

## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **701**  
 Date **3-Aug-20**  
 Call Letters **WAKA**  
 Channel **25**  
 Frequency **539 MHz**  
 Antenna Type **TFU-8WB-R C160**  
 Gain **1.58 (1.99dB)**  
 Calculated

Pattern Number **WB-C160-25 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.792	36	0.945	72	0.968	108	0.797	144	0.394	180	0.677	216	0.397	252	0.798	288	0.966
1	0.792	37	0.950	73	0.964	109	0.789	145	0.393	181	0.676	217	0.400	253	0.805	289	0.969
2	0.793	38	0.955	74	0.961	110	0.780	146	0.394	182	0.675	218	0.403	254	0.813	290	0.972
3	0.794	39	0.960	75	0.957	111	0.771	147	0.396	183	0.673	219	0.409	255	0.820	291	0.975
4	0.795	40	0.964	76	0.953	112	0.762	148	0.400	184	0.670	220	0.416	256	0.827	292	0.978
5	0.796	41	0.969	77	0.950	113	0.752	149	0.405	185	0.666	221	0.424	257	0.833	293	0.981
6	0.798	42	0.973	78	0.946	114	0.742	150	0.411	186	0.661	222	0.433	258	0.839	294	0.984
7	0.800	43	0.976	79	0.942	115	0.731	151	0.419	187	0.655	223	0.443	259	0.845	295	0.986
8	0.803	44	0.980	80	0.938	116	0.720	152	0.427	188	0.649	224	0.454	260	0.851	296	0.989
9	0.805	45	0.983	81	0.934	117	0.709	153	0.437	189	0.642	225	0.466	261	0.856	297	0.991
10	0.809	46	0.986	82	0.930	118	0.697	154	0.448	190	0.634	226	0.479	262	0.862	298	0.993
11	0.812	47	0.989	83	0.926	119	0.685	155	0.459	191	0.625	227	0.492	263	0.867	299	0.994
12	0.815	48	0.991	84	0.922	120	0.672	156	0.471	192	0.616	228	0.506	264	0.871	300	0.996
13	0.819	49	0.994	85	0.918	121	0.659	157	0.483	193	0.606	229	0.519	265	0.876	301	0.997
14	0.824	50	0.995	86	0.914	122	0.646	158	0.495	194	0.595	230	0.534	266	0.881	302	0.998
15	0.828	51	0.997	87	0.910	123	0.633	159	0.508	195	0.584	231	0.548	267	0.885	303	0.999
16	0.832	52	0.998	88	0.906	124	0.619	160	0.521	196	0.573	232	0.562	268	0.889	304	0.999
17	0.837	53	0.999	89	0.902	125	0.605	161	0.533	197	0.561	233	0.577	269	0.894	305	0.999
18	0.842	54	1.000	90	0.898	126	0.590	162	0.546	198	0.548	234	0.591	270	0.898	306	0.999
19	0.848	55	1.000	91	0.894	127	0.576	163	0.558	199	0.536	235	0.605	271	0.902	307	0.999
20	0.853	56	1.000	92	0.890	128	0.562	164	0.570	200	0.523	236	0.619	272	0.906	308	0.998
21	0.858	57	1.000	93	0.885	129	0.547	165	0.582	201	0.511	237	0.633	273	0.910	309	0.997
22	0.864	58	0.999	94	0.881	130	0.533	166	0.593	202	0.498	238	0.647	274	0.914	310	0.995
23	0.870	59	0.998	95	0.876	131	0.519	167	0.604	203	0.486	239	0.660	275	0.917	311	0.994
24	0.876	60	0.997	96	0.871	132	0.505	168	0.614	204	0.474	240	0.673	276	0.921	312	0.992
25	0.881	61	0.996	97	0.866	133	0.491	169	0.624	205	0.462	241	0.685	277	0.925	313	0.989
26	0.887	62	0.994	98	0.861	134	0.478	170	0.632	206	0.451	242	0.698	278	0.929	314	0.987
27	0.893	63	0.992	99	0.856	135	0.465	171	0.640	207	0.441	243	0.709	279	0.933	315	0.984
28	0.899	64	0.990	100	0.851	136	0.453	172	0.648	208	0.431	244	0.721	280	0.937	316	0.981
29	0.905	65	0.988	101	0.845	137	0.441	173	0.654	209	0.422	245	0.732	281	0.940	317	0.977
30	0.911	66	0.986	102	0.839	138	0.431	174	0.660	210	0.414	246	0.743	282	0.944	318	0.974
31	0.917	67	0.983	103	0.833	139	0.422	175	0.665	211	0.408	247	0.753	283	0.948	319	0.970
32	0.923	68	0.980	104	0.826	140	0.413	176	0.669	212	0.403	248	0.763	284	0.952	320	0.966
33	0.929	69	0.977	105	0.819	141	0.406	177	0.672	213	0.399	249	0.772	285	0.955	321	0.961
34	0.934	70	0.974	106	0.812	142	0.401	178	0.675	214	0.397	250	0.781	286	0.959	322	0.956
35	0.940	71	0.971	107	0.805	143	0.397	179	0.676	215	0.396	251	0.789	287	0.962	323	0.951

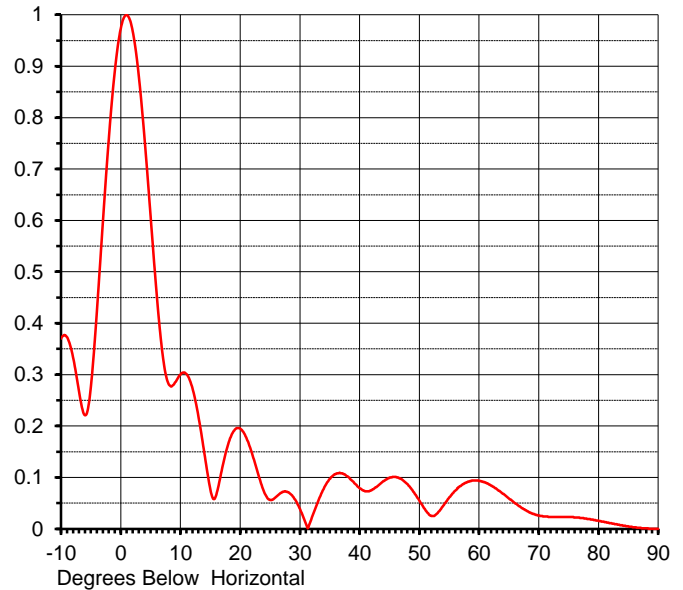
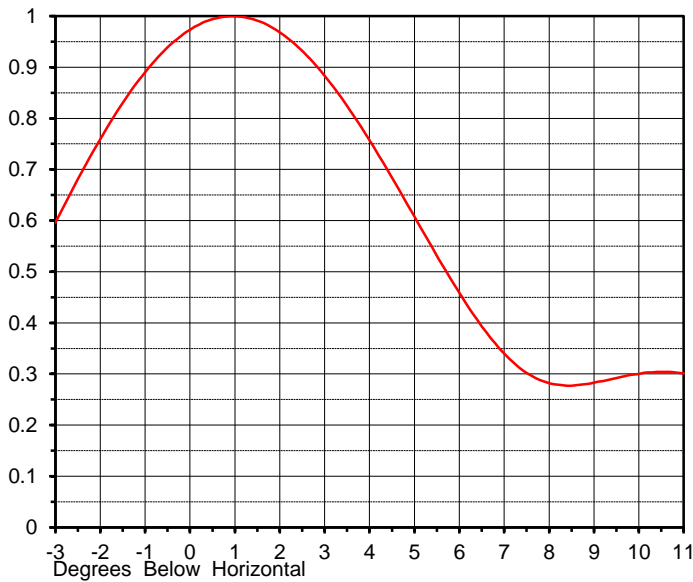
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## ELEVATION PATTERN

Proposal No. **701**  
 Date **3-Aug-20**  
 Call Letters **WAKA**  
 Channel **25**  
 Frequency **539 MHz**  
 Antenna Type **TFU-8WB-R C160**

RMS Directivity at Main Lobe **7.9 ( 8.98 dB )**  
 RMS Directivity at Horizontal **7.5 ( 8.75 dB )**  
**Calculated**

Beam Tilt **1.05 deg**  
 Pattern Number **08W079105-25**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.370	10.0	0.300	30.0	0.039	50.0	0.055	70.0	0.026
-9.0	0.373	11.0	0.301	31.0	0.010	51.0	0.037	71.0	0.024
-8.0	0.334	12.0	0.274	32.0	0.022	52.0	0.025	72.0	0.023
-7.0	0.268	13.0	0.219	33.0	0.052	53.0	0.030	73.0	0.023
-6.0	0.221	14.0	0.147	34.0	0.078	54.0	0.045	74.0	0.023
-5.0	0.277	15.0	0.077	35.0	0.097	55.0	0.061	75.0	0.023
-4.0	0.423	16.0	0.066	36.0	0.107	56.0	0.074	76.0	0.022
-3.0	0.596	17.0	0.119	37.0	0.108	57.0	0.084	77.0	0.021
-2.0	0.759	18.0	0.165	38.0	0.102	58.0	0.091	78.0	0.020
-1.0	0.890	19.0	0.191	39.0	0.091	59.0	0.094	79.0	0.018
0.0	0.973	20.0	0.195	40.0	0.079	60.0	0.093	80.0	0.016
1.0	1.000	21.0	0.178	41.0	0.073	61.0	0.090	81.0	0.013
2.0	0.968	22.0	0.146	42.0	0.075	62.0	0.084	82.0	0.011
3.0	0.883	23.0	0.107	43.0	0.083	63.0	0.077	83.0	0.009
4.0	0.757	24.0	0.072	44.0	0.093	64.0	0.068	84.0	0.007
5.0	0.608	25.0	0.056	45.0	0.099	65.0	0.059	85.0	0.005
6.0	0.459	26.0	0.062	46.0	0.101	66.0	0.050	86.0	0.003
7.0	0.340	27.0	0.071	47.0	0.097	67.0	0.042	87.0	0.002
8.0	0.282	28.0	0.071	48.0	0.087	68.0	0.035	88.0	0.001
9.0	0.283	29.0	0.060	49.0	0.072	69.0	0.029	89.0	0.000
								90.0	0.000

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