

COMSEARCH

Earth Station Data Sheet

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

Date: 03/21/2013
Job Number: <PCNJobCode>

Administrative Information

Status ENGINEER PROPOSAL
Call Sign <PCNCallSign>
Licensee Code
Licensee Name DOME PRODUCTIONS

Site Information KANSAS CITY, MO

Venue Name
Latitude (NAD 83) 39° 3' 8.3" N
Longitude (NAD 83) 94° 28' 55.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 268.83 m / 882.0 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 91° W to 91° West Longitude
Azimuth Range 174.5° to 174.5°
Corresponding Elevation Angles 44.6° / 44.6°
Antenna Centerline (AGL) 3.66 m / 12.0 ft

Antenna Information

	Receive - FCC32	Transmit - FCC32
Manufacturer	General Dynamics	General Dynamics
Model	C180M	C180M
Gain / Diameter	44.7 dBi / 1.8 m	45.9 dBi / 1.8 m
3-dB / 15-dB Beamwidth	0.93° / 1.95°	0.83° / 1.74°
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)	-16.5 7.5
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)	29.4 53.4
Interference Objectives:	Long Term Short Term	-156.0 dBW/MHz 20% -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)	4M00G7D - 36M0G7D / 11700.0 - 12200.0	4M00G7D - 36M0G7D / 14000.0 - 14500.0
Max Great Circle Coordination Distance	207.1 km / 128.7 mi	100.0 km / 62.1 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi	100.0 km / 62.1 mi

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Coordination Values**KANSAS CITY, MO**

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Longitude (NAD 83)	94° 28' 55.0" W		
Ground Elevation (AMSL)	268.83 m / 882.0 ft		
Antenna Centerline (AGL)	3.66 m / 12.0 ft		
Antenna Model	General Dynamics, 1.8 Meter		
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			-16.5 (dBW/4 kHz)
			0.0025%

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	7.03	142.05	-10.00	100.00	-10.00	100.00
5	6.35	140.51	-10.00	100.00	-10.00	100.00
10	4.94	137.85	-10.00	100.00	-10.00	100.00
15	4.94	136.11	-10.00	100.00	-10.00	100.00
20	3.82	133.08	-10.00	110.59	-10.00	100.00
25	3.70	130.60	-10.00	112.52	-10.00	100.00
30	3.81	128.01	-10.00	110.84	-10.00	100.00
35	3.71	125.06	-10.00	112.38	-10.00	100.00
40	3.49	121.85	-10.00	116.12	-10.00	100.00
45	2.96	118.36	-10.00	125.35	-10.00	100.00
50	2.76	114.93	-10.00	129.03	-10.00	100.00
55	2.46	111.39	-10.00	133.50	-10.00	100.00
60	2.50	107.90	-10.00	132.59	-10.00	100.00
65	2.11	104.23	-10.00	140.81	-10.00	100.00
70	1.87	100.58	-10.00	147.03	-10.00	100.00
75	1.75	96.94	-10.00	150.36	-10.00	100.00
80	1.53	93.27	-10.00	157.14	-10.00	100.00
85	1.49	89.63	-10.00	158.42	-10.00	100.00
90	1.32	85.99	-10.00	166.56	-10.00	100.00
95	1.30	82.37	-10.00	167.21	-10.00	100.00
100	1.06	78.83	-10.00	175.37	-10.00	100.00
105	1.20	75.26	-10.00	170.75	-10.00	100.00
110	1.38	71.72	-10.00	162.13	-10.00	100.00
115	1.49	68.26	-10.00	158.44	-10.00	100.00
120	1.20	65.06	-10.00	170.75	-10.00	100.00
125	1.19	61.86	-10.00	171.08	-10.00	100.00
130	0.95	58.94	-10.00	179.73	-10.00	100.00
135	0.69	56.25	-10.00	193.46	-10.00	100.00
140	0.58	53.68	-10.00	199.00	-10.00	100.00
145	0.54	51.31	-10.00	200.78	-10.00	100.00
150	0.51	49.22	-10.00	202.56	-10.00	100.00
155	0.46	47.46	-9.91	204.09	-9.91	100.00
160	0.48	46.01	-9.57	203.72	-9.57	100.00
165	1.14	44.32	-9.17	176.58	-9.17	100.00
170	1.14	43.69	-9.01	177.31	-9.01	100.00
175	2.76	41.88	-8.55	133.13	-8.55	100.00
180	2.80	42.13	-8.62	132.10	-8.62	100.00
185	2.80	42.90	-8.81	131.35	-8.81	100.00

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			0.0025%

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	1.71	45.13	-9.36	154.66	-9.36	100.00
195	1.71	46.71	-9.73	152.91	-9.73	100.00
200	0.46	49.67	-10.00	203.57	-10.00	100.00
205	0.42	51.87	-10.00	207.13	-10.00	100.00
210	0.58	54.20	-10.00	198.90	-10.00	100.00
215	0.55	56.90	-10.00	200.22	-10.00	100.00
220	0.58	59.77	-10.00	198.95	-10.00	100.00
225	0.77	62.71	-10.00	189.09	-10.00	100.00
230	0.77	65.91	-10.00	189.09	-10.00	100.00
235	1.48	68.96	-10.00	158.73	-10.00	100.00
240	2.40	72.13	-10.00	134.71	-10.00	100.00
245	2.40	75.70	-10.00	134.71	-10.00	100.00
250	2.40	79.33	-10.00	134.71	-10.00	100.00
255	3.41	82.88	-10.00	117.52	-10.00	100.00
260	3.41	86.63	-10.00	117.51	-10.00	100.00
265	3.41	90.39	-10.00	117.51	-10.00	100.00
270	4.13	94.19	-10.00	106.00	-10.00	100.00
275	4.14	97.97	-10.00	105.99	-10.00	100.00
280	4.74	101.84	-10.00	100.00	-10.00	100.00
285	4.74	105.59	-10.00	100.00	-10.00	100.00
290	4.74	109.29	-10.00	100.00	-10.00	100.00
295	5.51	113.19	-10.00	100.00	-10.00	100.00
300	5.50	116.78	-10.00	100.00	-10.00	100.00
305	4.74	119.89	-10.00	100.00	-10.00	100.00
310	5.63	123.66	-10.00	100.00	-10.00	100.00
315	5.63	126.85	-10.00	100.00	-10.00	100.00
320	5.10	129.47	-10.00	100.00	-10.00	100.00
325	6.35	133.09	-10.00	100.00	-10.00	100.00
330	6.55	135.74	-10.00	100.00	-10.00	100.00
335	6.55	137.90	-10.00	100.00	-10.00	100.00
340	6.55	139.64	-10.00	100.00	-10.00	100.00
345	7.03	141.38	-10.00	100.00	-10.00	100.00
350	7.03	142.16	-10.00	100.00	-10.00	100.00
355	7.03	142.39	-10.00	100.00	-10.00	100.00