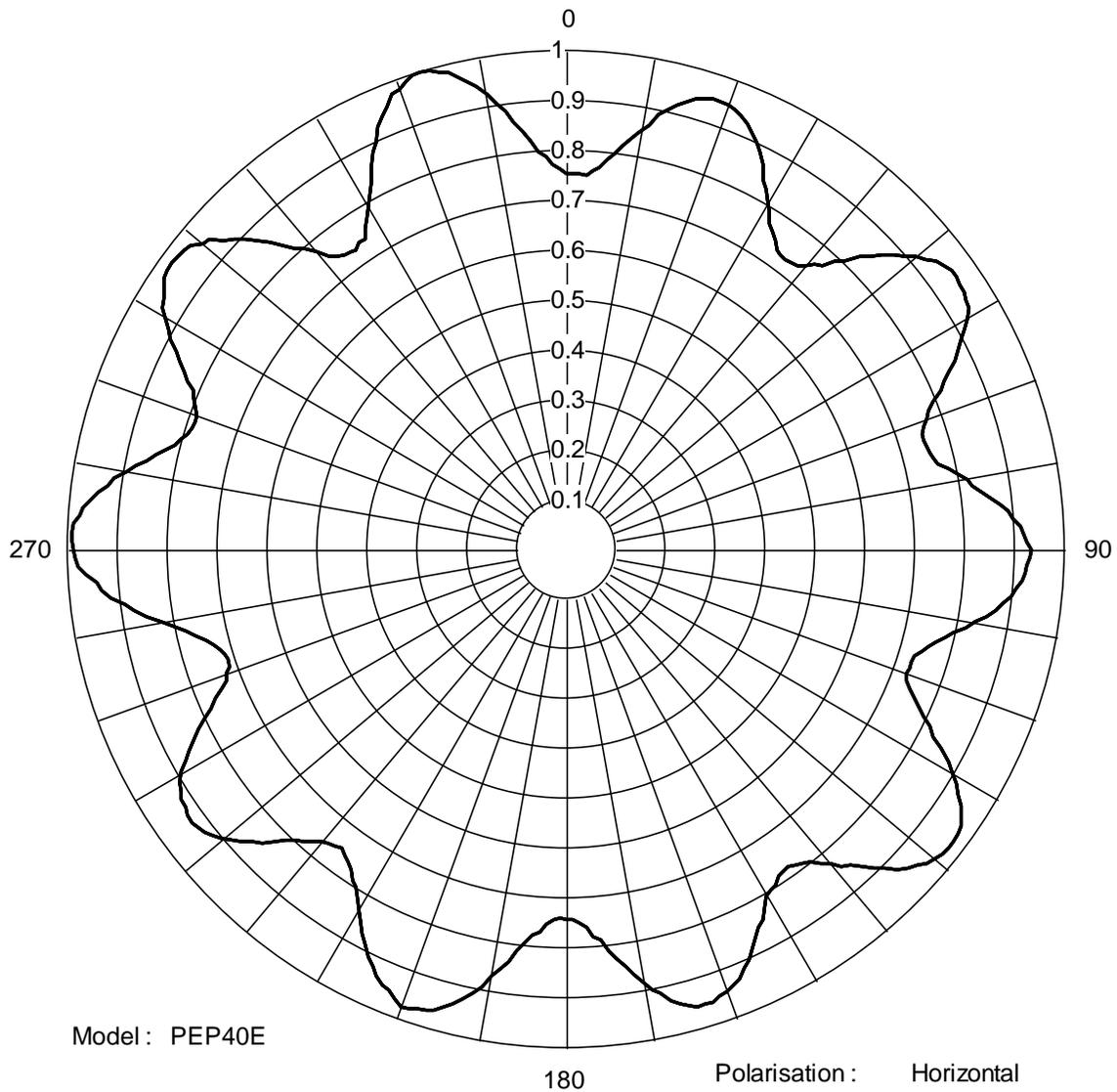


Station : OWTC

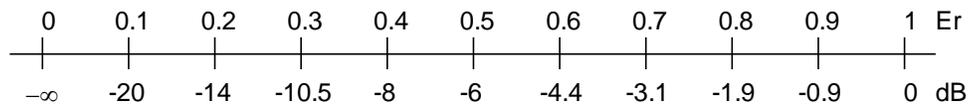
E / Emax

Date : 22/03/2017



Model : PEP40E

Polarisation : Horizontal  
Frequency (MHz) : 551.00  
Directivity : 1.30 dB  
Elevation Angle : 1.0 degrees  
Horizontal Unit Pattern  
File = HPOL gate\_551.pat  
Pattern Tolerance +/- 5% of Emax



Voltage and Power Ratios  
0 dB = Max ERP  
Directivity : 1.30 dB

Model:  
 Location:  
 Customer:  
 Date: **April 4, 2017**

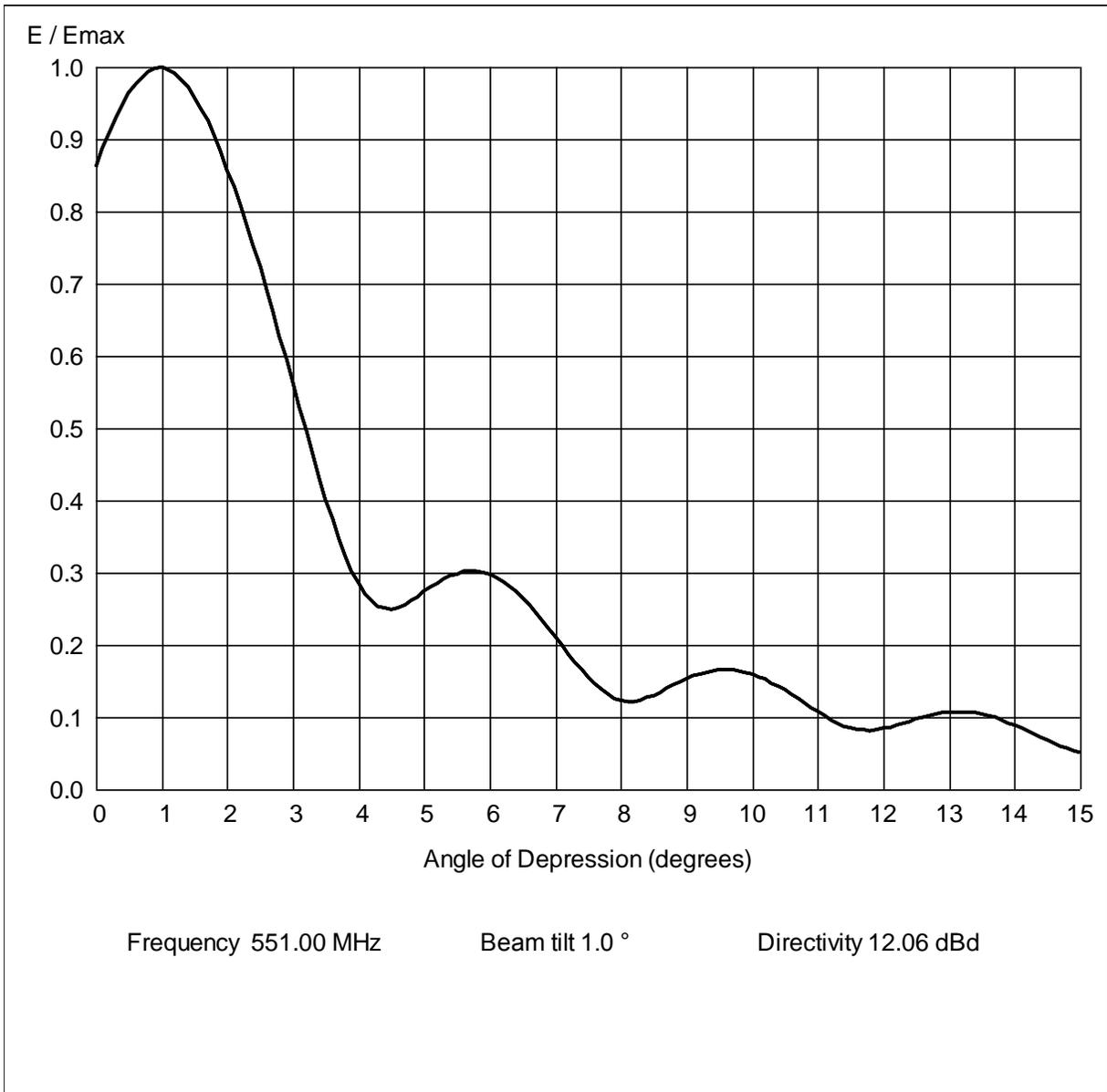
Polarisation: **Horizontal**  
 Frequency (MHz): **551.00**  
 Directivity: **1.3 (1.30 dB)**  
 Elevation Angle: **1.00 degrees**  
 Rotation Angle: **19 degrees**



**TABULATED AZIMUTH PATTERN**

Angl	Field														
0	0.754	45	0.829	90	0.930	135	0.903	180	0.740	225	0.825	270	0.987	315	0.876
1	0.753	46	0.846	91	0.927	136	0.888	181	0.738	226	0.845	271	0.991	316	0.856
2	0.754	47	0.864	92	0.923	137	0.869	182	0.741	227	0.858	272	0.992	317	0.833
3	0.751	48	0.884	93	0.922	138	0.850	183	0.752	228	0.873	273	0.987	318	0.813
4	0.760	49	0.897	94	0.915	139	0.839	184	0.767	229	0.885	274	0.978	319	0.800
5	0.770	50	0.915	95	0.904	140	0.819	185	0.776	230	0.902	275	0.974	320	0.779
6	0.787	51	0.926	96	0.894	141	0.809	186	0.793	231	0.911	276	0.959	321	0.756
7	0.800	52	0.940	97	0.880	142	0.793	187	0.810	232	0.919	277	0.943	322	0.746
8	0.817	53	0.946	98	0.867	143	0.785	188	0.834	233	0.923	278	0.927	323	0.739
9	0.835	54	0.953	99	0.850	144	0.781	189	0.850	234	0.928	279	0.918	324	0.736
10	0.851	55	0.953	100	0.832	145	0.776	190	0.867	235	0.927	280	0.896	325	0.734
11	0.866	56	0.951	101	0.814	146	0.778	191	0.891	236	0.922	281	0.879	326	0.741
12	0.891	57	0.948	102	0.793	147	0.779	192	0.908	237	0.920	282	0.859	327	0.743
13	0.906	58	0.944	103	0.780	148	0.791	193	0.925	238	0.912	283	0.843	328	0.760
14	0.917	59	0.940	104	0.762	149	0.796	194	0.939	239	0.903	284	0.829	329	0.775
15	0.930	60	0.927	105	0.750	150	0.803	195	0.948	240	0.890	285	0.813	330	0.793
16	0.940	61	0.910	106	0.740	151	0.819	196	0.958	241	0.872	286	0.804	331	0.814
17	0.944	62	0.896	107	0.730	152	0.838	197	0.965	242	0.858	287	0.794	332	0.834
18	0.948	63	0.882	108	0.725	153	0.849	198	0.967	243	0.838	288	0.790	333	0.862
19	0.950	64	0.866	109	0.726	154	0.866	199	0.972	244	0.819	289	0.786	334	0.885
20	0.948	65	0.846	110	0.726	155	0.883	200	0.973	245	0.801	290	0.790	335	0.901
21	0.944	66	0.829	111	0.729	156	0.899	201	0.963	246	0.781	291	0.798	336	0.927
22	0.937	67	0.814	112	0.743	157	0.911	202	0.952	247	0.763	292	0.805	337	0.945
23	0.927	68	0.793	113	0.757	158	0.928	203	0.947	248	0.746	293	0.813	338	0.956
24	0.912	69	0.777	114	0.774	159	0.934	204	0.935	249	0.731	294	0.831	339	0.976
25	0.899	70	0.768	115	0.791	160	0.941	205	0.919	250	0.724	295	0.845	340	0.981
26	0.886	71	0.757	116	0.809	161	0.945	206	0.906	251	0.715	296	0.862	341	0.992
27	0.865	72	0.749	117	0.825	162	0.952	207	0.886	252	0.713	297	0.877	342	0.998
28	0.840	73	0.749	118	0.848	163	0.950	208	0.871	253	0.717	298	0.899	343	1.000
29	0.826	74	0.751	119	0.874	164	0.952	209	0.850	254	0.722	299	0.912	344	0.998
30	0.804	75	0.753	120	0.890	165	0.946	210	0.833	255	0.731	300	0.926	345	0.989
31	0.790	76	0.757	121	0.910	166	0.938	211	0.813	256	0.743	301	0.943	346	0.985
32	0.769	77	0.765	122	0.926	167	0.926	212	0.796	257	0.765	302	0.951	347	0.973
33	0.760	78	0.783	123	0.943	168	0.909	213	0.789	258	0.780	303	0.962	348	0.957
34	0.747	79	0.795	124	0.953	169	0.896	214	0.774	259	0.804	304	0.973	349	0.945
35	0.733	80	0.815	125	0.964	170	0.878	215	0.763	260	0.824	305	0.976	350	0.926
36	0.730	81	0.824	126	0.969	171	0.860	216	0.757	261	0.851	306	0.978	351	0.905
37	0.728	82	0.839	127	0.971	172	0.843	217	0.749	262	0.873	307	0.974	352	0.886
38	0.730	83	0.857	128	0.972	173	0.824	218	0.753	263	0.892	308	0.973	353	0.864
39	0.733	84	0.875	129	0.971	174	0.806	219	0.758	264	0.918	309	0.967	354	0.842
40	0.744	85	0.889	130	0.964	175	0.785	220	0.763	265	0.934	310	0.951	355	0.821
41	0.758	86	0.897	131	0.958	176	0.778	221	0.774	266	0.944	311	0.946	356	0.800
42	0.766	87	0.911	132	0.944	177	0.756	222	0.784	267	0.964	312	0.927	357	0.788
43	0.790	88	0.917	133	0.935	178	0.747	223	0.796	268	0.978	313	0.912	358	0.771
44	0.802	89	0.923	134	0.922	179	0.741	224	0.810	269	0.984	314	0.894	359	0.764

CH27 - 551MHz HPol VRP



Model:  
 Location:  
 Customer:  
 Date: **April 4, 2017**

Polarisation: **Horizontal**  
 Frequency (MHz): **551.00**  
 Directivity (Main Lobe): **16.1 (12.06 dB)**  
 Directivity (At Horizon): **12.0 (10.77 dB)**  
 Beam Tilt: **1.00 degrees**



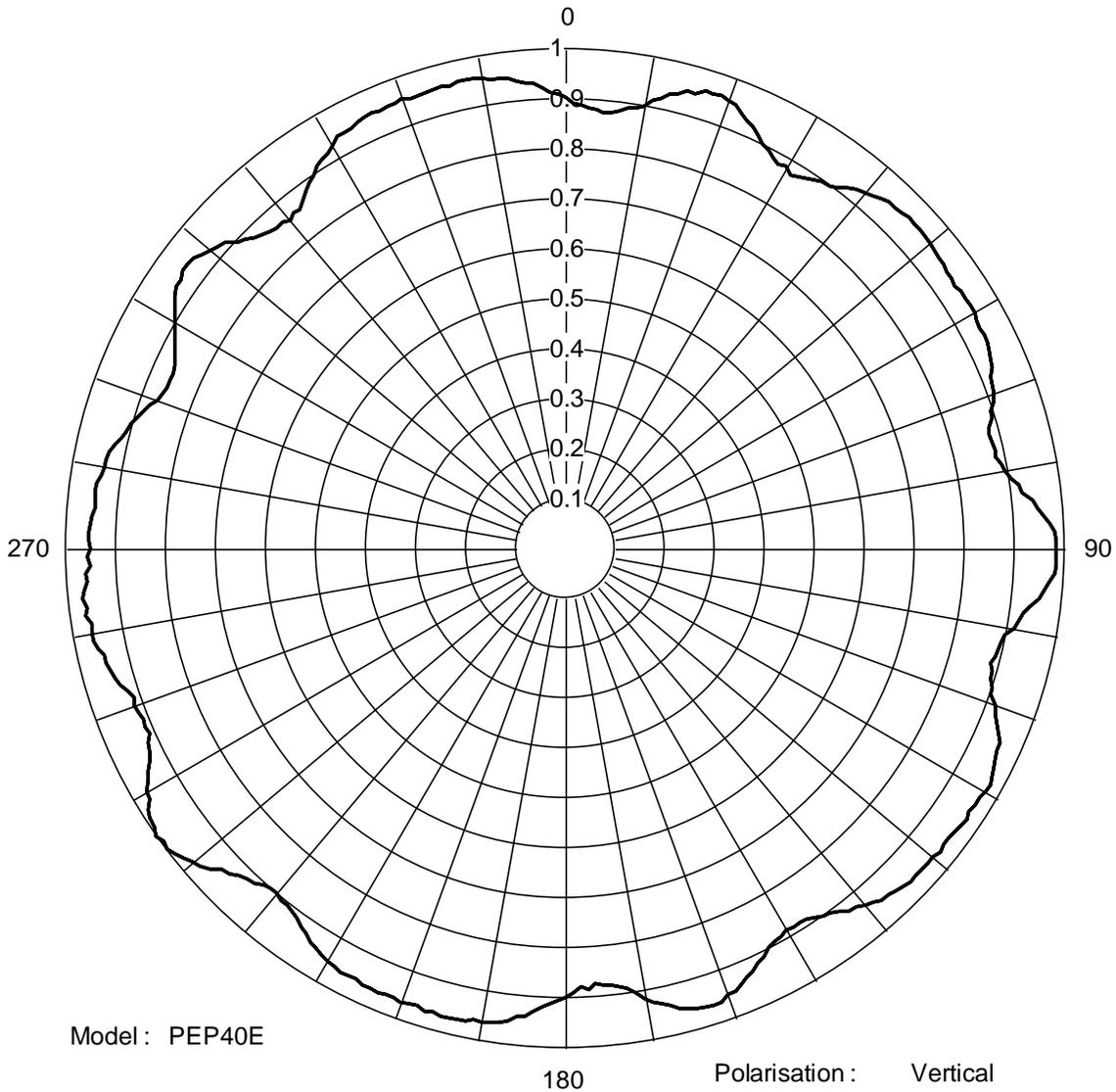
**TABULATED ELEVATION PATTERN**

Angle	Field										
-10.0	0.087	2.4	0.753	10.6	0.132	30.5	0.043	51.0	0.028	71.5	0.020
-9.5	0.055	2.6	0.692	10.8	0.120	31.0	0.053	51.5	0.033	72.0	0.017
-9.0	0.051	2.8	0.629	11.0	0.108	31.5	0.063	52.0	0.036	72.5	0.015
-8.5	0.065	3.0	0.563	11.5	0.085	32.0	0.070	52.5	0.037	73.0	0.013
-8.0	0.066	3.2	0.496	12.0	0.084	32.5	0.071	53.0	0.037	73.5	0.011
-7.5	0.047	3.4	0.432	12.5	0.097	33.0	0.067	53.5	0.035	74.0	0.011
-7.0	0.049	3.6	0.374	13.0	0.107	33.5	0.061	54.0	0.031	74.5	0.012
-6.5	0.118	3.8	0.324	13.5	0.104	34.0	0.052	54.5	0.027	75.0	0.014
-6.0	0.213	4.0	0.285	14.0	0.089	34.5	0.040	55.0	0.022	75.5	0.016
-5.5	0.310	4.2	0.261	14.5	0.069	35.0	0.035	55.5	0.017	76.0	0.018
-5.0	0.394	4.4	0.250	15.0	0.051	35.5	0.038	56.0	0.013	76.5	0.020
-4.5	0.450	4.6	0.252	15.5	0.051	36.0	0.044	56.5	0.010	77.0	0.023
-4.0	0.464	4.8	0.261	16.0	0.068	36.5	0.050	57.0	0.009	77.5	0.025
-3.5	0.425	5.0	0.274	16.5	0.085	37.0	0.052	57.5	0.010	78.0	0.028
-3.0	0.338	5.2	0.286	17.0	0.092	37.5	0.052	58.0	0.011	78.5	0.030
-2.8	0.293	5.4	0.296	17.5	0.088	38.0	0.047	58.5	0.011	79.0	0.032
-2.6	0.247	5.6	0.301	18.0	0.074	38.5	0.040	59.0	0.011	79.5	0.035
-2.4	0.206	5.8	0.302	18.5	0.058	39.0	0.033	59.5	0.010	80.0	0.037
-2.2	0.184	6.0	0.298	19.0	0.038	39.5	0.028	60.0	0.008	80.5	0.039
-2.0	0.192	6.2	0.288	19.5	0.023	40.0	0.028	60.5	0.006	81.0	0.041
-1.8	0.233	6.4	0.274	20.0	0.020	40.5	0.033	61.0	0.007	81.5	0.044
-1.6	0.295	6.6	0.256	20.5	0.023	41.0	0.038	61.5	0.010	82.0	0.047
-1.4	0.369	6.8	0.235	21.0	0.022	41.5	0.041	62.0	0.015	82.5	0.048
-1.2	0.448	7.0	0.212	21.5	0.016	42.0	0.042	62.5	0.020	83.0	0.049
-1.0	0.529	7.2	0.188	22.0	0.012	42.5	0.041	63.0	0.025	83.5	0.051
-0.8	0.606	7.4	0.166	22.5	0.024	43.0	0.037	63.5	0.030	84.0	0.054
-0.6	0.679	7.6	0.146	23.0	0.041	43.5	0.031	64.0	0.034	84.5	0.055
-0.4	0.748	7.8	0.131	23.5	0.055	44.0	0.026	64.5	0.037	85.0	0.055
-0.2	0.809	8.0	0.123	24.0	0.062	44.5	0.024	65.0	0.040	85.5	0.056
0.0	0.863	8.2	0.122	24.5	0.069	45.0	0.025	65.5	0.042	86.0	0.058
0.2	0.910	8.4	0.127	25.0	0.070	45.5	0.029	66.0	0.044	86.5	0.058
0.4	0.948	8.6	0.135	25.5	0.062	46.0	0.032	66.5	0.045	87.0	0.057
0.6	0.976	8.8	0.145	26.0	0.049	46.5	0.034	67.0	0.044	87.5	0.060
0.8	0.993	9.0	0.153	26.5	0.034	47.0	0.035	67.5	0.043	88.0	0.062
1.0	1.000	9.2	0.160	27.0	0.020	47.5	0.033	68.0	0.041	88.5	0.061
1.2	0.991	9.4	0.165	27.5	0.012	48.0	0.029	68.5	0.039	89.0	0.059
1.4	0.972	9.6	0.166	28.0	0.012	48.5	0.024	69.0	0.037	89.5	0.060
1.6	0.943	9.8	0.164	28.5	0.017	49.0	0.020	69.5	0.033	90.0	0.000
1.8	0.904	10.0	0.160	29.0	0.022	49.5	0.017	70.0	0.028		
2.0	0.858	10.2	0.152	29.5	0.028	50.0	0.019	70.5	0.026		
2.2	0.809	10.4	0.143	30.0	0.032	50.5	0.023	71.0	0.023		

Station : OWTC

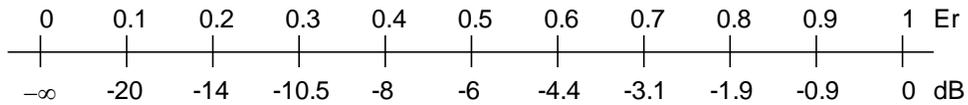
E / Emax

Date : 22/03/2017



Model : PEP40E

Polarisation : Vertical  
Frequency (MHz) : 551.00  
Directivity : 0.64 dB  
Elevation Angle : 1.0 degrees  
Horizontal Unit Pattern  
File = VPOL\_gate\_551.pat  
Pattern Tolerance +/- 5% of Emax



Voltage and Power Ratios  
0 dB = Max ERP  
Directivity : 0.64 dB

Model:  
 Location:  
 Customer:  
 Date: **April 4, 2017**

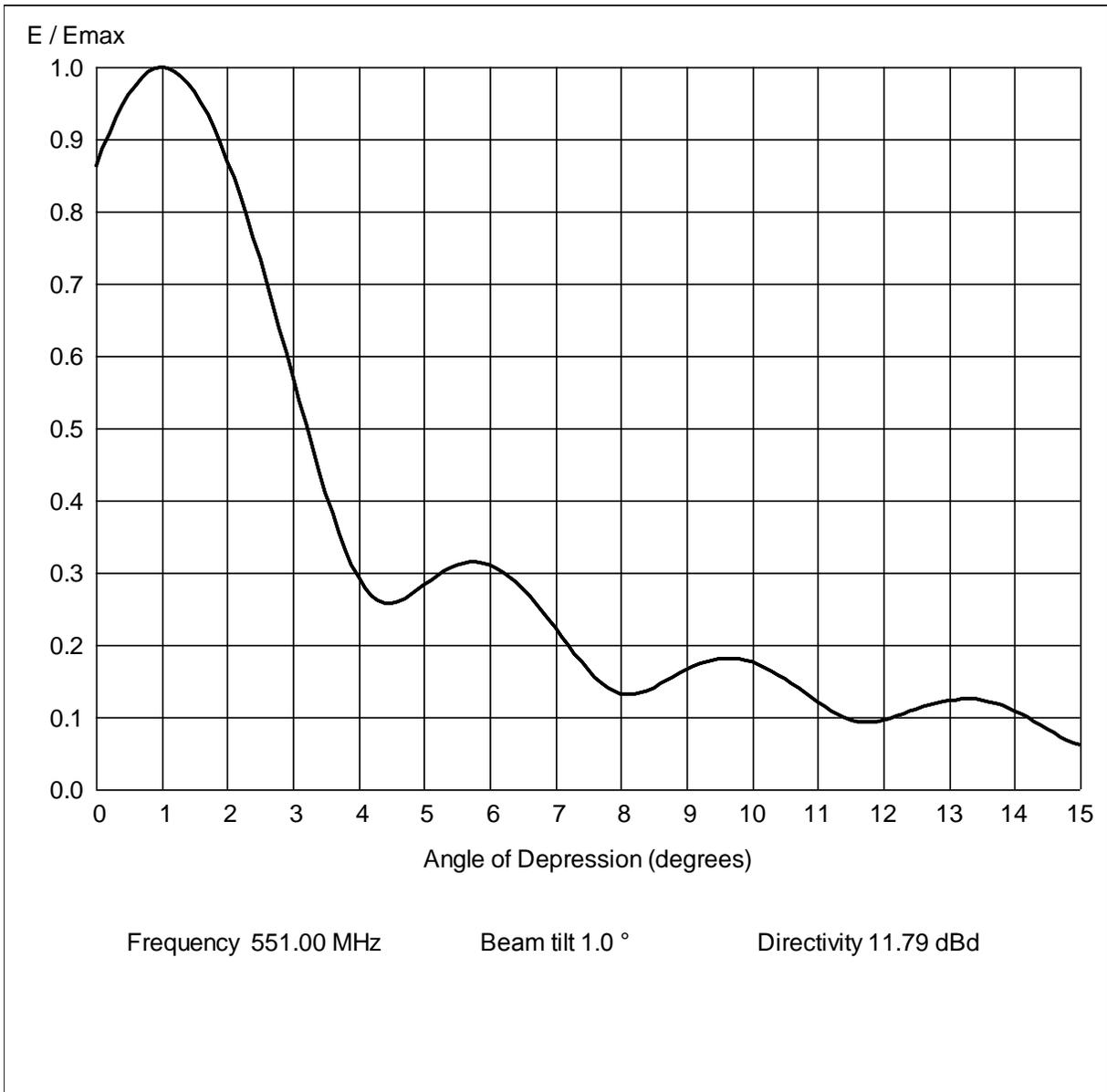
Polarisation: **Vertical**  
 Frequency (MHz): **551.00**  
 Directivity: **1.2 (0.64 dB)**  
 Elevation Angle: **1.00 degrees**  
 Rotation Angle: **19 degrees**



**TABULATED AZIMUTH PATTERN**

Angl	Field														
0	0.902	45	0.951	90	0.982	135	0.953	180	0.896	225	0.924	270	0.950	315	0.880
1	0.890	46	0.954	91	0.982	136	0.951	181	0.904	226	0.935	271	0.953	316	0.874
2	0.887	47	0.953	92	0.983	137	0.946	182	0.911	227	0.939	272	0.953	317	0.867
3	0.881	48	0.953	93	0.980	138	0.945	183	0.916	228	0.956	273	0.951	318	0.864
4	0.881	49	0.952	94	0.969	139	0.938	184	0.926	229	0.968	274	0.948	319	0.864
5	0.876	50	0.952	95	0.959	140	0.931	185	0.939	230	0.974	275	0.944	320	0.857
6	0.877	51	0.947	96	0.951	141	0.923	186	0.940	231	0.982	276	0.946	321	0.864
7	0.881	52	0.946	97	0.937	142	0.918	187	0.950	232	0.990	277	0.947	322	0.862
8	0.889	53	0.946	98	0.926	143	0.908	188	0.956	233	0.999	278	0.946	323	0.874
9	0.893	54	0.943	99	0.917	144	0.901	189	0.957	234	0.994	279	0.939	324	0.884
10	0.900	55	0.941	100	0.910	145	0.897	190	0.961	235	1.000	280	0.938	325	0.892
11	0.915	56	0.940	101	0.895	146	0.890	191	0.959	236	0.992	281	0.935	326	0.901
12	0.920	57	0.944	102	0.891	147	0.884	192	0.964	237	0.990	282	0.932	327	0.912
13	0.932	58	0.943	103	0.887	148	0.882	193	0.965	238	0.983	283	0.925	328	0.917
14	0.937	59	0.944	104	0.885	149	0.883	194	0.967	239	0.969	284	0.916	329	0.924
15	0.947	60	0.944	105	0.881	150	0.882	195	0.967	240	0.966	285	0.910	330	0.930
16	0.945	61	0.940	106	0.887	151	0.887	196	0.962	241	0.955	286	0.903	331	0.942
17	0.957	62	0.939	107	0.888	152	0.889	197	0.966	242	0.945	287	0.894	332	0.942
18	0.955	63	0.940	108	0.897	153	0.893	198	0.961	243	0.934	288	0.886	333	0.945
19	0.957	64	0.938	109	0.897	154	0.907	199	0.962	244	0.925	289	0.880	334	0.950
20	0.954	65	0.935	110	0.914	155	0.913	200	0.965	245	0.919	290	0.869	335	0.952
21	0.950	66	0.929	111	0.922	156	0.923	201	0.961	246	0.910	291	0.864	336	0.955
22	0.939	67	0.927	112	0.931	157	0.929	202	0.961	247	0.912	292	0.859	337	0.951
23	0.929	68	0.915	113	0.942	158	0.939	203	0.963	248	0.910	293	0.860	338	0.954
24	0.925	69	0.914	114	0.950	159	0.948	204	0.961	249	0.913	294	0.860	339	0.953
25	0.912	70	0.910	115	0.952	160	0.948	205	0.963	250	0.916	295	0.863	340	0.957
26	0.901	71	0.905	116	0.957	161	0.959	206	0.956	251	0.913	296	0.870	341	0.951
27	0.893	72	0.894	117	0.962	162	0.961	207	0.956	252	0.922	297	0.876	342	0.954
28	0.886	73	0.893	118	0.965	163	0.957	208	0.958	253	0.930	298	0.885	343	0.954
29	0.879	74	0.881	119	0.971	164	0.956	209	0.954	254	0.938	299	0.892	344	0.955
30	0.883	75	0.878	120	0.969	165	0.952	210	0.953	255	0.943	300	0.904	345	0.956
31	0.872	76	0.879	121	0.967	166	0.947	211	0.950	256	0.948	301	0.911	346	0.954
32	0.877	77	0.881	122	0.965	167	0.937	212	0.941	257	0.946	302	0.923	347	0.958
33	0.883	78	0.880	123	0.963	168	0.930	213	0.938	258	0.955	303	0.931	348	0.958
34	0.888	79	0.888	124	0.967	169	0.924	214	0.929	259	0.963	304	0.940	349	0.957
35	0.895	80	0.892	125	0.966	170	0.913	215	0.923	260	0.963	305	0.940	350	0.956
36	0.897	81	0.901	126	0.962	171	0.897	216	0.913	261	0.959	306	0.947	351	0.951
37	0.903	82	0.915	127	0.961	172	0.886	217	0.908	262	0.968	307	0.945	352	0.950
38	0.914	83	0.919	128	0.962	173	0.882	218	0.905	263	0.963	308	0.945	353	0.948
39	0.925	84	0.939	129	0.964	174	0.878	219	0.904	264	0.969	309	0.935	354	0.939
40	0.929	85	0.947	130	0.958	175	0.874	220	0.897	265	0.965	310	0.928	355	0.933
41	0.935	86	0.957	131	0.959	176	0.872	221	0.901	266	0.958	311	0.922	356	0.932
42	0.942	87	0.972	132	0.957	177	0.881	222	0.904	267	0.961	312	0.915	357	0.924
43	0.947	88	0.977	133	0.958	178	0.876	223	0.913	268	0.952	313	0.899	358	0.914
44	0.948	89	0.982	134	0.958	179	0.886	224	0.916	269	0.955	314	0.890	359	0.909

CH27 - 551MHz VPol VRP



Model:  
 Location:  
 Customer:  
 Date: **April 4, 2017**

Polarisation: **Vertical**  
 Frequency (MHz): **551.00**  
 Directivity (Main Lobe): **15.1 (11.79 dB)**  
 Directivity (At Horizon): **11.2 (10.49 dB)**  
 Beam Tilt: **1.00 degrees**



**TABULATED ELEVATION PATTERN**

Angle	Field										
-10.0	0.086	2.4	0.764	10.6	0.146	30.5	0.124	51.0	0.032	71.5	0.058
-9.5	0.054	2.6	0.703	10.8	0.133	31.0	0.112	51.5	0.038	72.0	0.049
-9.0	0.050	2.8	0.638	11.0	0.120	31.5	0.097	52.0	0.043	72.5	0.042
-8.5	0.064	3.0	0.572	11.5	0.097	32.0	0.078	52.5	0.045	73.0	0.037
-8.0	0.064	3.2	0.505	12.0	0.096	32.5	0.059	53.0	0.046	73.5	0.034
-7.5	0.046	3.4	0.441	12.5	0.111	33.0	0.041	53.5	0.044	74.0	0.034
-7.0	0.048	3.6	0.382	13.0	0.123	33.5	0.026	54.0	0.041	74.5	0.036
-6.5	0.115	3.8	0.332	13.5	0.123	34.0	0.015	54.5	0.036	75.0	0.041
-6.0	0.207	4.0	0.293	14.0	0.109	34.5	0.011	55.0	0.029	75.5	0.047
-5.5	0.303	4.2	0.268	14.5	0.084	35.0	0.008	55.5	0.023	76.0	0.055
-5.0	0.387	4.4	0.258	15.0	0.061	35.5	0.010	56.0	0.018	76.5	0.061
-4.5	0.443	4.6	0.260	15.5	0.063	36.0	0.013	56.5	0.014	77.0	0.066
-4.0	0.456	4.8	0.269	16.0	0.086	36.5	0.017	57.0	0.013	77.5	0.072
-3.5	0.419	5.0	0.283	16.5	0.108	37.0	0.020	57.5	0.015	78.0	0.077
-3.0	0.334	5.2	0.296	17.0	0.120	37.5	0.022	58.0	0.017	78.5	0.081
-2.8	0.290	5.4	0.306	17.5	0.119	38.0	0.022	58.5	0.018	79.0	0.085
-2.6	0.245	5.6	0.313	18.0	0.105	38.5	0.021	59.0	0.017	79.5	0.089
-2.4	0.205	5.8	0.314	18.5	0.080	39.0	0.019	59.5	0.015	80.0	0.094
-2.2	0.183	6.0	0.310	19.0	0.053	39.5	0.016	60.0	0.012	80.5	0.097
-2.0	0.192	6.2	0.301	19.5	0.032	40.0	0.017	60.5	0.010	81.0	0.099
-1.8	0.232	6.4	0.286	20.0	0.029	40.5	0.021	61.0	0.011	81.5	0.101
-1.6	0.293	6.6	0.268	20.5	0.035	41.0	0.025	61.5	0.018	82.0	0.102
-1.4	0.365	6.8	0.247	21.0	0.035	41.5	0.029	62.0	0.026	82.5	0.104
-1.2	0.442	7.0	0.223	21.5	0.025	42.0	0.031	62.5	0.036	83.0	0.105
-1.0	0.520	7.2	0.199	22.0	0.019	42.5	0.031	63.0	0.046	83.5	0.104
-0.8	0.598	7.4	0.176	22.5	0.039	43.0	0.029	63.5	0.056	84.0	0.103
-0.6	0.673	7.6	0.156	23.0	0.068	43.5	0.025	64.0	0.066	84.5	0.102
-0.4	0.742	7.8	0.140	23.5	0.101	44.0	0.022	64.5	0.075	85.0	0.101
-0.2	0.806	8.0	0.132	24.0	0.129	44.5	0.021	65.0	0.083	85.5	0.102
0.0	0.862	8.2	0.131	24.5	0.141	45.0	0.022	65.5	0.090	86.0	0.101
0.2	0.909	8.4	0.137	25.0	0.141	45.5	0.026	66.0	0.095	86.5	0.101
0.4	0.947	8.6	0.146	25.5	0.135	46.0	0.030	66.5	0.098	87.0	0.100
0.6	0.975	8.8	0.156	26.0	0.118	46.5	0.033	67.0	0.100	87.5	0.098
0.8	0.993	9.0	0.166	26.5	0.089	47.0	0.034	67.5	0.101	88.0	0.096
1.0	1.000	9.2	0.174	27.0	0.058	47.5	0.033	68.0	0.100	88.5	0.095
1.2	0.994	9.4	0.179	27.5	0.042	48.0	0.030	68.5	0.097	89.0	0.093
1.4	0.977	9.6	0.181	28.0	0.058	48.5	0.025	69.0	0.094	89.5	0.092
1.6	0.951	9.8	0.180	28.5	0.082	49.0	0.021	69.5	0.087	90.0	0.000
1.8	0.915	10.0	0.176	29.0	0.101	49.5	0.019	70.0	0.080		
2.0	0.871	10.2	0.168	29.5	0.119	50.0	0.021	70.5	0.073		
2.2	0.821	10.4	0.158	30.0	0.128	50.5	0.026	71.0	0.066		