

DTV12 Reverse Frequency Transmit Off-Axis Summary

6/1/2012

OS1 (102.8W) Beam 9

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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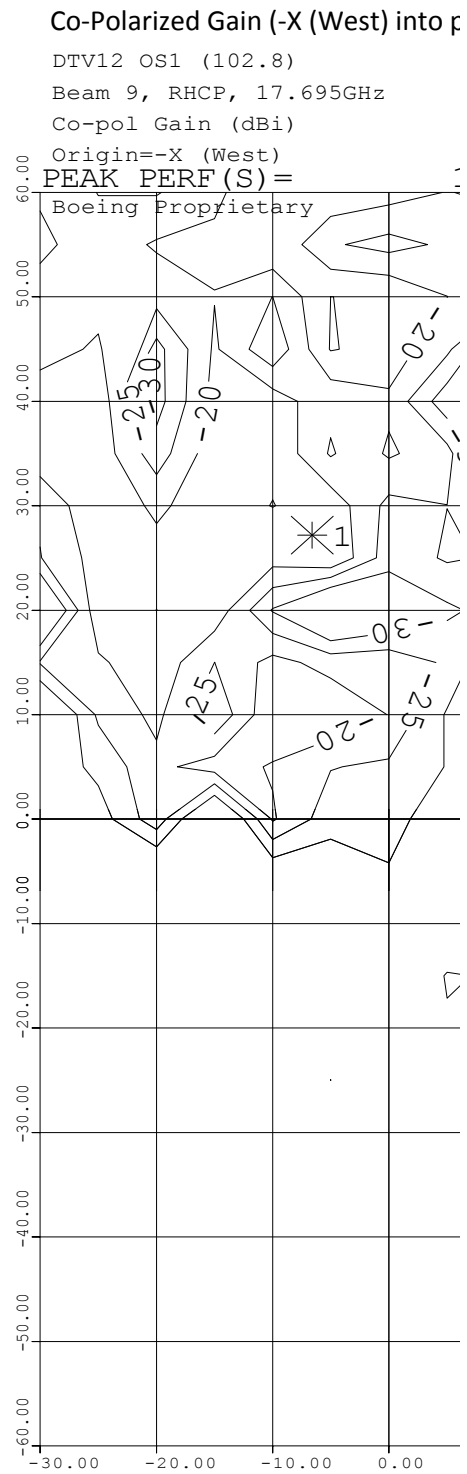
l south)
Earth)

Beam 9 OS1 RHCP 17.695

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
-60	-30	-27.639	-18.994
-60	-25	-31.281	-23.508
-60	-20	-34.548	-23.865
-60	-15	-36.959	-25.932
-60	-10	-37.453	-30.764
-60	-5	-38.441	-27.887
-60	0	-35.33	-27.477
-60	5	-32.325	-35.512
-60	10	-34.514	-32.119
-60	15	-37.313	-26.065
-60	20	-36.705	-27.465
-60	25	-28.409	-30.362
-60	30	-35.597	-31.393
-55	-30	-32.349	-23.97
-55	-25	-32.285	-25.716
-55	-20	-47.305	-25.521
-55	-15	-31.484	-22.666
-55	-10	-45.839	-30.524
-55	-5	-34.386	-38.91
-55	0	-30.124	-26.669
-55	5	-35.291	-29.855
-55	10	-32.409	-27.246
-55	15	-29.79	-30.434
-55	20	-36.996	-30.933
-55	25	-29.822	-31.333
-55	30	-40.43	-28.584
-50	-30	-32.644	-22.502
-50	-25	-33.442	-27.893
-50	-20	-35.922	-24.756
-50	-15	-39.271	-31.613
-50	-10	-44.69	-31.072
-50	-5	-48.73	-28.028
-50	0	-36.987	-28.556
-50	5	-30.393	-29.074
-50	10	-30.905	-32.745
-50	15	-33.146	-30.77
-50	20	-27.684	-37.901
-50	25	-36.854	-27.441
-50	30	-29.774	-31.205
-45	-30	-33.278	-22.827

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qg925b



BOTH AXES ARE

-45	-25	-42.466	-26.398
-45	-20	-34.479	-23.937
-45	-15	-44.542	-29.944
-45	-10	-32.015	-24.943
-45	-5	-47.149	-27.998
-45	0	-30.141	-29.421
-45	5	-43.371	-27.114
-45	10	-36.664	-27.279
-45	15	-29.922	-29.481
-45	20	-37.647	-28.326
-45	25	-35.41	-28.479
-45	30	-28.955	-30.26
-40	-30	-32.416	-20.034
-40	-25	-34.14	-22.409
-40	-20	-32.395	-23.232
-40	-15	-35.863	-35.447
-40	-10	-46.013	-28.766
-40	-5	-31.567	-30.811
-40	0	-35.794	-27.374
-40	5	-30.266	-33.387
-40	10	-30.441	-31.875
-40	15	-34.349	-29.17
-40	20	-46.731	-29.352
-40	25	-32.687	-31.076
-40	30	-29.722	-32.849
-35	-30	-34.734	-23.093
-35	-25	-45.225	-30.666
-35	-20	-37.095	-28.931
-35	-15	-35.3	-34.853
-35	-10	-36.605	-27.135
-35	-5	-31.56	-29.619
-35	0	-34.667	-31.11
-35	5	-39.827	-31.372
-35	10	-33.828	-32.158
-35	15	-31.01	-30.414
-35	20	-35.993	-31.955
-35	25	-30.627	-30.308
-35	30	-41.618	-31.899
-30	-30	-40.345	-28.279
-30	-25	-36.682	-26.556
-30	-20	-34.142	-26.899
-30	-15	-35.208	-27.349
-30	-10	-43.193	-28.122
-30	-5	-35.391	-30.279

-30	0	-35.751	-29.121
-30	5	-38.551	-30.509
-30	10	-32.134	-33.04
-30	15	-28.456	-34.272
-30	20	-34.203	-32.489
-30	25	-33.791	-29.044
-30	30	-27.856	-31.448
-25	-30	-37.405	-24.848
-25	-25	-34.698	-24.087
-25	-20	-40.599	-26.119
-25	-15	-31.808	-29.908
-25	-10	-36.429	-27.517
-25	-5	-29.981	-38.893
-25	0	-34.078	-27.658
-25	5	-37.428	-31.563
-25	10	-35.211	-28.646
-25	15	-33.364	-29.858
-25	20	-48.56	-31.118
-25	25	-37.302	-31.61
-25	30	-25.49	-31.658
-20	-30	-37.396	-23.613
-20	-25	-40.966	-29.32
-20	-20	-34.272	-26.47
-20	-15	-36.961	-27.425
-20	-10	-36.837	-29.759
-20	-5	-33.464	-28.409
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-20	5	-31.668	-30.031
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-20	15	-37.697	-32.465
-20	20	-36.416	-31.578
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-15	-25	-33.862	-25.129
-15	-20	-41.619	-27.63
-15	-15	-35.705	-30.73
-15	-10	-39.355	-29.037
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-15	0	-50.934	-27.428
-15	5	-28.739	-33.024
-15	10	-31.847	-33.425
-15	15	-29.886	-32.673
-15	20	-28.854	-30.846

-15	25	-27.355	-30.785
-15	30	-33.146	-31.209
-10	-30	-35.804	-24.67
-10	-25	-34.43	-27.143
-10	-20	-31.93	-32.711
-10	-15	-42.326	-25.764
-10	-10	-33.955	-27.858
-10	-5	-35.122	-31.358
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-10	25	-27.486	-31.643
-10	30	-25.607	-33.685
-5	-30	-36.192	-25.545
-5	-25	-38.183	-27.005
-5	-20	-37.032	-35.564
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-5	-5	-33.411	-31.271
-5	0	-30.954	-35.611
-5	5	-30.907	-34.229
-5	10	-30.273	-31.525
-5	15	-34.619	-31.302
-5	20	-26.655	-34.608
-5	25	-30.073	-30.539
-5	30	-25.548	-30.721
0	-30	-41.906	-34.209
0	-25	-32.578	-23.955
0	-20	-21.937	-17.636
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0	-5	-27.848	-27.266
0	0	-24.991	-43.26
0	5	-38.535	-31.601
0	10	-34.567	-30.855
0	15	-30.656	-32.266
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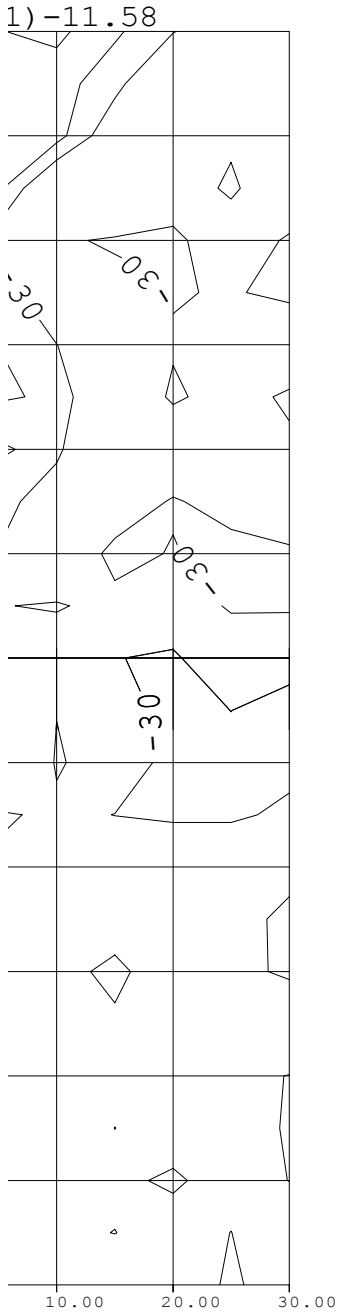
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20	20	-39.904	-29.747
20	25	-30.428	-30.789
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25	-20	-17.857	-17.404
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25	-5	-15.065	-17.187
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35	20	-29.267	-30.951
35	25	-30.937	-30.849
35	30	-27.377	-32.746

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40	5	-33.265	-31.192
40	10	-30.764	-28.828
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40	20	-28.371	-32.615
40	25	-34.893	-30.226
40	30	-28.986	-33.325
45	-30	-22.147	-31.847
45	-25	-19.234	-18.42
45	-20	-31.763	-23.962
45	-15	-19.291	-20.775
45	-10	-28.886	-20.769
45	-5	-14.666	-20.238
45	0	-16.988	-20.772
45	5	-23.888	-25.452
45	10	-38.003	-28.277
45	15	-39.5	-30.861
45	20	-34.494	-29.629
45	25	-28.681	-31.246
45	30	-37.173	-30.667
50	-30	-22.132	-17.665
50	-25	-21.882	-29.277
50	-20	-23.054	-20.093
50	-15	-20.142	-23.526
50	-10	-25.048	-27.942
50	-5	-14.987	-15.759
50	0	-15.267	-21.602
50	5	-19.961	-38.277
50	10	-23.077	-28.298
50	15	-34.539	-29.39
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50	30	-38.783	-29.14
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55	-25	-22.844	-18.757
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55	0	-26.773	-23.315
55	5	-24.1	-24.612
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55	15	-28.232	-24.891
55	20	-37.997	-29.311
55	25	-39.179	-30.287
55	30	-29.982	-30.769
60	-30	-20.664	-21.426
60	-25	-25.14	-21.71
60	-20	-25.352	-24.405
60	-15	-20.971	-32.715
60	-10	-16.18	-16.792
60	-5	-16.222	-18.154
60	0	-17.856	-23.473
60	5	-20.189	-20.147
60	10	-18.736	-26.662
60	15	-24.12	-23.262
60	20	-29.735	-33.257
60	25	-34.527	-31.125
60	30	-35.937	-32.433

page)



IN DEG

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

DTV12 OS1 (102.8)

Beam 9, RHCP, 17.695GHz

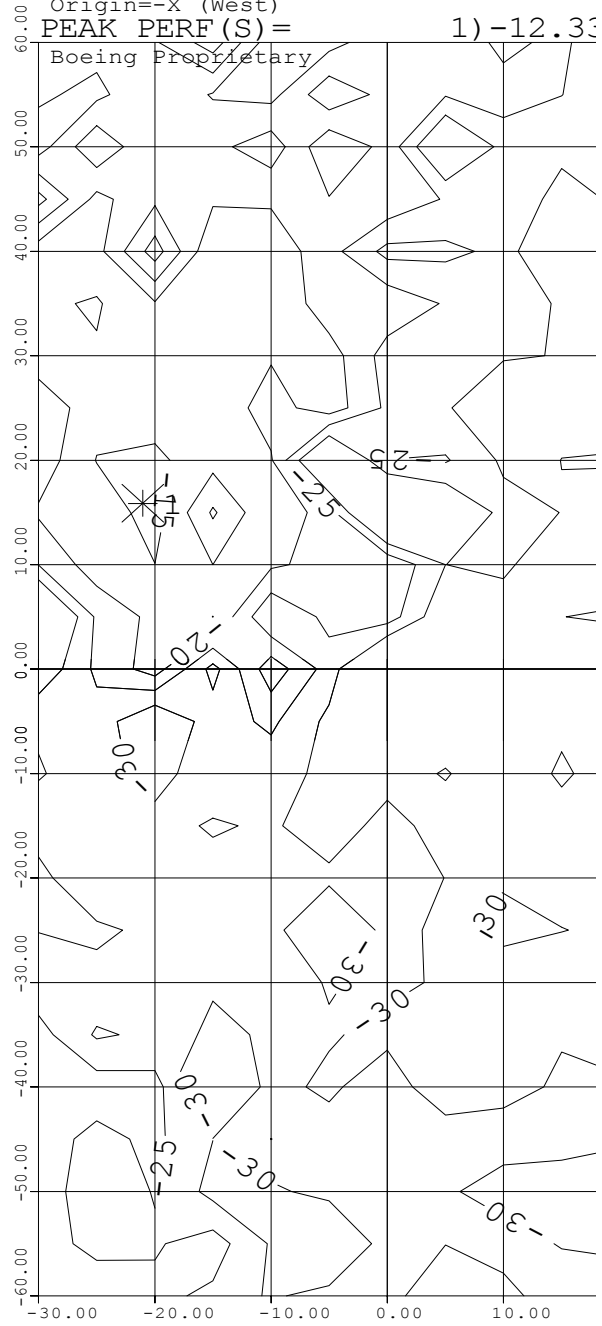
Cross-pol Gain (dBi)

Origin=-X (West)

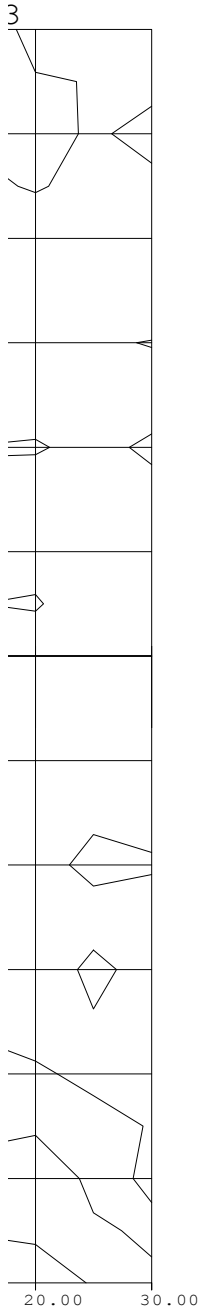
PEAK PERF(S) =

1) -12.35

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BOTH AXES ARE IN DEG

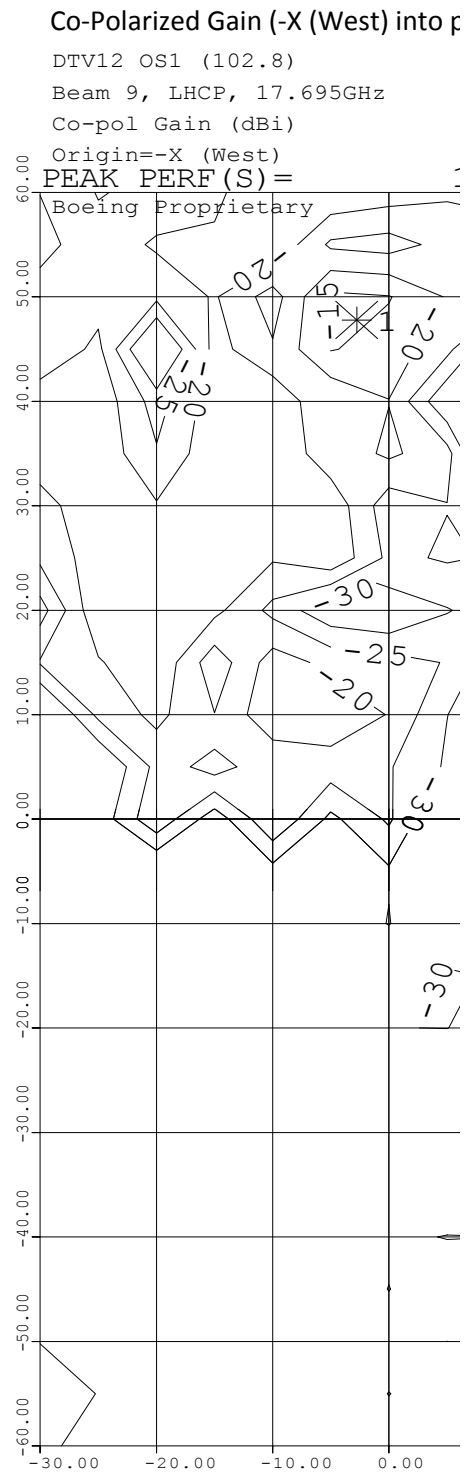


EG

Beam 9 OS1 LHCP 17.695

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
-60	-30	-29.803	-19.387
-60	-25	-30.345	-23.473
-60	-20	-34.41	-24.362
-60	-15	-36.673	-26.16
-60	-10	-37.261	-28.106
-60	-5	-38.643	-27.073
-60	0	-33.773	-27.669
-60	5	-32.826	-32.15
-60	10	-38.108	-33.923
-60	15	-34.249	-26.672
-60	20	-36.956	-28.939
-60	25	-28.172	-28.123
-60	30	-37.141	-31.176
-55	-30	-28.239	-22.667
-55	-25	-30.089	-26.811
-55	-20	-39.15	-23.978
-55	-15	-31.763	-22.672
-55	-10	-50.377	-32.155
-55	-5	-36.408	-36.064
-55	0	-29.818	-25.538
-55	5	-35.269	-30.187
-55	10	-31.27	-26.374
-55	15	-29.65	-28.471
-55	20	-35.419	-30.449
-55	25	-31.612	-35.13
-55	30	-39.004	-29.781
-50	-30	-30.092	-21.814
-50	-25	-30.017	-28.007
-50	-20	-35.312	-25.606
-50	-15	-48.569	-30.29
-50	-10	-49.492	-30.492
-50	-5	-43.695	-28.417
-50	0	-35.086	-28.96
-50	5	-29.975	-27.447
-50	10	-33.198	-36.723
-50	15	-33.501	-31.227
-50	20	-28.447	-38.268
-50	25	-37.753	-27.867
-50	30	-31.858	-33.551
-45	-30	-32.96	-22.326

FP: May 31 12 3: 5:59P



BOTH AXES ARE

-45	-25	-39.428	-25.471
-45	-20	-34.803	-24.05
-45	-15	-43.136	-30.113
-45	-10	-30.702	-24.691
-45	-5	-38.528	-29.425
-45	0	-29.759	-27.634
-45	5	-39.058	-27.978
-45	10	-33.472	-26.751
-45	15	-28.149	-27.956
-45	20	-38.823	-29.383
-45	25	-41.243	-28.96
-45	30	-29.85	-32.91
-40	-30	-38.659	-19.776
-40	-25	-36.854	-22.374
-40	-20	-32.879	-23.168
-40	-15	-38.023	-32.367
-40	-10	-53.478	-30.036
-40	-5	-31.812	-29.06
-40	0	-32.586	-27.298
-40	5	-29.484	-31.273
-40	10	-30.013	-29.78
-40	15	-32.425	-27.841
-40	20	-49.427	-30.047
-40	25	-33.659	-31.678
-40	30	-28.184	-31.302
-35	-30	-34.054	-22.915
-35	-25	-36.984	-31.269
-35	-20	-39.699	-28.41
-35	-15	-38.812	-33.991
-35	-10	-33.834	-27.33
-35	-5	-30.393	-28.365
-35	0	-34.343	-30.021
-35	5	-43.649	-32.223
-35	10	-33.768	-31.071
-35	15	-29.099	-29.131
-35	20	-34.531	-31.163
-35	25	-28.457	-28.829
-35	30	-37.796	-30.716
-30	-30	-33.741	-26.878
-30	-25	-35.743	-27.108
-30	-20	-34.8	-25.997
-30	-15	-33.728	-27.258
-30	-10	-54.519	-29.334
-30	-5	-38.017	-31.576

-30	0	-40.936	-30.493
-30	5	-39.253	-31.051
-30	10	-31.223	-32.066
-30	15	-28.931	-34.977
-30	20	-34.606	-32.02
-30	25	-36.758	-29.075
-30	30	-29.094	-33.619
-25	-30	-36.501	-24.642
-25	-25	-33.439	-24.641
-25	-20	-37.411	-26.593
-25	-15	-31.935	-28.298
-25	-10	-33.705	-27.544
-25	-5	-30.589	-37.92
-25	0	-31.347	-26.947
-25	5	-39.093	-32.113
-25	10	-38.582	-29.568
-25	15	-35.202	-31.14
-25	20	-41.36	-29.898
-25	25	-35.1	-30.434
-25	30	-25.96	-34.569
-20	-30	-45.885	-22.956
-20	-25	-40.732	-29.255
-20	-20	-33.165	-26.191
-20	-15	-34.492	-27.564
-20	-10	-38.534	-30.612
-20	-5	-31.326	-27.88
-20	0	-30.14	-27.729
-20	5	-29.873	-29.025
-20	10	-33.991	-31.494
-20	15	-35.999	-31.34
-20	20	-34.707	-29.893
-20	25	-40.478	-28.817
-20	30	-36.747	-29.953
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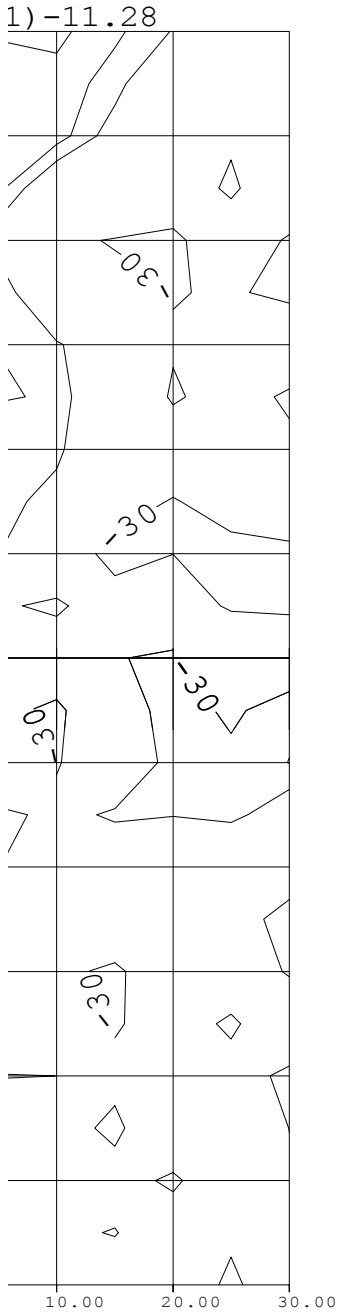
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page)



IN DEG

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

DTV12 OS1 (102.8)

Beam 9, LHCP, 17.695GHz

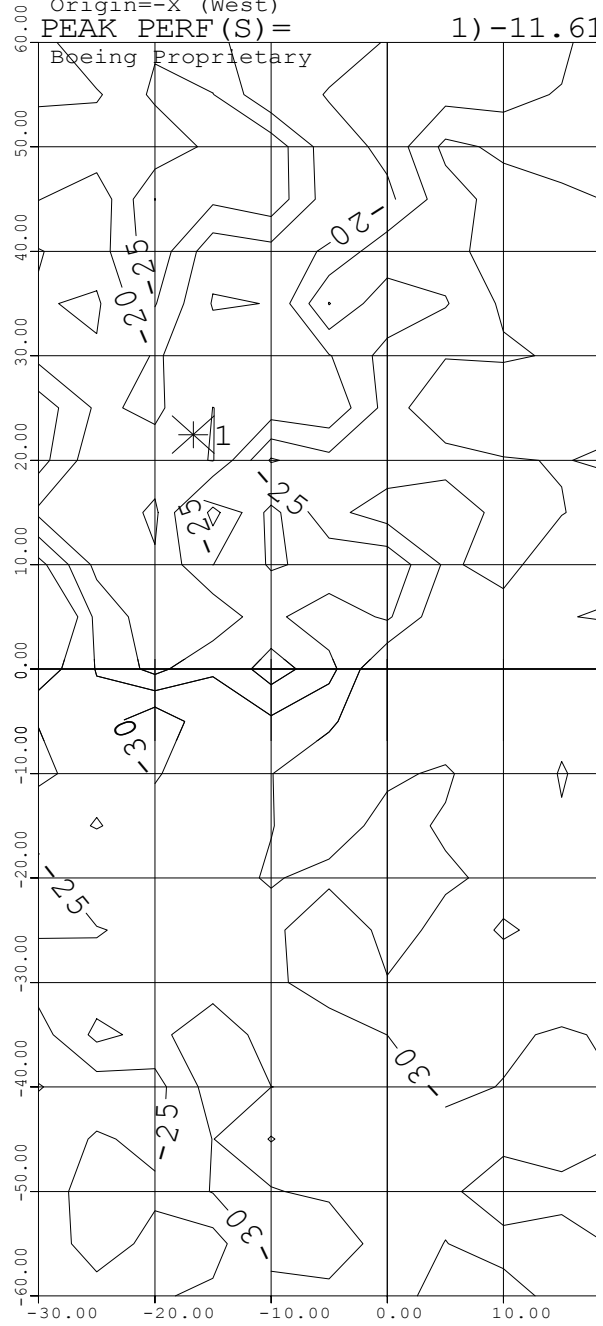
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Origin=-X (West)

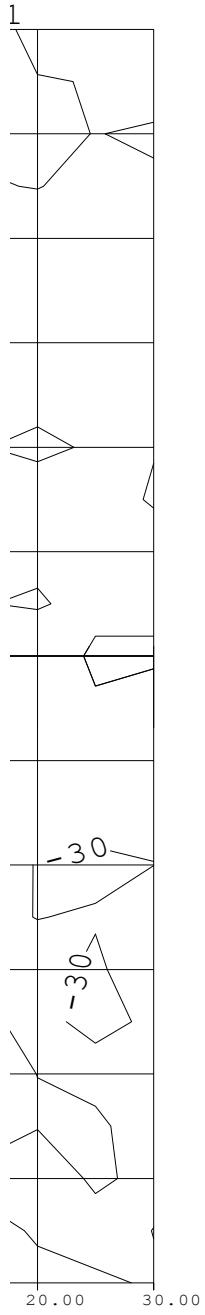
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qq925b FP: May 31 12 3: 6: 4P



BOTH AXES ARE IN DEG

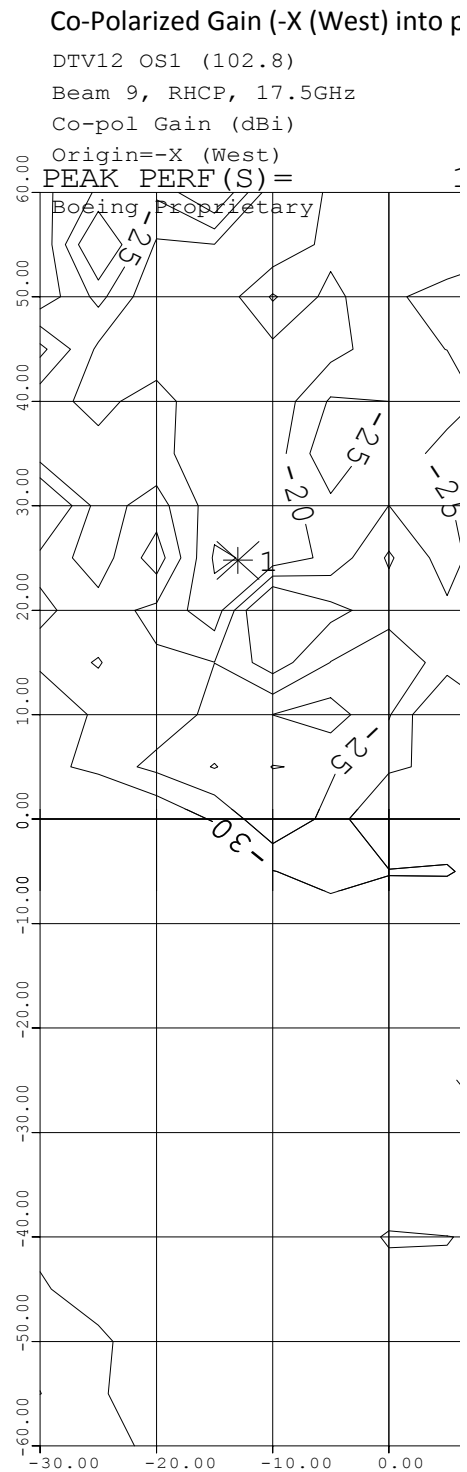


EG

Beam 9 OS1 RHCP 17.5

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FP: May 31 12 3: 5:48P
 qq925b



BOTH AXES ARE

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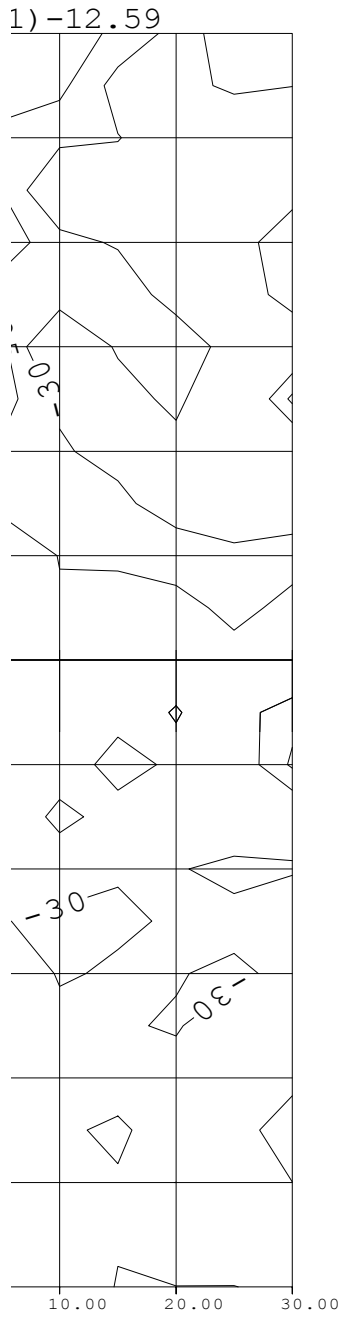
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40	-30	-21.652	-31.284
40	-25	-18.72	-17.585
40	-20	-22.114	-15.523
40	-15	-16.012	-18.187
40	-10	-16.349	-22.731
40	-5	-25.641	-25.249
40	0	-24.994	-47.786
40	5	-22.128	-38.875
40	10	-27.971	-29.72
40	15	-30.684	-28.2
40	20	-30.896	-29.378
40	25	-33.216	-27.546
40	30	-25.461	-30.766
45	-30	-31.537	-20.912
45	-25	-19.006	-24.126
45	-20	-16.892	-16.505
45	-15	-15.843	-16.172
45	-10	-18.67	-16.542
45	-5	-18.108	-19.643
45	0	-23.083	-23.822
45	5	-25.074	-28.879
45	10	-36.362	-27.398
45	15	-32.219	-31.071
45	20	-31.278	-30.193
45	25	-33.104	-27.86
45	30	-32.701	-27.931
50	-30	-16.52	-15.747
50	-25	-26.518	-35.631
50	-20	-15.691	-15.265
50	-15	-15.931	-15.136
50	-10	-25.574	-19.88
50	-5	-18.428	-17.288
50	0	-24.603	-43.119
50	5	-25.905	-28.302
50	10	-28.528	-25.325
50	15	-29.826	-29.466
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55	-30	-15.602	-13.107
55	-25	-37.406	-20.442
55	-20	-19.234	-16.536
55	-15	-19.903	-19.926
55	-10	-15.778	-24.469

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55	20	-31.691	-30.6
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60	-25	-25.784	-23.686
60	-20	-25.967	-19.068
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60	-5	-20.617	-24.321
60	0	-22.702	-26.915
60	5	-20.479	-20.006
60	10	-21.195	-32.148
60	15	-26.401	-30.044
60	20	-31.549	-29.394
60	25	-28.298	-31.194
60	30	-35.883	-27.964

page)



IN DEG

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

DTV12 OS1 (102.8)

Beam 9, RHCP, 17.5GHz

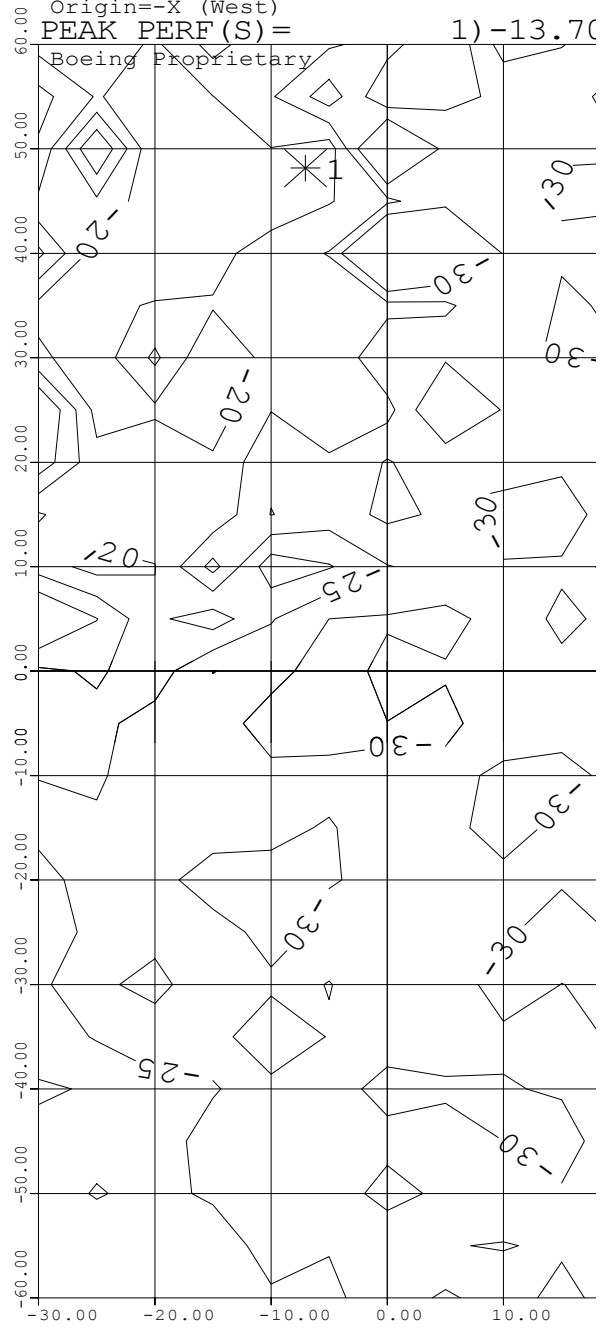
Cross-pol Gain (dBi)

Origin=-X (West)

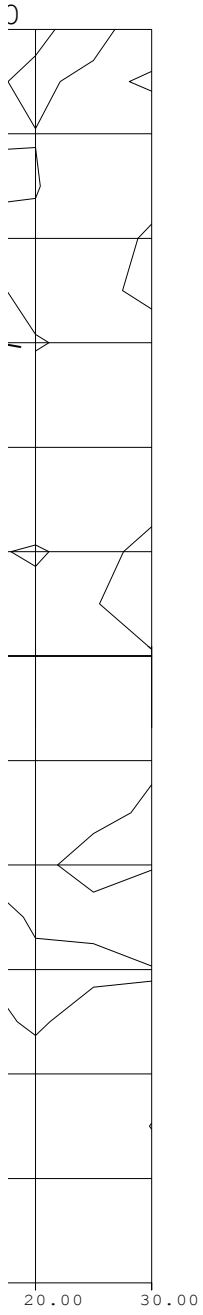
PEAK PERF (S) =

1) -13.70

Boeing Proprietary
FP: May 31 12 3: 5:54P
qq925b



BOTH AXES ARE IN DEG

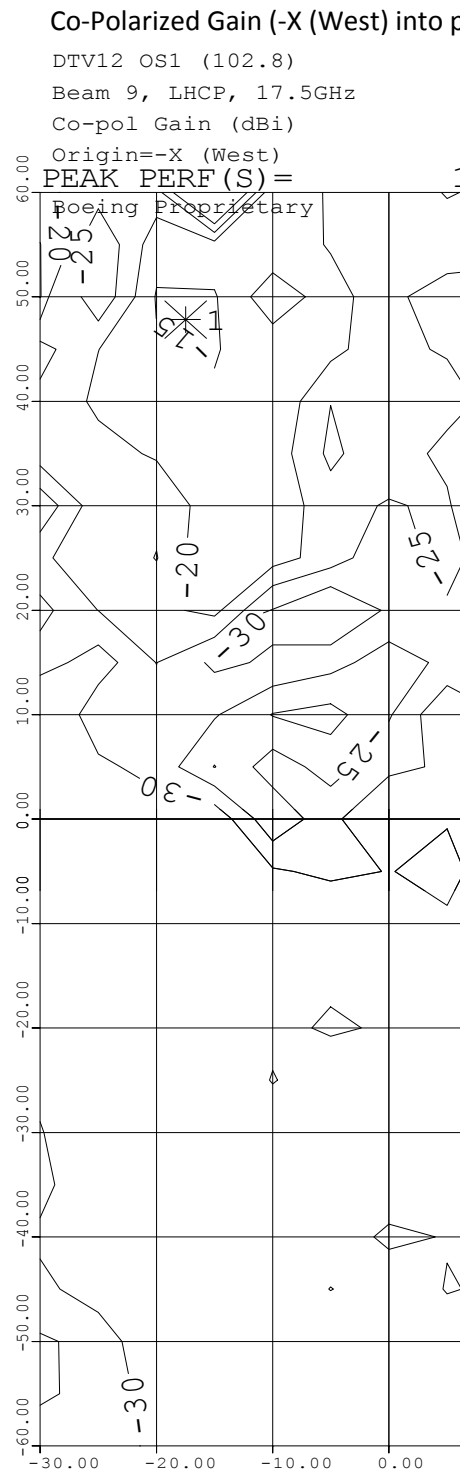


EG

Beam 9 OS1 LHCP 17.5

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
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-60	-25	-26.796	-22.303
-60	-20	-31.298	-21.955
-60	-15	-33.942	-24.299
-60	-10	-34.109	-22.813
-60	-5	-36.107	-23.421
-60	0	-37.055	-29.55
-60	5	-31.485	-23.506
-60	10	-40.774	-27.019
-60	15	-28.784	-29.051
-60	20	-28.342	-25.475
-60	25	-31.631	-31.95
-60	30	-32.616	-28.258
-55	-30	-23.549	-23.468
-55	-25	-27.919	-22.621
-55	-20	-31.444	-21.796
-55	-15	-34.45	-22.32
-55	-10	-47.016	-26.898
-55	-5	-33.319	-24.111
-55	0	-41.446	-27.02
-55	5	-36.732	-30.207
-55	10	-32.907	-31.552
-55	15	-33.156	-30.705
-55	20	-43.297	-29.64
-55	25	-41.386	-25.949
-55	30	-32.553	-25.608
-50	-30	-24.354	-22.12
-50	-25	-26.384	-26.099
-50	-20	-35.246	-23.6
-50	-15	-48.087	-25.382
-50	-10	-33.393	-24.118
-50	-5	-39.86	-27.049
-50	0	-31.085	-30.919
-50	5	-34.896	-30.011
-50	10	-42.812	-26.113
-50	15	-29.833	-28.484
-50	20	-31.991	-30.978
-50	25	-37.685	-25.749
-50	30	-31.879	-29.851
-45	-30	-28.505	-21.069

FP: May 31 12 3: 5:38P
 qq925b



BOTH AXES ARE

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-45	0	-36.162	-29.463
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-45	15	-26.424	-29.481
-45	20	-40.374	-26.368
-45	25	-35.647	-27.903
-45	30	-26.286	-33.668
-40	-30	-31.109	-18.944
-40	-25	-40.752	-20.374
-40	-20	-38.408	-23.829
-40	-15	-35.108	-23.608
-40	-10	-45.332	-28.449
-40	-5	-35.658	-27.777
-40	0	-28.025	-29.341
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-40	10	-32.794	-30.447
-40	15	-34.677	-28.193
-40	20	-38.23	-28.054
-40	25	-39.006	-29.078
-40	30	-29.362	-27.219
-35	-30	-28.069	-21.456
-35	-25	-35.812	-25.278
-35	-20	-36.599	-28.097
-35	-15	-47.533	-27.421
-35	-10	-31.409	-33.734
-35	-5	-33.469	-32.248
-35	0	-36.108	-27.516
-35	5	-47.638	-26.913
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-35	15	-28.682	-26.243
-35	20	-27.403	-29.877
-35	25	-39.858	-26.733
-35	30	-30.885	-29.401
-30	-30	-29.843	-24.142
-30	-25	-32.223	-27.468
-30	-20	-38.473	-23.275
-30	-15	-37.212	-31.261
-30	-10	-37.269	-28.082
-30	-5	-33.08	-29.661

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-30	30	-32.812	-28.421
-25	-30	-30.598	-22.929
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-25	-20	-42.779	-27.033
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-25	10	-29.452	-30.939
-25	15	-26.301	-34.692
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-25	25	-35.245	-28.456
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-20	-20	-40.601	-28.543
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0	25	-32.373	-28.459
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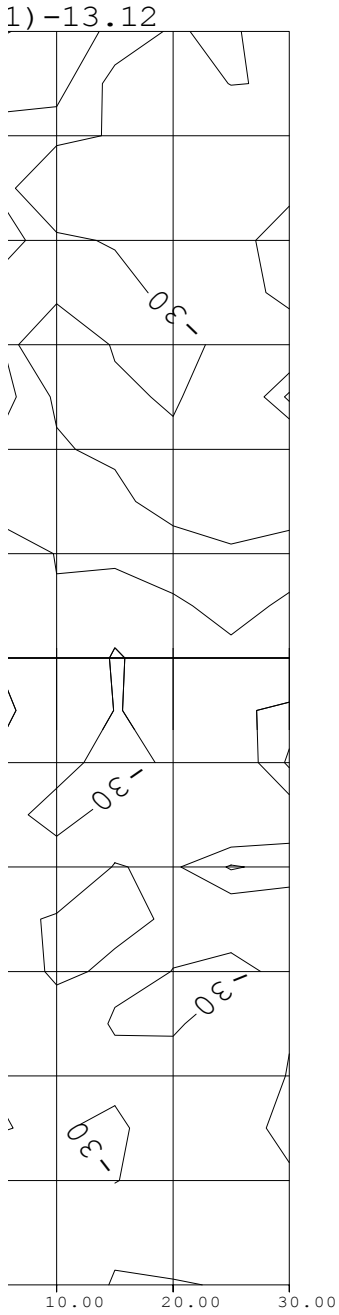
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25	-5	-22.435	-23.133
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45	10	-40.783	-29.265
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55	5	-22.313	-24.314
55	10	-23.009	-25.258
55	15	-31.949	-29.512
55	20	-32.268	-30.351
55	25	-29.876	-30.206
55	30	-30.288	-30.293
60	-30	-18.602	-17.627
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60	-5	-20.737	-20.072
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60	5	-19.698	-19.837
60	10	-21.104	-30.86
60	15	-26.463	-28.333
60	20	-30.717	-28.788
60	25	-28.287	-30.372
60	30	-38.335	-28.722

page)



IN DEG

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

DTV12 OS1 (102.8)

Beam 9, LHCP, 17.5GHz

Cross-pol Gain (dBi)

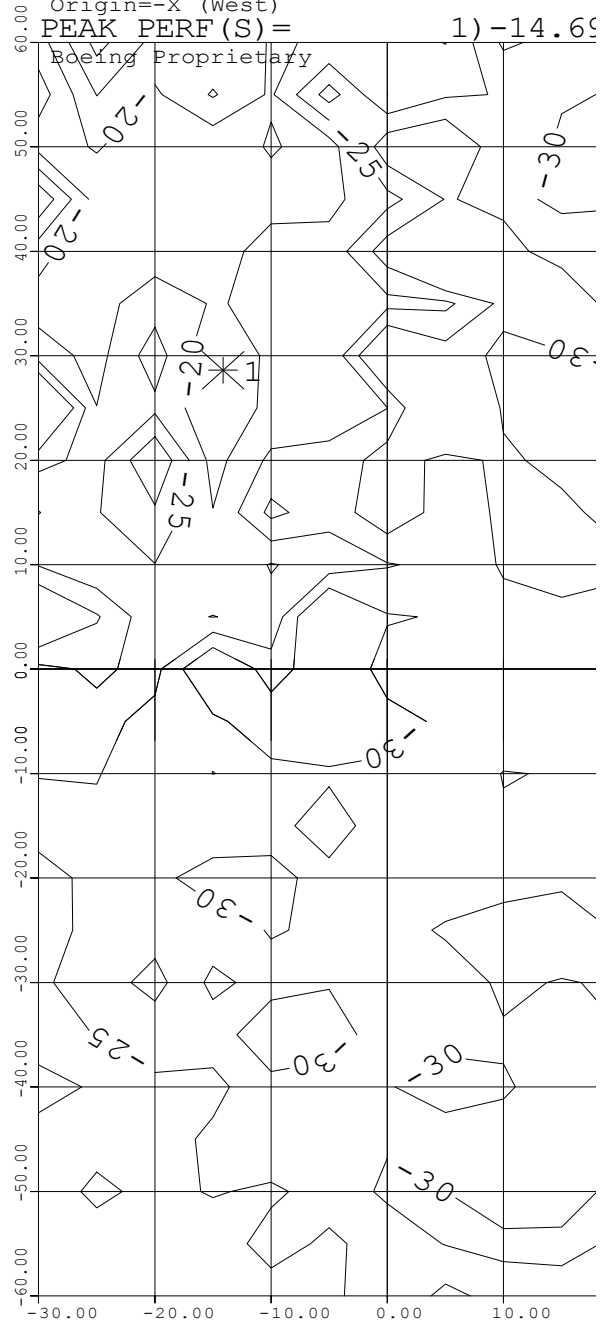
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PEAK PERF(S) =

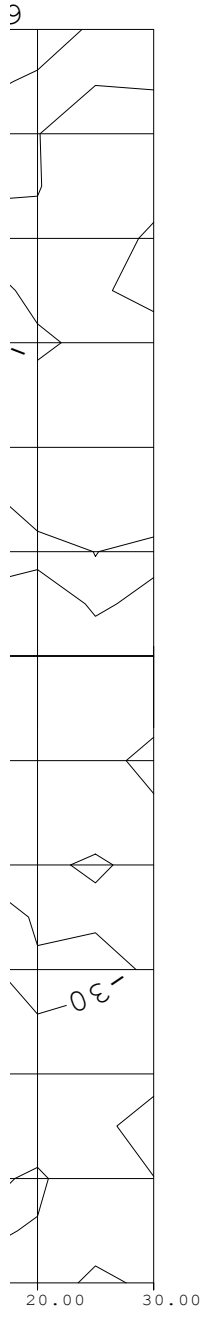
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Boeing Proprietary

qq925b FP: May 31 12 3: 5:43P



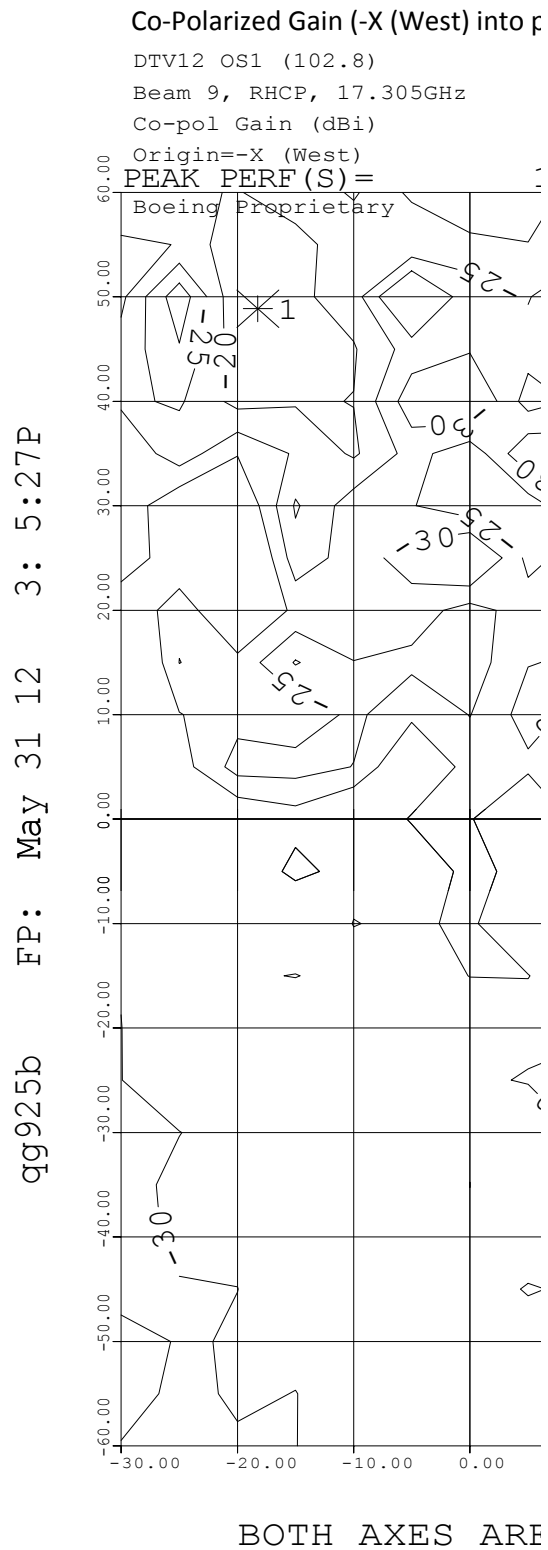
BOTH AXES ARE IN DEG



EG

Beam 9 OS1 RHCP 17.305

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
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-60	-25	-25.431	-19.898
-60	-20	-28.388	-20.44
-60	-15	-29.252	-22.551
-60	-10	-53.521	-21.171
-60	-5	-34.961	-22.766
-60	0	-30.83	-27.695
-60	5	-30.604	-26.219
-60	10	-33.512	-26.034
-60	15	-36.435	-24.481
-60	20	-28.688	-27.571
-60	25	-49.498	-25.28
-60	30	-30.743	-28.308
-55	-30	-22.95	-19.065
-55	-25	-26.136	-19.75
-55	-20	-31.876	-21.385
-55	-15	-29.764	-22.068
-55	-10	-35.761	-24.951
-55	-5	-37.721	-23.389
-55	0	-33.256	-28.126
-55	5	-35	-24.741
-55	10	-37.049	-26.332
-55	15	-36.64	-26.665
-55	20	-34.825	-25.861
-55	25	-33.118	-26.738
-55	30	-29.152	-27.391
-50	-30	-23.183	-20.835
-50	-25	-25.322	-22.688
-50	-20	-33.399	-21.248
-50	-15	-33.254	-24.549
-50	-10	-39.687	-22.313
-50	-5	-32.272	-28.501
-50	0	-46.412	-23.518
-50	5	-36.153	-27.151
-50	10	-33.587	-28.258
-50	15	-29.349	-29.944
-50	20	-34.575	-26.641
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-50	30	-30.206	-27.368
-45	-30	-26.789	-18.539



-45	-25	-29.63	-20.865
-45	-20	-29.818	-22.131
-45	-15	-43.396	-22.145
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-45	-5	-38.852	-24.043
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-45	10	-32.213	-27.924
-45	15	-26.6	-32.014
-45	20	-45.446	-25.443
-45	25	-30.942	-27.26
-45	30	-24.558	-30.061
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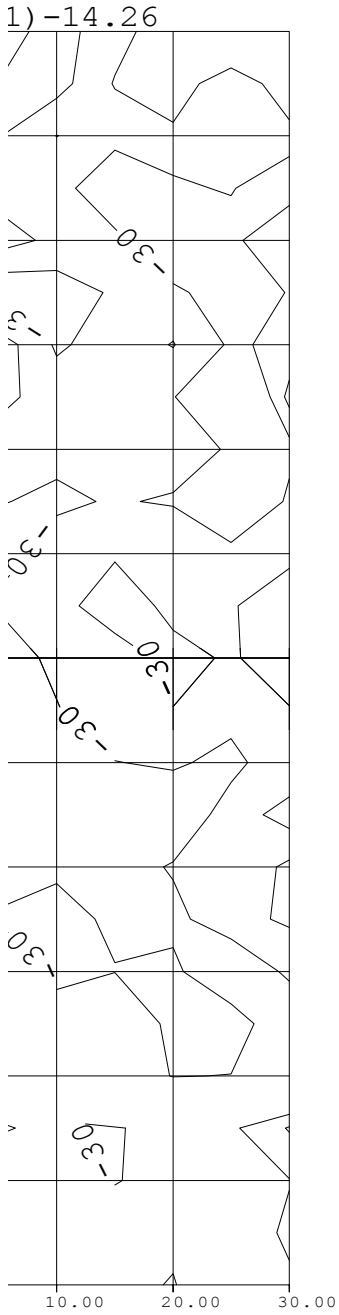
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page)



IN DEG

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

DTV12 OS1 (102.8)

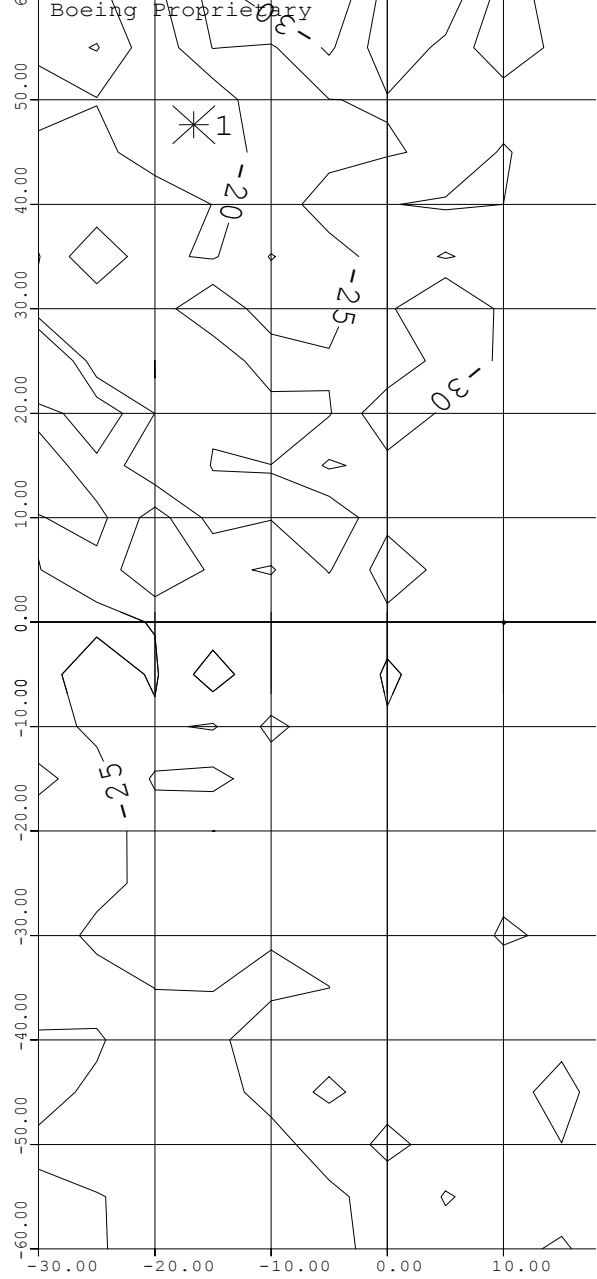
Beam 9, RHCP, 17.305GHz

Cross-pol Gain (dBi)

Origin=-X (West)

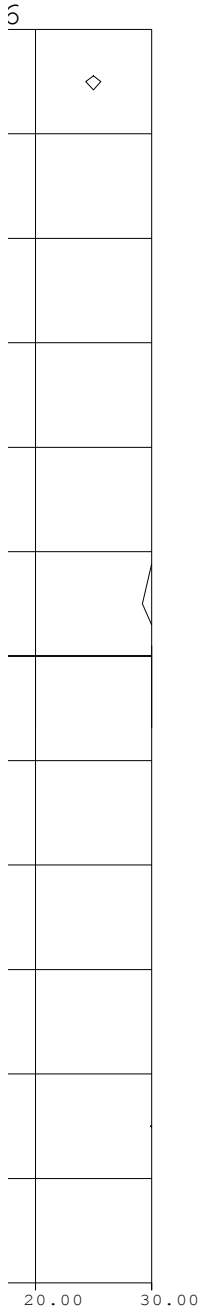
PEAK PERF (S) =

1) -14.86



BOTH AXES ARE IN DEG

FP: May 31 12 3: 5:33P
qq925b

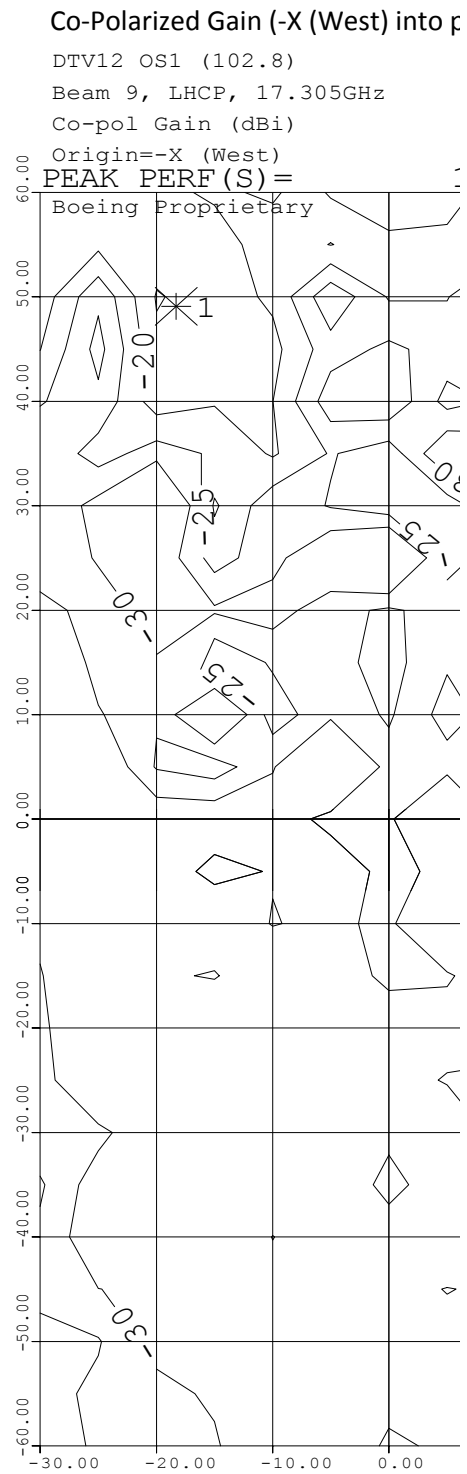


EG

Beam 9 OS1 LHCP 17.305

Z-Rotation (Deg.)	Y-Rotation (Deg.)	Co-pol Gain (dBi)	Cross-pol Gain (dBi)
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-55	-25	-26.084	-19.916
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qg925b FP: May 31 12 3: 5:16P



BOTH AXES ARE

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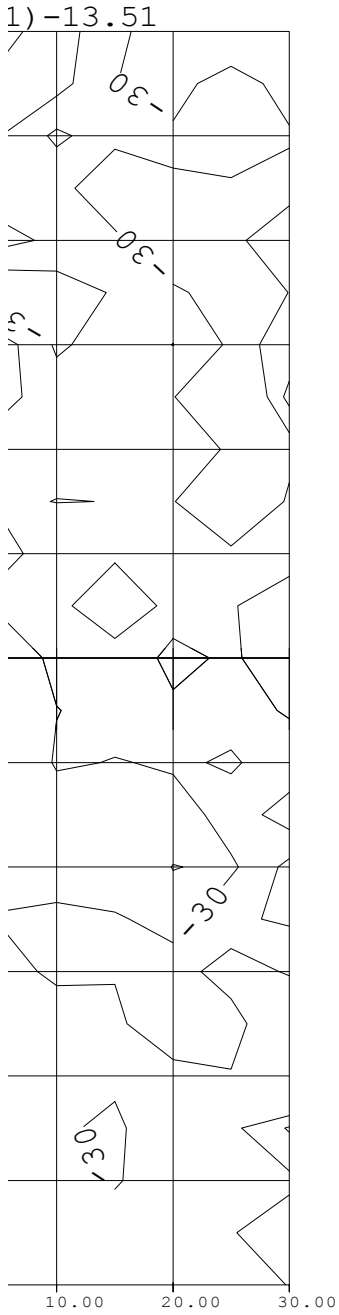
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10	20	-25.854	-27.742
10	25	-27.105	-28.126
10	30	-26.235	-28.734
15	-30	-38.552	-21.69
15	-25	-27.58	-33.462
15	-20	-29.561	-19.501
15	-15	-20.139	-24.695
15	-10	-25.696	-22.855
15	-5	-26.686	-33.114
15	0	-23.106	-31.074
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15	10	-30.086	-27.59
15	15	-29.952	-28.803
15	20	-29.338	-26.668
15	25	-47.287	-26.856
15	30	-28.227	-27.274
20	-30	-32.438	-23.692
20	-25	-27.162	-39.209
20	-20	-32.466	-26.374
20	-15	-30.689	-26.129
20	-10	-32.496	-22.808
20	-5	-26.726	-25.511
20	0	-24.111	-33.139
20	5	-27.546	-29.555

20	10	-28.499	-28.618
20	15	-28.713	-29.572
20	20	-27.944	-27.886
20	25	-30.472	-28.747
20	30	-33.164	-25.653
25	-30	-25.455	-34.282
25	-25	-30.575	-20.53
25	-20	-34.519	-24.558
25	-15	-22.773	-20.053
25	-10	-28.234	-27.2
25	-5	-35.914	-27.502
25	0	-42.543	-27.521
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25	20	-29.587	-26.984
25	25	-41.09	-27.578
25	30	-23.225	-29.186
30	-30	-25.588	-22.095
30	-25	-31.816	-21.126
30	-20	-45.025	-25.841
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30	-10	-28.404	-19.86
30	-5	-24.608	-21.803
30	0	-21.31	-34.219
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30	10	-30.711	-28.171
30	15	-27.979	-29.648
30	20	-24.902	-29.395
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30	30	-29.114	-26.181
35	-30	-29.352	-19.965
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35	-20	-27.521	-22.69
35	-15	-24.26	-19.274
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35	30	-29.892	-29.557

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45	-15	-17.233	-15.948
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45	15	-38.274	-26.823
45	20	-30.509	-27.039
45	25	-30.418	-27.6
45	30	-31.885	-27.574
50	-30	-17.131	-15.377
50	-25	-28.99	-21.648
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50	0	-24.509	-26.154
50	5	-24.759	-30.915
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50	15	-27.14	-29.718
50	20	-29.169	-27.743
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55	-10	-23.773	-26.157

55	-5	-19.799	-26.729
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55	25	-27.215	-30.234
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60	10	-22.904	-33.151
60	15	-28.209	-28.579
60	20	-34.554	-27.844
60	25	-35.698	-26.921
60	30	-28.561	-30.328

page)



IN DEG

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

DTU12 OS1 (102.8)

Beam 9, LHCP, 17.305GHz

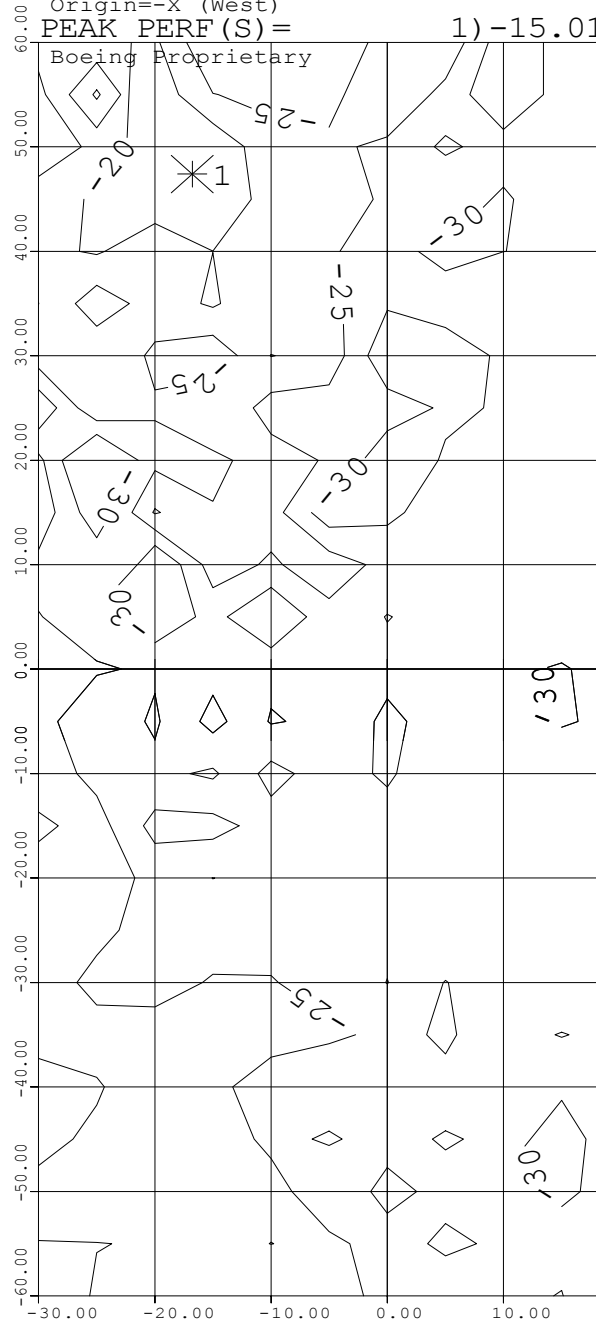
Cross-pol Gain (dBi)

Origin=-X (West)

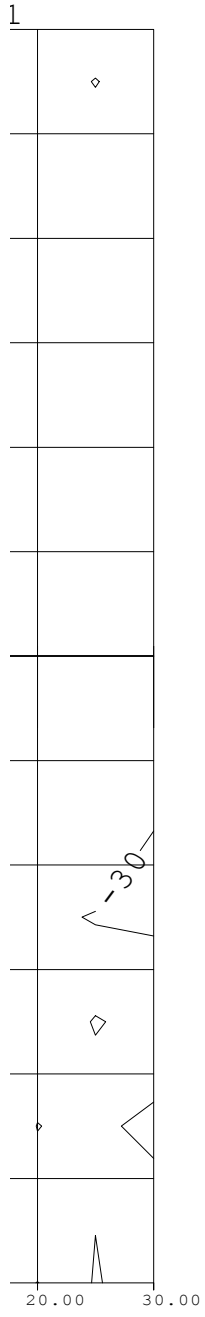
PEAK PERF (S) =

1) -15.01

qq925b FP: May 31 12 3: 5:22P



BOTH AXES ARE IN DEG



EG