

DTV12 Reverse Frequency Transmit Off-Axis Summary

6/1/2012

OS1 (102.8W) Beam 13

Antenna Gain Relative to -X axis

The antenna is left or right hand circularly polarized (LHCP, RHCP)

Three frequencies were analyzed, 17.305, 17.500, and 17.695 GHz

Total number of sheets = 6 (2 polarizations x 3 frequencies)

Each sheet has two header lines and four columns

column 1: Elevation angle relative to -x axis in degrees, rotation about z, $\pm 60^\circ$ every 5° (negative toward

column 2: Azimuth angle relative to -x axis in degrees, rotation about y, $\pm 30^\circ$ every 5° (positive toward l

column 3: Co-polarized antenna gain, dBi (RHCP gain for RHCP port or LHCP gain for LHCP port)

column 4: Cross-polarized antenna gain, dBi (LHCP gain for RHCP port or RHCP gain for LHCP port)

Kevin Clancy

DTV12 Antenna Project Engineer

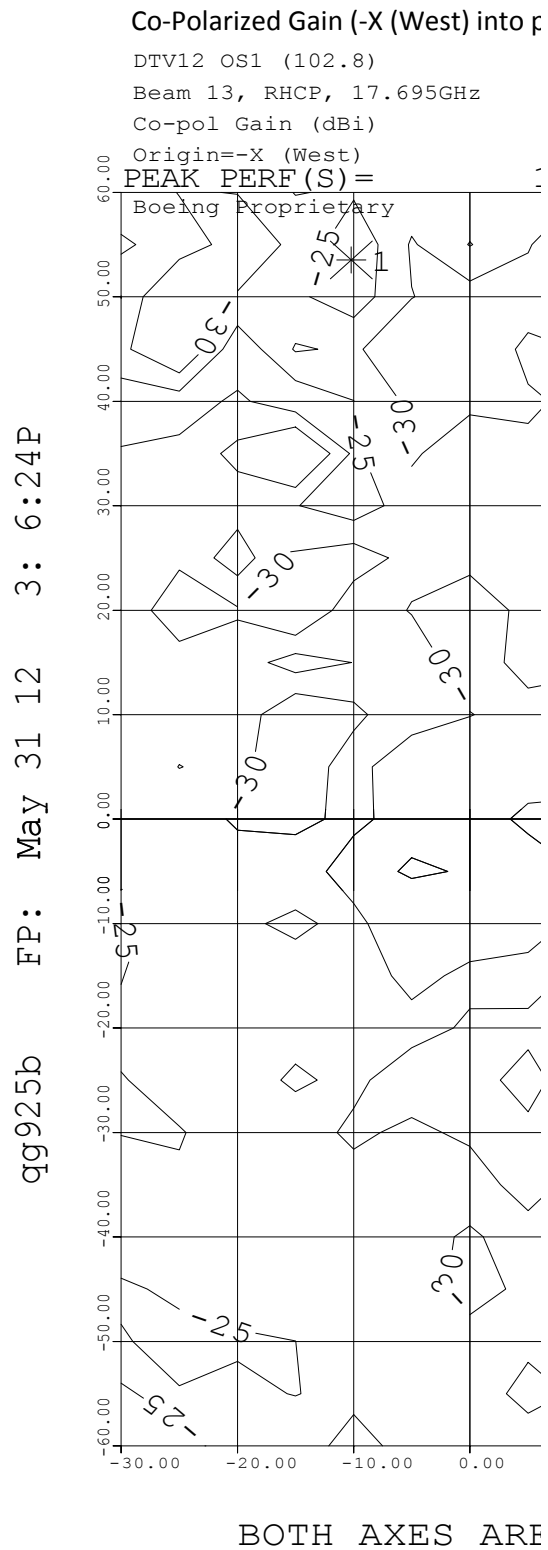
Boeing S&IS, El Segundo

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l south)
Earth)

Beam 13 OS1 RHCP 17.695

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
-60	-30	-23.914	-25.837
-60	-25	-24.877	-22.904
-60	-20	-25.156	-24.72
-60	-15	-26.815	-24.446
-60	-10	-23.642	-28.373
-60	-5	-26.391	-25.258
-60	0	-27.371	-24.753
-60	5	-26.031	-25.24
-60	10	-26.313	-24.604
-60	15	-26.661	-26.301
-60	20	-30.486	-25.644
-60	25	-29.613	-25.024
-60	30	-29.815	-26.715
-55	-30	-24.936	-23.54
-55	-25	-25.173	-25.716
-55	-20	-25.537	-25.524
-55	-15	-24.908	-25.246
-55	-10	-25.91	-23.747
-55	-5	-25.452	-25.453
-55	0	-26.03	-25.614
-55	5	-32.365	-23.341
-55	10	-28.637	-26.298
-55	15	-30.308	-24.859
-55	20	-29.467	-26.115
-55	25	-31.119	-25.417
-55	30	-30.597	-27.112
-50	-30	-25.257	-21.966
-50	-25	-23.997	-27.864
-50	-20	-24.668	-26.04
-50	-15	-24.987	-24.66
-50	-10	-27.878	-22.801
-50	-5	-26.048	-25.283
-50	0	-27.559	-25.176
-50	5	-28.403	-24.304
-50	10	-25.078	-28.016
-50	15	-32.922	-24.258
-50	20	-27.112	-27.49
-50	25	-27.347	-27.075
-50	30	-31.174	-26.137
-45	-30	-24.477	-25.711



-45	-25	-25.632	-23.094
-45	-20	-26.15	-25.197
-45	-15	-26.076	-24.561
-45	-10	-26.977	-24.036
-45	-5	-26.635	-25.661
-45	0	-32.325	-23.968
-45	5	-28.531	-26.3
-45	10	-28.673	-26.776
-45	15	-27.561	-25.453
-45	20	-32.406	-25.093
-45	25	-25.93	-30.821
-45	30	-32.661	-27.89
-40	-30	-26.945	-23.759
-40	-25	-25.107	-25.71
-40	-20	-25.717	-23.469
-40	-15	-27.71	-24.856
-40	-10	-25.57	-27.128
-40	-5	-26.978	-26.219
-40	0	-31.105	-23.924
-40	5	-26.312	-26.954
-40	10	-33.994	-25.163
-40	15	-26.792	-29.842
-40	20	-36.866	-27.122
-40	25	-27.748	-26.713
-40	30	-26.497	-27.362
-35	-30	-26.7	-21.847
-35	-25	-25.789	-25.082
-35	-20	-27.604	-24.028
-35	-15	-26.057	-24.46
-35	-10	-27.176	-26.601
-35	-5	-27.251	-26.602
-35	0	-25.951	-27.765
-35	5	-33.66	-25.721
-35	10	-25.948	-28.407
-35	15	-25.808	-29.13
-35	20	-26.091	-29.788
-35	25	-26.887	-27.627
-35	30	-37.554	-27.821
-30	-30	-24.903	-27.671
-30	-25	-24.612	-25.648
-30	-20	-28.002	-24.368
-30	-15	-26.625	-26.969
-30	-10	-31.357	-24.391
-30	-5	-28.372	-26.04

-30	0	-31.494	-26.358
-30	5	-31.27	-25.765
-30	10	-37.475	-26.307
-30	15	-26.41	-30.329
-30	20	-31.285	-26.579
-30	25	-34.048	-28.159
-30	30	-26.943	-29.504
-25	-30	-24.607	-27.935
-25	-25	-27.793	-22.931
-25	-20	-27.308	-25.133
-25	-15	-30.933	-23.817
-25	-10	-28.429	-25.583
-25	-5	-34.054	-24.279
-25	0	-32.126	-25.677
-25	5	-28.068	-27.81
-25	10	-34.101	-27.541
-25	15	-30.677	-27.162
-25	20	-27.497	-29.851
-25	25	-38.512	-28.284
-25	30	-24.6	-28.609
-20	-30	-27.043	-22.9
-20	-25	-27.051	-22.672
-20	-20	-25.853	-25.736
-20	-15	-27.921	-24.78
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-20	15	-28.206	-28.822
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-20	30	-41.306	-28.218
-15	-30	-24.594	-27.197
-15	-25	-27.293	-22.923
-15	-20	-28.151	-25.026
-15	-15	-27.042	-26.892
-15	-10	-26.073	-28.979
-15	-5	-32.134	-26.407
-15	0	-28.311	-28.222
-15	5	-27.737	-28.892
-15	10	-31.519	-27.299
-15	15	-30.066	-28.236
-15	20	-30.021	-28.134

-15	25	-32.41	-27.807
-15	30	-27.825	-29.688
-10	-30	-24.727	-26.114
-10	-25	-28.534	-23.776
-10	-20	-28.798	-24.54
-10	-15	-31.289	-25.001
-10	-10	-27.936	-27.072
-10	-5	-36.365	-25.239
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-10	30	-29.159	-30.413
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-5	-20	-26.427	-28.621
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-5	-10	-33.315	-24.729
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0	0	-34.591	-26.507
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0	10	-28.307	-29.292
0	15	-31.455	-27.719
0	20	-32.124	-28.238
0	25	-30.571	-28.353
0	30	-22.944	-28.475
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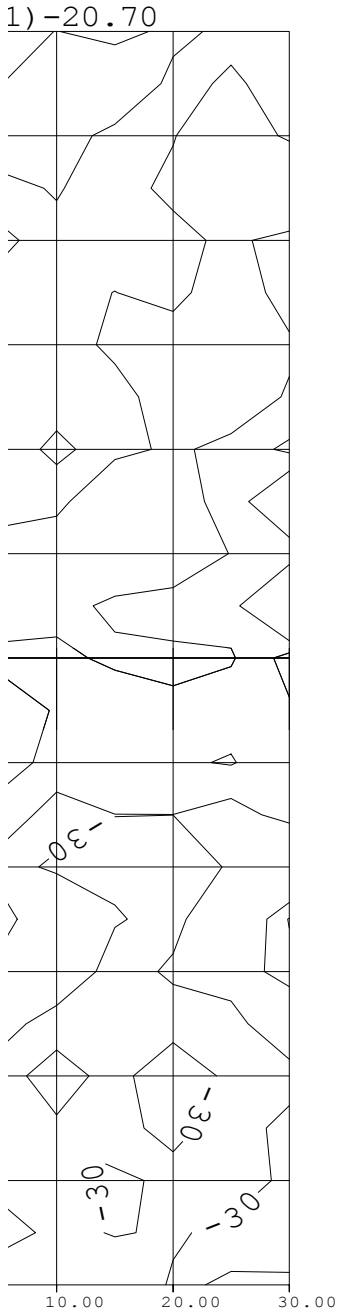
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10	25	-29.594	-28.002
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15	25	-26.512	-28.746
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20	20	-31.418	-28.559
20	25	-27.557	-28.666
20	30	-24.07	-29.938
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25	-25	-29.136	-22.815
25	-20	-22.168	-32.787
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25	10	-27.915	-29.057
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40	0	-31.062	-29.742
40	5	-30.788	-28.739
40	10	-28.566	-27.982
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40	20	-27.574	-28.814
40	25	-31.839	-27.23
40	30	-26.733	-29.409
45	-30	-28.737	-26.405
45	-25	-36.527	-24.068
45	-20	-21.219	-27.103
45	-15	-30.477	-25.393
45	-10	-29.227	-26.297
45	-5	-34.06	-26.988
45	0	-35.594	-27.101
45	5	-28.412	-29.44
45	10	-30.455	-28.102
45	15	-26.919	-29.261
45	20	-31.869	-29.649
45	25	-34.506	-28.718
45	30	-45.32	-27.256
50	-30	-24.868	-30.039
50	-25	-38.428	-21.911
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50	-15	-25.883	-30.164
50	-10	-22.199	-29.687
50	-5	-29.865	-27.255
50	0	-32.289	-28.487
50	5	-33.387	-27.502
50	10	-34.065	-28.185
50	15	-27.386	-29.564
50	20	-29.57	-28.548
50	25	-37.24	-28.505
50	30	-28.254	-27.557
55	-30	-31.142	-24.335
55	-25	-26.624	-19.909
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55	15	-39.162	-27.166
55	20	-27.627	-29.39
55	25	-31.133	-28.853
55	30	-26.811	-29.518
60	-30	-25.337	-23.393
60	-25	-30.262	-25.806
60	-20	-29.899	-22.988
60	-15	-24.764	-29.763
60	-10	-25.703	-24.397
60	-5	-27.04	-28.616
60	0	-28.825	-27.779
60	5	-27.028	-30.152
60	10	-30.163	-28.833
60	15	-26.853	-29.38
60	20	-32.222	-27.847
60	25	-27.918	-28.985
60	30	-29.699	-28.941

page)



IN DEG

Cross-Polarized Gain (-X (West) into page)

DTV12 OS1 (102.8)

Beam 13, RHCP, 17.695GHz

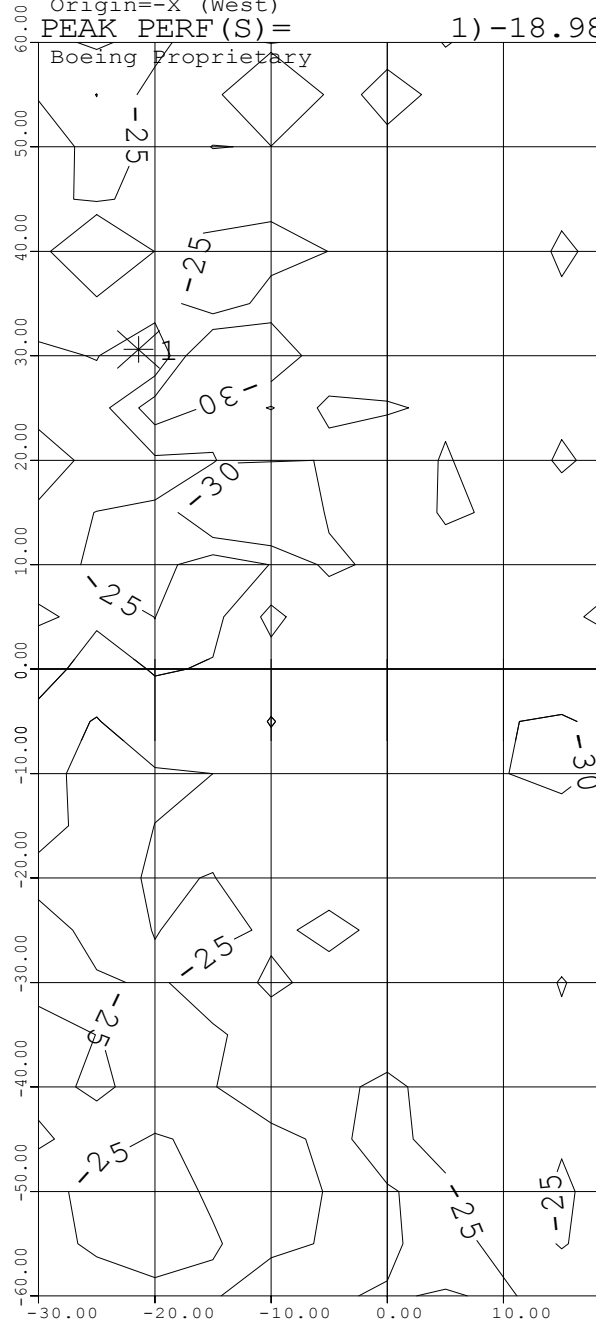
Cross-pol Gain (dBi)

Origin=-X (West)

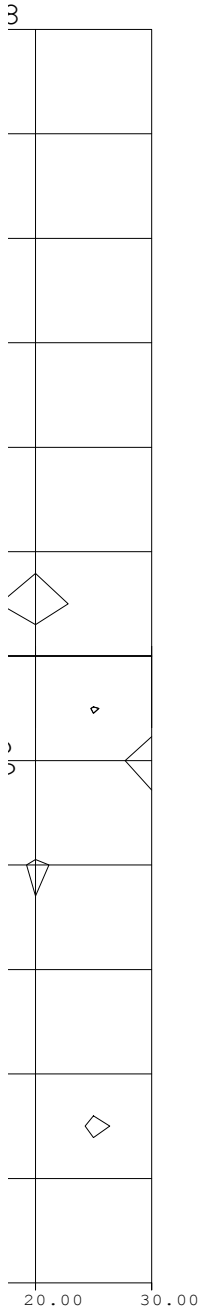
PEAK PERF(S) = 1) -18.98

Boeing Proprietary

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qq925b



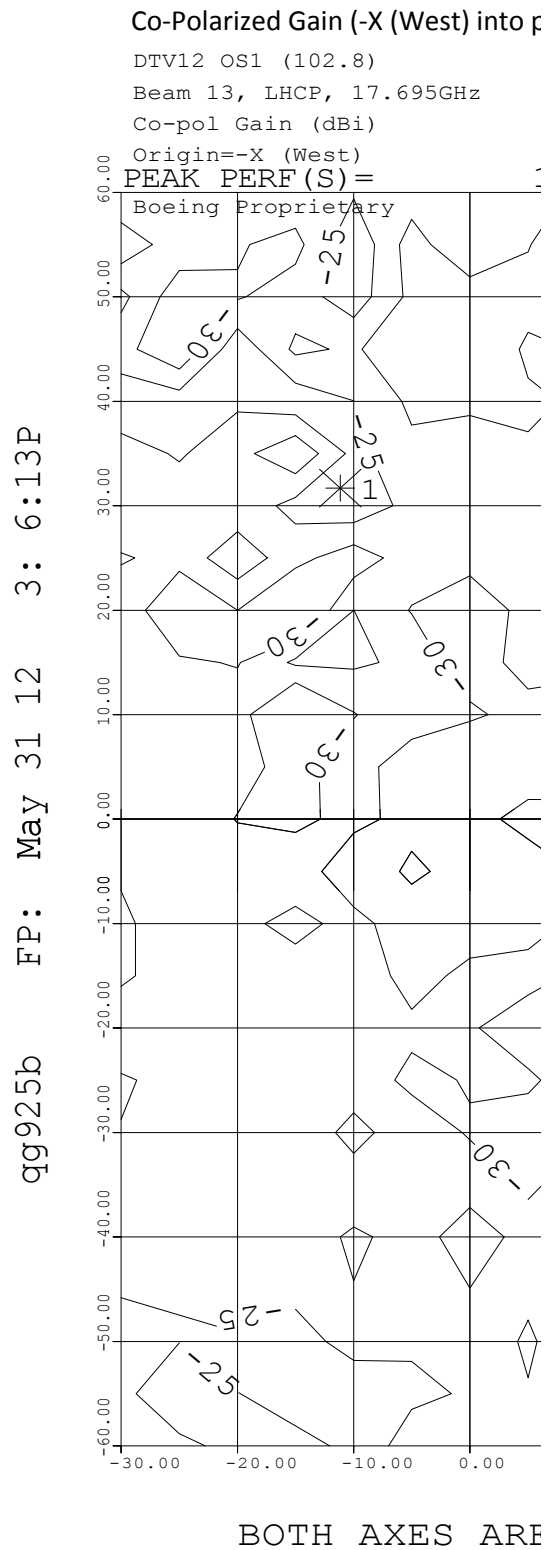
BOTH AXES ARE IN DEG



EG

Beam 13 OS1 LHCP 17.695

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
-60	-30	-23.569	-24.307
-60	-25	-24.451	-22.254
-60	-20	-25.682	-24.536
-60	-15	-26.93	-24.971
-60	-10	-23.639	-28.375
-60	-5	-25.905	-25.789
-60	0	-26.24	-24.763
-60	5	-25.036	-24.14
-60	10	-28.328	-25.691
-60	15	-25.6	-25.274
-60	20	-28.619	-25.472
-60	25	-29.354	-24.716
-60	30	-29.606	-27.36
-55	-30	-24.379	-22.902
-55	-25	-26.803	-27.199
-55	-20	-25.034	-25.666
-55	-15	-24.161	-24.644
-55	-10	-23.923	-22.512
-55	-5	-24.606	-24.711
-55	0	-25.184	-24.77
-55	5	-29.633	-22.691
-55	10	-29.042	-26.22
-55	15	-29.948	-24.645
-55	20	-28.197	-26.03
-55	25	-28.292	-24.136
-55	30	-28.644	-26.719
-50	-30	-23.528	-21.192
-50	-25	-24.946	-27.988
-50	-20	-24.035	-25.432
-50	-15	-24.329	-23.885
-50	-10	-25.625	-21.919
-50	-5	-25.25	-24.282
-50	0	-26.117	-23.946
-50	5	-30.834	-24.628
-50	10	-25.527	-29.524
-50	15	-34.363	-24.07
-50	20	-25.812	-26.204
-50	25	-28.421	-26.807
-50	30	-31.577	-25.784
-45	-30	-25.294	-25.331



-45	-25	-26.386	-23.349
-45	-20	-26.263	-25.972
-45	-15	-25.426	-24.441
-45	-10	-25.1	-22.868
-45	-5	-25.858	-24.631
-45	0	-29.921	-23.258
-45	5	-28.793	-25.716
-45	10	-28.193	-27.635
-45	15	-29.803	-26.059
-45	20	-37.568	-25.193
-45	25	-25.178	-29.984
-45	30	-32.416	-28.715
-40	-30	-27.058	-24.102
-40	-25	-25.018	-25.122
-40	-20	-25.177	-22.734
-40	-15	-26.76	-24.649
-40	-10	-24.477	-25.887
-40	-5	-26.086	-25.133
-40	0	-34.337	-24.119
-40	5	-26.911	-28.399
-40	10	-33.128	-24.904
-40	15	-25.557	-28.421
-40	20	-32.9	-26.722
-40	25	-29.168	-27.588
-40	30	-27.035	-28.804
-35	-30	-26.145	-21.713
-35	-25	-25.245	-24.551
-35	-20	-27.411	-24.06
-35	-15	-26.877	-24.566
-35	-10	-27.197	-27.544
-35	-5	-26.09	-25.382
-35	0	-26.687	-28.175
-35	5	-31.225	-25.486
-35	10	-26.363	-29.922
-35	15	-26.39	-30.191
-35	20	-25.268	-30.37
-35	25	-27.202	-29.057
-35	30	-32.94	-26.969
-30	-30	-25.15	-27.953
-30	-25	-25.252	-25.477
-30	-20	-27.255	-24.355
-30	-15	-25.891	-26.175
-30	-10	-31.877	-24.337
-30	-5	-26.634	-24.787

-30	0	-30.51	-26.6
-30	5	-33.598	-26.218
-30	10	-39.465	-25.994
-30	15	-26.375	-30.295
-30	20	-33.728	-26.353
-30	25	-31.317	-26.654
-30	30	-25.941	-30.204
-25	-30	-24.548	-27.577
-25	-25	-26.237	-22.7
-25	-20	-26.822	-24.775
-25	-15	-29.022	-23.571
-25	-10	-26.915	-24.521
-25	-5	-31.308	-23.711
-25	0	-29.614	-24.706
-25	5	-28.766	-27.64
-25	10	-34.405	-27.42
-25	15	-31.141	-27.046
-25	20	-26.071	-28.421
-25	25	-41.839	-27.97
-25	30	-25.058	-29.634
-20	-30	-28.095	-23.356
-20	-25	-27.177	-22.815
-20	-20	-26.163	-25.412
-20	-15	-28.853	-25.012
-20	-10	-25.325	-28.354
-20	-5	-28.822	-26.548
-20	0	-29.192	-27.023
-20	5	-34.329	-26.288
-20	10	-29.32	-27.655
-20	15	-27.695	-28.452
-20	20	-26.414	-30.506
-20	25	-30.896	-28.304
-20	30	-36.324	-27.963
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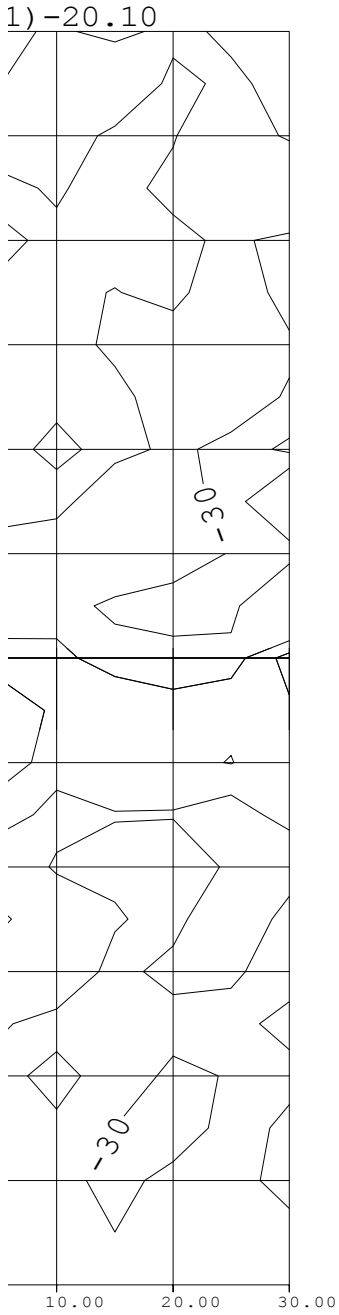
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page)



IN DEG

Cross-Polarized Gain (-X (West) into page)

DTV12 OS1 (102.8)

Beam 13, LHCP, 17.695GHz

Cross-pol Gain (dBi)

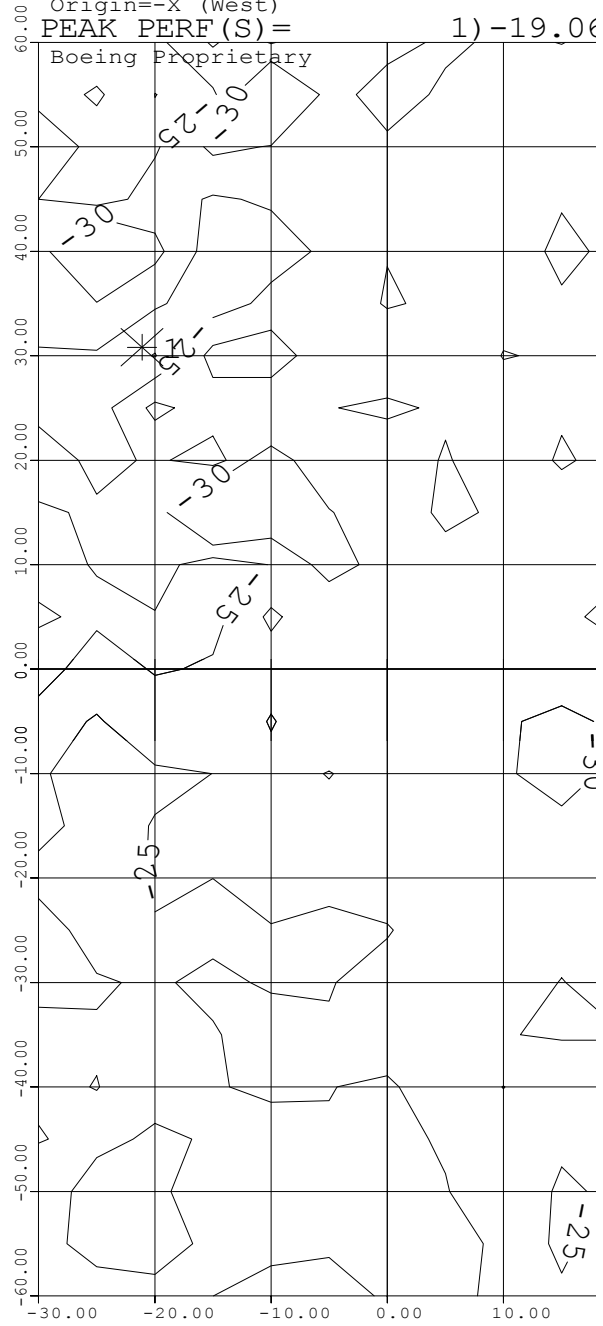
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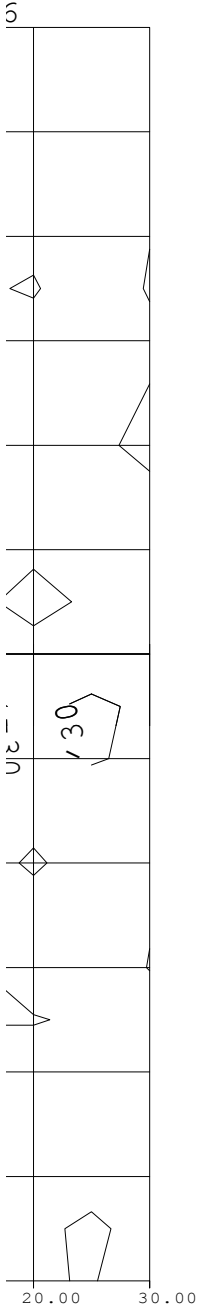
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Boeing Proprietary

qq925b FP: May 31 12 3: 6:18P



BOTH AXES ARE IN DEG



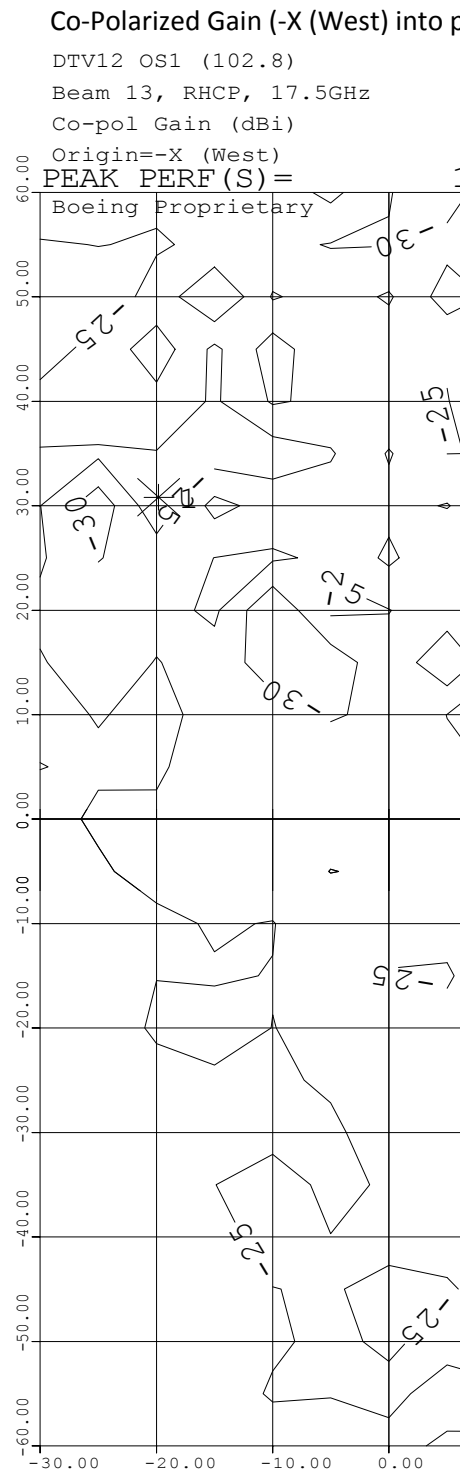
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Beam 13 OS1 RHCP 17.5

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FP: May 31 12 3: 6: 2P

qq925b



BOTH AXES ARE

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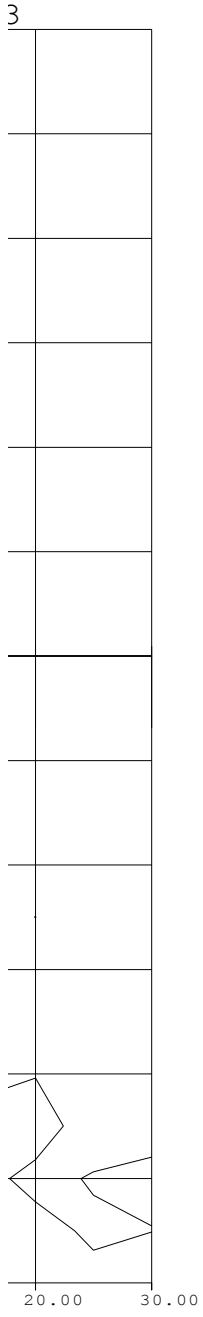
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40	-20	-28.315	-21.802
40	-15	-24.371	-25.976
40	-10	-30.524	-23.616
40	-5	-28.805	-25.231
40	0	-25.851	-27.617
40	5	-24.728	-27.8
40	10	-31.763	-25.818
40	15	-27.729	-26.336
40	20	-27.37	-27.054
40	25	-31.532	-25.113
40	30	-25.926	-27.414
45	-30	-23.186	-25.933
45	-25	-26.419	-24.144
45	-20	-32.919	-22.046
45	-15	-23.857	-28.231
45	-10	-32.468	-22.494
45	-5	-25.849	-27.325
45	0	-28.174	-25.823
45	5	-25.785	-27.263
45	10	-23.983	-27.763
45	15	-27.026	-27.074
45	20	-28.889	-27.434
45	25	-30.084	-25.94
45	30	-35.546	-25.482
50	-30	-22.513	-24.948
50	-25	-22.386	-33.628
50	-20	-26.514	-25.498
50	-15	-35.603	-22.711
50	-10	-24.534	-26.481
50	-5	-27.386	-25.477
50	0	-24.405	-28.637
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50	10	-28.591	-25.697
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50	30	-28.716	-25.499
55	-30	-24.561	-24.375
55	-25	-25.102	-25.756
55	-20	-24.612	-27.434
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55	-10	-29.065	-25.311

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55	15	-28.732	-26.233
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55	25	-24.799	-28.849
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60	10	-26.488	-26.555
60	15	-26.263	-25.924
60	20	-24.132	-27.748
60	25	-25.103	-27.233
60	30	-24.31	-28.712

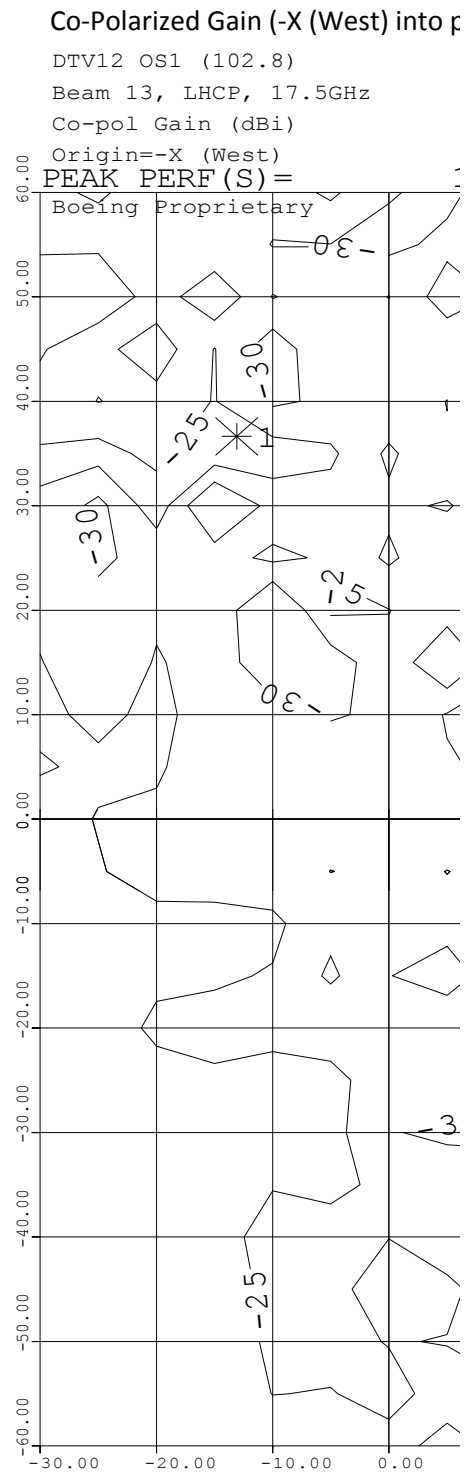


EG

Beam 13 OS1 LHCP 17.5

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
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-60	-25	-21.551	-19.706
-60	-20	-23.479	-21.049
-60	-15	-22.962	-22.932
-60	-10	-21	-21.551
-60	-5	-21.396	-21.664
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-60	5	-26.967	-21.743
-60	10	-23.298	-22.013
-60	15	-26.51	-23.614
-60	20	-26.328	-23.677
-60	25	-25.69	-24.331
-60	30	-27.422	-23.037
-55	-30	-21.88	-21.78
-55	-25	-23.872	-22.622
-55	-20	-21.46	-22.944
-55	-15	-21.315	-20.574
-55	-10	-25.115	-19.493
-55	-5	-24.727	-20.242
-55	0	-27.05	-21.323
-55	5	-22.423	-26.012
-55	10	-23.546	-23.079
-55	15	-25.995	-24.246
-55	20	-26.863	-24.402
-55	25	-22.714	-24.133
-55	30	-25.877	-25.29
-50	-30	-21.269	-21.055
-50	-25	-22.429	-22.987
-50	-20	-20.889	-21.595
-50	-15	-22.617	-19.881
-50	-10	-25.707	-20.892
-50	-5	-26.947	-21.479
-50	0	-24.702	-24.289
-50	5	-25.253	-23.218
-50	10	-29.005	-22.016
-50	15	-26.349	-23.266
-50	20	-22.72	-25.827
-50	25	-25.909	-23.969
-50	30	-26.876	-24.044
-45	-30	-22.478	-20.891

FP: May 31 12 3: 5:50P



BOTH AXES ARE

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-45	20	-32.5	-22.985
-45	25	-24.827	-26.365
-45	30	-25.906	-26.711
-40	-30	-24.304	-20.18
-40	-25	-23.308	-21.257
-40	-20	-24.759	-19.782
-40	-15	-22.563	-22.802
-40	-10	-27.343	-20.58
-40	-5	-25.718	-24.021
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-40	30	-22.436	-28.14
-35	-30	-23.038	-18.771
-35	-25	-23.648	-21.375
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-35	25	-22.78	-27.502
-35	30	-26.813	-25.392
-30	-30	-22.42	-24.361
-30	-25	-23.121	-20.922
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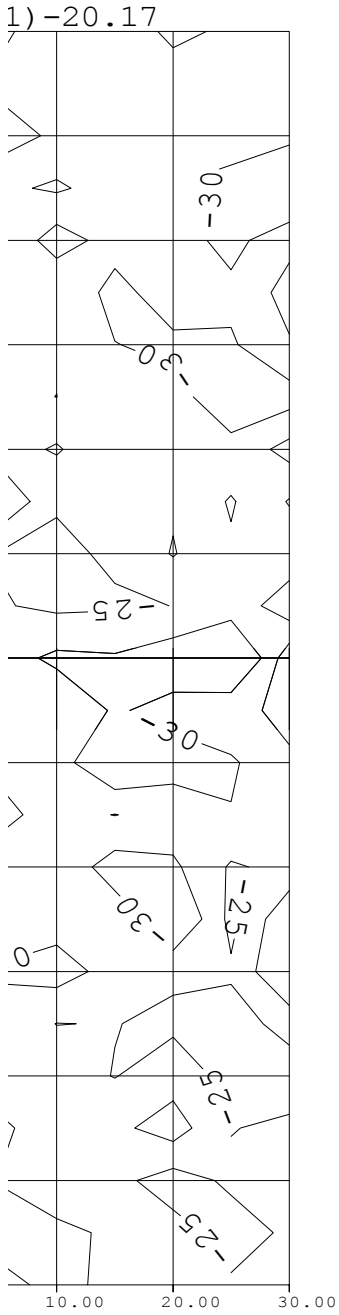
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25	-30	-25.097	-24.729
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25	-10	-23.942	-28.63
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40	30	-26.281	-27.701
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45	-25	-28.51	-23.847
45	-20	-32.87	-21.928
45	-15	-24.794	-30.439
45	-10	-33.321	-22.225
45	-5	-25.244	-27.362
45	0	-28.734	-26.216
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45	10	-24.244	-28.099
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45	20	-29.229	-27.679
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60	25	-25.26	-26.718
60	30	-24.81	-28.672

page)



IN DEG

Cross-Polarized Gain (-X (West) into page)

DTV12 OS1 (102.8)

Beam 13, LHCP, 17.5GHz

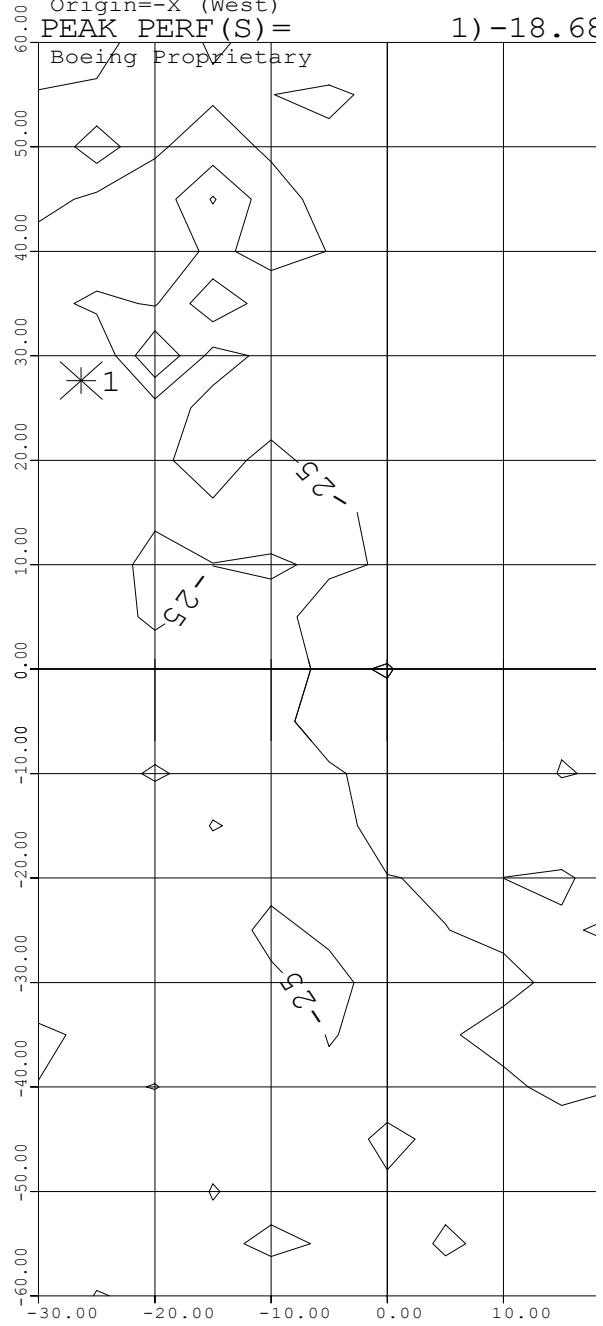
Cross-pol Gain (dBi)

Origin=-X (West)

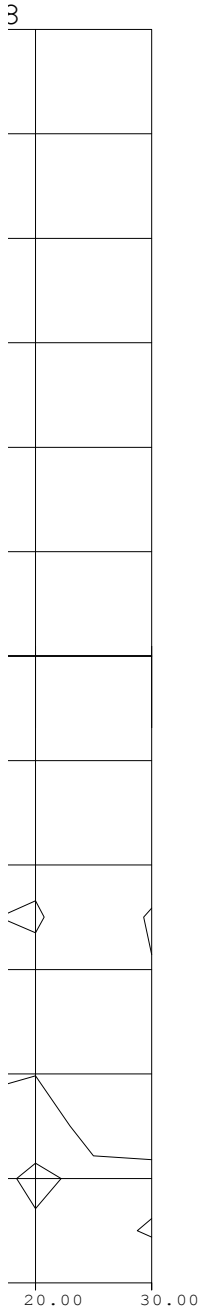
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qq925b FP: May 31 12 3: 5:56P



BOTH AXES ARE IN DEG

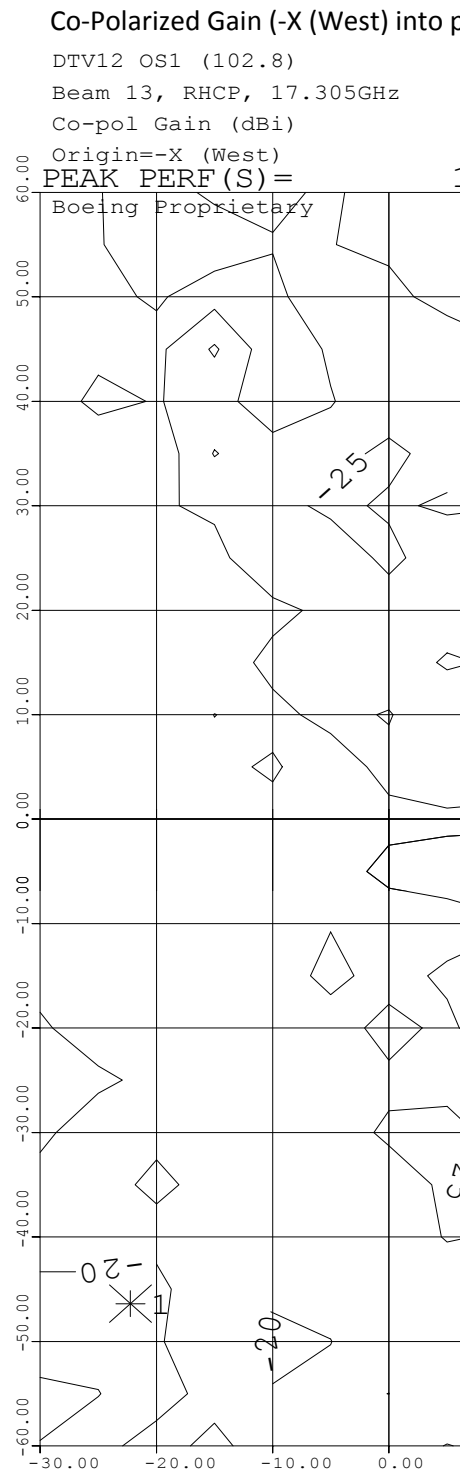


EG

Beam 13 OS1 RHCP 17.305

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
-60	-30	-19.975	-20.178
-60	-25	-19.384	-19.421
-60	-20	-20.851	-18.51
-60	-15	-19.395	-20.709
-60	-10	-21.3	-18.457
-60	-5	-21.51	-18.356
-60	0	-22.108	-18.888
-60	5	-19.854	-21.889
-60	10	-21.219	-20.047
-60	15	-22.356	-20.916
-60	20	-21.792	-21.467
-60	25	-23.252	-21.121
-60	30	-22.126	-21.879
-55	-30	-20.214	-20.912
-55	-25	-20.04	-18.92
-55	-20	-19.088	-21.124
-55	-15	-20.794	-18.221
-55	-10	-20.069	-19.055
-55	-5	-20.742	-19.572
-55	0	-19.976	-21.925
-55	5	-24.257	-19.385
-55	10	-22.773	-20.705
-55	15	-23.09	-21.131
-55	20	-24.633	-20.873
-55	25	-20.574	-23.256
-55	30	-23.471	-22.155
-50	-30	-19.52	-21.496
-50	-25	-19.523	-19.82
-50	-20	-19.726	-19.581
-50	-15	-21.779	-17.8
-50	-10	-19.704	-21.053
-50	-5	-19.946	-22.074
-50	0	-22.875	-20.418
-50	5	-22.085	-21.28
-50	10	-24.104	-21.507
-50	15	-23.44	-22.03
-50	20	-21.255	-22.567
-50	25	-22.982	-22.655
-50	30	-23.625	-22.683
-45	-30	-19.488	-19.341

FP: May 31 12 3: 5:40P



BOTH AXES ARE

-45	-25	-19.466	-19.369
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-45	15	-24.727	-21.544
-45	20	-26.26	-21.371
-45	25	-25.22	-23.674
-45	30	-22.58	-23.937
-40	-30	-21.047	-17.519
-40	-25	-21.082	-18.573
-40	-20	-20.74	-18.513
-40	-15	-20.71	-19.532
-40	-10	-20.389	-21.893
-40	-5	-23.353	-20.584
-40	0	-22.068	-21.979
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-40	10	-24.552	-21.884
-40	15	-24.385	-23.383
-40	20	-23.582	-23.529
-40	25	-22.324	-25.053
-40	30	-26.274	-23.922
-35	-30	-20.786	-17.643
-35	-25	-20.747	-19.179
-35	-20	-19.564	-21.223
-35	-15	-20.683	-20.794
-35	-10	-21.088	-21.128
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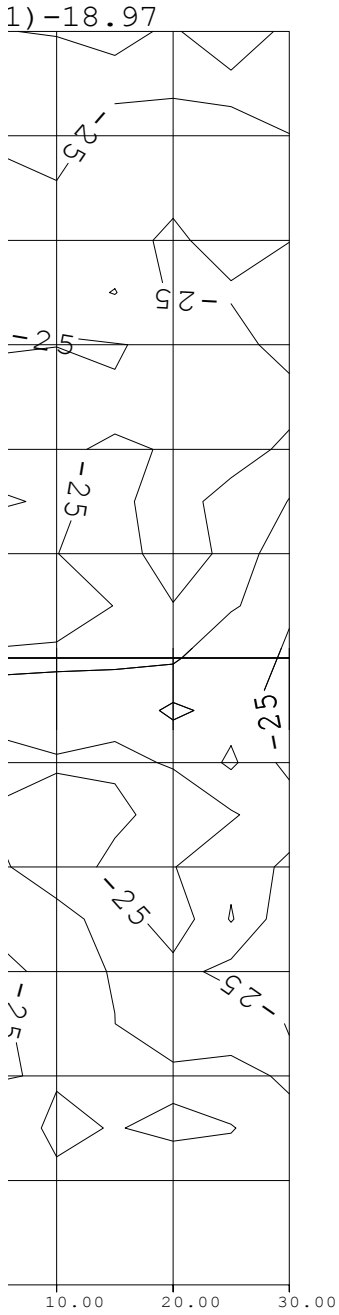
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60	30	-23.373	-24.887

page)



IN DEG

Cross-Polarized Gain (-X (West) into page)

DTV12 OS1 (102.8)

Beam 13, RHCP, 17.305GHz

Cross-pol Gain (dBi)

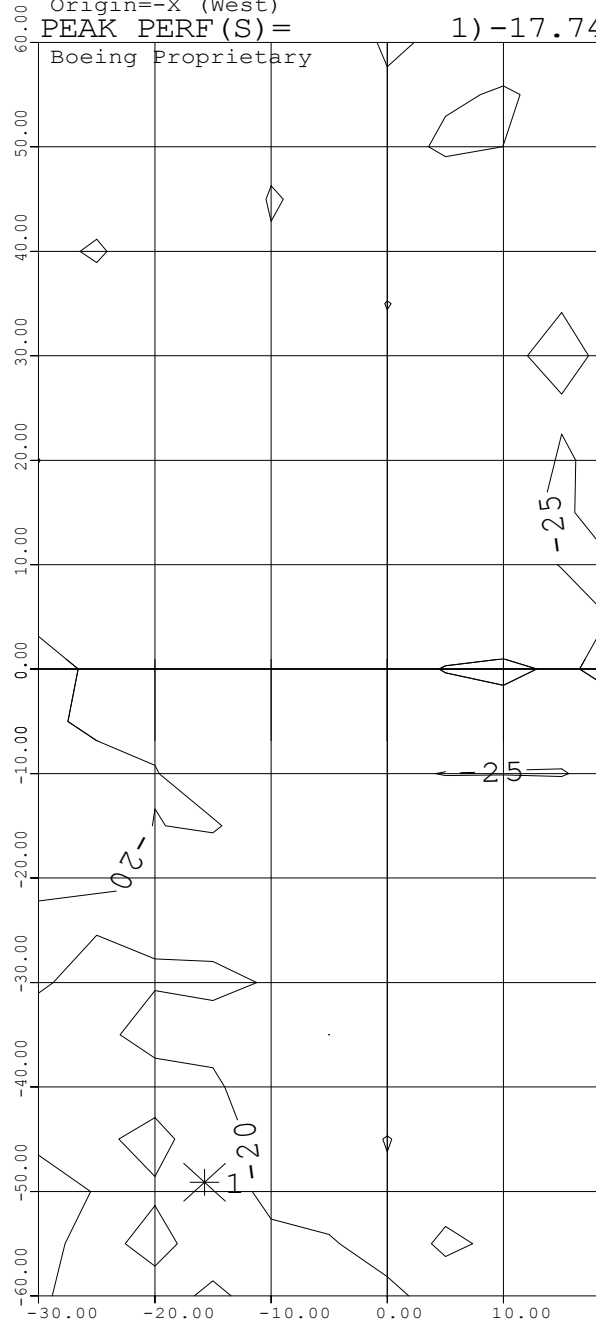
Origin=-X (West)

PEAK PERF(S) =

1) -17.74

Boeing Proprietary

qq925b FP: May 31 12 3: 5:45P

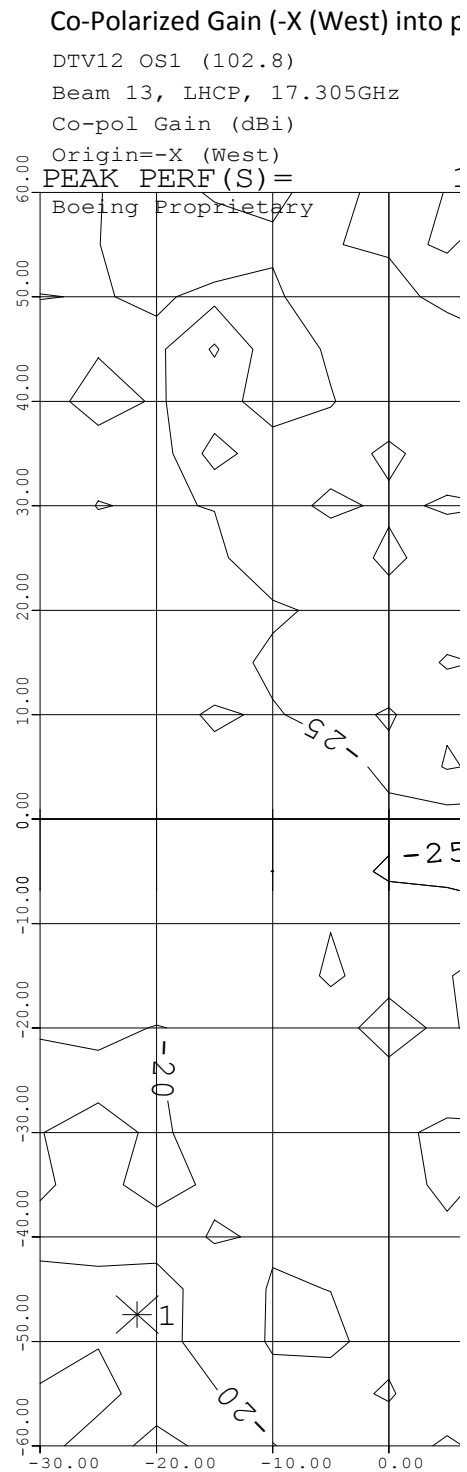


BOTH AXES ARE IN DEG

Beam 13 OS1 LHCP 17.305

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
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-45	-30	-19.217	-18.699

FP: May 31 12 3: 5:30P



BOTH AXES ARE

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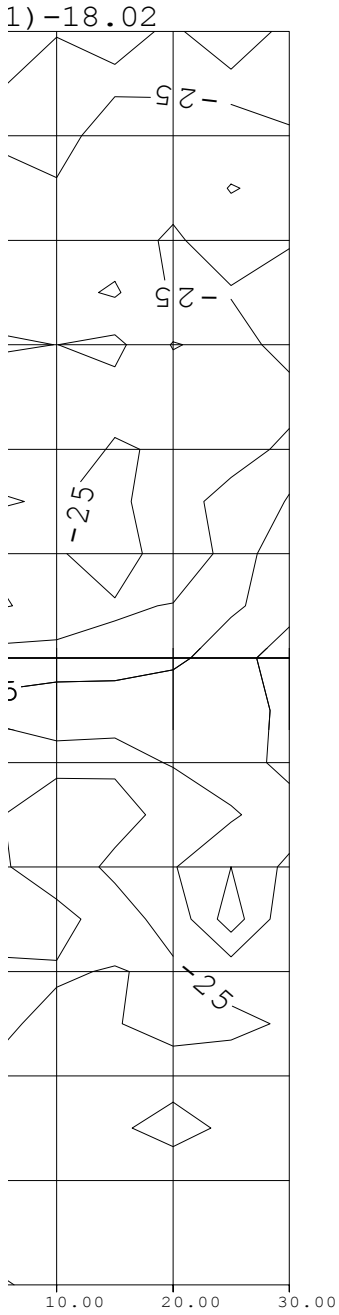
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20	25	-28.584	-23.559
20	30	-23.195	-26.281
25	-30	-22.809	-21.484
25	-25	-23.194	-21.733
25	-20	-22.886	-22.241
25	-15	-23.456	-23.169
25	-10	-29.853	-21.335
25	-5	-28.559	-22.143
25	0	-23.673	-25.113
25	5	-28.004	-23.553
25	10	-29.308	-23.205
25	15	-26.826	-24.745
25	20	-26.875	-23.452
25	25	-27.842	-24.116
25	30	-27.746	-24.898
30	-30	-22.431	-20.965
30	-25	-25.149	-20.369
30	-20	-24.543	-21.756
30	-15	-25.188	-22.278
30	-10	-27.259	-22.499
30	-5	-23.892	-24.229
30	0	-25.901	-24.451
30	5	-24.416	-24.446
30	10	-25.038	-24.407
30	15	-23.665	-26.498
30	20	-30.322	-23.566
30	25	-28.353	-23.297
30	30	-21.984	-25.572
35	-30	-22.133	-22.432
35	-25	-23.562	-21.891
35	-20	-22.201	-24.478
35	-15	-32.16	-20.441
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35	5	-27.354	-23.835
35	10	-28.257	-23.18
35	15	-30.676	-24.747
35	20	-24.316	-25.263
35	25	-24.512	-23.491
35	30	-22.156	-26.339

40	-30	-23.758	-21.276
40	-25	-26.232	-19.654
40	-20	-24.699	-22.419
40	-15	-26.531	-22.273
40	-10	-23.322	-24.843
40	-5	-24.709	-24.025
40	0	-28.027	-23.248
40	5	-27.367	-23.236
40	10	-26.809	-23.855
40	15	-27.462	-24.863
40	20	-24.158	-24.93
40	25	-28.038	-23.618
40	30	-25.544	-25.167
45	-30	-22.193	-22.824
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45	-20	-23.958	-23.621
45	-15	-30.634	-20.618
45	-10	-22.042	-26.018
45	-5	-25.66	-23.617
45	0	-25.441	-23.896
45	5	-29.846	-23.154
45	10	-25.652	-23.547
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45	20	-26.89	-25.481
45	25	-30.221	-23.539
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50	0	-27.456	-23.903
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55	15	-23.815	-25.015
55	20	-23.821	-24.27
55	25	-23.496	-25.619
55	30	-23.418	-25.372
60	-30	-22.634	-23.529
60	-25	-24.809	-22.49
60	-20	-27.463	-22.148
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60	0	-23.398	-25.633
60	5	-25.112	-24.901
60	10	-25.286	-23.719
60	15	-27.069	-23.798
60	20	-24.031	-23.76
60	25	-28.995	-23.565
60	30	-23.27	-24.876

page)



E IN DEG

Cross-Polarized Gain (-X (West) into page)

DTV12 OS1 (102.8)

Beam 13, LHCP, 17.305GHz

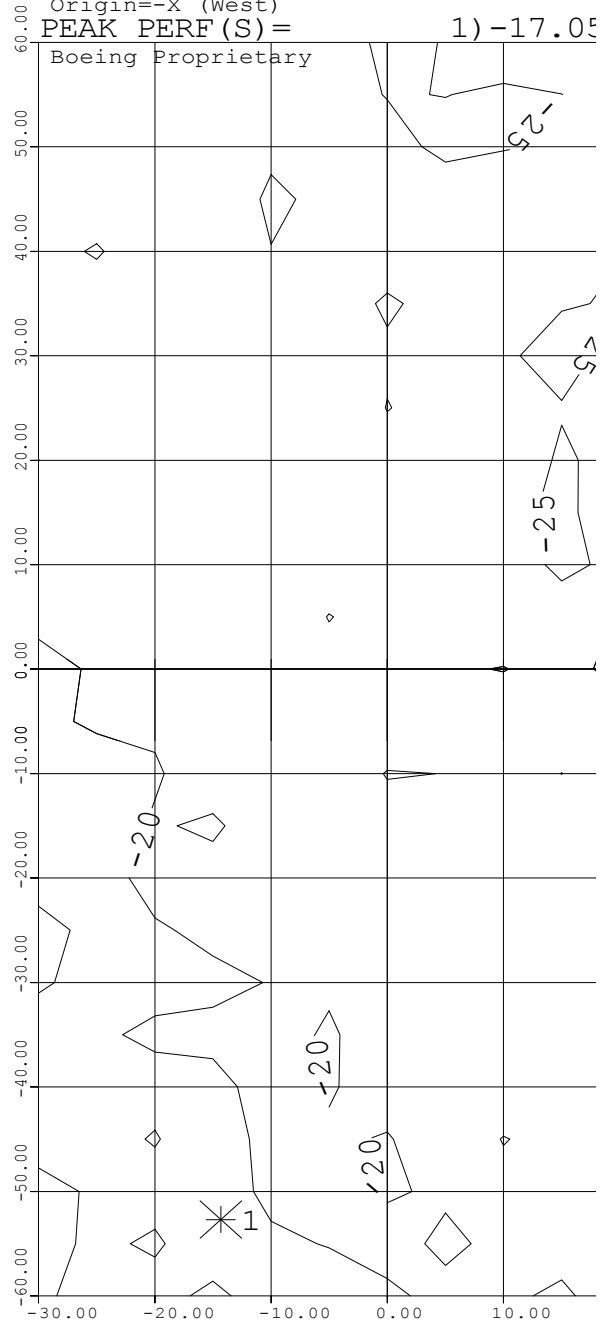
Cross-pol Gain (dBi)

Origin=-X (West)

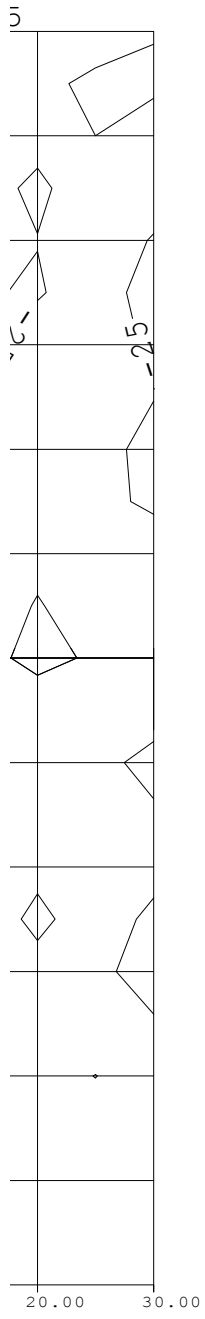
PEAK PERF(S) =

1) -17.05

Boeing Proprietary
qq925b FP: May 31 12 3: 5:35P



BOTH AXES ARE IN DEG



EG