

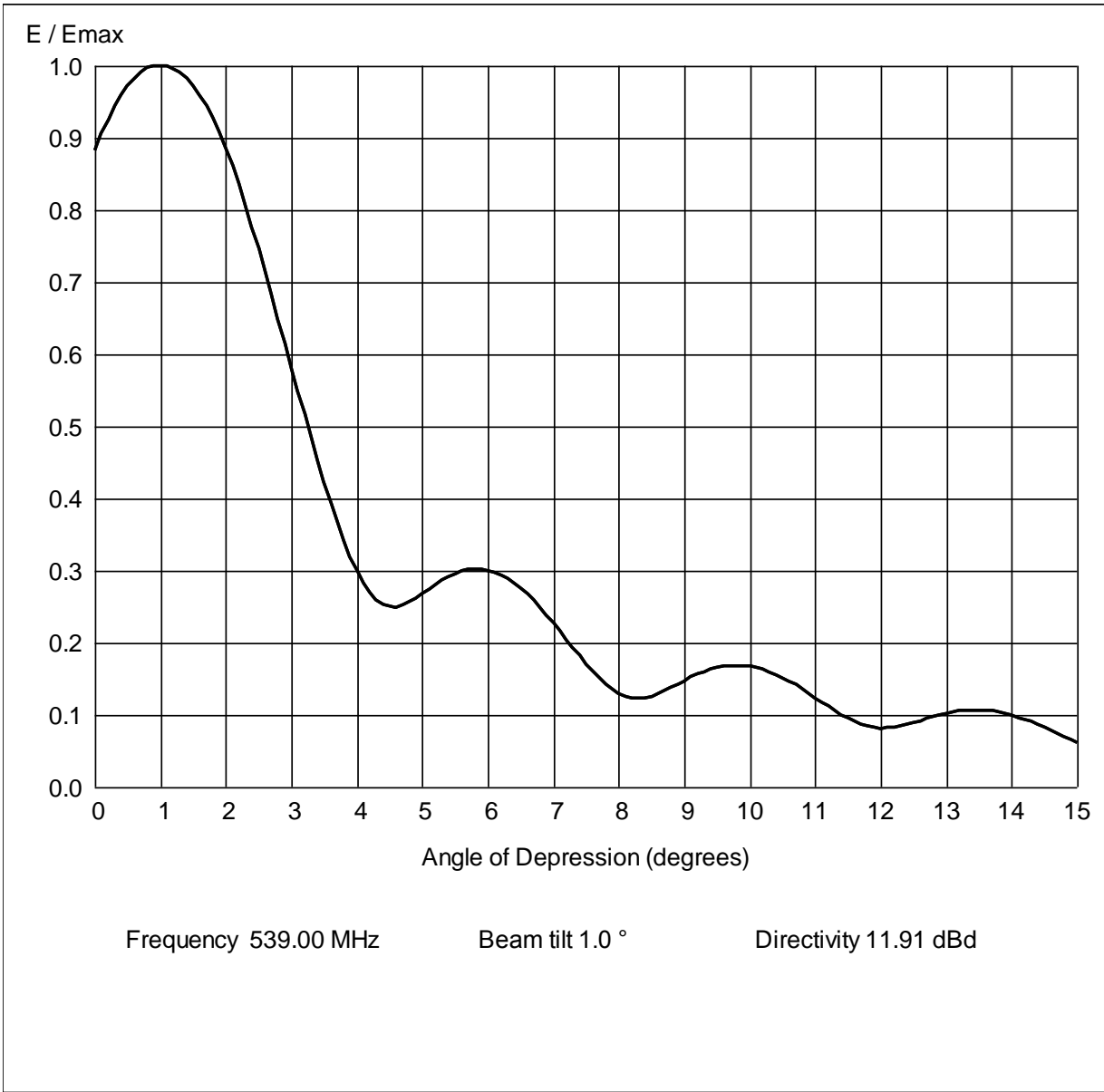
Model:
Location:
Customer:
Date: **April 4, 2017**

Polarisation: **Horizontal**
Frequency (MHz): **539.00**
Directivity: **1.4 (1.45 dB)**
Elevation Angle: **1.00 degrees**
Rotation Angle: **0 degrees**



TABULATED AZIMUTH PATTERN

Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	1.000	45	0.816	90	0.992	135	0.813	180	0.997	225	0.815	270	0.988	315	0.818
1	0.991	46	0.815	91	0.983	136	0.814	181	0.992	226	0.814	271	0.984	316	0.816
2	0.971	47	0.809	92	0.967	137	0.806	182	0.972	227	0.804	272	0.966	317	0.807
3	0.942	48	0.796	93	0.939	138	0.794	183	0.942	228	0.792	273	0.939	318	0.795
4	0.906	49	0.780	94	0.903	139	0.782	184	0.907	229	0.775	274	0.903	319	0.782
5	0.867	50	0.769	95	0.861	140	0.772	185	0.865	230	0.763	275	0.864	320	0.773
6	0.824	51	0.766	96	0.821	141	0.769	186	0.825	231	0.757	276	0.824	321	0.770
7	0.791	52	0.776	97	0.788	142	0.780	187	0.791	232	0.766	277	0.790	322	0.778
8	0.766	53	0.794	98	0.765	143	0.798	188	0.768	233	0.783	278	0.768	323	0.796
9	0.753	54	0.826	99	0.754	144	0.828	189	0.753	234	0.814	279	0.757	324	0.829
10	0.755	55	0.863	100	0.756	145	0.863	190	0.754	235	0.847	280	0.759	325	0.865
11	0.762	56	0.902	101	0.767	146	0.900	191	0.763	236	0.885	281	0.767	326	0.906
12	0.781	57	0.941	102	0.780	147	0.938	192	0.781	237	0.923	282	0.783	327	0.940
13	0.795	58	0.967	103	0.798	148	0.968	193	0.795	238	0.955	283	0.796	328	0.971
14	0.809	59	0.988	104	0.811	149	0.987	194	0.809	239	0.975	284	0.809	329	0.991
15	0.814	60	0.995	105	0.817	150	0.996	195	0.816	240	0.987	285	0.815	330	0.999
16	0.815	61	0.986	106	0.817	151	0.989	196	0.815	241	0.982	286	0.811	331	0.993
17	0.809	62	0.967	107	0.809	152	0.968	197	0.805	242	0.966	287	0.803	332	0.975
18	0.798	63	0.939	108	0.797	153	0.939	198	0.793	243	0.939	288	0.790	333	0.946
19	0.784	64	0.903	109	0.782	154	0.905	199	0.779	244	0.903	289	0.775	334	0.908
20	0.774	65	0.861	110	0.771	155	0.863	200	0.767	245	0.865	290	0.766	335	0.868
21	0.771	66	0.822	111	0.768	156	0.819	201	0.762	246	0.825	291	0.762	336	0.827
22	0.781	67	0.790	112	0.778	157	0.786	202	0.772	247	0.794	292	0.769	337	0.791
23	0.798	68	0.766	113	0.794	158	0.761	203	0.790	248	0.771	293	0.789	338	0.770
24	0.831	69	0.754	114	0.823	159	0.748	204	0.822	249	0.759	294	0.822	339	0.757
25	0.868	70	0.758	115	0.859	160	0.748	205	0.855	250	0.761	295	0.856	340	0.757
26	0.906	71	0.766	116	0.895	161	0.758	206	0.895	251	0.769	296	0.896	341	0.767
27	0.944	72	0.782	117	0.934	162	0.774	207	0.934	252	0.785	297	0.930	342	0.784
28	0.971	73	0.798	118	0.964	163	0.789	208	0.966	253	0.798	298	0.960	343	0.799
29	0.992	74	0.813	119	0.984	164	0.801	209	0.985	254	0.812	299	0.980	344	0.812
30	0.999	75	0.819	120	0.994	165	0.810	210	0.994	255	0.816	300	0.991	345	0.817
31	0.993	76	0.819	121	0.986	166	0.810	211	0.989	256	0.813	301	0.983	346	0.816
32	0.971	77	0.811	122	0.968	167	0.801	212	0.969	257	0.805	302	0.967	347	0.809
33	0.944	78	0.800	123	0.940	168	0.790	213	0.940	258	0.791	303	0.938	348	0.797
34	0.908	79	0.784	124	0.905	169	0.778	214	0.905	259	0.775	304	0.901	349	0.783
35	0.867	80	0.774	125	0.863	170	0.766	215	0.865	260	0.764	305	0.862	350	0.773
36	0.827	81	0.769	126	0.820	171	0.762	216	0.825	261	0.760	306	0.821	351	0.772
37	0.793	82	0.779	127	0.788	172	0.773	217	0.792	262	0.768	307	0.788	352	0.779
38	0.769	83	0.794	128	0.764	173	0.792	218	0.769	263	0.787	308	0.766	353	0.798
39	0.756	84	0.825	129	0.751	174	0.823	219	0.756	264	0.820	309	0.754	354	0.831
40	0.758	85	0.859	130	0.750	175	0.859	220	0.759	265	0.852	310	0.756	355	0.867
41	0.767	86	0.895	131	0.761	176	0.898	221	0.766	266	0.891	311	0.765	356	0.908
42	0.782	87	0.933	132	0.775	177	0.937	222	0.784	267	0.929	312	0.783	357	0.944
43	0.797	88	0.963	133	0.792	178	0.968	223	0.796	268	0.959	313	0.799	358	0.971
44	0.811	89	0.982	134	0.805	179	0.989	224	0.811	269	0.980	314	0.812	359	0.992



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**



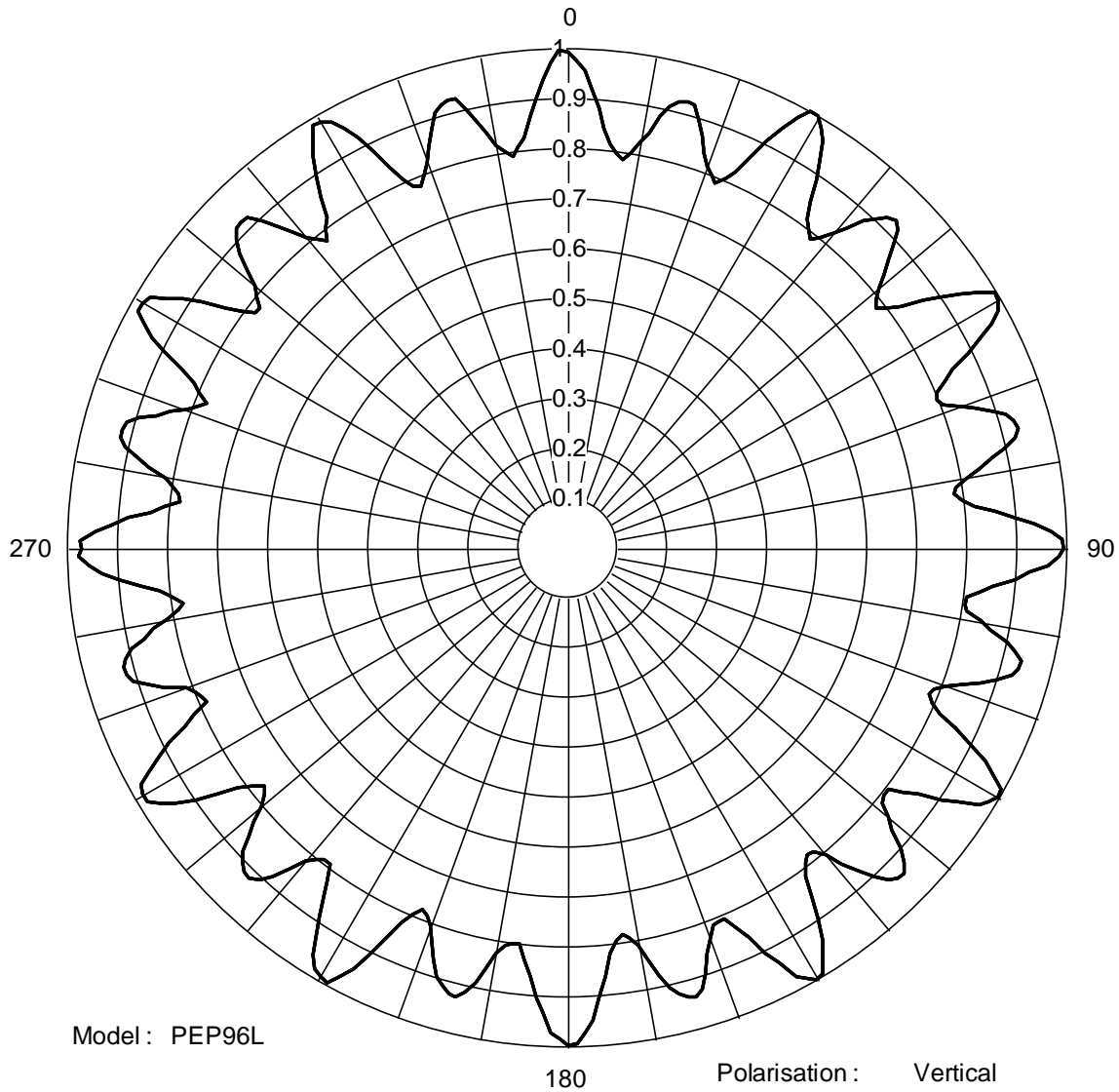
TABULATED ELEVATION PATTERN

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		

Station : OWTC

E / Emax

Date : 22/03/2017



Model : PEP96L

Polarisation : Vertical

Frequency (MHz) : 539.00

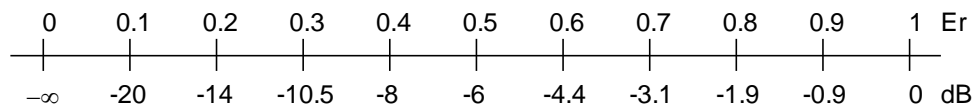
Directivity : 1.13 dB

Elevation Angle : 1.0 degrees

Horizontal Unit Pattern

File = AV539.pat

Pattern Tolerance +/- 5% of Emax



Voltage and Power Ratios

0 dB = Max ERP

Directivity : 1.13 dB

Model:

Location:

Customer:

Date: **April 4, 2017**

Polarisation:

Frequency (MHz):

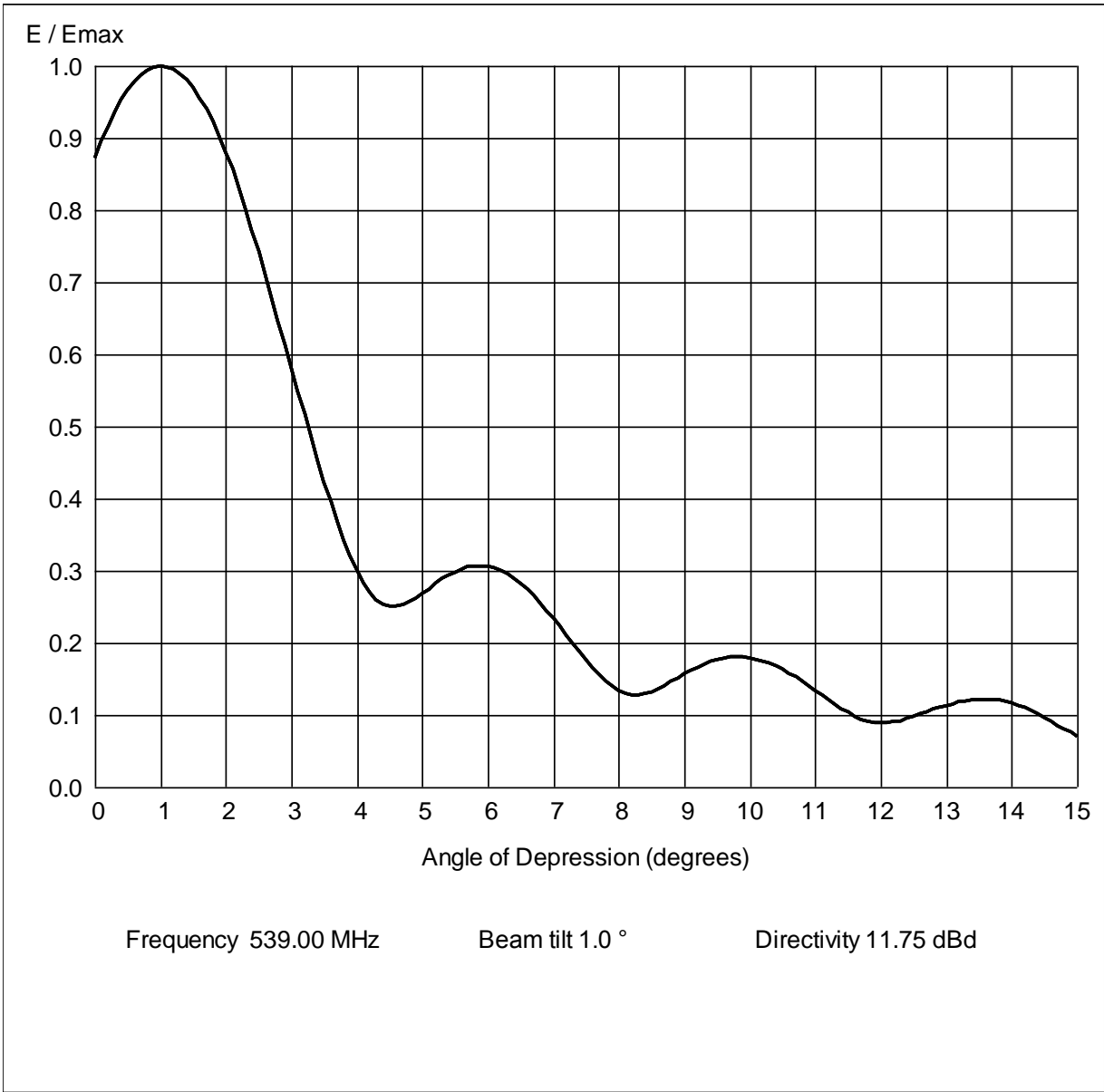
Directivity:

Elevation Angle:

Rotation Angle:

Vertical**539.00****1.3 (1.13 dB)****1.00 degrees****0 degrees****TABULATED AZIMUTH PATTERN**

Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	0.992	45	0.926	90	0.992	135	0.932	180	0.993	225	0.914	270	0.973	315	0.922
1	0.980	46	0.917	91	0.982	136	0.921	181	0.982	226	0.904	271	0.975	316	0.922
2	0.956	47	0.890	92	0.961	137	0.899	182	0.968	227	0.888	272	0.945	317	0.897
3	0.922	48	0.862	93	0.923	138	0.866	183	0.928	228	0.858	273	0.913	318	0.866
4	0.884	49	0.835	94	0.895	139	0.835	184	0.901	229	0.834	274	0.881	319	0.841
5	0.843	50	0.810	95	0.852	140	0.801	185	0.858	230	0.801	275	0.837	320	0.813
6	0.812	51	0.790	96	0.828	141	0.781	186	0.827	231	0.781	276	0.812	321	0.795
7	0.797	52	0.782	97	0.804	142	0.778	187	0.798	232	0.770	277	0.781	322	0.783
8	0.785	53	0.800	98	0.801	143	0.787	188	0.799	233	0.790	278	0.785	323	0.803
9	0.799	54	0.823	99	0.808	144	0.810	189	0.803	234	0.814	279	0.799	324	0.820
10	0.825	55	0.865	100	0.836	145	0.852	190	0.821	235	0.855	280	0.817	325	0.859
11	0.847	56	0.898	101	0.860	146	0.893	191	0.853	236	0.898	281	0.855	326	0.900
12	0.883	57	0.936	102	0.897	147	0.936	192	0.888	237	0.936	282	0.883	327	0.936
13	0.907	58	0.967	103	0.917	148	0.964	193	0.911	238	0.961	283	0.909	328	0.962
14	0.920	59	0.996	104	0.933	149	0.990	194	0.924	239	0.981	284	0.920	329	0.987
15	0.926	60	0.993	105	0.933	150	0.995	195	0.922	240	0.982	285	0.921	330	0.985
16	0.922	61	0.981	106	0.922	151	0.981	196	0.911	241	0.975	286	0.918	331	0.974
17	0.893	62	0.959	107	0.897	152	0.969	197	0.894	242	0.949	287	0.896	332	0.954
18	0.867	63	0.924	108	0.869	153	0.931	198	0.866	243	0.919	288	0.864	333	0.922
19	0.837	64	0.889	109	0.834	154	0.902	199	0.834	244	0.887	289	0.840	334	0.885
20	0.813	65	0.847	110	0.805	155	0.859	200	0.803	245	0.844	290	0.812	335	0.841
21	0.799	66	0.824	111	0.784	156	0.831	201	0.788	246	0.817	291	0.792	336	0.808
22	0.787	67	0.802	112	0.779	157	0.803	202	0.777	247	0.786	292	0.777	337	0.789
23	0.806	68	0.794	113	0.790	158	0.805	203	0.794	248	0.790	293	0.800	338	0.783
24	0.825	69	0.804	114	0.814	159	0.808	204	0.817	249	0.798	294	0.817	339	0.801
25	0.870	70	0.835	115	0.854	160	0.830	205	0.862	250	0.813	295	0.853	340	0.820
26	0.906	71	0.860	116	0.893	161	0.857	206	0.904	251	0.853	296	0.898	341	0.850
27	0.943	72	0.892	117	0.937	162	0.895	207	0.944	252	0.882	297	0.932	342	0.883
28	0.979	73	0.915	118	0.964	163	0.922	208	0.970	253	0.907	298	0.960	343	0.912
29	1.000	74	0.928	119	0.990	164	0.932	209	0.993	254	0.918	299	0.981	344	0.924
30	0.999	75	0.932	120	0.992	165	0.929	210	0.990	255	0.919	300	0.981	345	0.929
31	0.981	76	0.921	121	0.982	166	0.918	211	0.981	256	0.911	301	0.974	346	0.927
32	0.961	77	0.896	122	0.969	167	0.902	212	0.959	257	0.896	302	0.946	347	0.902
33	0.925	78	0.866	123	0.927	168	0.872	213	0.924	258	0.866	303	0.916	348	0.871
34	0.888	79	0.838	124	0.900	169	0.839	214	0.890	259	0.843	304	0.881	349	0.845
35	0.845	80	0.810	125	0.855	170	0.805	215	0.849	260	0.812	305	0.836	350	0.820
36	0.815	81	0.786	126	0.828	171	0.787	216	0.821	261	0.789	306	0.806	351	0.804
37	0.799	82	0.780	127	0.801	172	0.781	217	0.790	262	0.776	307	0.784	352	0.791
38	0.785	83	0.793	128	0.800	173	0.790	218	0.790	263	0.797	308	0.781	353	0.810
39	0.800	84	0.816	129	0.810	174	0.814	219	0.800	264	0.819	309	0.801	354	0.826
40	0.825	85	0.855	130	0.834	175	0.859	220	0.815	265	0.856	310	0.815	355	0.868
41	0.848	86	0.891	131	0.859	176	0.900	221	0.849	266	0.898	311	0.847	356	0.905
42	0.884	87	0.933	132	0.896	177	0.945	222	0.881	267	0.933	312	0.882	357	0.939
43	0.903	88	0.965	133	0.919	178	0.970	223	0.905	268	0.956	313	0.908	358	0.973
44	0.920	89	0.988	134	0.934	179	0.991	224	0.917	269	0.978	314	0.920	359	0.997



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		