



**COMSEARCH**

*A CommScope Company*

19700 Janelia Farm Boulevard  
Ashburn, VA 20147  
703-726-5500  
Fax 703-726-5596

January 11, 2018

Office of the Secretary  
Federal Communications Commission  
Washington, DC 20554

Re: DENALI 20020, LLC  
FCC Call Sign: KA337

Dear Sir:

This letter is to confirm that the C-Band T/R Earth Station antenna licensed under call sign KA337 and located near Brewster, WA (48-8-46.5 N, 119-41-34.2 W {NAD83}), under the ownership of DENALI 20020, LLC., has been under our continuous monitor and frequency protection service. We have been monitoring all new frequency coordinations on their behalf and maintaining their participation in the frequency coordination process as specified in part 25 of the FCC Rules and Regulations.

If you have any questions, or require additional information, please don't hesitate to call me on (703) 726-5656 or by email at [DMeyer@comsearch.com](mailto:DMeyer@comsearch.com)

Sincerely,  
COMSEARCH

David E. Meyer  
Senior Manager  
Frequency Protection Services

# COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5662 <http://www.comsearch.com>

Date: 01/11/2018  
Job Number: <PCNJobCode>

### Administrative Information

Status ENGINEER PROPOSAL  
Call Sign <PCNCallSign>  
Licensee Code DENALI  
Licensee Name Denali 20020, LLC

### Site Information BREWSTER, WA

Venue Name  
Latitude (NAD 83) 48° 8' 46.5" N  
Longitude (NAD 83) 119° 41' 34.2" W  
Climate Zone A  
Rain Zone 5  
Ground Elevation (AMSL) 377.0 m / 1236.9 ft

### Link Information

Satellite Type Geostationary  
Mode TR - Transmit-Receive  
Modulation Analog and Digital  
Satellite Arc 53° W to 186° West Longitude  
Azimuth Range 107.8° to 251.9°  
Corresponding Elevation Angles 6.7° / 6.9°  
Antenna Centerline (AGL) 21.0 m / 68.9 ft

### Antenna Information

	<b>Receive - FCC32</b>	<b>Transmit - FCC32</b>
Manufacturer	Vertex	Vertex
Model	18.3 KPC	18.3 KPC
Gain / Diameter	56.3 dBi / 18.3 m	60.6 dBi / 18.3 m
3-dB / 15-dB Beamwidth	1.00° / 2.00°	1.00° / 2.00°
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)	2.4 26.4
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)	63.0 87.0
Interference Objectives:	Long Term Short Term	-144.0 dBW/MHz 20% -134.0 dBW/MHz 0.01%
		-154.0 dBW/4 kHz 20% -131.0 dBW/4 kHz 0.0025%

### Frequency Information

	<b>Receive 4.0 GHz</b>	<b>Transmit 6.1 GHz</b>
Emission / Frequency Range (MHz)	36M0G9W / 3700.0 - 4200.0	36M0G9W / 5925.0 - 6425.0
Max Great Circle Coordination Distance	430.2 km / 267.3 mi	377.2 km / 234.4 mi
Precipitation Scatter Contour Radius	217.4 km / 135.1 mi	100.0 km / 62.1 mi

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**Coordination Values****BREWSTER, WA**

Licensee Name	Denali 20020, LLC		
Latitude (NAD 83)	48° 8' 46.5" N		
Longitude (NAD 83)	119° 41' 34.2" W		
Ground Elevation (AMSL)	377.0 m / 1236.9 ft		
Antenna Centerline (AGL)	21.0 m / 68.9 ft		
Antenna Model	Vertex 18.3 meter		
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz
Interference Objectives: Long Term	-144.0 dBW/MHz	20%	-154.0 dBW/4 kHz
Short Term	-134.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz
Max Available RF Power			2.4 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.70	107.69	-10.00	184.18	-10.00	146.38
5	0.65	102.72	-10.00	187.17	-10.00	149.33
10	0.58	97.75	-10.00	190.92	-10.00	153.16
15	0.98	92.78	-10.00	169.08	-10.00	133.16
20	1.74	87.80	-10.00	144.04	-10.00	114.61
25	0.37	82.84	-10.00	206.36	-10.00	172.34
30	0.38	77.87	-10.00	205.56	-10.00	171.39
35	0.61	72.89	-10.00	189.41	-10.00	151.59
40	1.07	67.91	-10.00	163.84	-10.00	131.64
45	1.33	62.92	-10.00	155.72	-10.00	124.95
50	1.37	57.95	-10.00	154.43	-10.00	123.86
55	1.65	52.96	-10.00	146.46	-10.00	116.84
60	1.60	48.00	-10.00	147.85	-10.00	118.10
65	1.99	43.00	-8.84	142.43	-8.84	112.58
70	2.03	38.03	-7.50	146.70	-7.50	116.26
75	2.28	33.05	-5.98	147.76	-5.98	116.93
80	2.49	28.08	-4.21	150.74	-4.21	119.27
85	2.45	23.16	-2.12	161.71	-2.12	128.07
90	2.60	18.24	0.47	173.21	0.47	133.68
95	2.74	13.37	3.84	186.75	3.84	144.25
100	2.51	8.83	8.35	211.18	8.35	172.86
105	2.22	5.25	13.99	252.81	13.99	205.49
110	2.11	5.07	14.38	386.44	14.38	336.91
115	2.13	8.04	9.37	225.71	9.37	187.02
120	2.26	10.98	5.99	205.07	5.99	165.21
125	2.54	13.69	3.59	190.01	3.59	147.41
130	1.47	17.38	1.00	204.27	1.00	163.42
135	0.82	20.60	-0.85	215.54	-0.85	181.25
140	0.31	23.57	-2.31	246.19	-2.31	207.97
145	0.00	26.18	-3.45	252.99	-3.45	214.08
150	0.00	28.31	-4.30	248.28	-4.30	210.66
155	0.00	30.17	-4.99	244.61	-4.99	207.92
160	0.00	31.76	-5.55	241.72	-5.55	205.76
165	0.00	33.03	-5.97	239.56	-5.97	205.77
170	0.00	33.96	-6.27	238.04	-6.27	204.62
175	0.00	34.52	-6.45	237.14	-6.45	203.94
180	0.00	34.71	-6.51	236.84	-6.51	203.71
185	0.00	34.52	-6.45	237.14	-6.45	203.94

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Ground Elevation (AMSL)	377.0 m / 1236.9 ft		
Antenna Centerline (AGL)	21.0 m / 68.9 ft		
Antenna Model	Vertex 18.3 meter		
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz
Interference Objectives: Long Term	-144.0 dBW/MHz	20%	-154.0 dBW/4 kHz
Short Term	-134.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz
Max Available RF Power			2.4 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 4.0 GHz		Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	33.96	-6.27	238.04	-6.27	204.62
195	0.00	33.03	-5.97	239.55	-5.97	205.77
200	0.00	31.76	-5.55	241.73	-5.55	205.77
205	0.00	30.18	-4.99	244.60	-4.99	207.91
210	0.00	28.31	-4.30	248.28	-4.30	210.66
215	0.00	26.18	-3.45	253.00	-3.45	214.08
220	0.00	23.84	-2.43	258.67	-2.43	218.31
225	0.00	21.29	-1.20	265.72	-1.20	223.57
230	0.00	18.59	0.27	274.52	0.27	230.13
235	0.00	15.73	2.08	285.79	2.08	238.54
240	0.00	12.76	4.35	300.67	4.35	249.02
245	0.00	9.70	7.33	322.04	7.33	264.79
250	0.50	6.69	11.36	430.22	11.36	377.25
255	2.14	5.69	13.12	248.81	13.12	204.64
260	1.79	9.58	7.47	224.66	7.47	186.76
265	2.18	13.92	3.41	197.15	3.41	154.69
270	2.85	18.54	0.30	164.35	0.30	129.50
275	3.18	23.39	-2.22	145.10	-2.22	114.04
280	3.06	28.35	-4.31	138.73	-4.31	108.29
285	3.20	33.29	-6.06	130.69	-6.06	100.00
290	2.88	38.28	-7.58	130.84	-7.58	100.00
295	2.19	43.31	-8.91	137.90	-8.91	108.21
300	1.47	48.33	-10.00	151.57	-10.00	121.39
305	1.99	53.26	-10.00	137.64	-10.00	108.46
310	1.72	58.25	-10.00	144.60	-10.00	115.13
315	1.63	63.23	-10.00	146.95	-10.00	117.29
320	1.43	68.21	-10.00	152.63	-10.00	122.31
325	1.74	73.17	-10.00	143.86	-10.00	114.44
330	2.24	78.14	-10.00	133.96	-10.00	103.41
335	1.47	83.13	-10.00	151.41	-10.00	121.25
340	1.02	88.11	-10.00	165.35	-10.00	132.84
345	0.68	93.08	-10.00	185.27	-10.00	147.45
350	0.00	98.04	-10.00	220.54	-10.00	190.38
355	0.00	103.01	-10.00	220.54	-10.00	190.38