

Micronet Communications, Inc.
 720 F Avenue, Suite 100
 Plano, Texas 75074
 972-422-7200

File: M1220503

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TECHNICAL CHARACTERISTICS OF TRANSMIT RECEIVE EARTH STATION

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Company: GCI COMMUNICATIONS CORPORATION
 Site Name, State: Unalakleet ES, AK
 Call Sign: E020176
 Latitude (NAD83) 63 52 37.2 N
 Longitude (NAD83) 160 47 20.2 W
 Elevation AMSL (ft/m) 8.01 2.44
 Receive Frequency Range (MHz) 3700-4200
 Transmit Frequency Range (MHz) 5925-6425
 Range of Satellite Orbital Long. (deg W) 103.00 139.00
 Range of Azimuths from North (deg) 119.50 156.00
 Antenna Centerline (ft/m) 6.00 1.83
 Antenna Elevation Angles (deg) 4.92 15.78

| Equipment Parameters | | Receive | Transmit |
|----------------------------------|---|---------|----------|
| Antenna Gain, Main Beam | (dbI) | 42.10 | 46.20 |
| 15 DB Half Beamwidth | (deg) | 1.40 | 0.90 |
| Antennas | Receive: PATRIOT ANTENNA SYSTEMS 3.8 METER Transmit: PATRIOT ANTENNA SYSTEMS INTTX-380AZ | | |
| Max Transmitter Power | (dbW/4KHz) | | 3.80 |
| Max EIRP Main Beam | (dbW/4KHz) | | 50.00 |
| Modulation / Emission Designator | DIGITAL 6K72G7D | | |

| Coordination Parameters | | Receive | Transmit |
|-----------------------------------|-------|---------|----------|
| Max Greater Circle Distances | (km) | 400.02 | 295.57 |
| Max Rain Scatter Distances | (km) | 313.61 | 106.83 |
| Max Interference Power Long Term | (dbW) | -140.60 | -151.80 |
| Max Interference Power Short Term | (dbW) | -118.40 | -130.80 |
| Rain Zone / Radio Zone | | 3 | A |

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Horizon Angle   Horizon Gain   Final Contour   -   6.17 GHz TRANSMIT
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Company: GCI COMMUNICATIONS CORPORATION

Site Name, State: Unalakleet ES, AK

Call Sign: E020176

Latitude (NAD83) 63 52 37.2 N Longitude (NAD83) 160 47 20.2 W

| North Final Azimuth Contour (deg) (km) | Horizon Angle (deg) | Horizon Gain (db) | Final Contour (km) | North Azimuth (deg) | Horizon Angle (deg) | Horizon Gain (db) |
|---|---------------------------|-------------------------|--------------------------|---------------------------|---------------------------|-------------------------|
| 0 | 0.00 | -22.49 | 187.7 | 180 | 0.00 | -4.59 |
| 215.2 | | | | | | |
| 5 | 0.00 | -18.45 | 187.7 | 185 | 0.00 | -7.68 |
| 222.9 | | | | | | |
| 10 | 0.00 | -14.40 | 187.7 | 190 | 0.00 | -10.00 |
| 231.3 | | | | | | |
| 15 | 0.00 | -10.36 | 187.7 | 195 | 0.00 | -10.00 |
| 237.5 | | | | | | |
| 20 | 0.00 | -10.00 | 187.7 | 200 | 0.00 | -10.00 |
| 240.9 | | | | | | |
| 25 | 0.00 | -10.00 | 187.7 | 205 | 0.00 | -10.92 |
| 245.1 | | | | | | |
| 30 | 0.00 | -10.00 | 187.7 | 210 | 0.00 | -13.00 |
| 250.3 | | | | | | |
| 35 | 0.00 | -10.64 | 187.7 | 215 | 0.00 | -13.00 |
| 256.8 | | | | | | |
| 40 | 0.00 | -12.77 | 187.7 | 220 | 0.00 | -13.00 |
| 265.0 | | | | | | |
| 45 | 0.00 | -13.00 | 187.7 | 225 | 0.00 | -13.00 |
| 270.6 | | | | | | |
| 50 | 0.00 | -13.00 | 187.7 | 230 | 0.00 | -13.00 |
| 273.7 | | | | | | |
| 55 | 0.00 | -13.00 | 187.7 | 235 | 0.00 | -12.82 |
| 295.6 | | | | | | |
| 60 | 0.00 | -13.00 | 187.7 | 240 | 0.00 | -10.76 |
| 273.2 | | | | | | |
| 65 | 0.00 | -12.82 | 187.7 | 245 | 0.00 | -10.00 |
| 261.5 | | | | | | |
| 70 | 0.00 | -10.34 | 187.7 | 250 | 0.00 | -10.00 |
| 241.0 | | | | | | |

| | | | | | | |
|-------|------|--------|-------|-----|------|--------|
| 75 | 0.00 | -10.00 | 187.7 | 255 | 0.00 | -10.00 |
| 225.4 | | | | | | |
| 80 | 0.00 | -10.00 | 187.7 | 260 | 0.00 | -10.00 |
| 214.5 | | | | | | |
| 85 | 0.00 | -9.80 | 187.7 | 265 | 0.00 | -13.46 |
| 207.1 | | | | | | |
| 90 | 0.00 | -4.96 | 187.7 | 270 | 0.00 | -17.35 |
| 200.8 | | | | | | |
| 95 | 0.00 | -3.65 | 187.7 | 275 | 0.00 | -21.22 |
| 195.3 | | | | | | |
| 100 | 0.00 | -2.36 | 187.7 | 280 | 0.00 | -23.00 |
| 190.5 | | | | | | |
| 105 | 0.00 | -1.08 | 187.7 | 285 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 110 | 0.00 | 1.64 | 187.7 | 290 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 115 | 0.00 | 6.10 | 187.7 | 295 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 120 | 0.00 | 10.39 | 187.7 | 300 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 125 | 0.00 | 6.21 | 187.7 | 305 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 130 | 0.00 | 3.64 | 187.7 | 310 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 135 | 0.00 | 2.88 | 187.7 | 315 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 140 | 0.00 | -0.19 | 187.7 | 320 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 145 | 0.00 | -1.00 | 187.7 | 325 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 150 | 0.00 | -1.00 | 187.7 | 330 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 155 | 0.00 | -1.08 | 189.1 | 335 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 160 | 0.00 | -1.34 | 193.5 | 340 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 165 | 0.00 | -1.83 | 198.2 | 345 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 170 | 0.00 | -2.59 | 203.4 | 350 | 0.00 | -23.00 |
| 187.7 | | | | | | |
| 175 | 0.00 | -3.54 | 209.1 | 355 | 0.00 | -23.00 |
| 187.7 | | | | | | |

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Horizon Angle   Horizon Gain   Final Contour   -   3.95 GHz RECEIVE
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Company: GCI COMMUNICATIONS CORPORATION

Site Name, State: Unalakleet ES, AK

Call Sign: E020176

Latitude (NAD83) 63 52 37.2 N Longitude (NAD83) 160 47 20.2 W

| North Final Azimuth Contour (deg) (km) | Horizon Angle (deg) | Horizon Gain (db) | Final Contour (km) | North Azimuth (deg) | Horizon Angle (deg) | Horizon Gain (db) |
|---|---------------------------|-------------------------|--------------------------|---------------------------|---------------------------|-------------------------|
| 0 | 0.00 | -14.69 | 247.3 | 180 | 0.00 | -4.94 |
| 290.7 | | | | | | |
| 5 | 0.00 | -12.20 | 247.3 | 185 | 0.00 | -6.21 |
| 302.5 | | | | | | |
| 10 | 0.00 | -9.61 | 247.3 | 190 | 0.00 | -7.37 |
| 313.7 | | | | | | |
| 15 | 0.00 | -6.29 | 247.3 | 195 | 0.00 | -8.57 |
| 321.9 | | | | | | |
| 20 | 0.00 | -6.00 | 247.3 | 200 | 0.00 | -9.79 |
| 326.4 | | | | | | |
| 25 | 0.00 | -6.42 | 247.3 | 205 | 0.00 | -10.00 |
| 332.0 | | | | | | |
| 30 | 0.00 | -10.00 | 247.3 | 210 | 0.00 | -10.00 |
| 338.9 | | | | | | |
| 35 | 0.00 | -10.00 | 247.3 | 215 | 0.00 | -10.00 |
| 348.0 | | | | | | |
| 40 | 0.00 | -10.00 | 247.3 | 220 | 0.00 | -10.00 |
| 360.9 | | | | | | |
| 45 | 0.00 | -10.00 | 247.3 | 225 | 0.00 | -10.00 |
| 369.7 | | | | | | |
| 50 | 0.00 | -10.00 | 247.3 | 230 | 0.00 | -10.00 |
| 373.7 | | | | | | |
| 55 | 0.00 | -10.00 | 247.3 | 235 | 0.00 | -10.00 |
| 400.0 | | | | | | |
| 60 | 0.00 | -10.00 | 247.3 | 240 | 0.00 | -10.00 |
| 373.2 | | | | | | |
| 65 | 0.00 | -10.00 | 247.3 | 245 | 0.00 | -10.00 |
| 355.4 | | | | | | |
| 70 | 0.00 | -10.00 | 247.3 | 250 | 0.00 | -6.92 |

| | | | | | | | |
|-------|------|-------|-------|-----|------|--------|--|
| 326.6 | | | | | | | |
| 75 | 0.00 | -9.39 | 247.3 | 255 | 0.00 | -6.00 | |
| 305.8 | | | | | | | |
| 80 | 0.00 | -8.08 | 247.3 | 260 | 0.00 | -6.00 | |
| 289.3 | | | | | | | |
| 85 | 0.00 | -6.77 | 247.3 | 265 | 0.00 | -8.84 | |
| 275.7 | | | | | | | |
| 90 | 0.00 | -5.45 | 247.3 | 270 | 0.00 | -11.52 | |
| 266.4 | | | | | | | |
| 95 | 0.00 | -3.65 | 247.3 | 275 | 0.00 | -13.91 | |
| 258.4 | | | | | | | |
| 100 | 0.00 | -1.86 | 247.3 | 280 | 0.00 | -15.51 | |
| 251.4 | | | | | | | |
| 105 | 0.00 | -0.11 | 247.3 | 285 | 0.00 | -16.45 | |
| 247.3 | | | | | | | |
| 110 | 0.00 | 0.00 | 247.3 | 290 | 0.00 | -17.39 | |
| 247.3 | | | | | | | |
| 115 | 0.00 | 8.35 | 247.3 | 295 | 0.00 | -18.32 | |
| 247.3 | | | | | | | |
| 120 | 0.00 | 11.15 | 247.3 | 300 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 125 | 0.00 | 8.42 | 247.3 | 305 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 130 | 0.00 | 4.61 | 247.3 | 310 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 135 | 0.00 | 0.00 | 247.3 | 315 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 140 | 0.00 | 0.00 | 247.3 | 320 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 145 | 0.00 | 0.00 | 247.3 | 325 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 150 | 0.00 | 0.00 | 247.3 | 330 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 155 | 0.00 | -0.11 | 249.5 | 335 | 0.00 | -19.00 | |
| 247.3 | | | | | | | |
| 160 | 0.00 | -0.46 | 255.7 | 340 | 0.00 | -18.85 | |
| 247.3 | | | | | | | |
| 165 | 0.00 | -1.14 | 262.6 | 345 | 0.00 | -17.86 | |
| 247.3 | | | | | | | |
| 170 | 0.00 | -2.19 | 270.1 | 350 | 0.00 | -16.86 | |
| 247.3 | | | | | | | |
| 175 | 0.00 | -3.49 | 279.3 | 355 | 0.00 | -15.87 | |
| 247.3 | | | | | | | |