

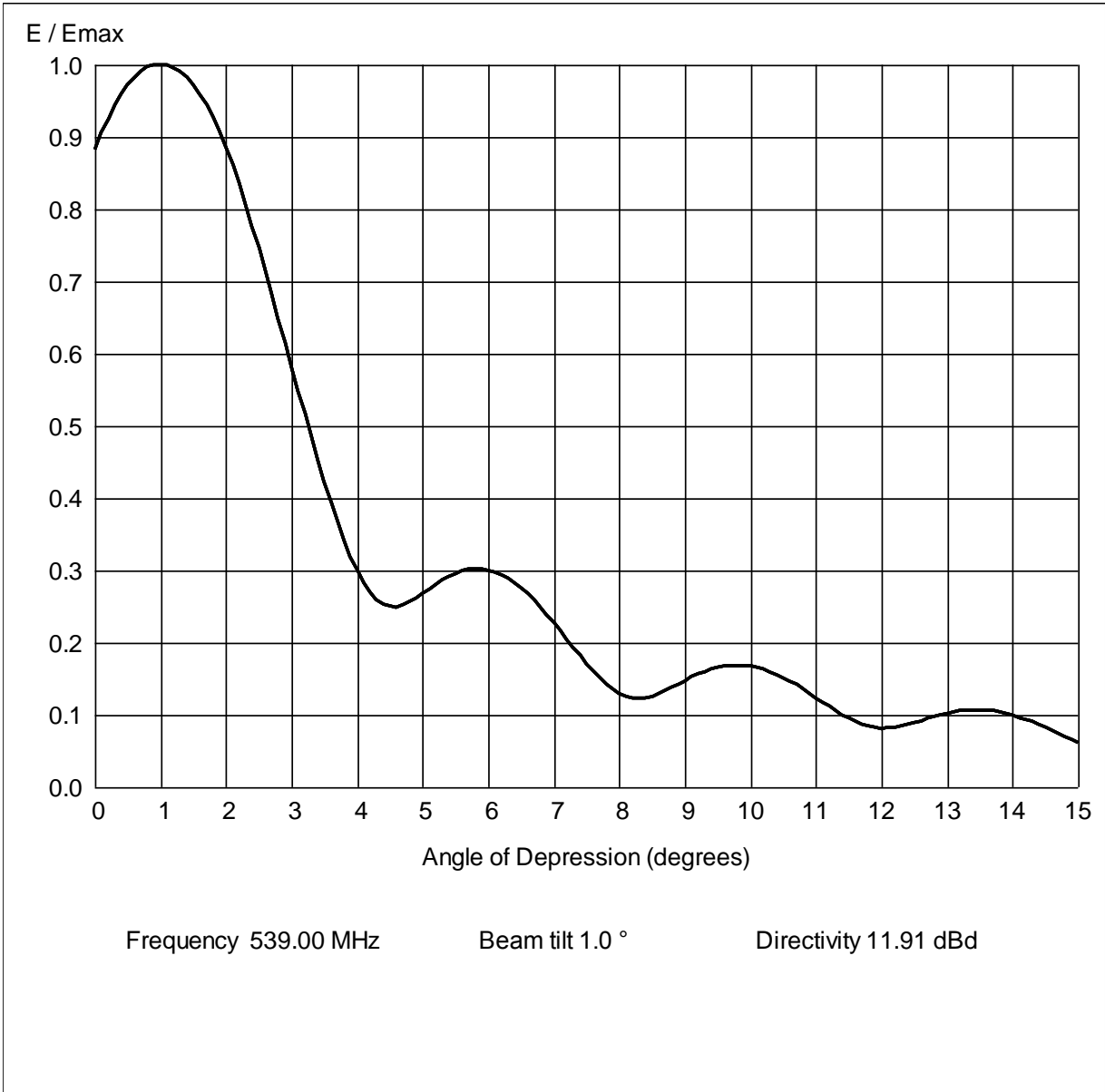
Model:
Location:
Customer:
Date: **April 4, 2017**

Polarisation: **Horizontal**
Frequency (MHz): **539.00**
Directivity: **1.4 (1.46 dB)**
Elevation Angle: **1.00 degrees**
Rotation Angle: **19 degrees**



TABULATED AZIMUTH PATTERN

Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	0.741	45	0.825	90	0.902	135	0.897	180	0.724	225	0.801	270	0.987	315	0.846
1	0.736	46	0.842	91	0.900	136	0.883	181	0.728	226	0.818	271	0.990	316	0.826
2	0.735	47	0.864	92	0.894	137	0.862	182	0.730	227	0.832	272	0.987	317	0.806
3	0.731	48	0.883	93	0.893	138	0.841	183	0.741	228	0.843	273	0.983	318	0.784
4	0.738	49	0.897	94	0.888	139	0.829	184	0.756	229	0.857	274	0.975	319	0.772
5	0.750	50	0.917	95	0.876	140	0.806	185	0.770	230	0.872	275	0.971	320	0.752
6	0.762	51	0.927	96	0.865	141	0.797	186	0.787	231	0.881	276	0.954	321	0.732
7	0.775	52	0.939	97	0.853	142	0.778	187	0.805	232	0.891	277	0.939	322	0.725
8	0.788	53	0.945	98	0.840	143	0.769	188	0.832	233	0.892	278	0.923	323	0.719
9	0.806	54	0.951	99	0.823	144	0.765	189	0.846	234	0.899	279	0.912	324	0.719
10	0.822	55	0.952	100	0.806	145	0.761	190	0.865	235	0.895	280	0.890	325	0.719
11	0.840	56	0.950	101	0.786	146	0.760	191	0.889	236	0.892	281	0.871	326	0.730
12	0.862	57	0.948	102	0.768	147	0.760	192	0.906	237	0.890	282	0.851	327	0.737
13	0.877	58	0.944	103	0.753	148	0.770	193	0.923	238	0.879	283	0.836	328	0.754
14	0.887	59	0.937	104	0.738	149	0.773	194	0.934	239	0.872	284	0.817	329	0.771
15	0.900	60	0.925	105	0.729	150	0.779	195	0.944	240	0.857	285	0.801	330	0.791
16	0.909	61	0.909	106	0.716	151	0.792	196	0.955	241	0.840	286	0.793	331	0.812
17	0.914	62	0.893	107	0.711	152	0.811	197	0.965	242	0.827	287	0.780	332	0.837
18	0.915	63	0.878	108	0.707	153	0.820	198	0.962	243	0.810	288	0.770	333	0.861
19	0.916	64	0.863	109	0.710	154	0.836	199	0.967	244	0.792	289	0.768	334	0.885
20	0.916	65	0.842	110	0.710	155	0.854	200	0.968	245	0.774	290	0.769	335	0.901
21	0.915	66	0.823	111	0.717	156	0.871	201	0.958	246	0.754	291	0.777	336	0.929
22	0.907	67	0.808	112	0.730	157	0.881	202	0.948	247	0.740	292	0.781	337	0.944
23	0.895	68	0.783	113	0.748	158	0.899	203	0.941	248	0.722	293	0.788	338	0.956
24	0.881	69	0.769	114	0.764	159	0.903	204	0.928	249	0.711	294	0.807	339	0.975
25	0.868	70	0.755	115	0.780	160	0.911	205	0.913	250	0.707	295	0.817	340	0.983
26	0.856	71	0.747	116	0.805	161	0.913	206	0.901	251	0.700	296	0.833	341	0.991
27	0.839	72	0.734	117	0.824	162	0.919	207	0.880	252	0.699	297	0.848	342	0.998
28	0.814	73	0.733	118	0.846	163	0.916	208	0.866	253	0.704	298	0.870	343	1.000
29	0.801	74	0.734	119	0.869	164	0.916	209	0.841	254	0.714	299	0.884	344	0.998
30	0.778	75	0.735	120	0.889	165	0.913	210	0.824	255	0.728	300	0.895	345	0.987
31	0.765	76	0.737	121	0.911	166	0.906	211	0.806	256	0.738	301	0.914	346	0.981
32	0.744	77	0.745	122	0.925	167	0.892	212	0.786	257	0.760	302	0.920	347	0.971
33	0.737	78	0.760	123	0.944	168	0.879	213	0.775	258	0.777	303	0.932	348	0.954
34	0.730	79	0.770	124	0.952	169	0.864	214	0.760	259	0.803	304	0.941	349	0.941
35	0.713	80	0.789	125	0.963	170	0.851	215	0.747	260	0.823	305	0.946	350	0.924
36	0.712	81	0.799	126	0.971	171	0.831	216	0.741	261	0.853	306	0.946	351	0.900
37	0.713	82	0.811	127	0.968	172	0.813	217	0.734	262	0.874	307	0.943	352	0.883
38	0.716	83	0.831	128	0.969	173	0.795	218	0.734	263	0.892	308	0.942	353	0.859
39	0.726	84	0.847	129	0.969	174	0.779	219	0.740	264	0.915	309	0.935	354	0.839
40	0.735	85	0.860	130	0.962	175	0.761	220	0.741	265	0.934	310	0.919	355	0.815
41	0.753	86	0.870	131	0.954	176	0.753	221	0.753	266	0.944	311	0.914	356	0.793
42	0.762	87	0.880	132	0.943	177	0.735	222	0.761	267	0.965	312	0.896	357	0.779
43	0.786	88	0.886	133	0.933	178	0.730	223	0.771	268	0.980	313	0.882	358	0.762
44	0.801	89	0.896	134	0.917	179	0.726	224	0.785	269	0.983	314	0.865	359	0.750



Model:
Location:
Customer:
Date:

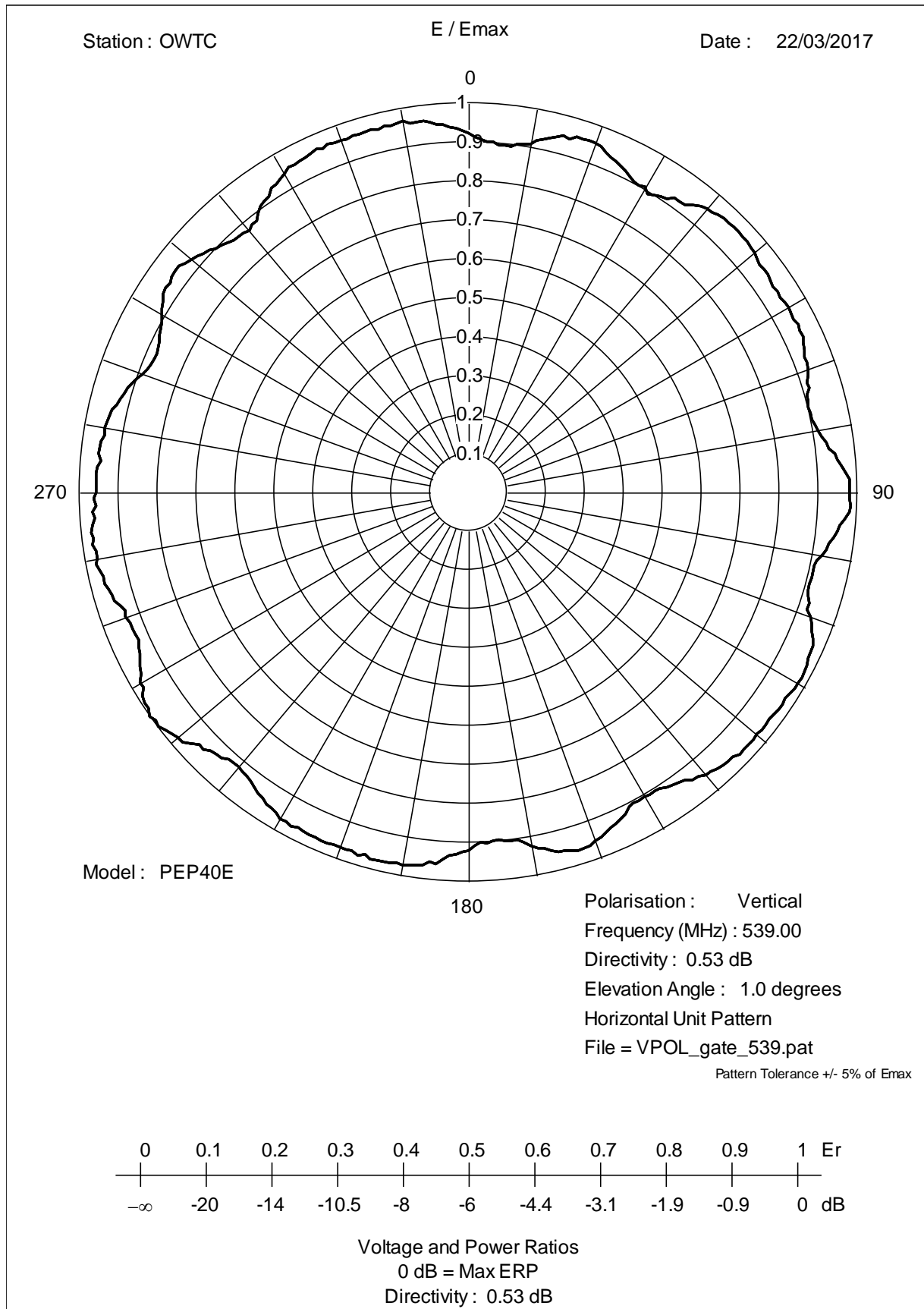
April 4, 2017

Polarisation: **Horizontal**
Frequency (MHz): **539.00**
Directivity (Main Lobe): **15.5 (11.91 dB)**
Directivity (At Horizon): **12.1 (10.84 dB)**
Beam Tilt: **1.00 degrees**



TABULATED ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.067	2.4	0.777	10.6	0.147	30.5	0.021	51.0	0.018	71.5	0.048
-9.5	0.045	2.6	0.715	10.8	0.136	31.0	0.022	51.5	0.020	72.0	0.045
-9.0	0.055	2.8	0.649	11.0	0.124	31.5	0.036	52.0	0.024	72.5	0.044
-8.5	0.067	3.0	0.582	11.5	0.095	32.0	0.049	52.5	0.030	73.0	0.042
-8.0	0.060	3.2	0.517	12.0	0.082	32.5	0.052	53.0	0.035	73.5	0.039
-7.5	0.037	3.4	0.453	12.5	0.090	33.0	0.053	53.5	0.038	74.0	0.036
-7.0	0.064	3.6	0.394	13.0	0.103	33.5	0.059	54.0	0.041	74.5	0.033
-6.5	0.142	3.8	0.342	13.5	0.107	34.0	0.059	54.5	0.041	75.0	0.030
-6.0	0.237	4.0	0.300	14.0	0.099	34.5	0.053	55.0	0.040	75.5	0.027
-5.5	0.331	4.2	0.269	14.5	0.083	35.0	0.044	55.5	0.036	76.0	0.024
-5.0	0.408	4.4	0.253	15.0	0.062	35.5	0.035	56.0	0.032	76.5	0.021
-4.5	0.451	4.6	0.250	15.5	0.049	36.0	0.032	56.5	0.027	77.0	0.019
-4.0	0.451	4.8	0.257	16.0	0.059	36.5	0.036	57.0	0.022	77.5	0.016
-3.5	0.406	5.0	0.268	16.5	0.078	37.0	0.042	57.5	0.017	78.0	0.015
-3.0	0.316	5.2	0.281	17.0	0.092	37.5	0.047	58.0	0.013	78.5	0.014
-2.8	0.272	5.4	0.292	17.5	0.095	38.0	0.050	58.5	0.010	79.0	0.014
-2.6	0.228	5.6	0.299	18.0	0.087	38.5	0.049	59.0	0.009	79.5	0.015
-2.4	0.194	5.8	0.302	18.5	0.076	39.0	0.045	59.5	0.010	80.0	0.016
-2.2	0.184	6.0	0.301	19.0	0.059	39.5	0.039	60.0	0.011	80.5	0.017
-2.0	0.206	6.2	0.294	19.5	0.038	40.0	0.033	60.5	0.012	81.0	0.018
-1.8	0.255	6.4	0.283	20.0	0.022	40.5	0.028	61.0	0.012	81.5	0.019
-1.6	0.321	6.6	0.268	20.5	0.021	41.0	0.028	61.5	0.011	82.0	0.020
-1.4	0.395	6.8	0.250	21.0	0.025	41.5	0.031	62.0	0.009	82.5	0.022
-1.2	0.472	7.0	0.228	21.5	0.024	42.0	0.036	62.5	0.007	83.0	0.023
-1.0	0.550	7.2	0.205	22.0	0.016	42.5	0.041	63.0	0.006	83.5	0.023
-0.8	0.626	7.4	0.182	22.5	0.011	43.0	0.044	63.5	0.008	84.0	0.023
-0.6	0.700	7.6	0.161	23.0	0.024	43.5	0.044	64.0	0.011	84.5	0.025
-0.4	0.768	7.8	0.143	23.5	0.041	44.0	0.041	64.5	0.016	85.0	0.026
-0.2	0.829	8.0	0.130	24.0	0.054	44.5	0.036	65.0	0.022	85.5	0.026
0.0	0.884	8.2	0.124	24.5	0.069	45.0	0.030	65.5	0.026	86.0	0.026
0.2	0.927	8.4	0.124	25.0	0.079	45.5	0.026	66.0	0.031	86.5	0.027
0.4	0.960	8.6	0.130	25.5	0.076	46.0	0.025	66.5	0.036	87.0	0.028
0.6	0.984	8.8	0.138	26.0	0.067	46.5	0.028	67.0	0.040	87.5	0.028
0.8	0.997	9.0	0.148	26.5	0.058	47.0	0.031	67.5	0.044	88.0	0.027
1.0	1.000	9.2	0.157	27.0	0.045	47.5	0.034	68.0	0.047	88.5	0.026
1.2	0.997	9.4	0.163	27.5	0.024	48.0	0.036	68.5	0.050	89.0	0.025
1.4	0.983	9.6	0.168	28.0	0.011	48.5	0.036	69.0	0.051	89.5	0.024
1.6	0.960	9.8	0.169	28.5	0.013	49.0	0.034	69.5	0.051	90.0	0.000
1.8	0.928	10.0	0.168	29.0	0.020	49.5	0.030	70.0	0.050		
2.0	0.888	10.2	0.163	29.5	0.022	50.0	0.025	70.5	0.050		
2.2	0.835	10.4	0.156	30.0	0.019	50.5	0.020	71.0	0.050		



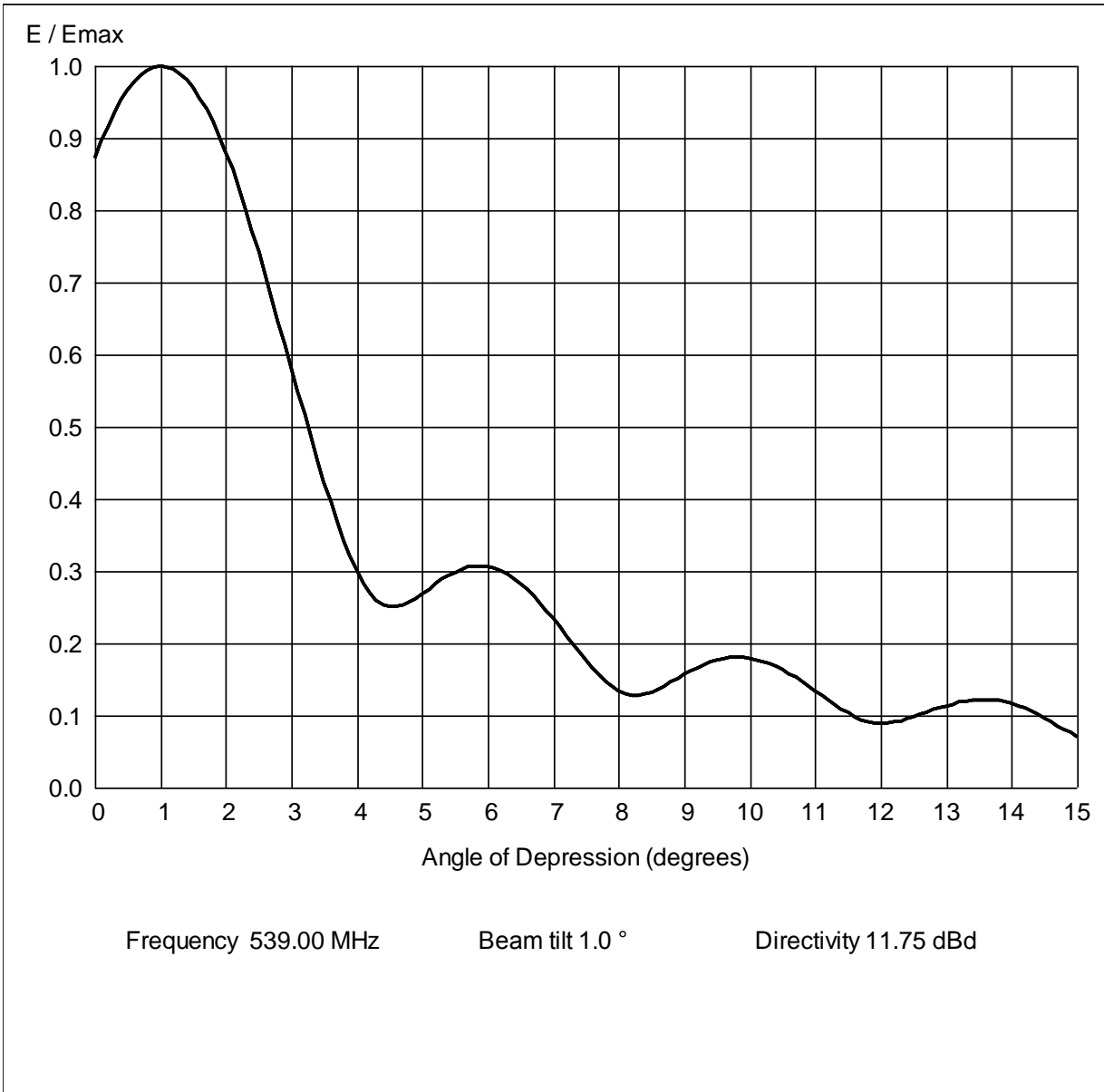
Model:
Location:
Customer:
Date: **April 4, 2017**

Polarisation: **Vertical**
Frequency (MHz): **539.00**
Directivity: **1.1 (0.53 dB)**
Elevation Angle: **1.00 degrees**
Rotation Angle: **19 degrees**



TABULATED AZIMUTH PATTERN

Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	0.922	45	0.963	90	0.978	135	0.961	180	0.917	225	0.935	270	0.956	315	0.896
1	0.912	46	0.964	91	0.980	136	0.959	181	0.922	226	0.947	271	0.957	316	0.890
2	0.908	47	0.961	92	0.983	137	0.957	182	0.928	227	0.946	272	0.958	317	0.885
3	0.902	48	0.963	93	0.978	138	0.955	183	0.933	228	0.963	273	0.956	318	0.882
4	0.902	49	0.959	94	0.968	139	0.948	184	0.942	229	0.975	274	0.954	319	0.882
5	0.894	50	0.958	95	0.957	140	0.947	185	0.956	230	0.976	275	0.948	320	0.876
6	0.894	51	0.953	96	0.953	141	0.938	186	0.951	231	0.983	276	0.954	321	0.884
7	0.895	52	0.950	97	0.943	142	0.937	187	0.963	232	0.989	277	0.955	322	0.885
8	0.902	53	0.952	98	0.935	143	0.925	188	0.967	233	0.997	278	0.954	323	0.897
9	0.906	54	0.950	99	0.929	144	0.918	189	0.968	234	0.994	279	0.947	324	0.909
10	0.909	55	0.947	100	0.924	145	0.917	190	0.971	235	1.000	280	0.950	325	0.913
11	0.922	56	0.944	101	0.912	146	0.911	191	0.968	236	0.991	281	0.946	326	0.917
12	0.926	57	0.947	102	0.908	147	0.904	192	0.973	237	0.991	282	0.943	327	0.930
13	0.933	58	0.945	103	0.907	148	0.904	193	0.973	238	0.986	283	0.939	328	0.932
14	0.941	59	0.948	104	0.908	149	0.904	194	0.974	239	0.973	284	0.932	329	0.938
15	0.947	60	0.948	105	0.905	150	0.901	195	0.974	240	0.973	285	0.926	330	0.944
16	0.944	61	0.945	106	0.908	151	0.905	196	0.966	241	0.963	286	0.920	331	0.953
17	0.954	62	0.944	107	0.912	152	0.902	197	0.973	242	0.955	287	0.914	332	0.953
18	0.954	63	0.950	108	0.920	153	0.906	198	0.966	243	0.946	288	0.906	333	0.955
19	0.954	64	0.946	109	0.919	154	0.917	199	0.968	244	0.940	289	0.900	334	0.957
20	0.954	65	0.947	110	0.935	155	0.924	200	0.968	245	0.935	290	0.890	335	0.959
21	0.950	66	0.942	111	0.943	156	0.930	201	0.967	246	0.928	291	0.884	336	0.964
22	0.942	67	0.939	112	0.950	157	0.934	202	0.969	247	0.930	292	0.880	337	0.956
23	0.933	68	0.930	113	0.962	158	0.941	203	0.969	248	0.931	293	0.876	338	0.964
24	0.929	69	0.931	114	0.967	159	0.948	204	0.968	249	0.931	294	0.877	339	0.959
25	0.924	70	0.927	115	0.968	160	0.950	205	0.971	250	0.937	295	0.880	340	0.963
26	0.916	71	0.923	116	0.972	161	0.959	206	0.966	251	0.932	296	0.884	341	0.958
27	0.911	72	0.913	117	0.975	162	0.961	207	0.966	252	0.941	297	0.890	342	0.964
28	0.904	73	0.915	118	0.976	163	0.959	208	0.969	253	0.950	298	0.894	343	0.959
29	0.900	74	0.903	119	0.981	164	0.957	209	0.965	254	0.953	299	0.901	344	0.963
30	0.906	75	0.904	120	0.977	165	0.952	210	0.967	255	0.957	300	0.909	345	0.965
31	0.894	76	0.900	121	0.976	166	0.950	211	0.961	256	0.964	301	0.917	346	0.961
32	0.901	77	0.903	122	0.973	167	0.943	212	0.956	257	0.962	302	0.926	347	0.965
33	0.907	78	0.902	123	0.971	168	0.934	213	0.954	258	0.967	303	0.934	348	0.962
34	0.910	79	0.909	124	0.974	169	0.930	214	0.946	259	0.973	304	0.938	349	0.965
35	0.922	80	0.911	125	0.972	170	0.922	215	0.941	260	0.968	305	0.937	350	0.967
36	0.922	81	0.916	126	0.968	171	0.909	216	0.934	261	0.968	306	0.943	351	0.959
37	0.925	82	0.927	127	0.965	172	0.899	217	0.929	262	0.974	307	0.944	352	0.961
38	0.937	83	0.931	128	0.969	173	0.900	218	0.924	263	0.971	308	0.943	353	0.961
39	0.946	84	0.946	129	0.969	174	0.897	219	0.923	264	0.973	309	0.935	354	0.954
40	0.951	85	0.952	130	0.965	175	0.894	220	0.917	265	0.971	310	0.930	355	0.947
41	0.953	86	0.963	131	0.967	176	0.896	221	0.920	266	0.963	311	0.924	356	0.947
42	0.959	87	0.972	132	0.966	177	0.902	222	0.922	267	0.966	312	0.917	357	0.940
43	0.963	88	0.977	133	0.965	178	0.897	223	0.930	268	0.956	313	0.910	358	0.934
44	0.962	89	0.980	134	0.967	179	0.907	224	0.932	269	0.962	314	0.902	359	0.927



Model:
Location:
Customer:
Date:

April 4, 2017

Polarisation: **Vertical**
Frequency (MHz): **539.00**
Directivity (Main Lobe): **14.9 (11.75 dB)**
Directivity (At Horizon): **11.4 (10.56 dB)**
Beam Tilt: **1.00 degrees**



TABULATED ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.066	2.4	0.773	10.6	0.158	30.5	0.131	51.0	0.018	71.5	0.082
-9.5	0.044	2.6	0.712	10.8	0.147	31.0	0.133	51.5	0.020	72.0	0.080
-9.0	0.054	2.8	0.647	11.0	0.134	31.5	0.127	52.0	0.025	72.5	0.077
-8.5	0.065	3.0	0.581	11.5	0.103	32.0	0.114	52.5	0.031	73.0	0.072
-8.0	0.058	3.2	0.516	12.0	0.089	32.5	0.100	53.0	0.037	73.5	0.068
-7.5	0.036	3.4	0.454	12.5	0.098	33.0	0.082	53.5	0.041	74.0	0.063
-7.0	0.063	3.6	0.395	13.0	0.113	33.5	0.067	54.0	0.044	74.5	0.057
-6.5	0.141	3.8	0.343	13.5	0.122	34.0	0.051	54.5	0.045	75.0	0.052
-6.0	0.235	4.0	0.301	14.0	0.117	34.5	0.036	55.0	0.044	75.5	0.047
-5.5	0.325	4.2	0.270	14.5	0.096	35.0	0.024	55.5	0.042	76.0	0.043
-5.0	0.397	4.4	0.254	15.0	0.071	35.5	0.019	56.0	0.038	76.5	0.038
-4.5	0.441	4.6	0.251	15.5	0.056	36.0	0.017	56.5	0.032	77.0	0.033
-4.0	0.443	4.8	0.257	16.0	0.068	36.5	0.019	57.0	0.026	77.5	0.030
-3.5	0.397	5.0	0.269	16.5	0.091	37.0	0.023	57.5	0.020	78.0	0.028
-3.0	0.307	5.2	0.282	17.0	0.111	37.5	0.027	58.0	0.015	78.5	0.027
-2.8	0.264	5.4	0.294	17.5	0.119	38.0	0.030	58.5	0.012	79.0	0.026
-2.6	0.221	5.6	0.303	18.0	0.114	38.5	0.031	59.0	0.012	79.5	0.027
-2.4	0.188	5.8	0.307	18.5	0.097	39.0	0.028	59.5	0.013	80.0	0.029
-2.2	0.178	6.0	0.306	19.0	0.073	39.5	0.025	60.0	0.015	80.5	0.032
-2.0	0.199	6.2	0.300	19.5	0.047	40.0	0.021	60.5	0.016	81.0	0.034
-1.8	0.248	6.4	0.289	20.0	0.029	40.5	0.018	61.0	0.016	81.5	0.037
-1.6	0.313	6.6	0.274	20.5	0.028	41.0	0.019	61.5	0.015	82.0	0.039
-1.4	0.387	6.8	0.255	21.0	0.033	41.5	0.023	62.0	0.012	82.5	0.042
-1.2	0.465	7.0	0.234	21.5	0.033	42.0	0.028	62.5	0.009	83.0	0.045
-1.0	0.544	7.2	0.211	22.0	0.023	42.5	0.031	63.0	0.008	83.5	0.047
-0.8	0.619	7.4	0.187	22.5	0.017	43.0	0.033	63.5	0.011	84.0	0.049
-0.6	0.691	7.6	0.166	23.0	0.035	43.5	0.033	64.0	0.016	84.5	0.050
-0.4	0.758	7.8	0.147	23.5	0.066	44.0	0.032	64.5	0.023	85.0	0.051
-0.2	0.819	8.0	0.135	24.0	0.097	44.5	0.028	65.0	0.031	85.5	0.053
0.0	0.873	8.2	0.129	24.5	0.119	45.0	0.024	65.5	0.039	86.0	0.055
0.2	0.917	8.4	0.130	25.0	0.132	45.5	0.021	66.0	0.047	86.5	0.055
0.4	0.953	8.6	0.136	25.5	0.141	46.0	0.021	66.5	0.054	87.0	0.056
0.6	0.979	8.8	0.146	26.0	0.139	46.5	0.024	67.0	0.062	87.5	0.056
0.8	0.994	9.0	0.157	26.5	0.121	47.0	0.028	67.5	0.067	88.0	0.056
1.0	1.000	9.2	0.166	27.0	0.094	47.5	0.031	68.0	0.072	88.5	0.056
1.2	0.995	9.4	0.174	27.5	0.064	48.0	0.033	68.5	0.077	89.0	0.055
1.4	0.981	9.6	0.179	28.0	0.042	48.5	0.034	69.0	0.081	89.5	0.055
1.6	0.956	9.8	0.181	28.5	0.050	49.0	0.032	69.5	0.083	90.0	0.000
1.8	0.923	10.0	0.179	29.0	0.075	49.5	0.029	70.0	0.084		
2.0	0.881	10.2	0.175	29.5	0.100	50.0	0.024	70.5	0.084		
2.2	0.830	10.4	0.168	30.0	0.120	50.5	0.020	71.0	0.083		