

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

File: N1220503

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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

-----		Receive	Transmit
Equipment Parameters			

Antenna Gain, Main Beam	(dbI)	<u>42.10</u>	<u>46.20</u>
15 DB Half Beamwidth	(deg)	<u>1.40</u>	<u>0.80</u>

Antennas Receive: PATRIOT ANTENNA SYSTEMS 3.8 METER
 Transmit: PATRIOT ANTENNA SYSTEMS INTTX-380AZ

Max Transmitter Power	(dbW/4KHz)	-16.50
Max EIRP Main Beam	(dbW/4KHz)	<u>29.70</u>
Modulation / Emission Designator	DIGITAL 36MOG7D 36MOD7W	
	36M0F8W	

-----		Receive	Transmit
Coordination Parameters			

Max Greater Circle Distances	(km)	400.02	192.79
Max Rain Scatter Distances	(km)	313.61	100.00
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

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	123.8	180	0.00	-4.59
143.6						
5	0.00	-18.45	123.8	185	0.00	-7.68
148.6						
10	0.00	-14.40	123.8	190	0.00	-10.00
154.0						
15	0.00	-10.36	123.8	195	0.00	-10.00
157.9						
20	0.00	-10.00	123.8	200	0.00	-10.00
160.1						
25	0.00	-10.00	123.8	205	0.00	-10.92
162.8						
30	0.00	-10.00	123.8	210	0.00	-13.00
166.2						
35	0.00	-10.64	123.8	215	0.00	-13.00
170.3						
40	0.00	-12.77	123.8	220	0.00	-13.00
175.5						
45	0.00	-13.00	123.8	225	0.00	-13.00
179.1						
50	0.00	-13.00	123.8	230	0.00	-13.00
180.8						
55	0.00	-13.00	123.8	235	0.00	-12.82
192.8						
60	0.00	-13.00	123.8	240	0.00	-10.76
180.5						
65	0.00	-12.82	123.8	245	0.00	-10.00
173.3						
70	0.00	-10.34	123.8	250	0.00	-10.00
160.2						

75	0.00	-10.00	123.8	255	0.00	-10.00
150.2						
80	0.00	-10.00	123.8	260	0.00	-10.00
143.1						
85	0.00	-9.80	123.8	265	0.00	-13.46
137.8						
90	0.00	-4.96	123.8	270	0.00	-17.35
133.2						
95	0.00	-3.65	123.8	275	0.00	-21.22
129.3						
100	0.00	-2.36	123.8	280	0.00	-23.00
125.8						
105	0.00	-1.08	123.8	285	0.00	-23.00
123.8						
110	0.00	1.64	123.8	290	0.00	-23.00
123.8						
115	0.00	6.10	123.8	295	0.00	-23.00
123.8						
120	0.00	10.39	123.8	300	0.00	-23.00
123.8						
125	0.00	6.21	123.8	305	0.00	-23.00
123.8						
130	0.00	3.64	123.8	310	0.00	-23.00
123.8						
135	0.00	2.88	123.8	315	0.00	-23.00
123.8						
140	0.00	-0.19	123.8	320	0.00	-23.00
123.8						
145	0.00	-1.00	123.8	325	0.00	-23.00
123.8						
150	0.00	-1.00	123.8	330	0.00	-23.00
123.8						
155	0.00	-1.08	124.9	335	0.00	-23.00
123.8						
160	0.00	-1.34	128.0	340	0.00	-23.00
123.8						
165	0.00	-1.83	131.4	345	0.00	-23.00
123.8						
170	0.00	-2.59	135.1	350	0.00	-23.00
123.8						
175	0.00	-3.54	139.2	355	0.00	-23.00
123.8						

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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							