

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours. The coordination contours include all the area within this route as well as all of the area seaward of this route within 200 km of the baseline of the United States or 200 km from any fixed service offshore installations.

Date: 11/17/2010
Job Number: 101117SKJTEL04

Administrative Information

Status ENGINEER PROPOSAL
Call Sign
Licensee Code TELESV
Licensee Name Vizada Satellite Inc -ESV In-Motion

Site Information **LONG BEACH, CA**

Venue Name
Latitude (NAD 83) 34° 9' 3.6" N
Longitude (NAD 83) 119° 12' 25.2" W
Climate Zone B
Rain Zone 4
Ground Elevation (AMSL) 0.0 m / 0.0 ft

Link Information

Satellite Type Geostationary
Mode TO - Transmit-Only
Modulation Digital
Satellite Arc 177° W to 177° West Longitude
Azimuth Range 250.5° to 250.5°
Corresponding Elevation Angles 17.9° / 17.9°
Antenna Centerline (AGL) 15.54 m / 51.0 ft

Antenna Information **Transmit - FCC32**

Manufacturer FCC REFERENCE
Model 32-25LOG(THETA)
Gain / Diameter 41.7 dBi / 2.4 m
3-dB / 15-dB Beamwidth 0.66° / 1.18°

Max Available RF Power (dBW/4 kHz) -10.5
(dBW/MHz) 13.5

Maximum EIRP (dBW/4 kHz) 31.2
(dBW/MHz) 55.2
(dBW)

Interference Objectives: Long Term -154.0 dBW/4 kHz 20%
Short Term -131.0 dBW/4 kHz 0.0025%

Frequency Information **Transmit 6.1 GHz**

Emission / Frequency Range (MHz) 102KG7D - 205KG7D / 6277.0 - 6283.0
102KG7D - 205KG7D / 6295.5 - 6298.0
102KG7D - 205KG7D / 6344.0 - 6350.0
102KG7D - 205KG7D / 6355.0 - 6371.5
102KG7D - 205KG7D / 6418.0 - 6423.0

Max Great Circle Coordination Distance 217.7 km / 135.3 mi
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

Coordination Values	LONG BEACH, CA
Licensee Name	Vizada Satellite Inc -ESV In-Motion
Latitude (NAD 83)	34° 9' 3.6" N
Longitude (NAD 83)	119° 12' 25.2" W
Ground Elevation (AMSL)	0.0 m / 0.0 ft
Antenna Centerline (AGL)	15.54 m / 51.0 ft
Antenna Model	FCC Reference 32-25LOG(THETA)
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-10.5 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	108.50	-10.00	160.62
5	0.00	113.22	-10.00	160.62
10	0.00	117.92	-10.00	160.62
15	0.00	122.59	-10.00	160.62
20	0.00	127.23	-10.00	160.62
25	0.00	131.81	-10.00	160.62
30	0.00	136.33	-10.00	160.62
35	0.00	140.76	-10.00	160.62
40	0.00	145.06	-10.00	160.62
45	0.00	149.18	-10.00	160.62
50	0.00	153.03	-10.00	160.62
55	0.00	156.48	-10.00	160.62
60	0.00	159.33	-10.00	160.62
65	0.00	161.30	-10.00	160.62
70	0.00	162.09	-10.00	160.62
75	0.00	161.57	-10.00	160.62
80	0.00	159.82	-10.00	160.62
85	0.00	157.13	-10.00	160.62
90	0.00	153.79	-10.00	160.62
95	0.00	150.01	-10.00	160.62
100	0.00	145.94	-10.00	160.62
105	0.00	141.67	-10.00	160.62
110	0.00	137.27	-10.00	160.62
115	0.00	132.77	-10.00	160.62
120	0.00	128.19	-10.00	160.62
125	0.00	123.57	-10.00	160.62
130	0.00	118.90	-10.00	160.62
135	0.00	114.21	-10.00	160.62
140	0.00	109.49	-10.00	160.62
145	0.00	104.75	-10.00	160.62
150	0.00	100.01	-10.00	160.62
155	0.00	95.26	-10.00	160.62
160	0.00	90.50	-10.00	160.62
165	0.00	85.74	-10.00	160.62
170	0.00	80.99	-10.00	160.62
175	0.00	76.24	-10.00	160.62
180	0.00	71.50	-10.00	160.62
185	0.00	66.78	-10.00	160.62

Coordination Values	LONG BEACH, CA
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Latitude (NAD 83)	34° 9' 3.6" N
Longitude (NAD 83)	119° 12' 25.2" W
Ground Elevation (AMSL)	0.0 m / 0.0 ft
Antenna Centerline (AGL)	15.54 m / 51.0 ft
Antenna Model	FCC Reference 32-25LOG(THETA)
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-10.5 (dBW/4 kHz)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 6.1 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	62.08	-10.00	160.62
195	0.00	57.41	-10.00	160.62
200	0.00	52.77	-10.00	160.62
205	0.00	48.19	-10.00	160.62
210	0.00	43.67	-9.00	165.16
215	0.00	39.24	-7.84	170.65
220	0.00	34.94	-6.58	176.85
225	0.00	30.82	-5.22	183.83
230	0.00	26.97	-3.77	191.59
235	0.00	23.52	-2.29	200.27
240	0.00	20.67	-0.89	208.38
245	0.00	18.70	0.20	214.84
250	0.00	17.91	0.68	217.70
255	0.00	18.43	0.36	215.80
260	0.00	20.18	-0.62	209.93
265	0.00	22.87	-1.98	202.02
270	0.00	26.21	-3.46	193.30
275	0.00	29.99	-4.93	185.40
280	0.00	34.06	-6.31	178.25
285	0.00	38.33	-7.59	171.88
290	0.00	42.73	-8.77	166.25
295	0.00	47.23	-9.86	161.27
300	0.00	51.81	-10.00	160.62
305	0.00	56.43	-10.00	160.62
310	0.00	61.10	-10.00	160.62
315	0.00	65.79	-10.00	160.62
320	0.00	70.51	-10.00	160.62
325	0.00	75.25	-10.00	160.62
330	0.00	79.99	-10.00	160.62
335	0.00	84.74	-10.00	160.62
340	0.00	89.50	-10.00	160.62
345	0.00	94.26	-10.00	160.62
350	0.00	99.01	-10.00	160.62
355	0.00	103.76	-10.00	160.62

Long Beach ESV Break Points

Name	Latitude	Longitude
NW	34.704	-120.881
1	34.44	-120.46
2	34.453	-120.003
3	34.396	-119.852
4	34.394	-119.531
5	34.26	-119.288
6	34.139	-119.218
Port 1	34.151	-119.207
7	34.128	-119.223
8	34	-118.807
9	34.033	-118.534
10	33.962	-118.459
11	33.828	-118.392
12	33.774	-118.43
13	33.735	-118.409
14	33.734	-118.358
15	33.714	-118.344
16	33.701	-118.274
17	33.709	-118.248
18	33.72	-118.271
Port 2	33.748	-118.276
19	33.749	-118.272
Port 3	33.759	-118.277
20	33.751	-118.27
21	33.762	-118.267
22	33.748	-118.271
23	33.776	-118.245
24	33.759	-118.259
25	33.761	-118.255
26	33.775	-118.212
27	33.77	-118.225
28	33.753	-118.214
Port 4	33.75	-118.244
29	33.745	-118.214
30	33.736	-118.24
31	33.731	-118.179
Port 5	33.751	-118.187
32	33.765	-118.206
33	33.754	-118.189

34	33.76	-118.156
35	33.743	-118.115
36	33.735	-118.118
37	33.734	-118.094
38	33.653	-118.003
39	33.616	-117.937
40	33.606	-117.929
41	33.6	-117.901
42	33.587	-117.866
43	33.501	-118.607
44	33.417	-118.361
45	33.286	-118.276
46	33.327	-118.491
47	33.392	-118.491
48	33.476	-118.639
49	33.064	-118.603
50	32.818	-118.345
51	32.788	-118.458
52	33.035	-118.634
53	33.238	-119.593
54	33.307	-119.573
55	33.236	-119.41
56	34.007	-119.345
57	33.976	-119.644
58	33.957	-119.723
59	33.96	-119.865
60	34.087	-119.949
61	34.058	-120.013
62	33.942	-119.956
63	33.882	-120.13
64	34.006	-120.303
SW	34.055	-120.697

