

Final

EIRP Spectral Density

Model Name: Intellian v100GX

Test Date: Oct 23, 2012

Prepared by

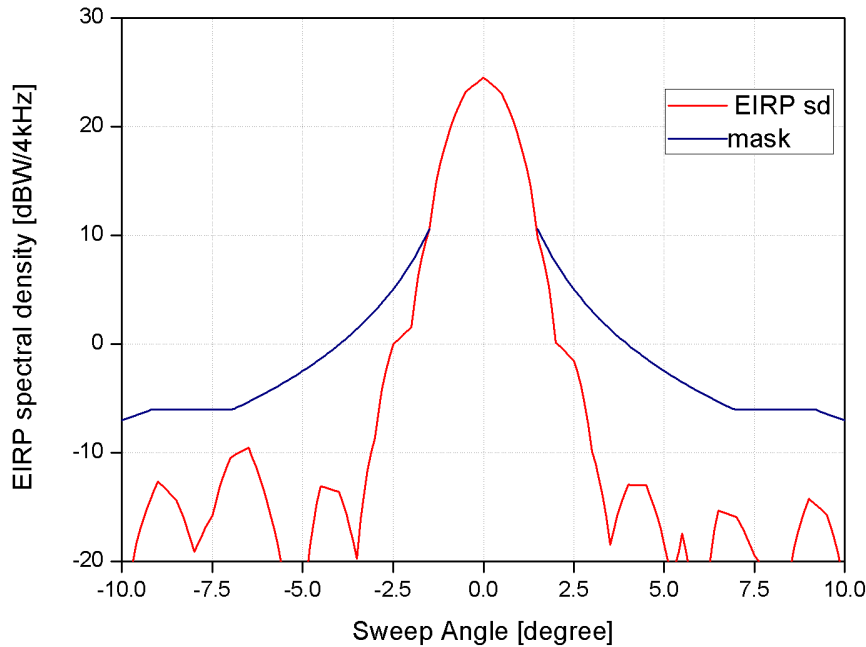
RF Engineering Department
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Contents

1.	EIRP Spectral Density of V100GX	3
1.1.	Azimuth Pattern for Co-pol, Narrow Angle (-10°~10°)	3
1.2.	Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)	4
1.3.	Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)	5
1.4.	Elevation Pattern for Co-pol, Narrow Angle (0°~30°)	6
2.	EIRP Spectral Density Data	7
2.1.	Azimuth Pattern for Co-pol (-10°~10°)	7
2.2.	Azimuth Pattern for Co-pol (-180°~180°)	9
2.3.	Azimuth Pattern for Cross-pol (-10°~10°)	13
2.4.	Elevation Pattern for Co-pol (0°~30°)	15

1. EIRP Spectral Density of V100GX

1.1. Azimuth Pattern for Co-pol, Narrow Angle (-10°~10°)



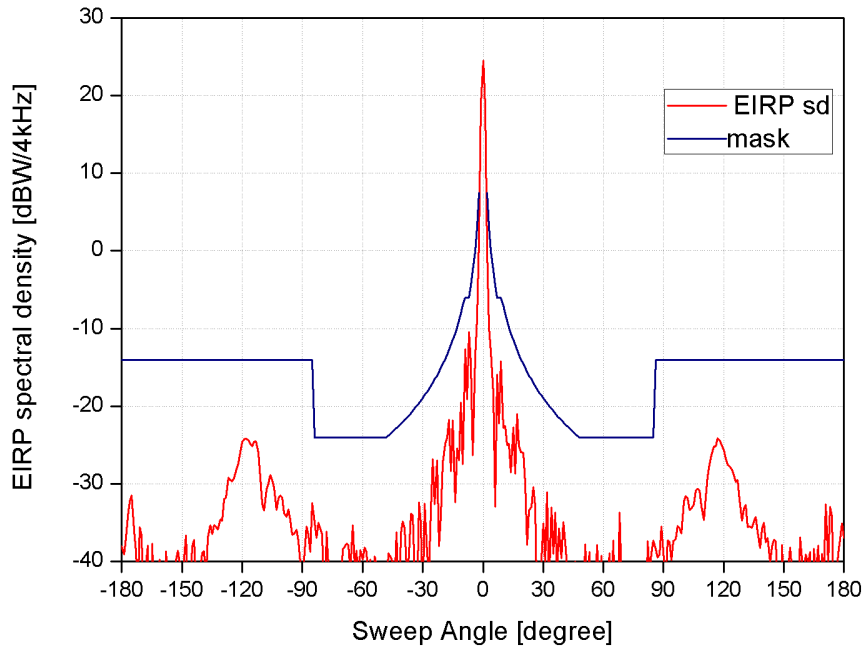
-16.66dBW/4kHz Input power spectral density @ f=14.25GHz & 0.6dB Radome loss

- FCC EIRP spectral density regulation**

15-25log(θ)	dBW/4kHz	for	1.5° ≤ θ ≤ 7.0°
-6	dBW/4kHz	for	7.0° < θ ≤ 9.2°
18-25log(θ)	dBW/4kHz	for	9.2° < θ ≤ 48°
-24	dBW/4kHz	for	48° < θ ≤ 85°
-14	dBW/4kHz	for	85° < θ ≤ 180°

The v100GX's Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -16.66 dBW/ 4kHz

1.2. Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)



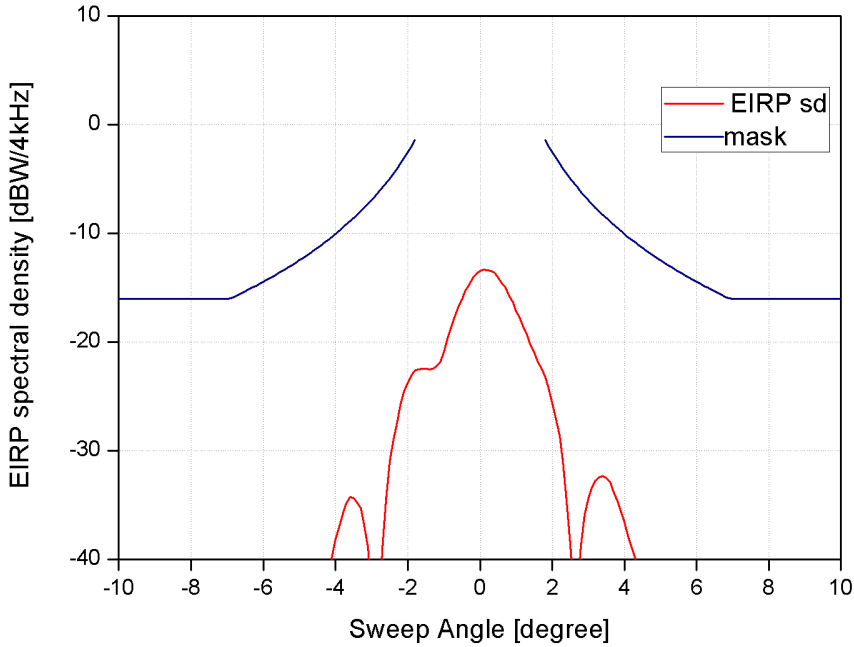
-16.66dBW/4kHz Input power spectral density @ f=14.25GHz & 0.6dB Radome loss

- FCC EIRP spectral density regulation**

15-25log(θ)	dBW/4kHz	for	$1.5^\circ \leq \theta \leq 7.0^\circ$
-6	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
18-25log(θ)	dBW/4kHz	for	$9.2^\circ < \theta \leq 48^\circ$
-24	dBW/4kHz	for	$48^\circ < \theta \leq 85^\circ$
-14	dBW/4kHz	for	$85^\circ < \theta \leq 180^\circ$

The v100GX's Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -16.66 dBW/ 4kHz

1.3. Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)



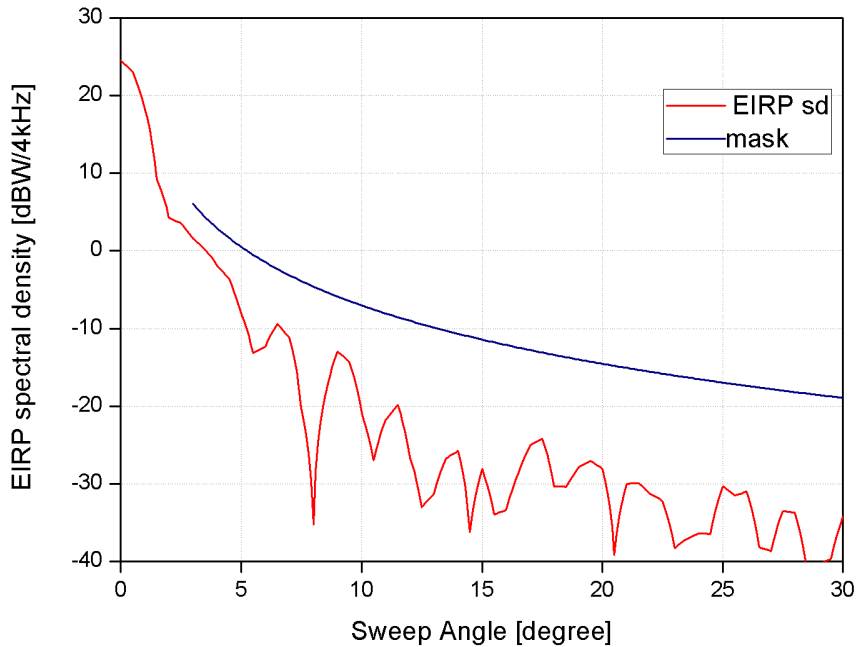
-16.66dBW/4kHz Input power spectral density @ f=14.25GHz & 0.6dB Radome loss

▪ **FCC EIRP spectral density regulation**

$5-25\log(\theta)$	dBW/4kHz	for	$1.8^\circ \leq \theta \leq 7.0^\circ$
-16	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$

The v100GX's Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -16.66 dBW/ 4kHz

1.4. Elevation Pattern for Co-pol, Narrow Angle (0°~30°)



-16.66dBW/4kHz Input power spectral density @ f=14.25GHz & 0.6dB Radome loss

▪ **FCC EIRP spectral density regulation**

18-25log(θ)	dBW/4kHz	for	3.0° ≤ θ ≤ 48°
-24	dBW/4kHz	for	48° < θ ≤ 85°
-14	dBW/4kHz	for	85° < θ ≤ 180°

The v100GX's Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -16.66 dBW/ 4kHz

2. EIRP Spectral Density Data

2.1. Azimuth Pattern for Co-pol (-10°~10°)

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-10.000	-27.513	-7.000
-9.900	-24.222	-6.891
-9.800	-21.840	-6.781
-9.700	-19.973	-6.669
-9.600	-18.438	-6.557
-9.500	-17.133	-6.443
-9.400	-16.027	-6.328
-9.300	-15.047	-6.212
-9.200	-14.165	-6.000
-9.100	-13.365	-6.000
-9.000	-12.633	-6.000
-8.900	-12.949	-6.000
-8.800	-13.277	-6.000
-8.700	-13.618	-6.000
-8.600	-13.973	-6.000
-8.500	-14.343	-6.000
-8.400	-15.111	-6.000
-8.300	-15.954	-6.000
-8.200	-16.888	-6.000
-8.100	-17.934	-6.000
-8.000	-19.123	-6.000
-7.900	-18.347	-6.000
-7.800	-17.635	-6.000
-7.700	-16.976	-6.000
-7.600	-16.365	-6.000
-7.500	-15.793	-6.000
-7.400	-14.427	-6.000
-7.300	-13.247	-6.000
-7.200	-12.209	-6.000
-7.100	-11.281	-6.000
-7.000	-10.443	-6.000
-6.900	-10.255	-5.971
-6.800	-10.072	-5.813
-6.700	-9.892	-5.652
-6.600	-9.716	-5.489
-6.500	-9.543	-5.323
-6.400	-10.323	-5.154
-6.300	-11.179	-4.984
-6.200	-12.129	-4.810
-6.100	-13.196	-4.633
-6.000	-14.413	-4.454
-5.900	-15.531	-4.271
-5.800	-16.814	-4.086
-5.700	-18.320	-3.897
-5.600	-20.143	-3.705
-5.500	-22.453	-3.509
-5.400	-23.107	-3.310
-5.300	-23.814	-3.107
-5.200	-24.583	-2.900
-5.100	-25.428	-2.689

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-5.000	-26.363	-2.474
-4.900	-21.634	-2.255
-4.800	-18.589	-2.031
-4.700	-16.339	-1.802
-4.600	-14.553	-1.569
-4.500	-13.073	-1.330
-4.400	-13.173	-1.086
-4.300	-13.273	-0.837
-4.200	-13.375	-0.581
-4.100	-13.479	-0.320
-4.000	-13.583	-0.051
-3.900	-14.515	0.223
-3.800	-15.558	0.505
-3.700	-16.745	0.795
-3.600	-18.119	1.092
-3.500	-19.753	1.398
-3.400	-16.105	1.713
-3.300	-13.544	2.037
-3.200	-11.568	2.371
-3.100	-9.960	2.716
-3.000	-8.603	3.072
-2.900	-6.084	3.440
-2.800	-4.134	3.821
-2.700	-2.542	4.216
-2.600	-1.197	4.626
-2.500	-0.033	5.051
-2.400	0.300	5.495
-2.300	0.621	5.957
-2.200	0.930	6.439
-2.100	1.228	6.945
-2.000	1.517	7.474
-1.900	4.244	8.031
-1.800	6.317	8.618
-1.700	7.989	9.239
-1.600	9.391	9.897
-1.500	10.597	10.598
-1.400	13.056	
-1.300	14.971	
-1.200	16.538	
-1.100	17.866	
-1.000	19.017	
-0.900	20.029	
-0.800	20.936	
-0.700	21.757	
-0.600	22.507	
-0.500	23.197	
-0.400	23.475	
-0.300	23.745	
-0.200	24.006	
-0.100	24.260	

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
0.000	24.507	
0.100	24.244	
0.200	23.974	
0.300	23.694	
0.400	23.406	
0.500	23.107	
0.600	22.380	
0.700	21.586	
0.800	20.712	
0.900	19.741	
1.000	18.647	
1.100	17.459	
1.200	16.083	
1.300	14.447	
1.400	12.430	
1.500	9.797	10.598
1.600	8.544	9.897
1.700	7.080	9.239
1.800	5.318	8.618
1.900	3.104	8.031
2.000	0.127	7.474
2.100	-0.172	6.945
2.200	-0.482	6.439
2.300	-0.803	5.957
2.400	-1.136	5.495
2.500	-1.483	5.051
2.600	-2.630	4.626
2.700	-3.952	4.216
2.800	-5.511	3.821
2.900	-7.414	3.440
3.000	-9.853	3.072
3.100	-11.023	2.716
3.200	-12.376	2.371
3.300	-13.979	2.037
3.400	-15.946	1.713
3.500	-18.493	1.398
3.600	-17.060	1.092
3.700	-15.831	0.795
3.800	-14.754	0.505
3.900	-13.796	0.223
4.000	-12.933	-0.051
4.100	-12.945	-0.320
4.200	-12.957	-0.581
4.300	-12.969	-0.837
4.400	-12.981	-1.086
4.500	-12.993	-1.330
4.600	-13.832	-1.569
4.700	-14.761	-1.802
4.800	-15.802	-2.031
4.900	-16.984	-2.255

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
5.000	-18.353	-2.474
5.100	-19.867	-2.689
5.200	-20.694	-2.900
5.300	-20.341	-3.107
5.400	-19.038	-3.310
5.500	-17.393	-3.509
5.600	-18.977	-3.705
5.700	-20.917	-3.897
5.800	-23.417	-4.086
5.900	-26.942	-4.271
6.000	-32.973	-4.454
6.100	-25.621	-4.633
6.200	-21.698	-4.810
6.300	-19.005	-4.984
6.400	-16.952	-5.154
6.500	-15.293	-5.323
6.600	-15.414	-5.489
6.700	-15.536	-5.652
6.800	-15.660	-5.813
6.900	-15.785	-5.971
7.000	-15.913	-6.000
7.100	-16.518	-6.000
7.200	-17.168	-6.000
7.300	-17.870	-6.000
7.400	-18.635	-6.000
7.500	-19.473	-6.000
7.600	-19.959	-6.000
7.700	-20.474	-6.000
7.800	-21.022	-6.000
7.900	-21.606	-6.000
8.000	-22.233	-6.000
8.100	-21.835	-6.000
8.200	-21.454	-6.000
8.300	-21.090	-6.000
8.400	-20.739	-6.000
8.500	-20.403	-6.000
8.600	-18.763	-6.000
8.700	-17.383	-6.000
8.800	-16.193	-6.000
8.900	-15.147	-6.000
9.000	-14.213	-6.000
9.100	-14.483	-6.000
9.200	-14.761	-6.000
9.300	-15.048	-6.212
9.400	-15.345	-6.328
9.500	-15.653	-6.443
9.600	-16.683	-6.557
9.700	-17.851	-6.669
9.800	-19.201	-6.781
9.900	-20.801	-6.891
10.000	-22.763	-7.000

2.2. Azimuth Pattern for Co-pol (-180°~180°)

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-180	-37.993	-14
-179	-39.113	-14
-178	-36.993	-14
-177	-34.193	-14
-176	-32.303	-14
-175	-31.463	-14
-174	-35.973	-14
-173	-38.733	-14
-172	-44.023	-14
-171	-35.563	-14
-170	-36.643	-14
-169	-49.553	-14
-168	-40.443	-14
-167	-37.943	-14
-166	-59.063	-14
-165	-37.733	-14
-164	-46.343	-14
-163	-63.133	-14
-162	-41.233	-14
-161	-39.703	-14
-160	-45.933	-14
-159	-46.093	-14
-158	-38.673	-14
-157	-42.733	-14
-156	-40.453	-14
-155	-40.653	-14
-154	-46.833	-14
-153	-39.893	-14
-152	-38.583	-14
-151	-40.133	-14
-150	-48.713	-14
-149	-39.613	-14
-148	-36.623	-14
-147	-43.493	-14
-146	-42.963	-14
-145	-38.083	-14
-144	-37.243	-14
-143	-42.573	-14
-142	-40.413	-14
-141	-40.783	-14
-140	-38.953	-14
-139	-38.673	-14
-138	-42.503	-14
-137	-36.933	-14
-136	-35.343	-14

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-135	-36.483	-14
-134	-35.343	-14
-133	-35.493	-14
-132	-35.853	-14
-131	-34.543	-14
-130	-34.763	-14
-129	-31.963	-14
-128	-31.813	-14
-127	-29.203	-14
-126	-29.513	-14
-125	-29.703	-14
-124	-29.253	-14
-123	-28.403	-14
-122	-27.343	-14
-121	-25.913	-14
-120	-24.593	-14
-119	-24.273	-14
-118	-24.173	-14
-117	-24.353	-14
-116	-24.863	-14
-115	-25.173	-14
-114	-24.583	-14
-113	-24.513	-14
-112	-26.033	-14
-111	-29.153	-14
-110	-32.523	-14
-109	-33.453	-14
-108	-30.713	-14
-107	-29.933	-14
-106	-28.863	-14
-105	-29.493	-14
-104	-30.473	-14
-103	-33.393	-14
-102	-31.913	-14
-101	-31.483	-14
-100	-31.673	-14
-99	-33.753	-14
-98	-34.223	-14
-97	-33.283	-14
-96	-34.643	-14
-95	-36.553	-14
-94	-36.463	-14
-93	-35.853	-14
-92	-37.373	-14
-91	-40.103	-14

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-90.000	-43.263	-14.000
-89.000	-38.673	-14.000
-88.000	-35.503	-14.000
-87.000	-36.533	-14.000
-86.000	-38.753	-14.000
-85.000	-32.423	-14.000
-84.000	-35.023	-24.000
-83.000	-36.983	-24.000
-82.000	-34.963	-24.000
-81.000	-35.713	-24.000
-80.000	-36.483	-24.000
-79.000	-47.953	-24.000
-78.000	-36.133	-24.000
-77.000	-40.443	-24.000
-76.000	-47.633	-24.000
-75.000	-42.493	-24.000
-74.000	-48.523	-24.000
-73.000	-49.443	-24.000
-72.000	-43.183	-24.000
-71.000	-45.253	-24.000
-70.000	-38.453	-24.000
-69.000	-38.123	-24.000
-68.000	-37.663	-24.000
-67.000	-37.893	-24.000
-66.000	-41.193	-24.000
-65.000	-35.283	-24.000
-64.000	-40.403	-24.000
-63.000	-38.603	-24.000
-62.000	-43.563	-24.000
-61.000	-38.533	-24.000
-60.000	-39.743	-24.000
-59.000	-38.223	-24.000
-58.000	-38.743	-24.000
-57.000	-42.583	-24.000
-56.000	-39.703	-24.000
-55.000	-44.173	-24.000
-54.000	-39.373	-24.000
-53.000	-40.413	-24.000
-52.000	-47.723	-24.000
-51.000	-41.953	-24.000
-50.000	-41.493	-24.000
-49.000	-44.213	-24.000
-48.000	-43.933	-24.000
-47.000	-38.903	-23.802
-46.000	-39.463	-23.569

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-45.000	-40.063	-23.330
-44.000	-42.843	-23.086
-43.000	-36.203	-22.837
-42.000	-47.283	-22.581
-41.000	-36.373	-22.320
-40.000	-34.853	-22.051
-39.000	-35.733	-21.777
-38.000	-42.133	-21.495
-37.000	-39.093	-21.205
-36.000	-33.823	-20.908
-35.000	-33.983	-20.602
-34.000	-41.453	-20.287
-33.000	-44.893	-19.963
-32.000	-32.353	-19.629
-31.000	-35.093	-19.284
-30.000	-46.103	-18.928
-29.000	-32.563	-18.560
-28.000	-38.993	-18.179
-27.000	-41.403	-17.784
-26.000	-33.473	-17.374
-25.000	-26.853	-16.949
-24.000	-32.593	-16.505
-23.000	-26.953	-16.043
-22.000	-37.993	-15.561
-21.000	-34.053	-15.055
-20.000	-27.333	-14.526
-19.000	-24.833	-13.969
-18.000	-24.083	-13.382
-17.000	-21.773	-12.761
-16.000	-28.393	-12.103
-15.000	-21.813	-11.402
-14.000	-32.343	-10.653
-13.000	-25.413	-9.849
-12.000	-26.963	-8.980
-11.000	-19.493	-8.035
-10.000	-27.513	-7.000
-9.000	-12.633	-6.000
-8.000	-19.123	-6.000
-7.000	-10.443	-6.000
-6.000	-14.413	-4.454
-5.000	-26.363	-2.474
-4.000	-13.583	-0.051
-3.000	-8.603	3.072
-2.000	1.517	7.474
-1.000	19.017	

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
0.000	24.507	
1.000	18.647	
2.000	0.127	7.474
3.000	-9.853	3.072
4.000	-12.933	-0.051
5.000	-18.353	-2.474
6.000	-32.973	-4.454
7.000	-15.913	-6.000
8.000	-22.233	-6.000
9.000	-14.213	-6.000
10.000	-22.763	-7.000
11.000	-22.563	-8.035
12.000	-25.053	-8.980
13.000	-24.873	-9.849
14.000	-28.513	-10.653
15.000	-22.753	-11.402
16.000	-28.713	-12.103
17.000	-20.973	-12.761
18.000	-25.113	-13.382
19.000	-25.953	-13.969
20.000	-26.013	-14.526
21.000	-29.933	-15.055
22.000	-37.853	-15.561
23.000	-33.443	-16.043
24.000	-32.903	-16.505
25.000	-30.393	-16.949
26.000	-32.873	-17.374
27.000	-46.683	-17.784
28.000	-43.033	-18.179
29.000	-39.683	-18.560
30.000	-35.113	-18.928
31.000	-40.173	-19.284
32.000	-31.083	-19.629
33.000	-43.433	-19.963
34.000	-33.053	-20.287
35.000	-39.023	-20.602
36.000	-33.713	-20.908
37.000	-41.663	-21.205
38.000	-35.763	-21.495
39.000	-39.593	-21.777
40.000	-34.903	-22.051
41.000	-37.533	-22.320
42.000	-40.563	-22.581
43.000	-41.093	-22.837
44.000	-44.853	-23.086

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
45.000	-41.113	-23.330
46.000	-39.963	-23.569
47.000	-41.833	-23.802
48.000	-53.533	-24.000
49.000	-44.973	-24.000
50.000	-47.043	-24.000
51.000	-37.743	-24.000
52.000	-43.033	-24.000
53.000	-38.763	-24.000
54.000	-56.683	-24.000
55.000	-42.793	-24.000
56.000	-44.603	-24.000
57.000	-37.893	-24.000
58.000	-43.623	-24.000
59.000	-39.283	-24.000
60.000	-57.433	-24.000
61.000	-40.263	-24.000
62.000	-42.343	-24.000
63.000	-38.963	-24.000
64.000	-45.393	-24.000
65.000	-37.253	-24.000
66.000	-48.413	-24.000
67.000	-48.863	-24.000
68.000	-33.703	-24.000
69.000	-41.623	-24.000
70.000	-48.543	-24.000
71.000	-42.533	-24.000
72.000	-44.323	-24.000
73.000	-41.453	-24.000
74.000	-45.733	-24.000
75.000	-44.633	-24.000
76.000	-47.543	-24.000
77.000	-49.423	-24.000
78.000	-48.623	-24.000
79.000	-40.133	-24.000
80.000	-59.333	-24.000
81.000	-50.163	-24.000
82.000	-37.363	-24.000
83.000	-41.593	-24.000
84.000	-38.913	-24.000
85.000	-37.323	-24.000
86.000	-38.473	-14.000
87.000	-39.493	-14.000
88.000	-39.103	-14.000
89.000	-35.503	-14.000

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
90.000	-38.733	-14.000
91.000	-42.393	-14.000
92.000	-37.313	-14.000
93.000	-37.463	-14.000
94.000	-39.793	-14.000
95.000	-37.393	-14.000
96.000	-37.133	-14.000
97.000	-35.373	-14.000
98.000	-35.713	-14.000
99.000	-36.353	-14.000
100.000	-32.283	-14.000
101.000	-31.553	-14.000
102.000	-31.863	-14.000
103.000	-33.393	-14.000
104.000	-33.173	-14.000
105.000	-32.643	-14.000
106.000	-30.933	-14.000
107.000	-30.613	-14.000
108.000	-30.803	-14.000
109.000	-32.893	-14.000
110.000	-34.653	-14.000
111.000	-31.703	-14.000
112.000	-29.003	-14.000
113.000	-27.493	-14.000
114.000	-26.343	-14.000
115.000	-25.143	-14.000
116.000	-25.183	-14.000
117.000	-24.093	-14.000
118.000	-24.383	-14.000
119.000	-25.093	-14.000
120.000	-25.693	-14.000
121.000	-26.743	-14.000
122.000	-27.523	-14.000
123.000	-27.743	-14.000
124.000	-28.173	-14.000
125.000	-28.823	-14.000
126.000	-29.753	-14.000
127.000	-29.523	-14.000
128.000	-32.043	-14.000
129.000	-34.743	-14.000
130.000	-33.223	-14.000
131.000	-32.683	-14.000
132.000	-35.593	-14.000
133.000	-35.493	-14.000
134.000	-35.623	-14.000

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
135	-34.813	-14
136	-34.253	-14
137	-36.193	-14
138	-38.283	-14
139	-35.783	-14
140	-34.953	-14
141	-37.503	-14
142	-36.973	-14
143	-40.063	-14
144	-38.123	-14
145	-37.193	-14
146	-37.343	-14
147	-43.543	-14
148	-56.213	-14
149	-37.863	-14
150	-45.113	-14
151	-47.753	-14
152	-41.913	-14
153	-38.183	-14
154	-41.103	-14
155	-46.913	-14
156	-40.563	-14
157	-45.883	-14
158	-36.873	-14
159	-39.773	-14
160	-41.443	-14
161	-39.123	-14
162	-40.283	-14
163	-38.733	-14
164	-61.613	-14
165	-38.343	-14
166	-42.093	-14
167	-37.903	-14
168	-45.313	-14
169	-39.013	-14
170	-41.853	-14
171	-32.643	-14
172	-40.063	-14
173	-32.963	-14
174	-34.243	-14
175	-46.203	-14
176	-42.193	-14
177	-38.983	-14
178	-37.083	-14
179	-35.093	-14
180	-36.983	-14

2.3. Azimuth Pattern for Cross-pol (-10°~10°)

f= 14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-10.000	-49.583	-16.000
-9.900	-49.543	-16.000
-9.800	-49.753	-16.000
-9.700	-50.413	-16.000
-9.600	-50.463	-16.000
-9.500	-50.243	-16.000
-9.400	-50.363	-16.000
-9.300	-48.343	-16.000
-9.200	-48.473	-16.000
-9.100	-46.833	-16.000
-9.000	-45.643	-16.000
-8.900	-45.783	-16.000
-8.800	-46.013	-16.000
-8.700	-46.153	-16.000
-8.600	-45.993	-16.000
-8.500	-47.593	-16.000
-8.400	-48.473	-16.000
-8.300	-49.583	-16.000
-8.200	-51.733	-16.000
-8.100	-54.863	-16.000
-8.000	-58.723	-16.000
-7.900	-65.553	-16.000
-7.800	-70.153	-16.000
-7.700	-69.123	-16.000
-7.600	-60.653	-16.000
-7.500	-55.013	-16.000
-7.400	-51.033	-16.000
-7.300	-48.653	-16.000
-7.200	-47.553	-16.000
-7.100	-46.343	-16.000
-7.000	-45.723	-16.000
-6.900	-46.003	-15.971
-6.800	-45.583	-15.813
-6.700	-46.063	-15.652
-6.600	-45.083	-15.489
-6.500	-44.943	-15.323
-6.400	-43.923	-15.154
-6.300	-43.823	-14.984
-6.200	-42.983	-14.810
-6.100	-42.873	-14.633
-6.000	-43.203	-14.454
-5.900	-43.433	-14.271
-5.800	-43.673	-14.086
-5.700	-43.143	-13.897
-5.600	-43.093	-13.705
-5.500	-42.583	-13.509
-5.400	-41.913	-13.310
-5.300	-41.733	-13.107
-5.200	-41.253	-12.900
-5.100	-41.223	-12.689

f= 14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
-5.000	-41.253	-12.474
-4.900	-41.963	-12.255
-4.800	-41.953	-12.031
-4.700	-42.713	-11.802
-4.600	-43.133	-11.569
-4.500	-43.903	-11.330
-4.400	-43.643	-11.086
-4.300	-43.073	-10.837
-4.200	-41.523	-10.581
-4.100	-39.903	-10.320
-4.000	-38.153	-10.051
-3.900	-37.003	-9.777
-3.800	-35.753	-9.495
-3.700	-34.903	-9.205
-3.600	-34.273	-8.908
-3.500	-34.303	-8.602
-3.400	-34.793	-8.287
-3.300	-35.323	-7.963
-3.200	-36.803	-7.629
-3.100	-38.803	-7.284
-3.000	-43.243	-6.928
-2.900	-51.473	-6.560
-2.800	-46.803	-6.179
-2.700	-39.113	-5.784
-2.600	-34.463	-5.374
-2.500	-31.013	-4.949
-2.400	-28.963	-4.505
-2.300	-27.343	-4.043
-2.200	-25.813	-3.561
-2.100	-24.523	-3.055
-2.000	-23.723	-2.526
-1.900	-23.043	-1.969
-1.800	-22.643	-1.382
-1.700	-22.513	
-1.600	-22.453	
-1.500	-22.463	
-1.400	-22.493	
-1.300	-22.443	
-1.200	-22.243	
-1.100	-21.823	
-1.000	-20.863	
-0.900	-19.743	
-0.800	-18.643	
-0.700	-17.643	
-0.600	-16.683	
-0.500	-15.993	
-0.400	-15.253	
-0.300	-14.693	
-0.200	-14.083	
-0.100	-13.663	

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
0.000	-13.443	
0.100	-13.353	
0.200	-13.373	
0.300	-13.443	
0.400	-13.643	
0.500	-14.033	
0.600	-14.543	
0.700	-14.983	
0.800	-15.703	
0.900	-16.303	
1.000	-17.103	
1.100	-17.793	
1.200	-18.663	
1.300	-19.353	
1.400	-20.243	
1.500	-20.903	
1.600	-21.803	
1.700	-22.453	
1.800	-23.183	-1.382
1.900	-24.203	-1.969
2.000	-25.623	-2.526
2.100	-27.063	-3.055
2.200	-28.603	-3.561
2.300	-30.933	-4.043
2.400	-34.583	-4.505
2.500	-38.673	-4.949
2.600	-43.263	-5.374
2.700	-42.453	-5.784
2.800	-38.723	-6.179
2.900	-35.863	-6.560
3.000	-34.373	-6.928
3.100	-33.343	-7.284
3.200	-32.763	-7.629
3.300	-32.413	-7.963
3.400	-32.323	-8.287
3.500	-32.523	-8.602
3.600	-32.883	-8.908
3.700	-33.723	-9.205
3.800	-34.533	-9.495
3.900	-35.573	-9.777
4.000	-36.683	-10.051
4.100	-37.753	-10.320
4.200	-38.823	-10.581
4.300	-39.913	-10.837
4.400	-41.073	-11.086
4.500	-42.313	-11.330
4.600	-44.383	-11.569
4.700	-47.093	-11.802
4.800	-50.043	-12.031
4.900	-53.643	-12.255

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
5.000	-52.363	-12.474
5.100	-49.793	-12.689
5.200	-46.663	-12.900
5.300	-44.883	-13.107
5.400	-43.623	-13.310
5.500	-43.243	-13.509
5.600	-43.223	-13.705
5.700	-43.373	-13.897
5.800	-44.763	-14.086
5.900	-46.713	-14.271
6.000	-49.763	-14.454
6.100	-51.623	-14.633
6.200	-49.683	-14.810
6.300	-47.463	-14.984
6.400	-45.453	-15.154
6.500	-44.733	-15.323
6.600	-44.593	-15.489
6.700	-44.343	-15.652
6.800	-43.953	-15.813
6.900	-44.343	-15.971
7.000	-44.753	-16.000
7.100	-44.683	-16.000
7.200	-44.913	-16.000
7.300	-44.373	-16.000
7.400	-44.283	-16.000
7.500	-43.653	-16.000
7.600	-42.973	-16.000
7.700	-42.003	-16.000
7.800	-41.313	-16.000
7.900	-41.243	-16.000
8.000	-41.453	-16.000
8.100	-41.753	-16.000
8.200	-42.193	-16.000
8.300	-43.103	-16.000
8.400	-43.923	-16.000
8.500	-44.923	-16.000
8.600	-46.193	-16.000
8.700	-48.243	-16.000
8.800	-48.953	-16.000
8.900	-51.643	-16.000
9.000	-53.863	-16.000
9.100	-57.583	-16.000
9.200	-57.963	-16.000
9.300	-54.753	-16.000
9.400	-52.193	-16.000
9.500	-49.313	-16.000
9.600	-48.373	-16.000
9.700	-48.023	-16.000
9.800	-47.873	-16.000
9.900	-48.593	-16.000
10.000	-49.143	-16.000

2.4. Elevation Pattern for Co-pol (0°~30°)

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
0.000	24.507	
0.100	24.237	
0.200	23.959	
0.300	23.672	
0.400	23.375	
0.500	23.067	
0.600	22.294	
0.700	21.445	
0.800	20.504	
0.900	19.449	
1.000	18.247	
1.100	17.043	
1.200	15.645	
1.300	13.977	
1.400	11.912	
1.500	9.197	
1.600	8.411	
1.700	7.547	
1.800	6.588	
1.900	5.509	
2.000	4.277	
2.100	4.136	
2.200	3.992	
2.300	3.846	
2.400	3.698	
2.500	3.547	
2.600	3.187	
2.700	2.812	
2.800	2.419	
2.900	2.008	
3.000	1.577	6.072
3.100	1.318	5.716
3.200	1.051	5.371
3.300	0.776	5.037
3.400	0.491	4.713
3.500	0.197	4.398
3.600	-0.176	4.092
3.700	-0.566	3.795
3.800	-0.974	3.505
3.900	-1.402	3.223
4.000	-1.853	2.949
4.100	-2.181	2.680
4.200	-2.522	2.419
4.300	-2.877	2.163
4.400	-3.247	1.914
4.500	-3.633	1.670
4.600	-4.356	1.431
4.700	-5.145	1.198
4.800	-6.013	0.969
4.900	-6.978	0.745

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
5.000	-8.063	0.526
5.100	-8.870	0.311
5.200	-9.759	0.100
5.300	-10.750	-0.107
5.400	-11.869	-0.310
5.500	-13.153	-0.509
5.600	-12.987	-0.705
5.700	-12.824	-0.897
5.800	-12.664	-1.086
5.900	-12.507	-1.271
6.000	-12.353	-1.454
6.100	-11.672	-1.633
6.200	-11.041	-1.810
6.300	-10.452	-1.984
6.400	-9.901	-2.154
6.500	-9.383	-2.323
6.600	-9.714	-2.489
6.700	-10.059	-2.652
6.800	-10.418	-2.813
6.900	-10.792	-2.971
7.000	-11.183	-3.127
7.100	-12.388	-3.281
7.200	-13.787	-3.433
7.300	-15.456	-3.583
7.400	-17.524	-3.731
7.500	-20.243	-3.877
7.600	-21.803	-4.020
7.700	-23.705	-4.162
7.800	-26.144	-4.302
7.900	-29.547	-4.441
8.000	-35.223	-4.577
8.100	-28.452	-4.712
8.200	-24.694	-4.845
8.300	-22.079	-4.977
8.400	-20.072	-5.107
8.500	-18.443	-5.235
8.600	-17.045	-5.362
8.700	-15.842	-5.488
8.800	-14.785	-5.612
8.900	-13.843	-5.735
9.000	-12.993	-5.856
9.100	-13.236	-5.976
9.200	-13.486	-6.095
9.300	-13.744	-6.212
9.400	-14.009	-6.328
9.500	-14.283	-6.443
9.600	-15.254	-6.557
9.700	-16.348	-6.669
9.800	-17.600	-6.781
9.900	-19.063	-6.891

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
10.000	-20.823	-7.000
10.100	-21.757	-7.108
10.200	-22.803	-7.215
10.300	-23.993	-7.321
10.400	-25.373	-7.426
10.500	-27.013	-7.530
10.600	-25.701	-7.633
10.700	-24.561	-7.735
10.800	-23.553	-7.836
10.900	-22.651	-7.936
11.000	-21.833	-8.035
11.100	-21.399	-8.133
11.200	-20.986	-8.230
11.300	-20.592	-8.327
11.400	-20.215	-8.423
11.500	-19.853	-8.517
11.600	-20.842	-8.611
11.700	-21.959	-8.705
11.800	-23.240	-8.797
11.900	-24.743	-8.889
12.000	-26.563	-8.980
12.100	-27.525	-9.070
12.200	-28.607	-9.159
12.300	-29.842	-9.248
12.400	-31.284	-9.336
12.500	-33.013	-9.423
12.600	-32.655	-9.509
12.700	-32.310	-9.595
12.800	-31.979	-9.680
12.900	-31.661	-9.765
13.000	-31.353	-9.849
13.100	-30.221	-9.932
13.200	-29.219	-10.014
13.300	-28.321	-10.096
13.400	-27.507	-10.178
13.500	-26.763	-10.258
13.600	-26.558	-10.338
13.700	-26.358	-10.418
13.800	-26.162	-10.497
13.900	-25.970	-10.575
14.000	-25.783	-10.653
14.100	-27.093	-10.730
14.200	-28.635	-10.807
14.300	-30.512	-10.883
14.400	-32.910	-10.959
14.500	-36.233	-11.034
14.600	-33.857	-11.109
14.700	-31.993	-11.183
14.800	-30.459	-11.257
14.900	-29.156	-11.330

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
15.000	-28.023	-11.402
15.100	-28.927	-11.474
15.200	-29.936	-11.546
15.300	-31.078	-11.617
15.400	-32.393	-11.688
15.500	-33.943	-11.758
15.600	-33.828	-11.828
15.700	-33.715	-11.897
15.800	-33.603	-11.966
15.900	-33.492	-12.035
16.000	-33.383	-12.103
16.100	-32.245	-12.171
16.200	-31.238	-12.238
16.300	-30.336	-12.305
16.400	-29.520	-12.371
16.500	-28.773	-12.437
16.600	-27.885	-12.503
16.700	-27.080	-12.568
16.800	-26.343	-12.633
16.900	-25.663	-12.697
17.000	-25.033	-12.761
17.100	-24.867	-12.825
17.200	-24.704	-12.888
17.300	-24.544	-12.951
17.400	-24.387	-13.014
17.500	-24.233	-13.076
17.600	-25.151	-13.138
17.700	-26.179	-13.199
17.800	-27.344	-13.261
17.900	-28.690	-13.321
18.000	-30.283	-13.382
18.100	-30.299	-13.442
18.200	-30.315	-13.502
18.300	-30.331	-13.561
18.400	-30.347	-13.620
18.500	-30.363	-13.679
18.600	-29.815	-13.738
18.700	-29.299	-13.796
18.800	-28.812	-13.854
18.900	-28.351	-13.912
19.000	-27.913	-13.969
19.100	-27.738	-14.026
19.200	-27.567	-14.083
19.300	-27.399	-14.139
19.400	-27.235	-14.195
19.500	-27.073	-14.251
19.600	-27.259	-14.306
19.700	-27.448	-14.362
19.800	-27.642	-14.417
19.900	-27.840	-14.471

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
20.000	-28.043	-14.526
20.100	-29.399	-14.580
20.200	-31.006	-14.634
20.300	-32.981	-14.687
20.400	-35.540	-14.741
20.500	-39.183	-14.794
20.600	-36.397	-14.847
20.700	-34.291	-14.899
20.800	-32.597	-14.952
20.900	-31.181	-15.004
21.000	-29.963	-15.055
21.100	-29.957	-15.107
21.200	-29.951	-15.158
21.300	-29.945	-15.209
21.400	-29.939	-15.260
21.500	-29.933	-15.311
21.600	-30.183	-15.361
21.700	-30.441	-15.411
21.800	-30.706	-15.461
21.900	-30.980	-15.511
22.000	-31.263	-15.561
22.100	-31.438	-15.610
22.200	-31.616	-15.659
22.300	-31.797	-15.708
22.400	-31.983	-15.756
22.500	-32.173	-15.805
22.600	-33.097	-15.853
22.700	-34.131	-15.901
22.800	-35.305	-15.948
22.900	-36.663	-15.996
23.000	-38.273	-16.043
23.100	-38.024	-16.090
23.200	-37.782	-16.137
23.300	-37.546	-16.184
23.400	-37.317	-16.230
23.500	-37.093	-16.277
23.600	-36.946	-16.323
23.700	-36.802	-16.369
23.800	-36.660	-16.414
23.900	-36.520	-16.460
24.000	-36.383	-16.505
24.100	-36.397	-16.550
24.200	-36.411	-16.595
24.300	-36.425	-16.640
24.400	-36.439	-16.685
24.500	-36.453	-16.729
24.600	-34.819	-16.773
24.700	-33.445	-16.817
24.800	-32.258	-16.861
24.900	-31.215	-16.905

f=14.25GHz, -16.66dBW/4kHz EIRP sd (0.6dB radome loss)		
25.000	-30.283	-16.949
25.100	-30.508	-16.992
25.200	-30.740	-17.035
25.300	-30.977	-17.078
25.400	-31.222	-17.121
25.500	-31.473	-17.164
25.600	-31.377	-17.206
25.700	-31.282	-17.248
25.800	-31.188	-17.290
25.900	-31.095	-17.332
26.000	-31.003	-17.374
26.100	-32.036	-17.416
26.200	-33.208	-17.458
26.300	-34.563	-17.499
26.400	-36.170	-17.540
26.500	-38.143	-17.581
26.600	-38.243	-17.622
26.700	-38.343	-17.663
26.800	-38.445	-17.703
26.900	-38.549	-17.744
27.000	-38.653	-17.784
27.100	-37.353	-17.824
27.200	-36.223	-17.864
27.300	-35.223	-17.904
27.400	-34.326	-17.944
27.500	-33.513	-17.983
27.600	-33.553	-18.023
27.700	-33.592	-18.062
27.800	-33.632	-18.101
27.900	-33.673	-18.140
28.000	-33.713	-18.179
28.100	-34.813	-18.218
28.200	-36.074	-18.256
28.300	-37.548	-18.295
28.400	-39.326	-18.333
28.500	-41.563	-18.371
28.600	-41.289	-18.409
28.700	-41.024	-18.447
28.800	-40.766	-18.485
28.900	-40.516	-18.522
29.000	-40.273	-18.560
29.100	-40.152	-18.597
29.200	-40.032	-18.635
29.300	-39.914	-18.672
29.400	-39.798	-18.709
29.500	-39.683	-18.746
29.600	-38.276	-18.782
29.700	-37.065	-18.819
29.800	-36.003	-18.855
29.900	-35.056	-18.892
30.000	-34.203	-18.928

FCC Declaration of Conformity

Intellian Technologies, manufactures of stabilized maritime VSAT antenna systems for satellite communication at sea, supplies stabilized maritime VSAT antenna systems to the satellite communication service providers for their ESV (Earth Station on Vessels) networks.

FCC §25.222 defines the provisions for blanket licensing of ESV antennas operation in the Ku-band. It defines the antennas radiation, and each article regulates the followings;

- §25.222 (a)(1)(i)(A): Regulation for Azimuth Direction & Co Polarization
- §25.222 (a)(2)(i)(B): Regulation for Other Direction & Co Polarization
- §25.222 (a)(1)(i)(C): Regulation for Cross Polarization

Intellian Technologies, Inc. declares that v100GX complies with the threshold level as defined in §25.222(a)(1)(i)(A):, and declares that v100GX is in accordance with all defined regulations from §25.222(a)(1)(i)(B) to §25.222(a)(1)(i)(C) at the below stated input power spectral density, with an N value of 1.

Product description	Intellian v100GX, 103cm Ku-band maritime VSAT antenna system
EIRP spectral density limit	-16.66 dBW/ 4KHz

Intellian Technologies, Inc. declares that the above antenna will maintain a pointing error of less than or equal to 0.2 degree under specified ship motion conditions in accordance with the requirements of §25.222 (a)(1)(ii).

Intellian Technologies, Inc. declares that the above antennas will automatically cease the transmission with a mute command to the modem within 100 milliseconds if the target satellite and the axis of the main lobe of the ESV antenna exceeds 0.5 degree and will not resume until such angle is less than or equal to 0.2 degree in accordance with the requirements of §25.222 (a)(1)(iii)

Radiation pattern data is available upon request to verify the conformance.

Authority: Steve Cha
Director, Research & Development



Signature: _____ 

Date: _____ October 23, 2012