

COMSEARCH

Earth Station Data Sheet

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

Date: 05/05/2010
Job Number: <PCNJobCode>

Administrative Information

Status ENGINEER PROPOSAL
Call Sign <PCNCallSign>
Licensee Code P3210
Licensee Name Americom Government Services, Inc.

Site Information

SUNSET BEACH, HI

Venue Name
Latitude (NAD 83) 21° 40' 17.0" N
Longitude (NAD 83) 158° 2' 0.0" W
Climate Zone C
Rain Zone 4
Ground Elevation (AMSL) 142.0 m / 465.9 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 103° W to 103° West Longitude
Azimuth Range 104.5° to 104.5°
Corresponding Elevation Angles 24.3° / 24.3°
Antenna Centerline (AGL) 2.74 m / 9.0 ft

Antenna Information

Receive - FCC32

Transmit - FCC32

Manufacturer	Prodelin	Prodelin
Model	1251	1251
Gain / Diameter	47.6 dBi / 2.4 m	49.2 dBi / 2.4 m
3-dB / 15-dB Beamwidth	0.70° / 1.60°	0.60° / 1.40°
Max Available RF Power (dBW/4 kHz)		-14.0
	(dBW/MHz)	10.0
Maximum EIRP (dBW/4 kHz)		35.2
	(dBW/MHz)	59.2
Interference Objectives:	Long Term	-156.0 dBW/MHz 20%
	Short Term	-146.0 dBW/MHz 0.01%
		-151.0 dBW/4 kHz 20%
		-128.0 dBW/4 kHz 0.0025%

Frequency Information

Receive 12.0 GHz

Transmit 14.0 GHz

Emission / Frequency Range (MHz)	36M0F8W / 11700.0 - 12200.0	36M0F8W / 14000.0 - 14500.0
Max Great Circle Coordination Distance	452.9 km / 281.4 mi	174.5 km / 108.4 mi
Precipitation Scatter Contour Radius	355.2 km / 220.7 mi	100.0 km / 62.1 mi

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Coordination Values

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Latitude (NAD 83)	21° 40' 17.0" N		
Longitude (NAD 83)	158° 2' 0.0" W		
Ground Elevation (AMSL)	142.0 m / 465.9 ft		
Antenna Centerline (AGL)	2.74 m / 9.0 ft		
Antenna Model	Prodelin 1251		
Antenna Mode	Receive 12.0 GHz	Transmit 14.0 GHz	
Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz
Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz
Max Available RF Power			-14.0 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 12.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	103.18	-10.00	452.92	-10.00	174.47
5	0.00	98.64	-10.00	452.92	-10.00	174.47
10	0.00	94.09	-10.00	452.92	-10.00	174.47
15	0.00	89.53	-10.00	452.92	-10.00	174.47
20	0.00	84.97	-10.00	452.92	-10.00	174.47
25	0.00	80.42	-10.00	452.92	-10.00	174.47
30	0.00	75.88	-10.00	452.92	-10.00	174.47
35	0.00	71.36	-10.00	452.92	-10.00	174.47
40	0.00	66.87	-10.00	452.92	-10.00	174.47
45	0.33	62.34	-10.00	404.78	-10.00	143.20
50	0.42	57.90	-10.00	378.46	-10.00	124.97
55	0.63	53.47	-10.00	328.61	-10.00	100.00
60	0.59	49.20	-10.00	336.07	-10.00	100.84
65	0.71	44.96	-9.32	320.13	-9.32	100.00
70	0.90	40.82	-8.27	297.56	-8.27	100.00
75	1.16	36.80	-7.15	275.56	-7.15	100.00
80	1.37	33.02	-5.97	266.98	-5.97	100.00
85	1.84	29.36	-4.70	238.54	-4.70	100.00
90	1.82	26.50	-3.58	247.83	-3.58	100.00
95	2.33	23.79	-2.41	222.17	-2.41	100.00
100	2.77	21.93	-1.53	205.05	-1.53	100.00
105	2.90	21.36	-1.24	199.51	-1.24	100.00
110	2.89	22.04	-1.58	197.99	-1.58	100.00
115	3.68	23.00	-2.04	164.40	-2.04	100.00
120	3.61	25.62	-3.21	159.93	-3.21	100.00
125	3.44	28.90	-4.52	158.27	-4.52	100.00
130	3.26	32.59	-5.83	156.93	-5.83	100.00
135	3.23	36.47	-7.05	149.70	-7.05	100.00
140	2.67	40.81	-8.27	169.06	-8.27	100.00
145	2.60	45.05	-9.34	166.31	-9.34	100.00
150	2.10	49.54	-10.00	188.93	-10.00	100.00
155	2.10	53.92	-10.00	189.22	-10.00	100.00
160	1.97	58.41	-10.00	196.44	-10.00	100.00
165	2.58	62.78	-10.00	163.31	-10.00	100.00
170	2.58	67.35	-10.00	163.45	-10.00	100.00
175	2.32	71.98	-10.00	177.17	-10.00	100.00
180	2.10	76.61	-10.00	189.13	-10.00	100.00
185	2.44	81.20	-10.00	170.52	-10.00	100.00

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Interference Objectives: Long Term	-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%	
Short Term	-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%	
Max Available RF Power			-14.0 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 12.0 GHz		Transmit 14.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	2.20	85.85	-10.00	183.63	-10.00	100.00
195	2.09	90.48	-10.00	189.68	-10.00	100.00
200	1.84	95.10	-10.00	205.47	-10.00	100.00
205	1.73	99.71	-10.00	213.07	-10.00	100.00
210	0.98	104.23	-10.00	270.04	-10.00	100.00
215	0.75	108.75	-10.00	308.05	-10.00	100.00
220	0.68	113.25	-10.00	320.36	-10.00	100.00
225	0.40	117.67	-10.00	381.73	-10.00	128.90
230	0.58	122.15	-10.00	336.68	-10.00	101.17
235	0.00	126.32	-10.00	452.92	-10.00	174.47
240	0.00	130.58	-10.00	452.92	-10.00	174.47
245	0.00	134.72	-10.00	452.92	-10.00	174.47
250	0.00	138.72	-10.00	452.92	-10.00	174.47
255	0.00	142.53	-10.00	452.92	-10.00	174.47
260	0.00	146.07	-10.00	452.92	-10.00	174.47
265	0.00	149.26	-10.00	452.92	-10.00	174.47
270	0.00	151.98	-10.00	452.92	-10.00	174.47
275	0.00	154.06	-10.00	452.92	-10.00	174.47
280	0.00	155.36	-10.00	452.92	-10.00	174.47
285	0.00	155.74	-10.00	452.92	-10.00	174.47
290	0.00	155.16	-10.00	452.92	-10.00	174.47
295	0.00	153.69	-10.00	452.92	-10.00	174.47
300	0.00	151.46	-10.00	452.92	-10.00	174.47
305	0.00	148.64	-10.00	452.92	-10.00	174.47
310	0.00	145.36	-10.00	452.92	-10.00	174.47
315	0.00	141.76	-10.00	452.92	-10.00	174.47
320	0.00	137.91	-10.00	452.92	-10.00	174.47
325	0.00	133.88	-10.00	452.92	-10.00	174.47
330	0.00	129.71	-10.00	452.92	-10.00	174.47
335	0.00	125.43	-10.00	452.92	-10.00	174.47
340	0.00	121.08	-10.00	452.92	-10.00	174.47
345	0.00	116.66	-10.00	452.92	-10.00	174.47
350	0.00	112.20	-10.00	452.92	-10.00	174.47
355	0.00	107.70	-10.00	452.92	-10.00	174.47