Certificate of Calibration

Customer Address:	Rental Unit
Certificate:	2501171CC
Product:	Active Horn Antenna
Manufacturer:	The EMC Shop
Model:	AH18G
Serial:	2030008000021 / 00153
Notes:	0.7 - 18GHz 1 and 3 Meter Measurements
Date of Calibration:	1/17/2025
Next Calibration:	

The next calibration date is defined by the equipment user/owner.

The above equipment was tested and found to be within the Manufacturer's specification. The results of the tests performed are held on file at The EMC Shop. The Calibration was carried out in accordance with the general requirements of ANSI C63.5-2017 using laboratory standards which are traceable to the National Institute of Standards and Technology (NIST) except where none exist. Tests are carried out in environmental conditions controlled appropriately to the instrument's specification.

Calibration Equipment

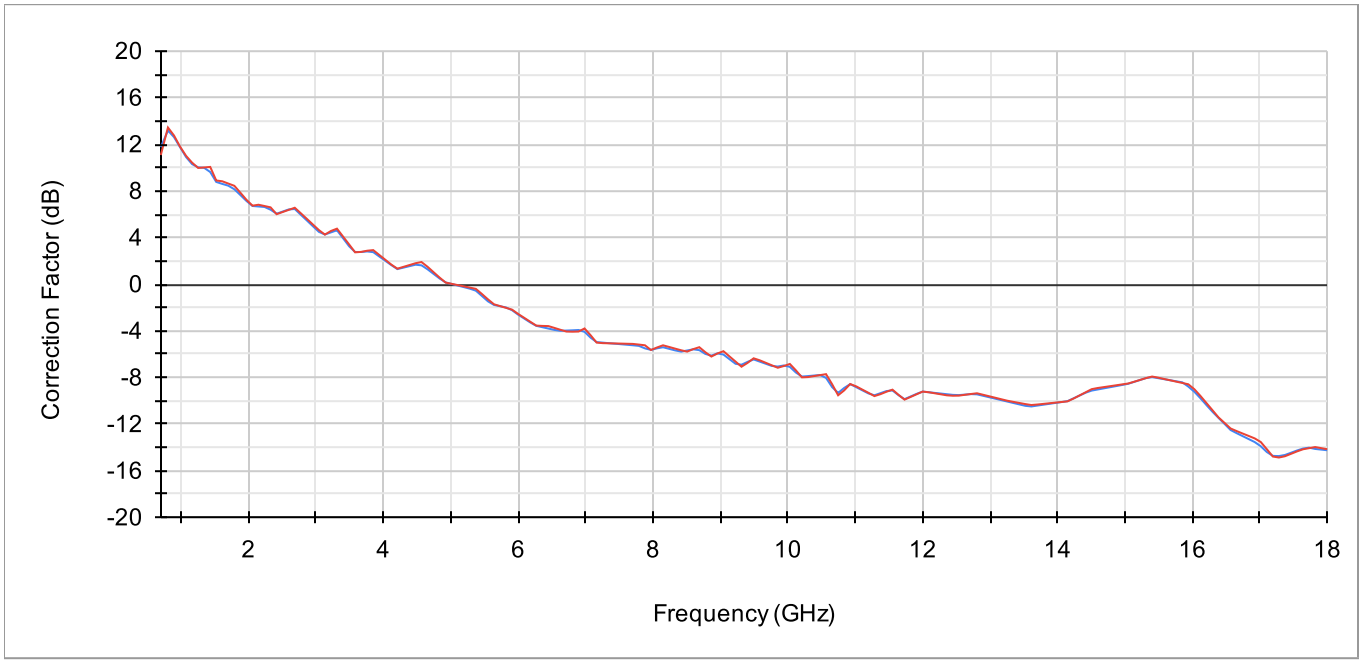
Model	Description	Serial Number	Due Date
ZNB40	Rohde & Schwarz Vector Analyzer	101491	9/25/2025
DRHA18G	Horn Antenna	203000800009	8/5/2025
F606TS	Calibration Kit	F606TS23120088	9/27/2025

Ambient Conditions of Laboratory	
Temperature (°C):	**22.0**
Relative Humidity (%):	**38**

Technician: **Caleb Crites**

Signature: Caleb B Crites

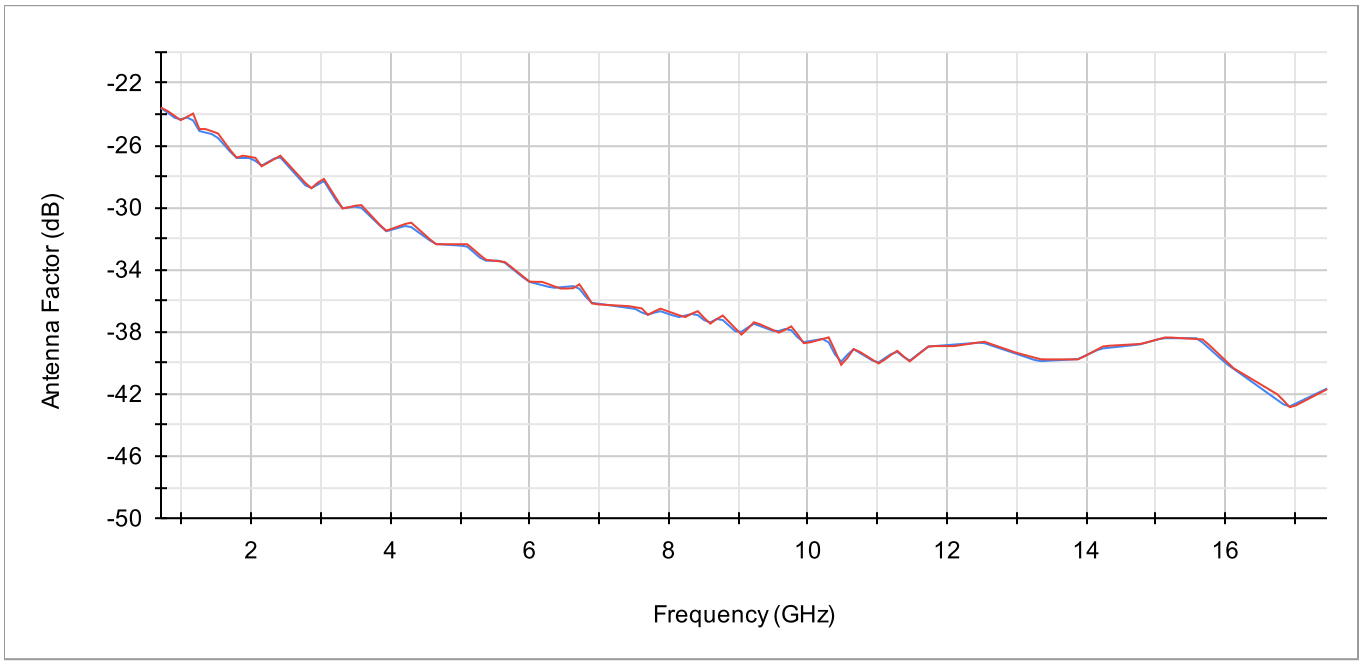
Correction Factor (Pre-Amp Active)



Correction Factor (1m) **Correction Factor (3m)**

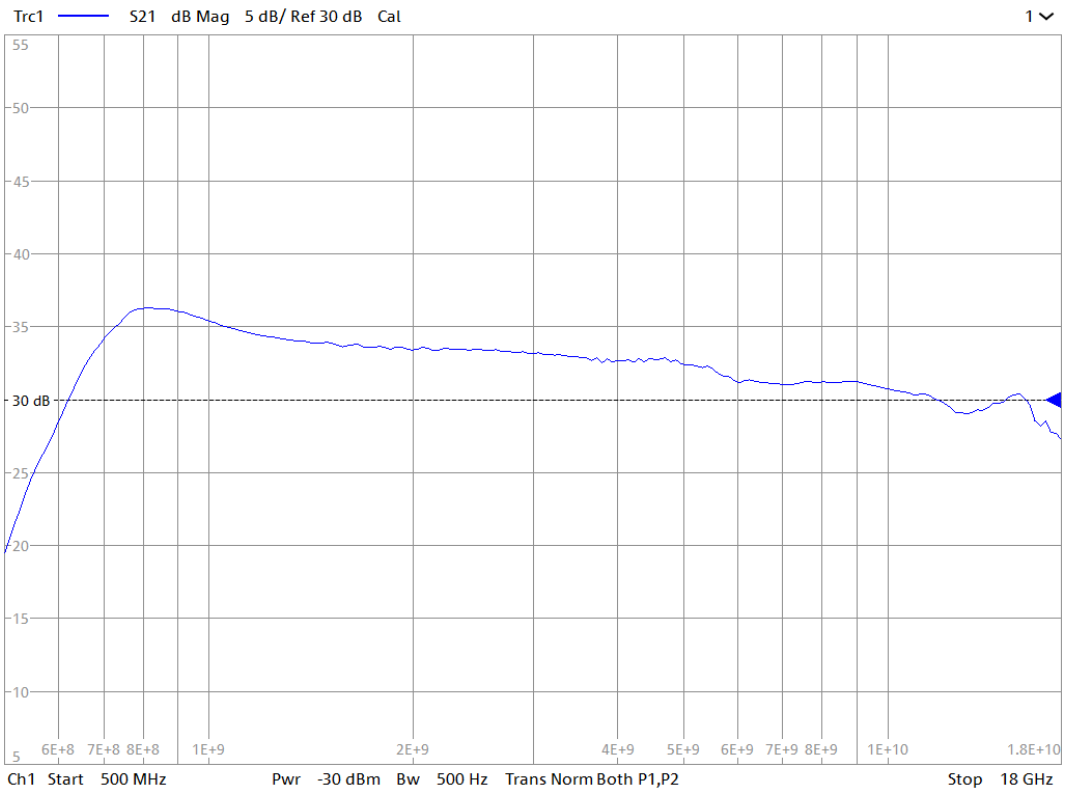
**The correction factor is calculated by subtracting the antenna factor from the gain of the pre-amplifier*

Antenna Factor (Pre-Amp Inactive)

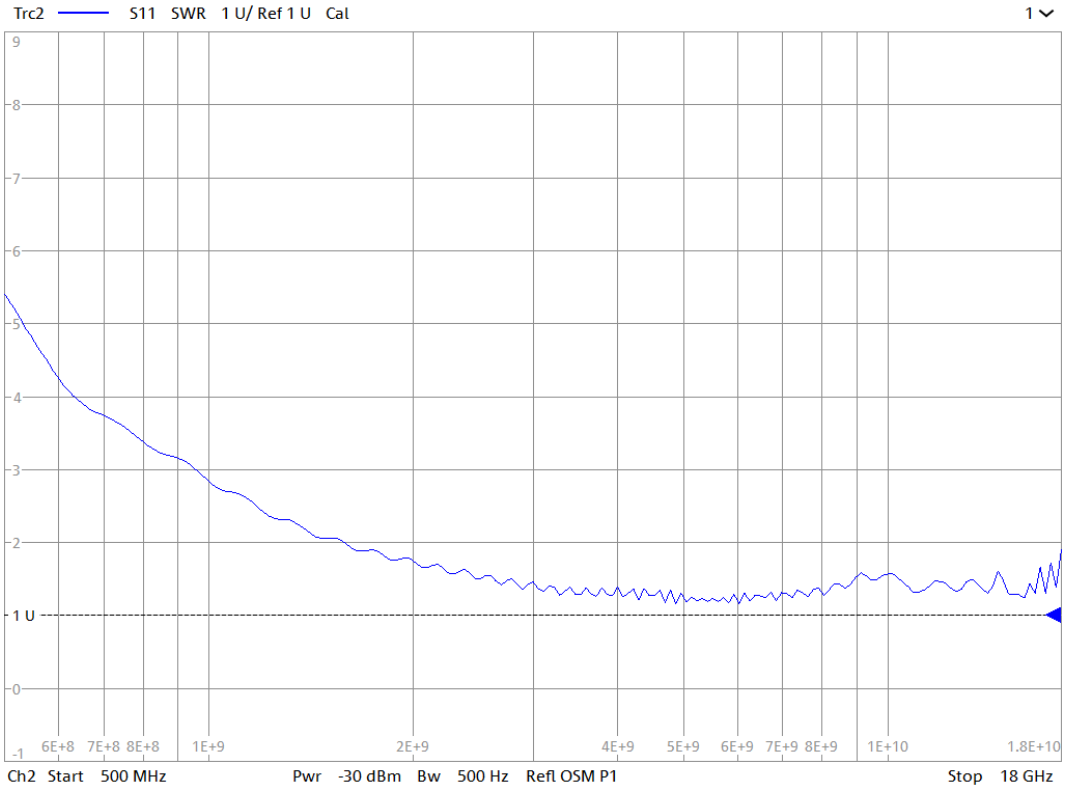


Antenna Factor (1m) **Antenna Factor (3m)**

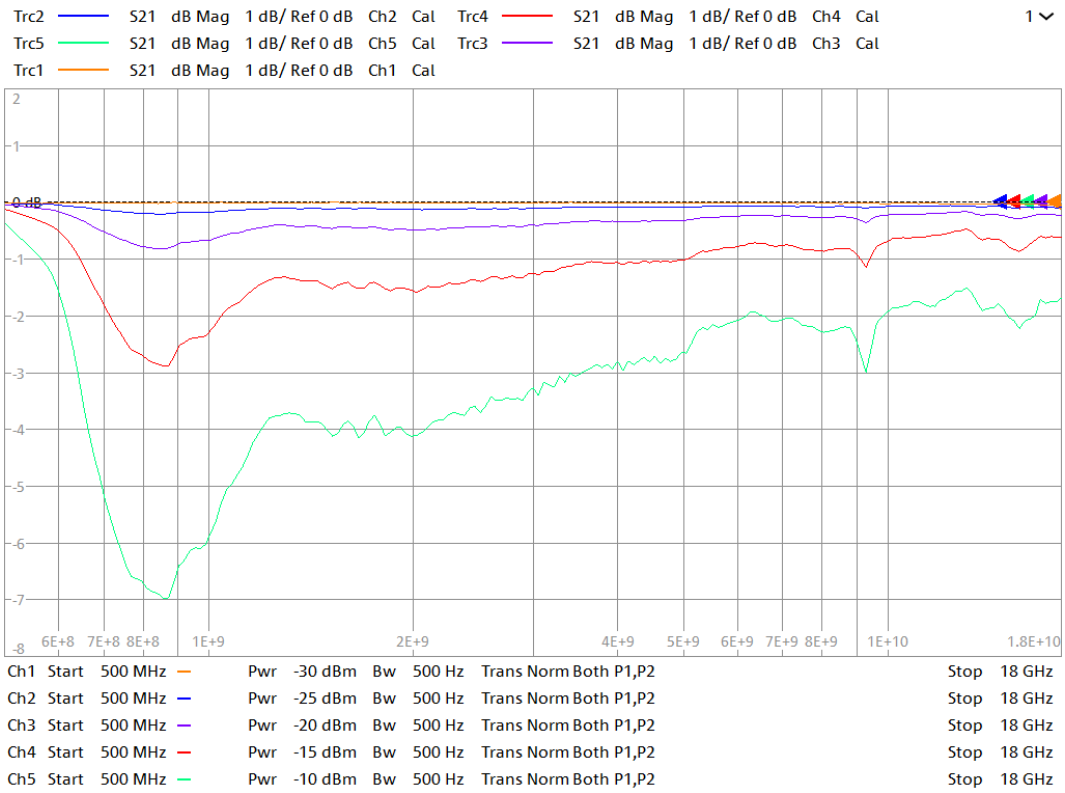
Pre-Amplifier Small Signal Gain at -30dBm Input



Pre-Amplifier Input VSWR



Pre-Amplifier Compression



Frequency (GHz)	Pre-Amp Gain (dB)	Antenna Factor (Inactive) (dB)		Correction Factor (Active) (dB)	
		1m	3m	1m	3m
0.700	35.892	-24.131	-24.814	11.761	11.078
0.806	36.175	-22.995	-22.736	13.180	13.439
0.896	35.915	-23.303	-23.163	12.612	12.752
0.985	35.368	-23.611	-23.566	11.757	11.802
1.075	34.821	-23.919	-23.816	10.902	11.005
1.164	34.525	-24.227	-24.100	10.298	10.425
1.254	34.357	-24.335	-24.385	10.022	9.972
1.343	34.189	-24.207	-24.176	9.982	10.013
1.433	34.021	-24.401	-23.963	9.620	10.058
1.522	33.853	-25.082	-24.957	8.771	8.896
1.612	33.783	-25.182	-24.957	8.601	8.826
1.701	33.730	-25.281	-25.098	8.449	8.632
1.791	33.677	-25.535	-25.240	8.142	8.437
1.881	33.625	-25.983	-25.782	7.642	7.843
1.970	33.572	-26.431	-26.330	7.141	7.242
2.060	33.527	-26.819	-26.793	6.708	6.734
2.149	33.484	-26.819	-26.669	6.665	6.815
2.239	33.441	-26.819	-26.737	6.622	6.704
2.328	33.399	-27.009	-26.808	6.390	6.591
2.418	33.356	-27.309	-27.351	6.047	6.005
2.507	33.313	-27.085	-27.124	6.228	6.189
2.597	33.271	-26.861	-26.898	6.410	6.373
2.687	33.228	-26.779	-26.671	6.449	6.557
2.776	33.185	-27.227	-27.097	5.958	6.088
2.866	33.143	-27.675	-27.537	5.468	5.606
2.955	33.100	-28.123	-27.976	4.977	5.124
3.045	33.057	-28.571	-28.416	4.486	4.641
3.134	33.015	-28.752	-28.761	4.263	4.254
3.224	32.972	-28.528	-28.406	4.444	4.566
3.313	32.929	-28.304	-28.165	4.625	4.764
3.403	32.887	-28.942	-28.799	3.945	4.088
3.493	32.844	-29.589	-29.433	3.255	3.411
3.582	32.801	-30.041	-30.067	2.760	2.734
3.672	32.759	-29.997	-29.989	2.762	2.770
3.761	32.760	-29.952	-29.889	2.808	2.871
3.851	32.773	-30.024	-29.849	2.749	2.924
3.940	32.786	-30.408	-30.276	2.378	2.510
4.030	32.799	-30.792	-30.703	2.007	2.096
4.119	32.812	-31.175	-31.130	1.637	1.682

4.209	32.825	-31.530	-31.494	1.295	1.331
4.299	32.839	-31.418	-31.352	1.421	1.487
4.388	32.852	-31.306	-31.210	1.546	1.642
4.478	32.865	-31.194	-31.067	1.671	1.798
4.567	32.878	-31.261	-30.978	1.617	1.900
4.657	32.825	-31.549	-31.334	1.276	1.491
4.746	32.718	-31.837	-31.690	0.881	1.028
4.836	32.610	-32.125	-32.046	0.485	0.564
4.925	32.503	-32.351	-32.365	0.152	0.138
5.015	32.395	-32.378	-32.365	0.017	0.030
5.104	32.288	-32.404	-32.365	-0.116	-0.077
5.194	32.180	-32.430	-32.365	-0.250	-0.185
5.284	32.073	-32.457	-32.365	-0.384	-0.292
5.373	31.965	-32.522	-32.365	-0.557	-0.400
5.463	31.858	-32.870	-32.699	-1.012	-0.841
5.552	31.750	-33.219	-33.047	-1.469	-1.297
5.642	31.643	-33.423	-33.366	-1.780	-1.723
5.731	31.535	-33.423	-33.412	-1.888	-1.877
5.821	31.428	-33.423	-33.457	-1.995	-2.029
5.910	31.320	-33.552	-33.502	-2.232	-2.182
6.000	31.260	-33.872	-33.810	-2.612	-2.550
6.090	31.247	-34.192	-34.130	-2.945	-2.883
6.179	31.234	-34.512	-34.450	-3.278	-3.216
6.269	31.221	-34.791	-34.770	-3.570	-3.549
6.358	31.208	-34.894	-34.786	-3.686	-3.578
6.448	31.194	-34.997	-34.786	-3.803	-3.592
6.537	31.181	-35.101	-34.928	-3.920	-3.747
6.627	31.168	-35.166	-35.078	-3.998	-3.910
6.716	31.155	-35.131	-35.214	-3.976	-4.059
6.806	31.142	-35.097	-35.214	-3.955	-4.072
6.896	31.135	-35.062	-35.192	-3.927	-4.057
6.985	31.146	-35.229	-34.943	-4.083	-3.797
7.075	31.156	-35.741	-35.534	-4.585	-4.378
7.164	31.167	-36.133	-36.174	-4.966	-5.007
7.254	31.178	-36.189	-36.233	-5.011	-5.055
7.343	31.188	-36.245	-36.257	-5.057	-5.069
7.433	31.199	-36.301	-36.281	-5.102	-5.082
7.522	31.210	-36.357	-36.304	-5.147	-5.094
7.612	31.220	-36.413	-36.328	-5.193	-5.108
7.701	31.231	-36.469	-36.352	-5.238	-5.121
7.791	31.242	-36.532	-36.420	-5.290	-5.178
7.881	31.252	-36.756	-36.491	-5.504	-5.239
7.970	31.263	-36.897	-36.906	-5.634	-5.643
8.060	31.267	-36.769	-36.693	-5.502	-5.426

8.149	31.267	-36.675	-36.507	-5.408	-5.240
8.239	31.267	-36.809	-36.649	-5.542	-5.382
8.328	31.267	-36.944	-36.792	-5.677	-5.525
8.418	31.267	-37.050	-36.934	-5.783	-5.667
8.507	31.267	-36.951	-37.049	-5.684	-5.782
8.597	31.267	-36.851	-36.836	-5.584	-5.569
8.687	31.267	-36.924	-36.670	-5.657	-5.403
8.776	31.267	-37.244	-37.097	-5.977	-5.830
8.866	31.267	-37.398	-37.472	-6.131	-6.205
8.955	31.242	-37.174	-37.188	-5.932	-5.946
9.045	31.206	-37.241	-36.952	-6.035	-5.746
9.134	31.170	-37.599	-37.360	-6.429	-6.190
9.224	31.134	-37.958	-37.767	-6.824	-6.633
9.313	31.098	-38.003	-38.175	-6.905	-7.077
9.403	31.062	-37.723	-37.810	-6.661	-6.748
9.493	31.027	-37.479	-37.383	-6.452	-6.356
9.582	30.991	-37.628	-37.515	-6.637	-6.524
9.672	30.955	-37.777	-37.693	-6.822	-6.738
9.761	30.919	-37.927	-37.871	-7.008	-6.952
9.851	30.883	-37.945	-38.049	-7.062	-7.166
9.940	30.847	-37.817	-37.866	-6.970	-7.019
10.030	30.812	-37.900	-37.652	-7.088	-6.840
10.119	30.776	-38.348	-38.159	-7.572	-7.383
10.209	30.740	-38.661	-38.729	-7.921	-7.989
10.299	30.712	-38.592	-38.677	-7.880	-7.965
10.388	30.689	-38.523	-38.570	-7.834	-7.881
10.478	30.665	-38.455	-38.463	-7.790	-7.798
10.567	30.642	-38.678	-38.357	-8.036	-7.715
10.657	30.618	-39.445	-39.195	-8.827	-8.577
10.746	30.594	-39.918	-40.120	-9.324	-9.526
10.836	30.571	-39.470	-39.679	-8.899	-9.108
10.925	30.547	-39.116	-39.109	-8.569	-8.562
11.015	30.524	-39.358	-39.287	-8.834	-8.763
11.104	30.500	-39.599	-39.536	-9.099	-9.036
11.194	30.477	-39.840	-39.786	-9.363	-9.309
11.284	30.439	-39.967	-40.035	-9.528	-9.596
11.373	30.351	-39.698	-39.785	-9.347	-9.434
11.463	30.263	-39.429	-39.486	-9.166	-9.223
11.552	30.176	-39.287	-39.221	-9.111	-9.045
11.642	30.088	-39.607	-39.576	-9.519	-9.488
11.731	30.000	-39.858	-39.899	-9.858	-9.899
11.821	29.913	-39.544	-39.582	-9.631	-9.669
11.910	29.825	-39.231	-39.265	-9.406	-9.440
12.000	29.737	-38.946	-38.948	-9.209	-9.211

12.090	29.650	-38.915	-38.917	-9.265	-9.267
12.179	29.562	-38.884	-38.917	-9.322	-9.355
12.269	29.475	-38.853	-38.917	-9.378	-9.442
12.358	29.387	-38.822	-38.917	-9.435	-9.530
12.448	29.299	-38.791	-38.865	-9.492	-9.566
12.537	29.250	-38.760	-38.806	-9.510	-9.556
12.627	29.261	-38.729	-38.747	-9.468	-9.486
12.716	29.272	-38.699	-38.689	-9.427	-9.417
12.806	29.283	-38.730	-38.638	-9.447	-9.355
12.896	29.294	-38.864	-38.777	-9.570	-9.483
12.985	29.306	-38.998	-38.915	-9.692	-9.609
13.075	29.317	-39.133	-39.053	-9.816	-9.736
13.164	29.328	-39.267	-39.192	-9.939	-9.864
13.254	29.339	-39.401	-39.330	-10.062	-9.991
13.343	29.350	-39.536	-39.440	-10.186	-10.090
13.433	29.362	-39.670	-39.547	-10.308	-10.185
13.522	29.373	-39.804	-39.654	-10.431	-10.281
13.612	29.399	-39.885	-39.761	-10.486	-10.362
13.701	29.453	-39.863	-39.772	-10.410	-10.319
13.791	29.507	-39.842	-39.772	-10.335	-10.265
13.881	29.562	-39.821	-39.772	-10.259	-10.210
13.970	29.616	-39.799	-39.772	-10.183	-10.156
14.060	29.670	-39.778	-39.772	-10.108	-10.102
14.149	29.725	-39.752	-39.772	-10.027	-10.047
14.239	29.779	-39.565	-39.583	-9.786	-9.804
14.328	29.833	-39.379	-39.369	-9.546	-9.536
14.418	29.888	-39.192	-39.156	-9.304	-9.268
14.507	29.941	-39.066	-38.942	-9.125	-9.001
14.597	29.994	-39.023	-38.896	-9.029	-8.902
14.687	30.047	-38.980	-38.873	-8.933	-8.826
14.776	30.099	-38.938	-38.849	-8.839	-8.750
14.866	30.152	-38.895	-38.825	-8.743	-8.673
14.955	30.205	-38.852	-38.801	-8.647	-8.596
15.045	30.257	-38.803	-38.778	-8.546	-8.521
15.134	30.310	-38.691	-38.681	-8.381	-8.371
15.224	30.363	-38.579	-38.574	-8.216	-8.211
15.313	30.415	-38.467	-38.467	-8.052	-8.052
15.403	30.441	-38.410	-38.361	-7.969	-7.920
15.493	30.352	-38.410	-38.368	-8.058	-8.016
15.582	30.262	-38.410	-38.392	-8.148	-8.130
15.672	30.173	-38.410	-38.416	-8.237	-8.243
15.761	30.083	-38.410	-38.440	-8.327	-8.357
15.851	29.994	-38.410	-38.463	-8.416	-8.469
15.940	29.904	-38.686	-38.487	-8.782	-8.583

16.030	29.814	-39.044	-38.823	-9.230	-9.009
16.119	29.628	-39.403	-39.204	-9.775	-9.576
16.209	29.392	-39.761	-39.585	-10.369	-10.193
16.299	29.156	-40.100	-39.966	-10.944	-10.810
16.388	28.920	-40.385	-40.345	-11.465	-11.425
16.478	28.685	-40.670	-40.584	-11.985	-11.899
16.567	28.449	-40.955	-40.823	-12.506	-12.374
16.657	28.465	-41.240	-41.062	-12.775	-12.597
16.746	28.495	-41.525	-41.302	-13.030	-12.807
16.836	28.525	-41.810	-41.541	-13.285	-13.016
16.925	28.555	-42.096	-41.780	-13.541	-13.225
17.015	28.482	-42.381	-42.019	-13.899	-13.537
17.104	28.275	-42.666	-42.421	-14.391	-14.146
17.194	28.068	-42.794	-42.848	-14.726	-14.780
17.284	27.862	-42.602	-42.727	-14.740	-14.865
17.373	27.763	-42.410	-42.519	-14.647	-14.756
17.463	27.763	-42.218	-42.312	-14.455	-14.549
17.552	27.763	-42.026	-42.104	-14.263	-14.341
17.642	27.739	-41.834	-41.896	-14.095	-14.157
17.731	27.627	-41.644	-41.689	-14.017	-14.062
17.821	27.515	-41.644	-41.482	-14.129	-13.967
18.000	27.403	-41.644	-41.553	-14.241	-14.150