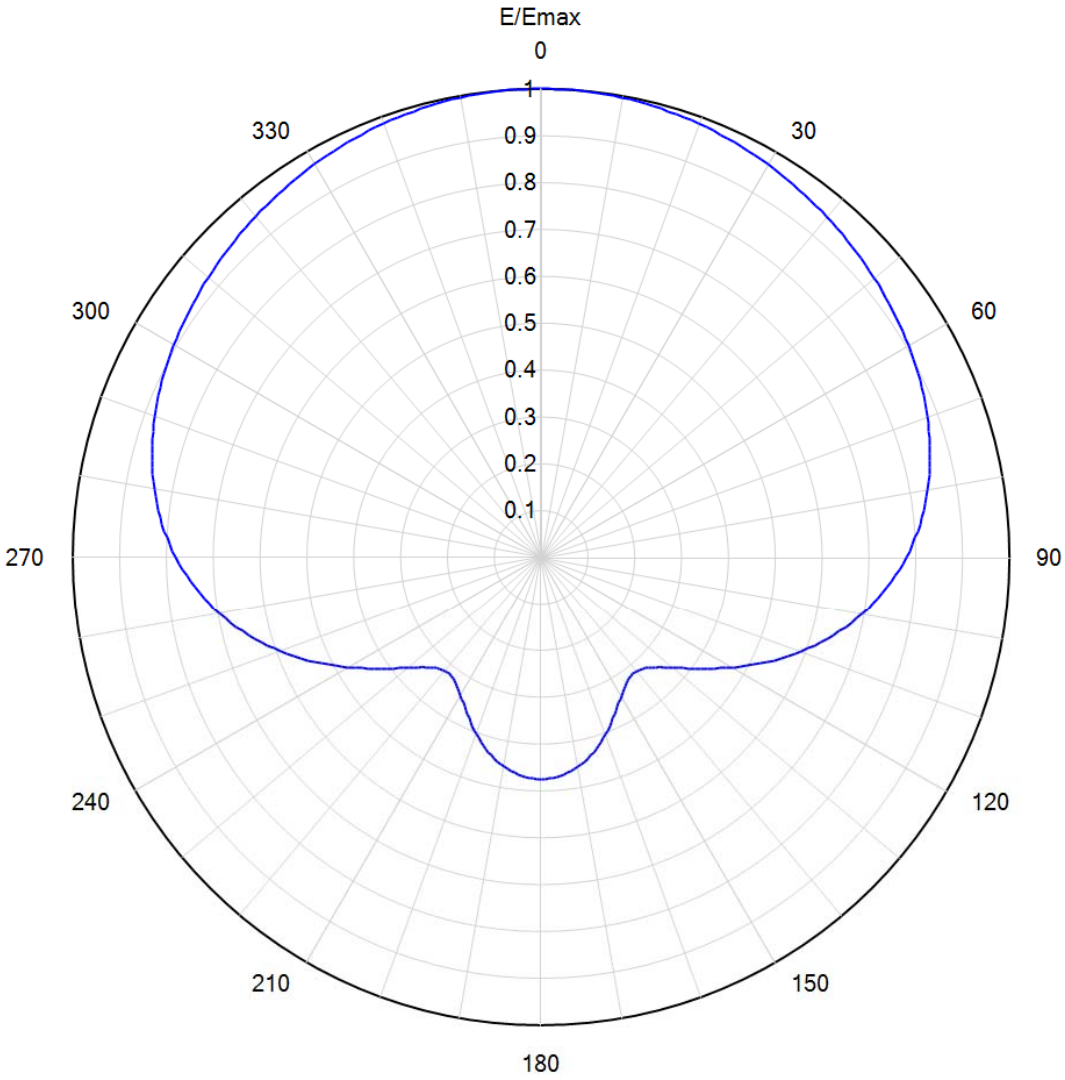
Azimuth Pattern



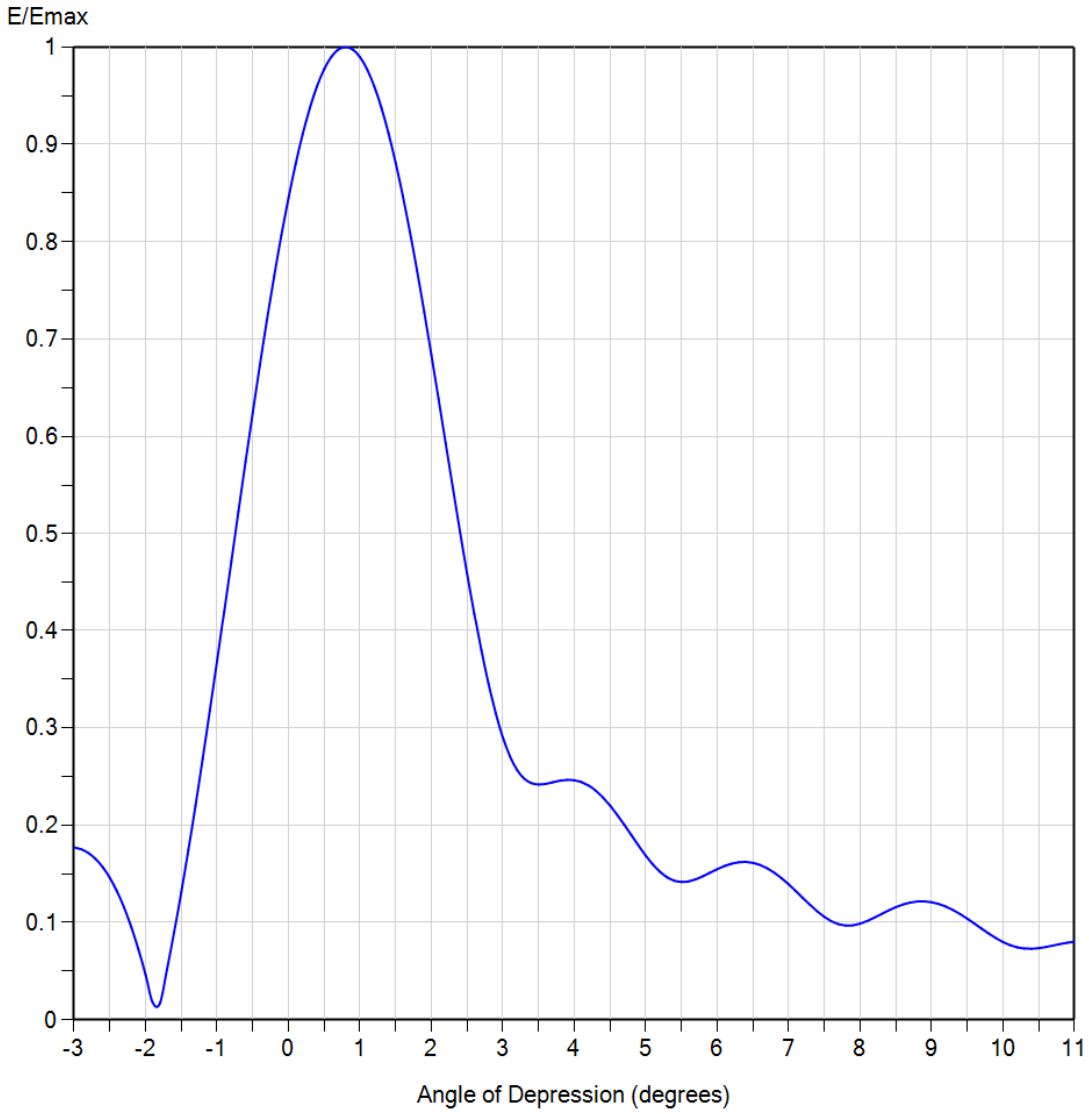
Model:	SAA24-S180-J300-ES6R-24	Polarization:	Horizontal
Location:		Frequency:	533.00 MHz
Customer:		Directivity:	1.8 (2.57 dB)
Date:	September 15, 2017	Elevation Angle:	0.75 degrees
Rotation Angle:	0 degrees	Horizontal Unit Pattern:	
Note: Pattern Tolerance +/-5% of Emax		File = 0-SK-198-2.57-500-S180.pat	

Model:	**SAA24-S180-J300-ES6R-24**	Polarization:	**Horizontal**
Location:		Frequency (MHz):	**533.00**
Customer:		Directivity:	**1.8 (2.57 dB)**
Date:	**September 15, 2017**	Elevation Angle:	**0.75 degrees**
		Rotation Angle:	**0 degrees**

TABULATED AZIMUTH PATTERN

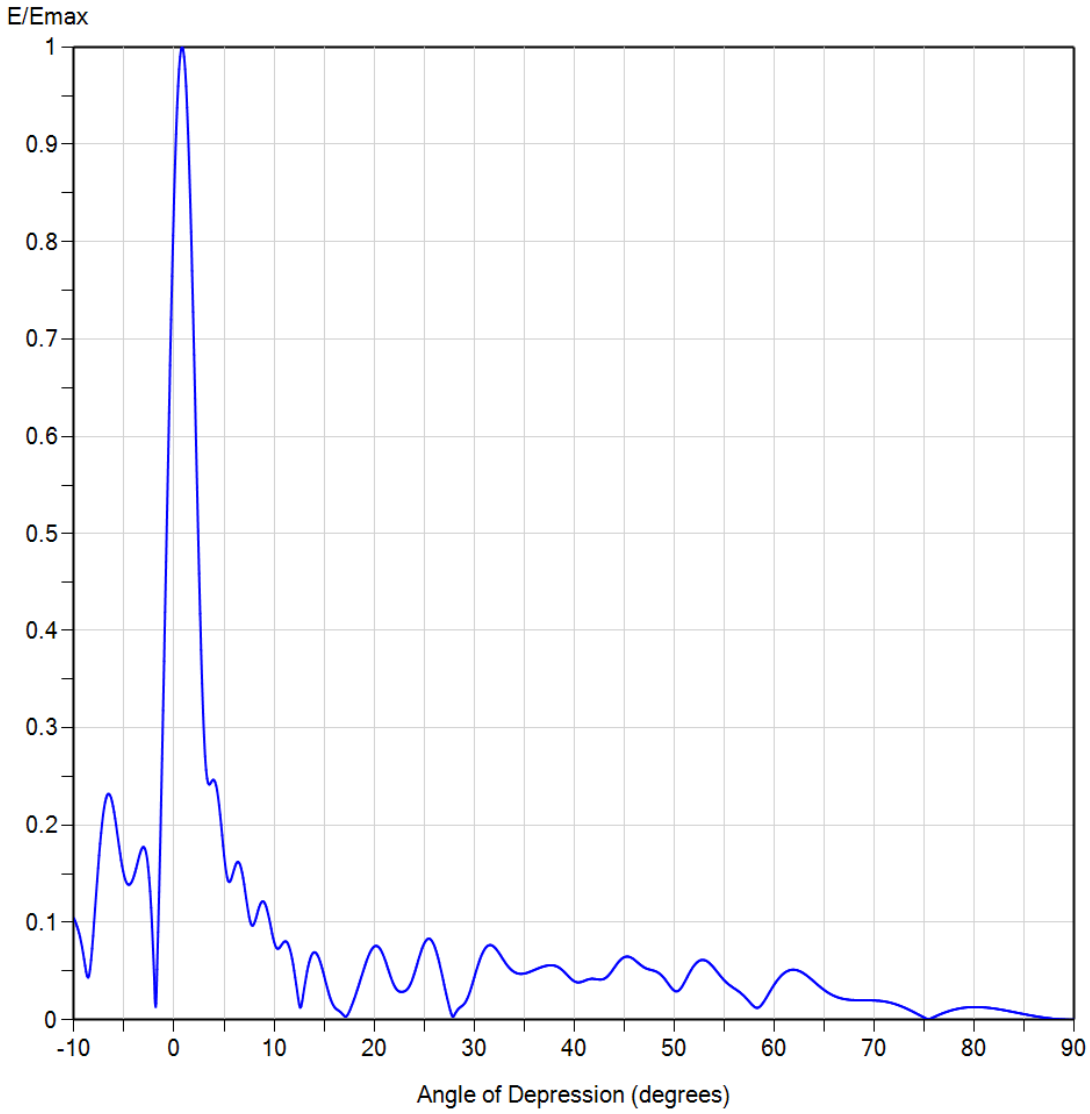
Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	1.00	45	0.93	90	0.78	135	0.33	180	0.47	225	0.33	270	0.78	315	0.93
1	1.00	46	0.93	91	0.77	136	0.33	181	0.47	226	0.34	271	0.78	316	0.94
2	1.00	47	0.93	92	0.76	137	0.32	182	0.47	227	0.34	272	0.79	317	0.94
3	1.00	48	0.93	93	0.75	138	0.32	183	0.47	228	0.35	273	0.80	318	0.94
4	0.99	49	0.93	94	0.75	139	0.32	184	0.47	229	0.36	274	0.80	319	0.94
5	0.99	50	0.92	95	0.74	140	0.31	185	0.47	230	0.36	275	0.81	320	0.94
6	0.99	51	0.92	96	0.73	141	0.31	186	0.46	231	0.37	276	0.81	321	0.95
7	0.99	52	0.92	97	0.72	142	0.31	187	0.46	232	0.38	277	0.82	322	0.95
8	0.99	53	0.92	98	0.71	143	0.31	188	0.46	233	0.39	278	0.82	323	0.95
9	0.99	54	0.92	99	0.70	144	0.32	189	0.45	234	0.40	279	0.83	324	0.95
10	0.99	55	0.91	100	0.69	145	0.32	190	0.45	235	0.41	280	0.83	325	0.95
11	0.99	56	0.91	101	0.68	146	0.32	191	0.45	236	0.42	281	0.84	326	0.96
12	0.99	57	0.91	102	0.67	147	0.32	192	0.44	237	0.43	282	0.84	327	0.96
13	0.99	58	0.91	103	0.66	148	0.33	193	0.44	238	0.45	283	0.85	328	0.96
14	0.99	59	0.90	104	0.65	149	0.33	194	0.43	239	0.46	284	0.85	329	0.96
15	0.99	60	0.90	105	0.64	150	0.34	195	0.43	240	0.47	285	0.86	330	0.96
16	0.99	61	0.90	106	0.63	151	0.34	196	0.42	241	0.48	286	0.86	331	0.97
17	0.98	62	0.90	107	0.62	152	0.35	197	0.42	242	0.49	287	0.86	332	0.97
18	0.98	63	0.89	108	0.61	153	0.36	198	0.41	243	0.50	288	0.87	333	0.97
19	0.98	64	0.89	109	0.60	154	0.36	199	0.41	244	0.52	289	0.87	334	0.97
20	0.98	65	0.89	110	0.59	155	0.37	200	0.40	245	0.53	290	0.87	335	0.97
21	0.98	66	0.89	111	0.58	156	0.37	201	0.39	246	0.54	291	0.88	336	0.97
22	0.98	67	0.88	112	0.56	157	0.38	202	0.39	247	0.55	292	0.88	337	0.98
23	0.98	68	0.88	113	0.55	158	0.39	203	0.38	248	0.56	293	0.88	338	0.98
24	0.97	69	0.88	114	0.54	159	0.39	204	0.37	249	0.58	294	0.89	339	0.98
25	0.97	70	0.87	115	0.53	160	0.40	205	0.37	250	0.59	295	0.89	340	0.98
26	0.97	71	0.87	116	0.52	161	0.41	206	0.36	251	0.60	296	0.89	341	0.98
27	0.97	72	0.87	117	0.50	162	0.41	207	0.36	252	0.61	297	0.89	342	0.98
28	0.97	73	0.86	118	0.49	163	0.42	208	0.35	253	0.62	298	0.90	343	0.98
29	0.97	74	0.86	119	0.48	164	0.42	209	0.34	254	0.63	299	0.90	344	0.99
30	0.96	75	0.86	120	0.47	165	0.43	210	0.34	255	0.64	300	0.90	345	0.99
31	0.96	76	0.85	121	0.46	166	0.43	211	0.33	256	0.65	301	0.90	346	0.99
32	0.96	77	0.85	122	0.45	167	0.44	212	0.33	257	0.66	302	0.91	347	0.99
33	0.96	78	0.84	123	0.43	168	0.44	213	0.32	258	0.67	303	0.91	348	0.99
34	0.96	79	0.84	124	0.42	169	0.45	214	0.32	259	0.68	304	0.91	349	0.99
35	0.95	80	0.83	125	0.41	170	0.45	215	0.32	260	0.69	305	0.91	350	0.99
36	0.95	81	0.83	126	0.40	171	0.45	216	0.32	261	0.70	306	0.92	351	0.99
37	0.95	82	0.82	127	0.39	172	0.46	217	0.31	262	0.71	307	0.92	352	0.99
38	0.95	83	0.82	128	0.38	173	0.46	218	0.31	263	0.72	308	0.92	353	0.99
39	0.95	84	0.81	129	0.37	174	0.46	219	0.31	264	0.73	309	0.92	354	0.99
40	0.94	85	0.81	130	0.36	175	0.47	220	0.31	265	0.74	310	0.92	355	0.99
41	0.94	86	0.80	131	0.36	176	0.47	221	0.32	266	0.75	311	0.93	356	0.99
42	0.94	87	0.80	132	0.35	177	0.47	222	0.32	267	0.75	312	0.93	357	1.00
43	0.94	88	0.79	133	0.34	178	0.47	223	0.32	268	0.76	313	0.93	358	1.00
44	0.94	89	0.78	134	0.34	179	0.47	224	0.33	269	0.77	314	0.93	359	1.00

Elevation Pattern



Model:	SAA24-S180-J300-ES6R-24	Frequency:	533.00 MHz
Polarization:	Horizontal	Directivity (Main Lobe):	23.1 (13.64 dBd)
Location:		Directivity (At Horizon):	16.5 (12.18 dBd)
Customer:		Beam Tilt:	0.75 degrees
Date:	September 15, 2017	Azimuth Angle:	359 degrees

Elevation Pattern



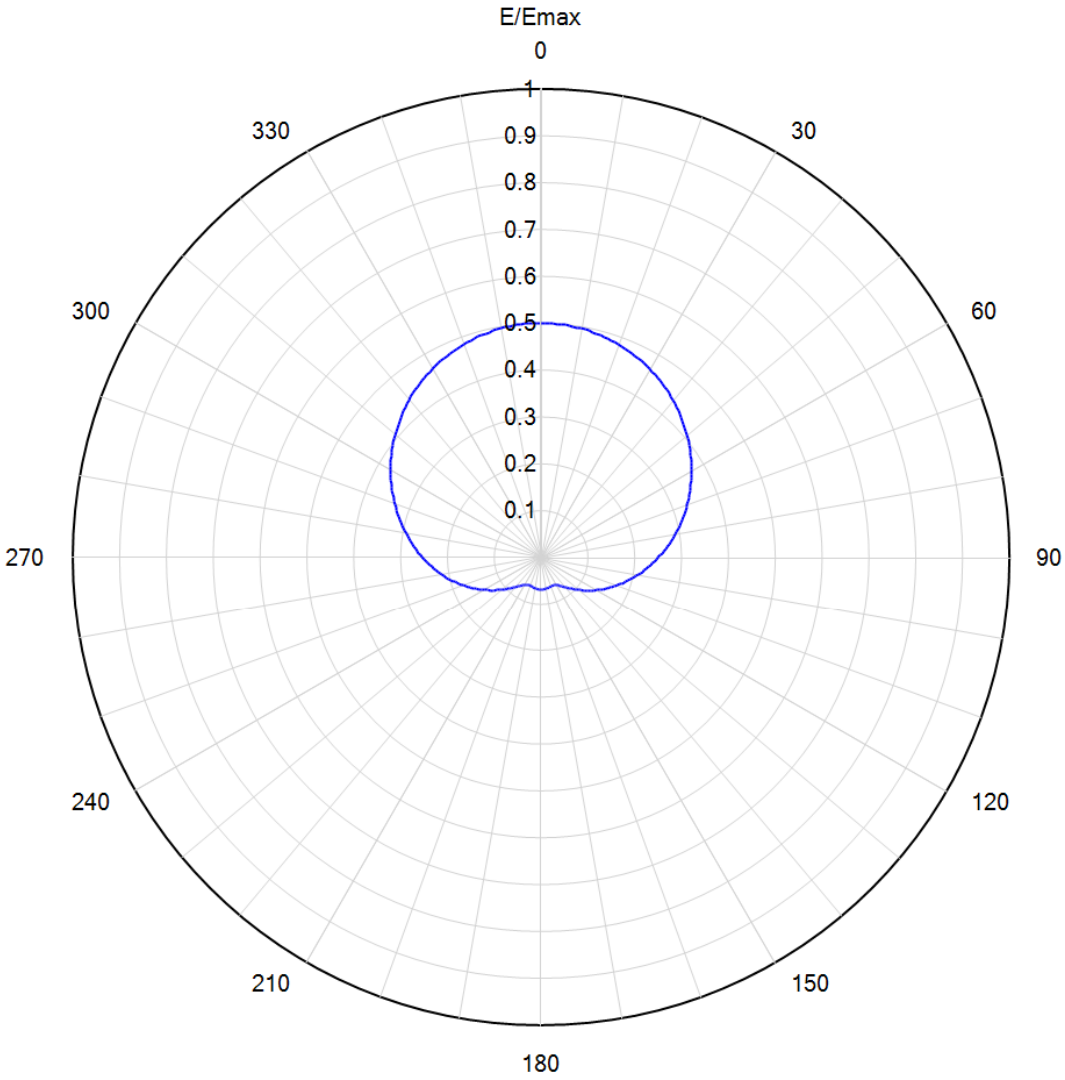
Model:	SAA24-S180-J300-ES6R-24	Frequency:	533.00 MHz
Polarization:	Horizontal	Directivity (Main Lobe):	23.1 (13.64 dBd)
Location:		Directivity (At Horizon):	16.5 (12.18 dBd)
Customer:		Beam Tilt:	0.75 degrees
Date:	September 15, 2017	Azimuth Angle:	359 degrees

Model:	**SAA24-S180-J300-ES6R-24**	Polarization:	**Horizontal**
Location:		Frequency (MHz):	**533.00**
Customer:		Directivity (Main Lobe):	**23.1 (13.64 dB)**
Date:	**September 15, 2017**	Directivity (At Horizon):	**16.5 (12.18 dB)**
		Beam Tilt:	**0.75 degrees**

TABULATED ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.104	2.4	0.503	10.6	0.075	30.5	0.060	51.0	0.038	71.5	0.018
-9.5	0.089	2.6	0.418	10.8	0.078	31.0	0.072	51.5	0.048	72.0	0.016
-9.0	0.062	2.8	0.345	11.0	0.080	31.5	0.077	52.0	0.056	72.5	0.015
-8.5	0.046	3.0	0.290	11.5	0.075	32.0	0.075	52.5	0.061	73.0	0.013
-8.0	0.100	3.2	0.256	12.0	0.050	32.5	0.068	53.0	0.061	73.5	0.010
-7.5	0.169	3.4	0.243	12.5	0.016	33.0	0.060	53.5	0.058	74.0	0.008
-7.0	0.218	3.6	0.242	13.0	0.032	33.5	0.053	54.0	0.053	74.5	0.005
-6.5	0.232	3.8	0.246	13.5	0.059	34.0	0.049	54.5	0.046	75.0	0.002
-6.0	0.213	4.0	0.246	14.0	0.069	34.5	0.047	55.0	0.040	75.5	0.001
-5.5	0.178	4.2	0.241	14.5	0.063	35.0	0.047	55.5	0.036	76.0	0.003
-5.0	0.148	4.4	0.228	15.0	0.045	35.5	0.049	56.0	0.032	76.5	0.005
-4.5	0.139	4.6	0.211	15.5	0.026	36.0	0.051	56.5	0.029	77.0	0.007
-4.0	0.148	4.8	0.190	16.0	0.013	36.5	0.053	57.0	0.024	77.5	0.009
-3.5	0.168	5.0	0.169	16.5	0.009	37.0	0.055	57.5	0.019	78.0	0.011
-3.0	0.177	5.2	0.152	17.0	0.004	37.5	0.056	58.0	0.013	78.5	0.012
-2.8	0.171	5.4	0.143	17.5	0.008	38.0	0.056	58.5	0.013	79.0	0.012
-2.6	0.157	5.6	0.142	18.0	0.021	38.5	0.053	59.0	0.019	79.5	0.013
-2.4	0.132	5.8	0.147	18.5	0.037	39.0	0.049	59.5	0.028	80.0	0.013
-2.2	0.095	6.0	0.155	19.0	0.053	39.5	0.044	60.0	0.036	80.5	0.013
-2.0	0.046	6.2	0.160	19.5	0.067	40.0	0.040	60.5	0.043	81.0	0.013
-1.8	0.017	6.4	0.162	20.0	0.075	40.5	0.038	61.0	0.048	81.5	0.012
-1.6	0.090	6.6	0.159	20.5	0.074	41.0	0.040	61.5	0.051	82.0	0.012
-1.4	0.175	6.8	0.151	21.0	0.064	41.5	0.042	62.0	0.051	82.5	0.011
-1.2	0.268	7.0	0.139	21.5	0.049	42.0	0.042	62.5	0.050	83.0	0.010
-1.0	0.368	7.2	0.125	22.0	0.035	42.5	0.041	63.0	0.047	83.5	0.009
-0.8	0.471	7.4	0.111	22.5	0.029	43.0	0.042	63.5	0.043	84.0	0.008
-0.6	0.574	7.6	0.101	23.0	0.029	43.5	0.047	64.0	0.039	84.5	0.007
-0.4	0.673	7.8	0.097	23.5	0.034	44.0	0.054	64.5	0.035	85.0	0.006
-0.2	0.765	8.0	0.099	24.0	0.047	44.5	0.060	65.0	0.030	85.5	0.005
0.0	0.845	8.2	0.105	24.5	0.064	45.0	0.064	65.5	0.027	86.0	0.004
0.2	0.911	8.4	0.112	25.0	0.078	45.5	0.065	66.0	0.024	86.5	0.003
0.4	0.960	8.6	0.118	25.5	0.083	46.0	0.062	66.5	0.023	87.0	0.002
0.6	0.990	8.8	0.121	26.0	0.076	46.5	0.057	67.0	0.021	87.5	0.002
0.8	1.000	9.0	0.121	26.5	0.059	47.0	0.054	67.5	0.021	88.0	0.001
1.0	0.990	9.2	0.116	27.0	0.036	47.5	0.052	68.0	0.020	88.5	0.001
1.2	0.960	9.4	0.109	27.5	0.014	48.0	0.050	68.5	0.020	89.0	0.000
1.4	0.911	9.6	0.099	28.0	0.005	48.5	0.048	69.0	0.020	89.5	0.000
1.6	0.847	9.8	0.089	28.5	0.012	49.0	0.043	69.5	0.020	90.0	0.000
1.8	0.770	10.0	0.080	29.0	0.016	49.5	0.036	70.0	0.020		
2.0	0.684	10.2	0.074	29.5	0.027	50.0	0.030	70.5	0.020		
2.2	0.593	10.4	0.073	30.0	0.043	50.5	0.031	71.0	0.019		

Azimuth Pattern



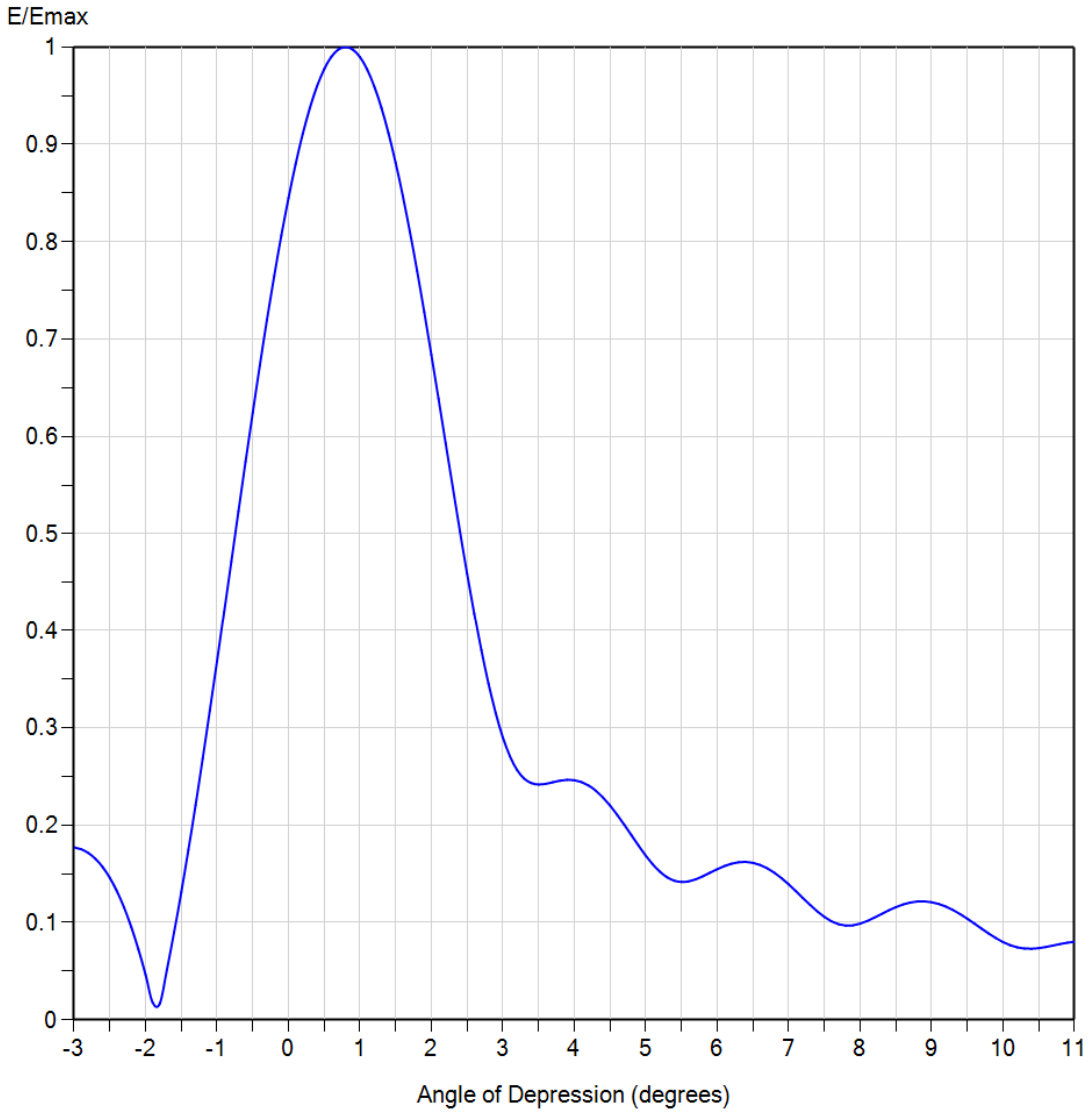
Model:	SAA24-S180-J300-ES6R-24	Polarization:	Vertical
Location:		Frequency:	533.00 MHz
Customer:		Directivity:	2.6 (4.22 dB)
Date:	September 15, 2017	Elevation Angle:	0.75 degrees
Rotation Angle:	0 degrees	Horizontal Unit Pattern:	
Note: Pattern Tolerance +/-5% of Emax		File = 0-CA-129-4.22-500-S180_Vpol.pat	

Model:	**SAA24-S180-J300-ES6R-24**	Polarization:	**Vertical**
Location:		Frequency (MHz):	**533.00**
Customer:		Directivity:	**2.6 (4.22 dB)**
Date:	**September 15, 2017**	Elevation Angle:	**0.75 degrees**
		Rotation Angle:	**0 degrees**

TABULATED AZIMUTH PATTERN

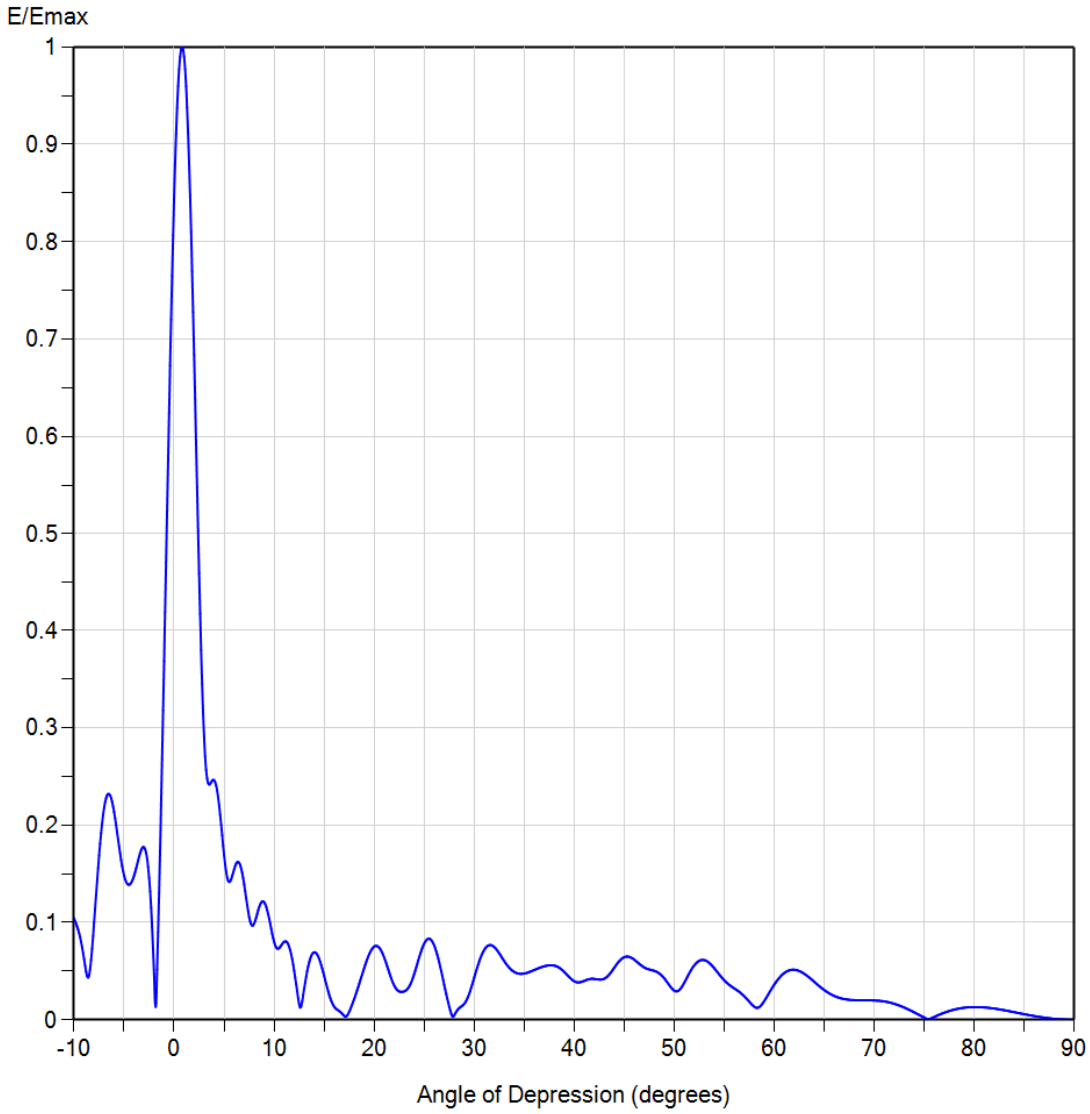
Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	1.00	45	0.84	90	0.50	135	0.19	180	0.13	225	0.18	270	0.50	315	0.84
1	1.00	46	0.84	91	0.49	136	0.18	181	0.13	226	0.19	271	0.51	316	0.85
2	1.00	47	0.83	92	0.48	137	0.18	182	0.13	227	0.19	272	0.52	317	0.86
3	0.99	48	0.82	93	0.47	138	0.17	183	0.13	228	0.20	273	0.52	318	0.86
4	0.99	49	0.82	94	0.46	139	0.17	184	0.13	229	0.20	274	0.53	319	0.87
5	0.99	50	0.81	95	0.46	140	0.16	185	0.13	230	0.21	275	0.54	320	0.87
6	0.99	51	0.80	96	0.45	141	0.16	186	0.13	231	0.22	276	0.55	321	0.88
7	0.99	52	0.80	97	0.44	142	0.15	187	0.13	232	0.22	277	0.56	322	0.88
8	0.99	53	0.79	98	0.43	143	0.15	188	0.13	233	0.23	278	0.56	323	0.89
9	0.99	54	0.78	99	0.42	144	0.15	189	0.13	234	0.23	279	0.57	324	0.90
10	0.99	55	0.77	100	0.42	145	0.14	190	0.13	235	0.24	280	0.58	325	0.90
11	0.99	56	0.77	101	0.41	146	0.14	191	0.13	236	0.25	281	0.59	326	0.91
12	0.98	57	0.76	102	0.40	147	0.14	192	0.13	237	0.25	282	0.60	327	0.91
13	0.98	58	0.75	103	0.39	148	0.14	193	0.13	238	0.26	283	0.60	328	0.92
14	0.98	59	0.74	104	0.39	149	0.13	194	0.13	239	0.27	284	0.61	329	0.92
15	0.98	60	0.74	105	0.38	150	0.13	195	0.13	240	0.27	285	0.62	330	0.93
16	0.97	61	0.73	106	0.37	151	0.13	196	0.13	241	0.28	286	0.63	331	0.93
17	0.97	62	0.72	107	0.36	152	0.13	197	0.13	242	0.29	287	0.64	332	0.93
18	0.97	63	0.71	108	0.36	153	0.13	198	0.13	243	0.29	288	0.64	333	0.94
19	0.97	64	0.71	109	0.35	154	0.13	199	0.13	244	0.30	289	0.65	334	0.94
20	0.96	65	0.70	110	0.34	155	0.13	200	0.13	245	0.31	290	0.66	335	0.95
21	0.96	66	0.69	111	0.34	156	0.13	201	0.13	246	0.32	291	0.67	336	0.95
22	0.96	67	0.68	112	0.33	157	0.13	202	0.13	247	0.32	292	0.68	337	0.95
23	0.95	68	0.68	113	0.32	158	0.13	203	0.13	248	0.33	293	0.68	338	0.96
24	0.95	69	0.67	114	0.31	159	0.13	204	0.13	249	0.34	294	0.69	339	0.96
25	0.95	70	0.66	115	0.31	160	0.13	205	0.13	250	0.35	295	0.70	340	0.96
26	0.94	71	0.65	116	0.30	161	0.13	206	0.13	251	0.35	296	0.71	341	0.97
27	0.94	72	0.64	117	0.29	162	0.13	207	0.13	252	0.36	297	0.71	342	0.97
28	0.93	73	0.64	118	0.29	163	0.13	208	0.13	253	0.37	298	0.72	343	0.97
29	0.93	74	0.63	119	0.28	164	0.13	209	0.13	254	0.38	299	0.73	344	0.98
30	0.92	75	0.62	120	0.27	165	0.13	210	0.13	255	0.39	300	0.74	345	0.98
31	0.92	76	0.61	121	0.27	166	0.13	211	0.13	256	0.39	301	0.74	346	0.98
32	0.92	77	0.60	122	0.26	167	0.13	212	0.14	257	0.40	302	0.75	347	0.98
33	0.91	78	0.59	123	0.25	168	0.13	213	0.14	258	0.41	303	0.76	348	0.98
34	0.91	79	0.59	124	0.25	169	0.13	214	0.14	259	0.42	304	0.77	349	0.99
35	0.90	80	0.58	125	0.24	170	0.13	215	0.14	260	0.42	305	0.77	350	0.99
36	0.89	81	0.57	126	0.24	171	0.13	216	0.15	261	0.43	306	0.78	351	0.99
37	0.89	82	0.56	127	0.23	172	0.13	217	0.15	262	0.44	307	0.79	352	0.99
38	0.88	83	0.55	128	0.22	173	0.13	218	0.15	263	0.45	308	0.80	353	0.99
39	0.88	84	0.55	129	0.22	174	0.13	219	0.16	264	0.46	309	0.80	354	0.99
40	0.87	85	0.54	130	0.21	175	0.13	220	0.16	265	0.46	310	0.81	355	0.99
41	0.87	86	0.53	131	0.21	176	0.13	221	0.16	266	0.47	311	0.82	356	0.99
42	0.86	87	0.52	132	0.20	177	0.13	222	0.17	267	0.48	312	0.82	357	0.99
43	0.85	88	0.51	133	0.20	178	0.13	223	0.17	268	0.49	313	0.83	358	1.00
44	0.85	89	0.50	134	0.19	179	0.13	224	0.18	269	0.49	314	0.84	359	1.00

Elevation Pattern



Model:	SAA24-S180-J300-ES6R-24	Frequency:	533.00 MHz
Polarization:	Vertical	Directivity (Main Lobe):	23.1 (13.64 dBd)
Location:		Directivity (At Horizon):	16.5 (12.18 dBd)
Customer:		Beam Tilt:	0.75 degrees
Date:	September 15, 2017	Azimuth Angle:	0 degrees

Elevation Pattern



Model:	SAA24-S180-J300-ES6R-24	Frequency:	533.00 MHz
Polarization:	Vertical	Directivity (Main Lobe):	23.1 (13.64 dBd)
Location:		Directivity (At Horizon):	16.5 (12.18 dBd)
Customer:		Beam Tilt:	0.75 degrees
Date:	September 15, 2017	Azimuth Angle:	0 degrees