

COMSEARCH**Earth Station Data Sheet**

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

Date: 05/10/2021

Administrative Information

Status ENGINEER PROPOSAL
Call Sign E960072
Licensee Code VYVXLL
Licensee Name Vyvx, LLC

Site Information ENGLEWOOD, CO

Venue Name
Latitude (NAD 83) 39° 33' 1.0" N
Longitude (NAD 83) 104° 51' 53.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 1789.3 m / 5870.4 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 60° W to 143° West Longitude
Azimuth Range 122.6° to 231.0°
Corresponding Elevation Angles 25.3° / 29.8°
Antenna Centerline (AGL) 2.74 m / 9.0 ft

Antenna Information**Receive - A4045T****Transmit - A6045T**

Manufacturer ANDREW CORPORATION
Model ESA45
Gain / Diameter 43.9 dBi / 4.5 m
3-dB / 15-dB Beamwidth 1.20° / 2.40°

ANDREW CORPORATION
ESA45
46.2 dBi / 4.5 m
0.94° / 1.90°

Max Available RF Power (dBW/4 kHz)
(dBW/MHz)

-14.0
10.0

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)

32.2
56.2

Interference Objectives: Long Term -156.0 dBW/MHz 20%
Short Term -146.0 dBW/MHz 0.01%

-154.0 dBW/4 kHz 20%
-131.0 dBW/4 kHz 0.0025%

Frequency Information**Receive 4.0 GHz****Transmit 6.1 GHz**

Emission / Frequency Range (MHz) 51K2G7W - 36M0G7W / 3700.0 - 4200.0

51K2G7W - 36M0G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance 311.3 km / 193.4 mi
Precipitation Scatter Contour Radius 495.1 km / 307.6 mi

133.4 km / 82.9 mi
100.0 km / 62.1 mi

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Coordination Values**ENGLEWOOD, CO**

Licensee Name	Vyvx, LLC				
Latitude (NAD 83)	39° 33' 1.0" N				
Longitude (NAD 83)	104° 51' 53.0" W				
Ground Elevation (AMSL)	1789.3 m / 5870.4 ft				
Antenna Centerline (AGL)	2.74 m / 9.0 ft				
Antenna Model	Andrew Corporation ESA45				
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz		
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%	
Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%	
Max Available RF Power			-14.0 (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	0.00	119.17	-14.77	256.78	-21.97	102.09
5	0.00	114.78	-12.97	267.11	-17.67	112.81
10	0.00	110.35	-10.31	283.33	-15.01	119.62
15	0.00	105.88	-6.80	306.42	-10.68	131.02
20	0.00	101.39	-6.10	311.30	-9.80	133.38
25	0.00	96.88	-6.10	311.30	-9.80	133.38
30	0.00	92.36	-6.10	311.30	-9.80	133.38
35	0.00	87.84	-6.10	311.30	-9.80	133.38
40	0.29	83.31	-6.10	299.48	-9.80	125.94
45	0.37	78.78	-6.10	288.96	-9.80	119.19
50	0.37	74.27	-6.10	289.25	-9.80	119.38
55	0.55	69.76	-6.10	270.65	-9.80	107.11
60	0.62	65.29	-6.10	265.97	-9.80	103.94
65	0.76	60.83	-6.10	256.44	-9.80	100.00
70	0.75	56.46	-6.10	257.04	-9.80	100.00
75	0.85	52.13	-6.10	251.05	-9.80	100.00
80	1.04	47.85	-6.10	240.39	-9.80	100.00
85	0.99	43.77	-6.10	241.98	-9.80	100.00
90	1.02	39.82	-6.10	240.98	-9.80	100.00
95	1.04	36.10	-6.10	240.32	-9.80	100.00
100	1.11	32.62	-5.62	240.67	-7.42	100.00
105	1.15	29.55	-5.01	242.89	-4.71	100.00
110	1.35	26.87	-4.47	239.29	-4.17	100.00
115	1.41	24.97	-4.09	239.28	-3.79	100.00
120	1.41	23.99	-3.70	241.76	-3.40	100.00
125	1.36	24.02	-3.71	243.39	-3.41	100.00
130	1.25	25.06	-4.11	244.74	-3.81	100.00
135	1.18	26.92	-4.48	245.16	-4.18	100.00
140	1.06	29.50	-5.00	246.14	-4.70	100.00
145	0.81	32.54	-5.61	256.22	-7.34	101.50
150	0.87	35.15	-6.16	249.13	-9.80	100.00
155	1.18	37.24	-7.00	230.28	-9.80	100.00
160	1.43	39.03	-7.71	218.57	-9.80	100.00
165	1.32	40.75	-8.25	219.14	-9.80	100.00
170	1.56	41.70	-8.44	211.08	-9.80	100.00
175	1.49	42.50	-8.60	212.43	-9.80	100.00
180	1.45	42.78	-8.66	213.33	-9.80	100.00
185	1.45	42.54	-8.61	213.49	-9.80	100.00

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Antenna Model		Andrew Corporation ESA45			
Antenna Mode		Receive 4.0 GHz		Transmit 6.1 GHz	
Interference Objectives:	Long Term	-156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
	Short Term	-146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power		-14.0 (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	1.85	41.42	-8.38	205.87	-9.80	100.00
195	1.79	40.31	-8.16	206.21	-9.80	100.00
200	1.95	38.57	-7.53	204.84	-9.80	100.00
205	1.87	36.66	-6.76	210.67	-9.80	100.00
210	1.86	34.34	-5.97	214.88	-9.14	100.00
215	1.83	31.87	-5.47	218.24	-6.67	100.00
220	1.63	30.05	-5.11	226.22	-4.85	100.00
225	1.47	28.90	-4.88	232.90	-4.58	100.00
230	1.69	28.12	-4.72	226.67	-4.42	100.00
235	1.78	28.28	-4.76	223.57	-4.46	100.00
240	2.04	29.08	-4.92	215.48	-4.62	100.00
245	2.02	30.87	-5.27	214.11	-5.67	100.00
250	2.25	33.06	-5.71	206.68	-7.86	100.00
255	2.30	35.90	-6.10	206.16	-9.80	100.00
260	2.31	39.14	-6.10	205.90	-9.80	100.00
265	2.27	42.71	-6.10	204.41	-9.80	100.00
270	2.24	46.48	-6.10	204.98	-9.80	100.00
275	2.21	50.43	-6.10	205.77	-9.80	100.00
280	2.15	54.51	-6.10	207.06	-9.80	100.00
285	2.06	58.69	-6.10	209.03	-9.80	100.00
290	2.07	62.92	-6.10	208.79	-9.80	100.00
295	2.08	67.21	-6.10	208.62	-9.80	100.00
300	2.04	71.55	-6.10	209.45	-9.80	100.00
305	2.21	75.90	-6.10	205.61	-9.80	100.00
310	2.15	80.31	-6.10	207.07	-9.80	100.00
315	1.99	84.74	-6.10	210.53	-9.80	100.00
320	1.76	89.16	-6.10	217.24	-9.80	100.00
325	1.61	93.57	-6.10	221.66	-9.80	100.00
330	1.31	97.94	-6.10	231.22	-9.80	100.00
335	1.27	102.31	-6.10	232.35	-9.80	100.00
340	1.03	106.62	-7.40	233.17	-11.42	100.00
345	0.66	110.85	-10.61	236.05	-15.31	100.00
350	0.40	115.02	-13.11	243.39	-17.82	100.00
355	0.00	119.07	-14.73	257.00	-21.87	102.33