 (-7.523 )
-.4	1.00 (-0.004)	-8.0	.817 (-1.756)	-15.6	.409 (-7.771 )
-.6	.999 (-0.009)	-8.2	.808 (-1.849)	-15.8	.397 (-8.026 )
-.8	.998 (-0.017)	-8.4	.799 (-1.945)	-16.0	.385 (-8.288 )
-1.0	.997 (-0.026)	-8.6	.79 (-2.043)	-16.2	.373 (-8.559 )
-1.2	.996 (-0.038)	-8.8	.781 (-2.145)	-16.4	.361 (-8.838 )
-1.4	.994 (-0.052)	-9.0	.772 (-2.249)	-16.6	.35 (-9.126 )
-1.6	.992 (-0.068)	-9.2	.762 (-2.356)	-16.8	.338 (-9.423 )
-1.8	.99 (-0.086)	-9.4	.753 (-2.466)	-17.0	.326 (-9.73 )
-2.0	.988 (-0.106)	-9.6	.743 (-2.579)	-17.2	.314 (-10.048 )
-2.2	.985 (-0.128)	-9.8	.733 (-2.695)	-17.4	.303 (-10.377 )
-2.4	.983 (-0.152)	-10.0	.723 (-2.814)	-17.6	.291 (-10.717 )
-2.6	.98 (-0.179)	-10.2	.713 (-2.937)	-17.8	.28 (-11.071 )
-2.8	.976 (-0.208)	-10.4	.703 (-3.062)	-18.0	.268 (-11.438 )
-3.0	.973 (-0.238)	-10.6	.693 (-3.191)	-18.2	.256 (-11.819 )
-3.2	.969 (-0.271)	-10.8	.682 (-3.323)	-18.4	.245 (-12.216 )
-3.4	.965 (-0.307)	-11.0	.671 (-3.459)	-18.6	.234 (-12.63 )
-3.6	.961 (-0.344)	-11.2	.661 (-3.598)	-18.8	.222 (-13.062 )
-3.8	.957 (-0.384)	-11.4	.65 (-3.741)	-19.0	.211 (-13.514 )
-4.0	.952 (-0.426)	-11.6	.639 (-3.888)	-19.2	.20 (-13.988 )
-4.2	.947 (-0.47)	-11.8	.628 (-4.038)	-19.4	.189 (-14.487 )

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Beam Tilt (Deg.) : 0

DIRECTIVITY(Horiz): 3.031/4.816 dBd

Null Fill(s)(%) : 0, 0, 0

# Relative Field Tabulation

Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)	Elev. Angle	Rel. Fld(dB)
-19.6	.178 (-15.012)	-27.2	.159 (-15.98)	-54.0	.05 (-26.091 )
-19.8	.167 (-15.566)	-27.4	.165 (-15.654)	-55.0	.069 (-23.178 )
-20.0	.156 (-16.154)	-27.6	.171 (-15.348)	-56.0	.088 (-21.099 )
-20.2	.145 (-16.78)	-27.8	.177 (-15.06)	-57.0	.106 (-19.513 )
-20.4	.134 (-17.448)	-28.0	.182 (-14.789)	-58.0	.122 (-18.256 )
-20.6	.124 (-18.166)	-28.2	.188 (-14.533)	-59.0	.137 (-17.236 )
-20.8	.113 (-18.941)	-28.4	.193 (-14.292)	-60.0	.151 (-16.397 )
-21.0	.103 (-19.784)	-28.6	.198 (-14.065)	-61.0	.164 (-15.702 )
-21.2	.092 (-20.708)	-28.8	.203 (-13.851)	-62.0	.175 (-15.125 )
-21.4	.082 (-21.731)	-29.0	.208 (-13.649)	-63.0	.185 (-14.647 )
-21.6	.072 (-22.878)	-29.2	.212 (-13.458)	-64.0	.194 (-14.255 )
-21.8	.062 (-24.184)	-29.4	.217 (-13.277)	-65.0	.201 (-13.937 )
-22.0	.052 (-25.703)	-29.6	.221 (-13.107)	-66.0	.207 (-13.686 )
-22.2	.042 (-27.521)	-29.8	.225 (-12.946)	-67.0	.211 (-13.495 )
-22.4	.032 (-29.792)	-30.0	.229 (-12.794)	-68.0	.215 (-13.358 )
-22.6	.023 (-32.829)	-31.0	.247 (-12.158)	-69.0	.217 (-13.273 )
-22.8	.013 (-37.459)	-32.0	.26 (-11.698)	-70.0	.218 (-13.235 )
-23.0	.004 (-47.764)	-33.0	.27 (-11.387)	-71.0	.218 (-13.242 )
-23.2	.005 (-45.867)	-34.0	.275 (-11.205)	-72.0	.216 (-13.292 )
-23.4	.014 (-36.992)	-35.0	.277 (-11.139)	-73.0	.214 (-13.384 )
-23.6	.023 (-32.744)	-36.0	.276 (-11.181)	-74.0	.211 (-13.517 )
-23.8	.032 (-29.941)	-37.0	.271 (-11.325)	-75.0	.207 (-13.689 )
-24.0	.04 (-27.854)	-38.0	.264 (-11.569)	-76.0	.202 (-13.902 )
-24.2	.049 (-26.197)	-39.0	.254 (-11.914)	-77.0	.196 (-14.156 )
-24.4	.057 (-24.828)	-40.0	.241 (-12.361)	-78.0	.189 (-14.451 )
-24.6	.066 (-23.664)	-41.0	.226 (-12.916)	-79.0	.182 (-14.79 )
-24.8	.074 (-22.655)	-42.0	.209 (-13.59)	-80.0	.174 (-15.173 )
-25.0	.082 (-21.766)	-43.0	.191 (-14.394)	-81.0	.166 (-15.604 )
-25.2	.089 (-20.975)	-44.0	.171 (-15.35)	-82.0	.157 (-16.086 )
-25.4	.097 (-20.263)	-45.0	.15 (-16.489)	-83.0	.147 (-16.625 )
-25.6	.105 (-19.617)	-46.0	.128 (-17.857)	-84.0	.138 (-17.225 )
-25.8	.112 (-19.028)	-47.0	.106 (-19.53)	-85.0	.127 (-17.894 )
-26.0	.119 (-18.487)	-48.0	.083 (-21.64)	-86.0	.117 (-18.644 )
-26.2	.126 (-17.989)	-49.0	.06 (-24.452)	-87.0	.106 (-19.486 )
-26.4	.133 (-17.528)	-50.0	.037 (-28.616)	-88.0	.095 (-20.439 )
-26.6	.14 (-17.099)	-51.0	.015 (-36.736)	-89.0	.084 (-21.529 )
-26.8	.146 (-16.701)	-52.0	.007 (-42.501)	-90.0	.073 (-22.791 )
-27.0	.153 (-16.329)	-53.0	.029 (-30.772)	90.0	.00 (-50 )

## Systems With Reliability

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Beam Tilt (Deg.) : 0

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