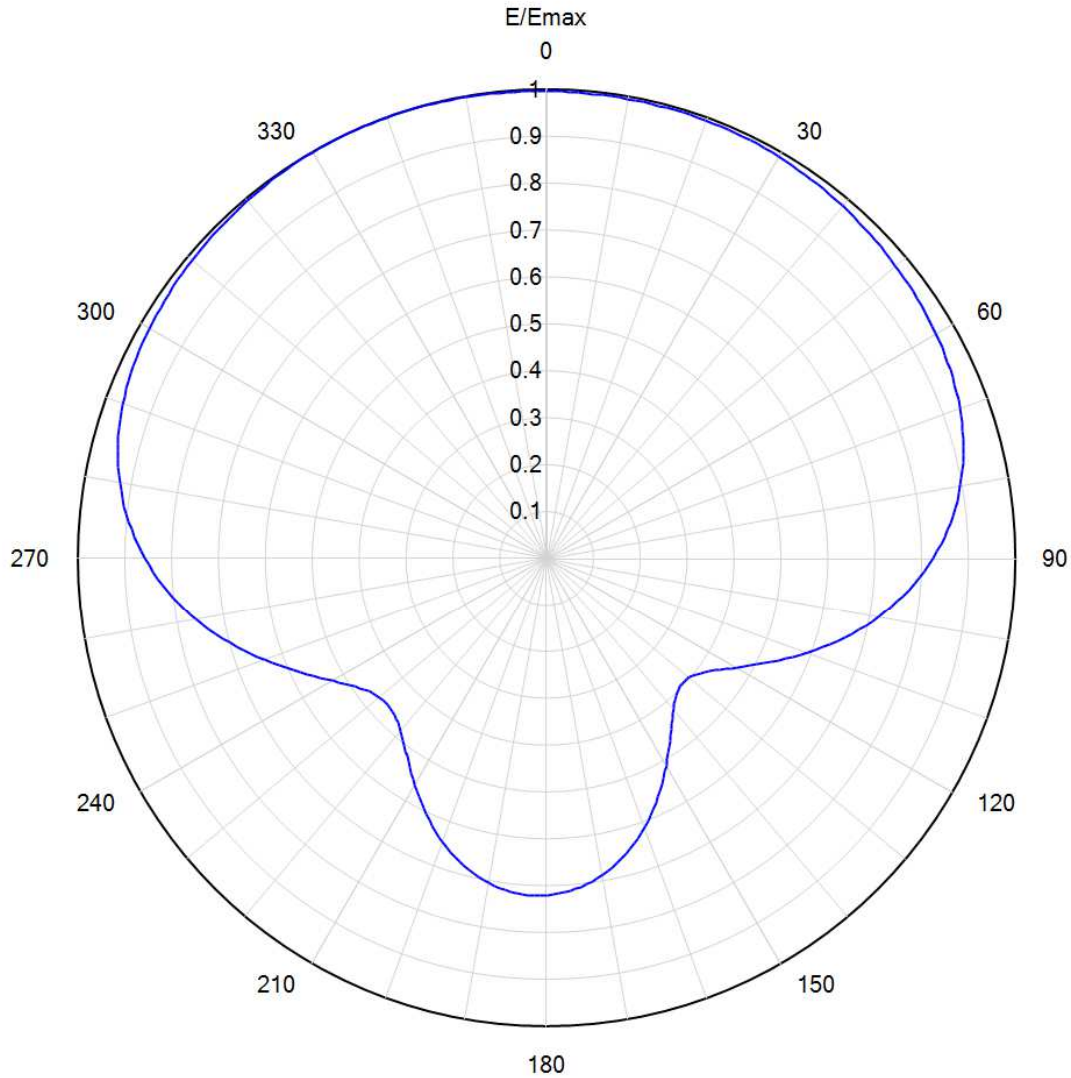




Azimuth Pattern



Model: SBB-EPD-24C160
Location: Norfolk sidemount
Customer: ATC
Date: October 22, 2018
Rotation Angle: 0 degrees

Polarization: Horizontal
Frequency: 485.00 MHz
Directivity: 1.5 (1.84 dB)
Elevation Angle: 0.75 degrees
Horizontal Unit Pattern:
File = C160 Hpol_493.pat

Note: Pattern Tolerance +/-5% of Emax



Model: **SBB-EP-24C160**
Location: **Norfolk sidemount**
Customer: **ATC**
Date: **October 22, 2018**

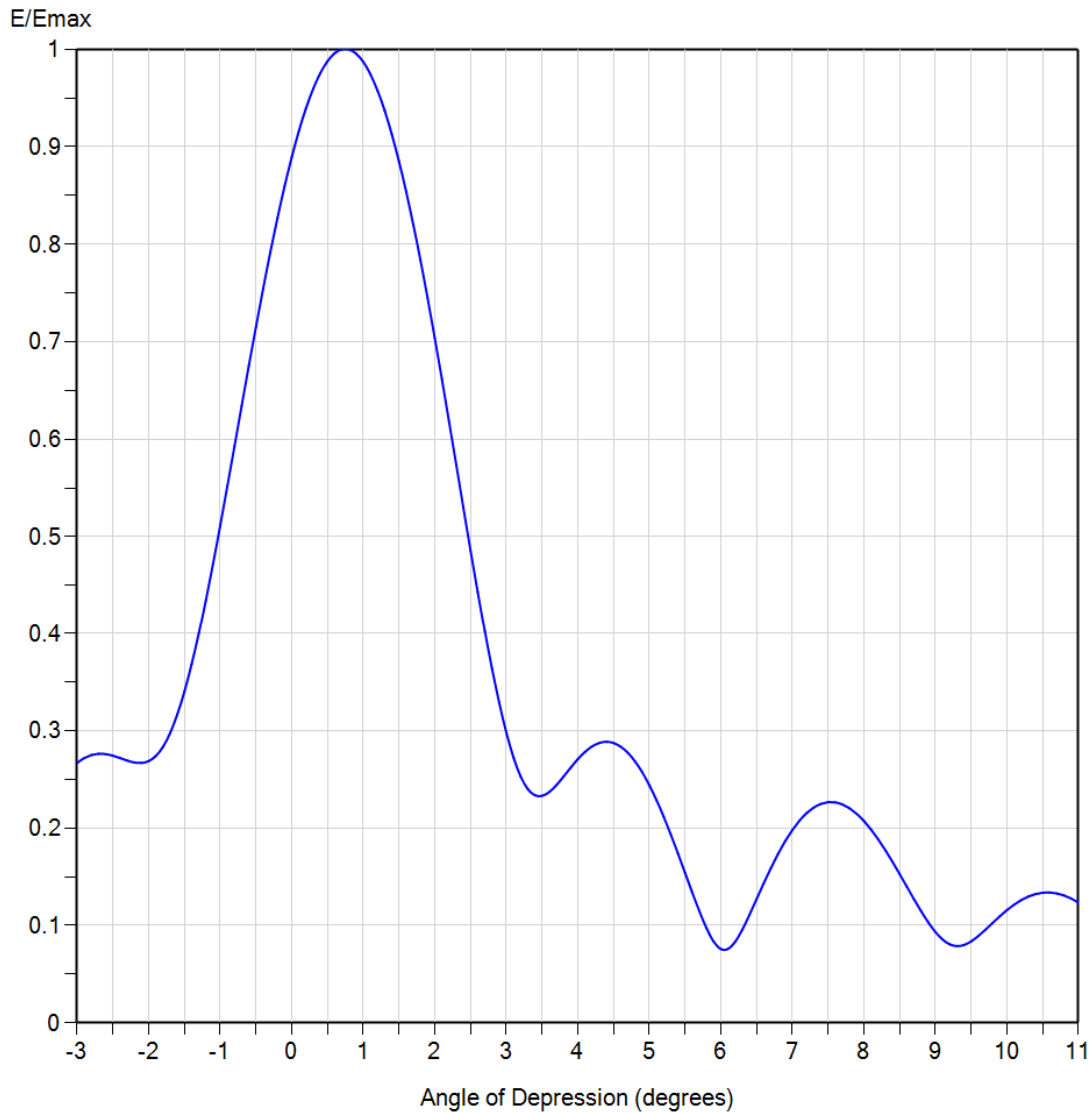
Polarization: **Horizontal**
Frequency (MHz): **485.00**
Directivity: **1.5 (1.84 dB)**
Elevation Angle: **0.75 degrees**
Rotation Angle: **0 degrees**

TABULATED AZIMUTH PATTERN

Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field	Angl	Field
0	0.995	45	0.976	90	0.825	135	0.398	180	0.721	225	0.464	270	0.857	315	0.991
1	0.995	46	0.975	91	0.816	136	0.401	181	0.721	226	0.462	271	0.865	316	0.992
2	0.995	47	0.974	92	0.807	137	0.405	182	0.722	227	0.462	272	0.873	317	0.992
3	0.995	48	0.973	93	0.797	138	0.409	183	0.721	228	0.462	273	0.881	318	0.993
4	0.995	49	0.972	94	0.787	139	0.415	184	0.720	229	0.463	274	0.888	319	0.994
5	0.995	50	0.971	95	0.776	140	0.421	185	0.719	230	0.464	275	0.895	320	0.994
6	0.995	51	0.970	96	0.766	141	0.428	186	0.717	231	0.467	276	0.901	321	0.995
7	0.994	52	0.969	97	0.755	142	0.436	187	0.715	232	0.471	277	0.908	322	0.995
8	0.994	53	0.968	98	0.744	143	0.444	188	0.712	233	0.475	278	0.913	323	0.996
9	0.994	54	0.967	99	0.732	144	0.452	189	0.709	234	0.480	279	0.919	324	0.996
10	0.994	55	0.966	100	0.720	145	0.462	190	0.705	235	0.486	280	0.924	325	0.997
11	0.994	56	0.964	101	0.708	146	0.471	191	0.701	236	0.493	281	0.929	326	0.997
12	0.994	57	0.963	102	0.696	147	0.481	192	0.697	237	0.500	282	0.934	327	0.998
13	0.994	58	0.962	103	0.684	148	0.491	193	0.692	238	0.509	283	0.938	328	0.998
14	0.994	59	0.960	104	0.671	149	0.501	194	0.687	239	0.517	284	0.942	329	0.999
15	0.994	60	0.959	105	0.658	150	0.511	195	0.681	240	0.527	285	0.946	330	0.999
16	0.994	61	0.958	106	0.645	151	0.522	196	0.675	241	0.536	286	0.950	331	0.999
17	0.994	62	0.956	107	0.632	152	0.532	197	0.668	242	0.547	287	0.953	332	0.999
18	0.994	63	0.954	108	0.619	153	0.543	198	0.661	243	0.557	288	0.956	333	1.000
19	0.993	64	0.952	109	0.606	154	0.553	199	0.654	244	0.568	289	0.959	334	1.000
20	0.993	65	0.950	110	0.593	155	0.563	200	0.647	245	0.580	290	0.962	335	1.000
21	0.993	66	0.948	111	0.580	156	0.573	201	0.639	246	0.591	291	0.964	336	1.000
22	0.993	67	0.946	112	0.567	157	0.583	202	0.631	247	0.603	292	0.966	337	1.000
23	0.992	68	0.944	113	0.554	158	0.593	203	0.623	248	0.615	293	0.969	338	1.000
24	0.992	69	0.941	114	0.541	159	0.603	204	0.614	249	0.627	294	0.970	339	1.000
25	0.992	70	0.938	115	0.528	160	0.612	205	0.606	250	0.639	295	0.972	340	1.000
26	0.991	71	0.935	116	0.516	161	0.621	206	0.597	251	0.651	296	0.974	341	1.000
27	0.991	72	0.932	117	0.503	162	0.630	207	0.588	252	0.664	297	0.975	342	1.000
28	0.990	73	0.928	118	0.492	163	0.639	208	0.579	253	0.676	298	0.977	343	0.999
29	0.990	74	0.925	119	0.480	164	0.647	209	0.570	254	0.688	299	0.978	344	0.999
30	0.989	75	0.921	120	0.469	165	0.655	210	0.561	255	0.700	300	0.979	345	0.999
31	0.989	76	0.917	121	0.459	166	0.662	211	0.552	256	0.712	301	0.980	346	0.999
32	0.988	77	0.912	122	0.449	167	0.669	212	0.544	257	0.724	302	0.981	347	0.999
33	0.987	78	0.907	123	0.440	168	0.676	213	0.535	258	0.736	303	0.982	348	0.998
34	0.987	79	0.902	124	0.431	169	0.682	214	0.527	259	0.747	304	0.983	349	0.998
35	0.986	80	0.897	125	0.424	170	0.688	215	0.519	260	0.758	305	0.984	350	0.998
36	0.985	81	0.891	126	0.417	171	0.693	216	0.511	261	0.770	306	0.985	351	0.997
37	0.984	82	0.885	127	0.411	172	0.698	217	0.503	262	0.780	307	0.985	352	0.997
38	0.983	83	0.879	128	0.406	173	0.703	218	0.496	263	0.791	308	0.986	353	0.997
39	0.982	84	0.872	129	0.401	174	0.707	219	0.490	264	0.801	309	0.987	354	0.997
40	0.981	85	0.865	130	0.398	175	0.710	220	0.484	265	0.811	310	0.988	355	0.996
41	0.980	86	0.858	131	0.396	176	0.713	221	0.479	266	0.821	311	0.988	356	0.996
42	0.979	87	0.850	132	0.395	177	0.716	222	0.474	267	0.831	312	0.989	357	0.996
43	0.978	88	0.842	133	0.395	178	0.718	223	0.470	268	0.840	313	0.990	358	0.996
44	0.977	89	0.834	134	0.396	179	0.720	224	0.467	269	0.849	314	0.990	359	0.995



Elevation Pattern

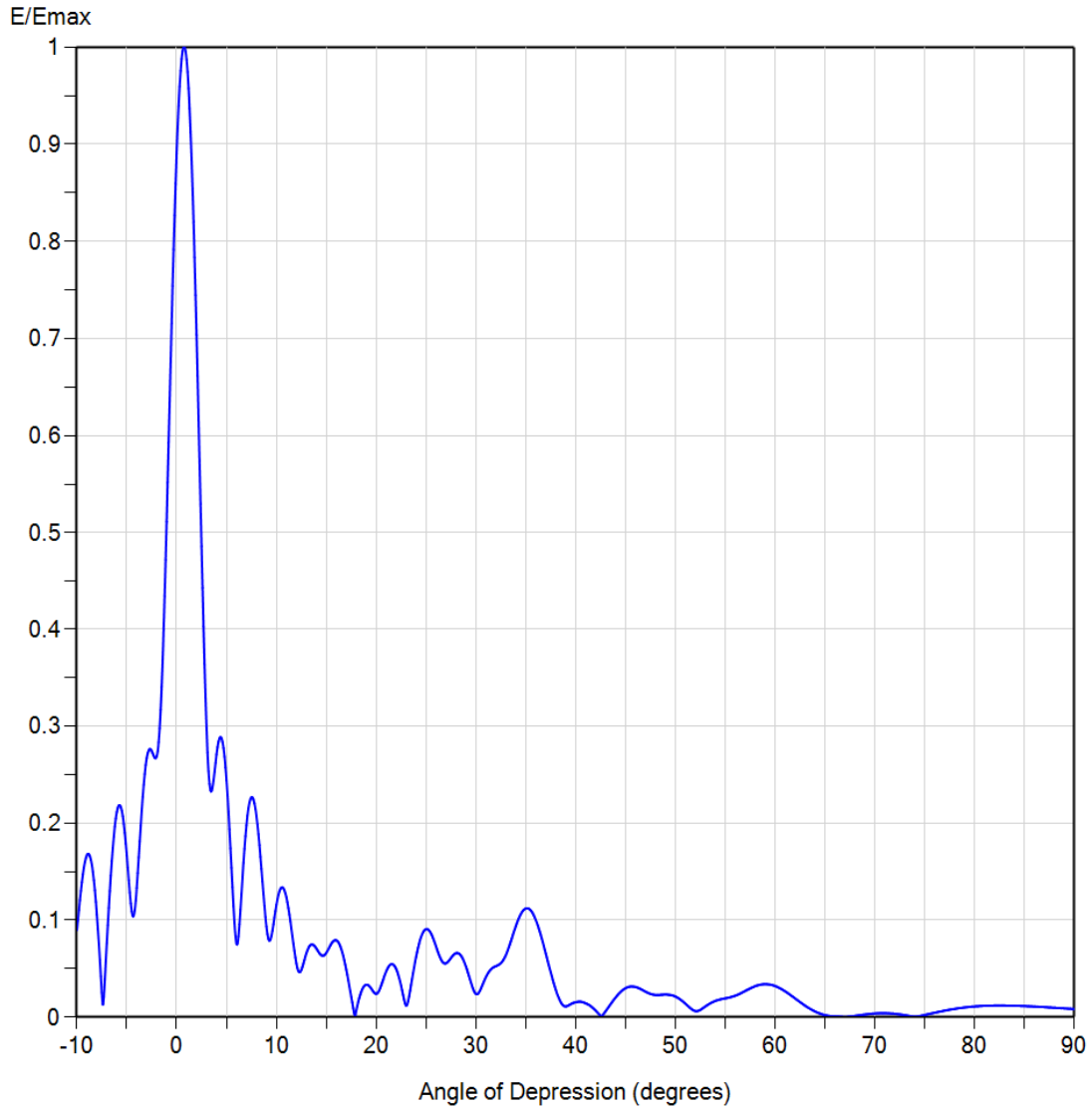


Model: SBB-EPD-24C160
Polarization: Horizontal
Location: Norfolk sidemount
Customer: ATC
Date: October 22, 2018

Frequency: 485.00 MHz
Directivity (Main Lobe): 20.5 (13.12 dBd)
Directivity (At Horizon): 16.2 (12.10 dBd)
Beam Tilt: 0.75 degrees
Azimuth Angle: 337 degrees



Elevation Pattern



Model: SBB-EPD-24C160
Polarization: Horizontal
Location: Norfolk sidemount
Customer: ATC
Date: October 22, 2018

Frequency: 485.00 MHz
Directivity (Main Lobe): 20.5 (13.12 dBd)
Directivity (At Horizon): 16.2 (12.10 dBd)
Beam Tilt: 0.75 degrees
Azimuth Angle: 337 degrees



Model: **SBB-EP-24C160**
Location: **Norfolk sidemount**
Customer: **ATC**
Date: **October 22, 2018**

Polarization: **Horizontal**
Frequency (MHz): **485.00**
Directivity (Main Lobe): **20.5 (13.12 dB)**
Directivity (At Horizon): **16.2 (12.10 dB)**
Beam Tilt: **0.75 degrees**

TABULATED ELEVATION PATTERN

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.090	2.4	0.530	10.6	0.134	30.5	0.029	51.0	0.014	71.5	0.004
-9.5	0.139	2.6	0.443	10.8	0.131	31.0	0.041	51.5	0.009	72.0	0.003
-9.0	0.167	2.8	0.364	11.0	0.123	31.5	0.049	52.0	0.006	72.5	0.003
-8.5	0.157	3.0	0.298	11.5	0.091	32.0	0.053	52.5	0.007	73.0	0.002
-8.0	0.106	3.2	0.253	12.0	0.055	32.5	0.056	53.0	0.011	73.5	0.001
-7.5	0.025	3.4	0.234	12.5	0.049	33.0	0.064	53.5	0.014	74.0	0.000
-7.0	0.076	3.6	0.237	13.0	0.066	33.5	0.078	54.0	0.017	74.5	0.001
-6.5	0.161	3.8	0.253	13.5	0.075	34.0	0.094	54.5	0.018	75.0	0.002
-6.0	0.211	4.0	0.271	14.0	0.071	34.5	0.106	55.0	0.019	75.5	0.003
-5.5	0.213	4.2	0.284	14.5	0.064	35.0	0.112	55.5	0.020	76.0	0.005
-5.0	0.167	4.4	0.289	15.0	0.066	35.5	0.110	56.0	0.022	76.5	0.006
-4.5	0.109	4.6	0.284	15.5	0.076	36.0	0.100	56.5	0.024	77.0	0.007
-4.0	0.133	4.8	0.268	16.0	0.079	36.5	0.085	57.0	0.027	77.5	0.008
-3.5	0.213	5.0	0.244	16.5	0.070	37.0	0.066	57.5	0.030	78.0	0.009
-3.0	0.267	5.2	0.212	17.0	0.049	37.5	0.046	58.0	0.032	78.5	0.009
-2.8	0.275	5.4	0.174	17.5	0.021	38.0	0.028	58.5	0.033	79.0	0.010
-2.6	0.276	5.6	0.134	18.0	0.007	38.5	0.016	59.0	0.034	79.5	0.011
-2.4	0.272	5.8	0.097	18.5	0.026	39.0	0.011	59.5	0.033	80.0	0.011
-2.2	0.267	6.0	0.076	19.0	0.033	39.5	0.013	60.0	0.032	80.5	0.011
-2.0	0.269	6.2	0.083	19.5	0.030	40.0	0.015	60.5	0.030	81.0	0.012
-1.8	0.283	6.4	0.111	20.0	0.024	40.5	0.016	61.0	0.027	81.5	0.012
-1.6	0.317	6.6	0.143	20.5	0.033	41.0	0.014	61.5	0.023	82.0	0.012
-1.4	0.368	6.8	0.173	21.0	0.047	41.5	0.011	62.0	0.019	82.5	0.012
-1.2	0.435	7.0	0.198	21.5	0.055	42.0	0.007	62.5	0.015	83.0	0.012
-1.0	0.512	7.2	0.215	22.0	0.050	42.5	0.001	63.0	0.012	83.5	0.012
-0.8	0.593	7.4	0.225	22.5	0.032	43.0	0.006	63.5	0.009	84.0	0.012
-0.6	0.675	7.6	0.226	23.0	0.012	43.5	0.013	64.0	0.006	84.5	0.012
-0.4	0.754	7.8	0.220	23.5	0.033	44.0	0.020	64.5	0.004	85.0	0.011
-0.2	0.827	8.0	0.207	24.0	0.062	44.5	0.026	65.0	0.002	85.5	0.011
0.0	0.889	8.2	0.188	24.5	0.082	45.0	0.030	65.5	0.001	86.0	0.011
0.2	0.940	8.4	0.165	25.0	0.091	45.5	0.031	66.0	0.001	86.5	0.011
0.4	0.976	8.6	0.140	25.5	0.086	46.0	0.031	66.5	0.000	87.0	0.010
0.6	0.996	8.8	0.115	26.0	0.073	46.5	0.029	67.0	0.000	87.5	0.010
0.8	1.000	9.0	0.093	26.5	0.059	47.0	0.026	67.5	0.001	88.0	0.010
1.0	0.987	9.2	0.081	27.0	0.055	47.5	0.024	68.0	0.001	88.5	0.009
1.2	0.958	9.4	0.080	27.5	0.061	48.0	0.023	68.5	0.002	89.0	0.009
1.4	0.913	9.6	0.089	28.0	0.066	48.5	0.023	69.0	0.003	89.5	0.009
1.6	0.854	9.8	0.103	28.5	0.063	49.0	0.023	69.5	0.003	90.0	0.008
1.8	0.784	10.0	0.116	29.0	0.052	49.5	0.023	70.0	0.004		
2.0	0.704	10.2	0.126	29.5	0.036	50.0	0.021	70.5	0.004		
2.2	0.618	10.4	0.132	30.0	0.024	50.5	0.018	71.0	0.004		