

AZIMUTH PATTERN Horizontal Polarization

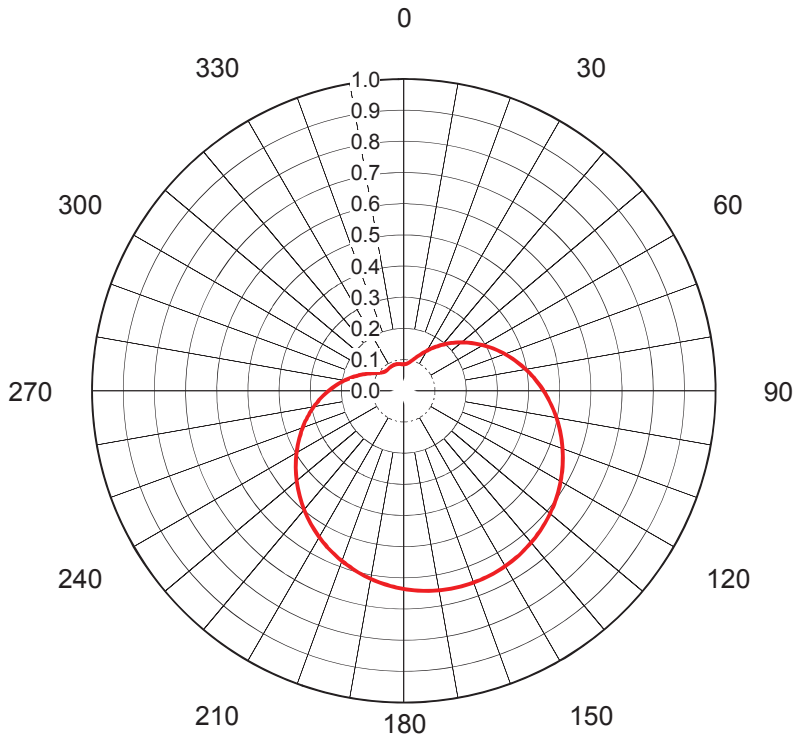
Proposal No. **C-70026**
 Date **11-Feb-17**
 Call Letters **WABM 20**
 Frequency **509 MHz**
 Antenna Type **TFU-26DSC/VP-R C170**

 Gain **1.69 (2.28dB)**
Calculated

 Directional
 Drawing # **C170 CH 20 7 IN POLE**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.179	36	0.546	72	0.954	108	0.969	144	0.907	180	0.909	216	0.979	252	0.929	288	0.487
1	0.181	37	0.561	73	0.960	109	0.967	145	0.906	181	0.910	217	0.982	253	0.922	289	0.473
2	0.183	38	0.576	74	0.965	110	0.964	146	0.906	182	0.911	218	0.984	254	0.914	290	0.458
3	0.186	39	0.590	75	0.970	111	0.962	147	0.905	183	0.912	219	0.986	255	0.906	291	0.444
4	0.189	40	0.605	76	0.974	112	0.959	148	0.905	184	0.913	220	0.988	256	0.897	292	0.429
5	0.193	41	0.620	77	0.978	113	0.956	149	0.905	185	0.914	221	0.990	257	0.889	293	0.415
6	0.198	42	0.634	78	0.982	114	0.954	150	0.904	186	0.915	222	0.992	258	0.879	294	0.401
7	0.203	43	0.648	79	0.985	115	0.951	151	0.904	187	0.916	223	0.993	259	0.870	295	0.387
8	0.209	44	0.663	80	0.988	116	0.949	152	0.904	188	0.918	224	0.995	260	0.860	296	0.374
9	0.215	45	0.677	81	0.990	117	0.946	153	0.904	189	0.919	225	0.996	261	0.850	297	0.361
10	0.222	46	0.691	82	0.993	118	0.944	154	0.903	190	0.921	226	0.997	262	0.839	298	0.348
11	0.230	47	0.704	83	0.995	119	0.942	155	0.903	191	0.922	227	0.998	263	0.829	299	0.335
12	0.238	48	0.718	84	0.996	120	0.939	156	0.903	192	0.920	228	0.999	264	0.817	300	0.322
13	0.247	49	0.731	85	0.998	121	0.937	157	0.903	193	0.925	229	1.000	265	0.806	301	0.310
14	0.256	50	0.744	86	0.999	122	0.935	158	0.903	194	0.927	230	1.000	266	0.794	302	0.299
15	0.266	51	0.757	87	1.000	123	0.933	159	0.903	195	0.929	231	1.000	267	0.782	303	0.287
16	0.277	52	0.770	88	1.000	124	0.931	160	0.903	196	0.931	232	1.000	268	0.770	304	0.277
17	0.287	53	0.782	89	1.000	125	0.929	161	0.903	197	0.933	233	0.999	269	0.757	305	0.266
18	0.299	54	0.794	90	1.000	126	0.927	162	0.903	198	0.935	234	0.999	270	0.744	306	0.256
19	0.310	55	0.806	91	1.000	127	0.925	163	0.903	199	0.937	235	0.998	271	0.731	307	0.247
20	0.322	56	0.817	92	0.999	128	0.924	164	0.903	200	0.939	236	0.996	272	0.718	308	0.238
21	0.335	57	0.829	93	0.998	129	0.922	165	0.903	201	0.942	237	0.995	273	0.704	309	0.230
22	0.348	58	0.839	94	0.997	130	0.921	166	0.903	202	0.944	238	0.993	274	0.691	310	0.222
23	0.361	59	0.850	95	0.996	131	0.919	167	0.904	203	0.947	239	0.990	275	0.677	311	0.215
24	0.374	60	0.860	96	0.995	132	0.918	168	0.904	204	0.949	240	0.988	276	0.663	312	0.209
25	0.387	61	0.870	97	0.993	133	0.916	169	0.904	205	0.951	241	0.985	277	0.648	313	0.203
26	0.401	62	0.879	98	0.992	134	0.915	170	0.904	206	0.954	242	0.982	278	0.634	314	0.198
27	0.415	63	0.889	99	0.990	135	0.914	171	0.905	207	0.957	243	0.978	279	0.620	315	0.193
28	0.429	64	0.897	100	0.988	136	0.913	172	0.905	208	0.959	244	0.974	280	0.605	316	0.189
29	0.444	65	0.906	101	0.986	137	0.912	173	0.905	209	0.962	245	0.970	281	0.590	317	0.186
30	0.458	66	0.914	102	0.984	138	0.911	174	0.906	210	0.964	246	0.965	282	0.576	318	0.183
31	0.473	67	0.922	103	0.982	139	0.910	175	0.906	211	0.967	247	0.960	283	0.561	319	0.181
32	0.487	68	0.929	104	0.979	140	0.909	176	0.907	212	0.969	248	0.954	284	0.546	320	0.179
33	0.502	69	0.936	105	0.977	141	0.909	177	0.907	213	0.972	249	0.949	285	0.531	321	0.178
34	0.517	70	0.942	106	0.974	142	0.908	178	0.908	214	0.974	250	0.942	286	0.517	322	0.177
35	0.531	71	0.949	107	0.972	143	0.907	179	0.909	215	0.977	251	0.936	287	0.502	323	0.177

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70026**
Date **11-Feb-17**
Call Letters **WABM 20**
Frequency **509 MHz**
Antenna Type **TFU-26DSC/VP-R C170**

Gain **2.56 (4.08dB)**
Calculated

Directional
Drawing # **C170 CH 20 7 IN POLE**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.085	36	0.174	72	0.355	108	0.533	144	0.643	180	0.636	216	0.516	252	0.334	288	0.157
1	0.085	37	0.179	73	0.361	109	0.538	145	0.644	181	0.634	217	0.511	253	0.329	289	0.152
2	0.085	38	0.183	74	0.366	110	0.542	146	0.645	182	0.632	218	0.507	254	0.324	290	0.148
3	0.086	39	0.188	75	0.371	111	0.546	147	0.647	183	0.630	219	0.502	255	0.319	291	0.144
4	0.086	40	0.193	76	0.376	112	0.550	148	0.648	184	0.627	220	0.497	256	0.313	292	0.140
5	0.087	41	0.197	77	0.381	113	0.554	149	0.649	185	0.625	221	0.493	257	0.308	293	0.137
6	0.087	42	0.202	78	0.387	114	0.558	150	0.650	186	0.623	222	0.488	258	0.303	294	0.133
7	0.088	43	0.207	79	0.392	115	0.562	151	0.651	187	0.620	223	0.483	259	0.298	295	0.129
8	0.089	44	0.212	80	0.397	116	0.566	152	0.652	188	0.618	224	0.478	260	0.293	296	0.126
9	0.090	45	0.217	81	0.402	117	0.570	153	0.652	189	0.615	225	0.473	261	0.287	297	0.122
10	0.091	46	0.221	82	0.407	118	0.574	154	0.653	190	0.612	226	0.468	262	0.282	298	0.119
11	0.093	47	0.226	83	0.413	119	0.577	155	0.653	191	0.610	227	0.463	263	0.277	299	0.116
12	0.094	48	0.231	84	0.418	120	0.581	156	0.654	192	0.607	228	0.458	264	0.272	300	0.113
13	0.096	49	0.236	85	0.423	121	0.584	157	0.654	193	0.604	229	0.453	265	0.267	301	0.110
14	0.098	50	0.241	86	0.428	122	0.588	158	0.654	194	0.601	230	0.448	266	0.262	302	0.107
15	0.100	51	0.246	87	0.433	123	0.591	159	0.655	195	0.598	231	0.443	267	0.257	303	0.105
16	0.102	52	0.252	88	0.438	124	0.594	160	0.655	196	0.594	232	0.438	268	0.252	304	0.102
17	0.105	53	0.257	89	0.443	125	0.598	161	0.655	197	0.591	233	0.433	269	0.246	305	0.100
18	0.107	54	0.262	90	0.448	126	0.601	162	0.654	198	0.588	234	0.428	270	0.241	306	0.098
19	0.110	55	0.267	91	0.453	127	0.604	163	0.654	199	0.584	235	0.423	271	0.236	307	0.096
20	0.113	56	0.272	92	0.458	128	0.607	164	0.654	200	0.581	236	0.418	272	0.231	308	0.094
21	0.116	57	0.277	93	0.463	129	0.610	165	0.653	201	0.577	237	0.413	273	0.226	309	0.093
22	0.119	58	0.282	94	0.468	130	0.612	166	0.653	202	0.574	238	0.407	274	0.221	310	0.091
23	0.122	59	0.287	95	0.473	131	0.615	167	0.652	203	0.570	239	0.402	275	0.217	311	0.090
24	0.126	60	0.293	96	0.478	132	0.618	168	0.652	204	0.566	240	0.397	276	0.212	312	0.089
25	0.129	61	0.298	97	0.483	133	0.620	169	0.651	205	0.562	241	0.392	277	0.207	313	0.088
26	0.133	62	0.303	98	0.488	134	0.623	170	0.650	206	0.558	242	0.387	278	0.202	314	0.087
27	0.137	63	0.308	99	0.493	135	0.625	171	0.649	207	0.554	243	0.381	279	0.197	315	0.087
28	0.140	64	0.313	100	0.497	136	0.627	172	0.648	208	0.550	244	0.376	280	0.193	316	0.086
29	0.144	65	0.319	101	0.502	137	0.630	173	0.647	209	0.546	245	0.371	281	0.188	317	0.086
30	0.148	66	0.324	102	0.507	138	0.632	174	0.645	210	0.542	246	0.366	282	0.183	318	0.085
31	0.152	67	0.329	103	0.511	139	0.634	175	0.644	211	0.538	247	0.361	283	0.179	319	0.085
32	0.157	68	0.334	104	0.516	140	0.636	176	0.643	212	0.533	248	0.355	284	0.174	320	0.085
33	0.161	69	0.340	105	0.520	141	0.638	177	0.641	213	0.529	249	0.350	285	0.170	321	0.085
34	0.165	70	0.345	106	0.525	142	0.639	178	0.639	214	0.525	250	0.345	286	0.165	322	0.085
35	0.170	71	0.350	107	0.529	143	0.641	179	0.638	215	0.520	251	0.340	287	0.161	323	0.085

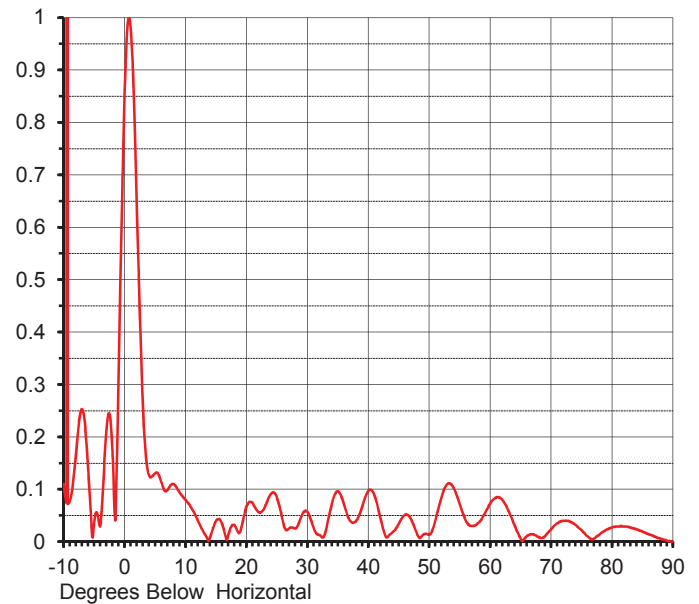
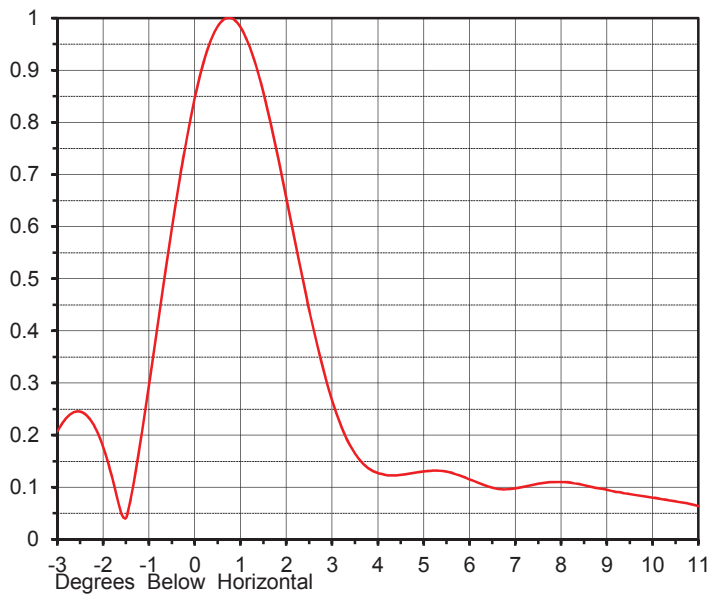
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ELEVATION PATTERN

Proposal No. **C-70026**
 Date **11-Feb-17**
 Call Letters **WABM 20**
 Frequency **509 MHz**
 Antenna Type **TFU-26DSC/VP-R C170**

RMS Directivity at Main Lobe **22.50 (13.52 dB)**
 RMS Directivity at Horizontal **16.10 (12.07 dB)**
Calculated

Beam Tilt **0.75 deg**
 Drawing Number **26Q225075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.110	10.0	0.080	30.0	0.057	50.0	0.013	70.0	0.024
-9.0	0.077	11.0	0.064	31.0	0.028	51.0	0.040	71.0	0.035
-8.0	0.163	12.0	0.041	32.0	0.012	52.0	0.084	72.0	0.040
-7.0	0.253	13.0	0.018	33.0	0.019	53.0	0.110	73.0	0.039
-6.0	0.146	14.0	0.007	34.0	0.071	54.0	0.103	74.0	0.032
-5.0	0.034	15.0	0.039	35.0	0.096	55.0	0.072	75.0	0.022
-4.0	0.029	16.0	0.034	36.0	0.072	56.0	0.040	76.0	0.010
-3.0	0.207	17.0	0.011	37.0	0.040	57.0	0.030	77.0	0.005
-2.0	0.178	18.0	0.032	38.0	0.039	58.0	0.035	78.0	0.014
-1.0	0.295	19.0	0.019	39.0	0.067	59.0	0.051	79.0	0.022
0.0	0.846	20.0	0.066	40.0	0.097	60.0	0.072	80.0	0.027
1.0	0.983	21.0	0.074	41.0	0.089	61.0	0.084	81.0	0.029
2.0	0.656	22.0	0.056	42.0	0.045	62.0	0.080	82.0	0.029
3.0	0.267	23.0	0.066	43.0	0.008	63.0	0.059	83.0	0.027
4.0	0.127	24.0	0.090	44.0	0.018	64.0	0.032	84.0	0.024
5.0	0.130	25.0	0.085	45.0	0.034	65.0	0.006	85.0	0.019
6.0	0.115	26.0	0.038	46.0	0.051	66.0	0.010	86.0	0.014
7.0	0.098	27.0	0.025	47.0	0.043	67.0	0.014	87.0	0.010
8.0	0.110	28.0	0.025	48.0	0.015	68.0	0.008	88.0	0.005
9.0	0.095	29.0	0.047	49.0	0.013	69.0	0.010	89.0	0.002
								90.0	0.000

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