



Antenna Model:

TFU-24WB-R C160

Proposal Number:

Date: **5-Jun-17**

Customer: **Nexstar**

Location: **Lubbock, TX**

Electrical Specifications

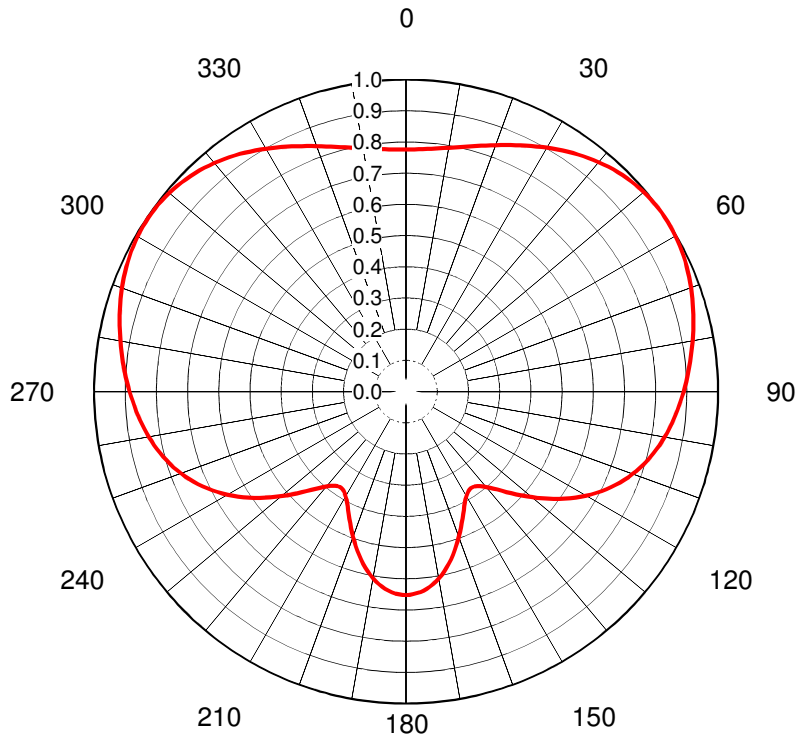
Polarization:	Horizontal				
Azimuth Pattern:	Directional				
Antenna Input:	6-1/8"	75 Ohm	EIA/DCA		
VSWR:	Channel	1.15 : 1		Band	1.15 : 1
Bandwidth:	222 MHz				
Rated Input Power:	60 kW	(17.78 dBk)	Maximum combined average power		

Mechanical Specifications

Mounting:	Side Mounted				
Environmental Protection:	Full Radome				
Height:	43.5 ft (13.3m)				
Weight:	1850 lb (0.8t)	Excludes Mounts			
Effective Projected Area:	96.5 ft² (9m²)	TIA/EIA-222-F	Basic Wind Speed:	90 m/h (144.8 km/h)	

Channel Specifications

	Call	CH	Freq	Hpol ERP	TPO	Peak Main Lobe Hpol Gain	Peak at Horizontal Hpol Gain
1		27	551 MHz	700 kW (28.45 dBk)	23.1 kW (13.65 dBk)	35.03 (15.44dB)	29.39 (14.68dB)
2		31	575 MHz	700.0 kW (28.45 dBk)	22.6 kW (13.55 dBk)	35.94 (15.56dB)	29.70 (14.73dB)
3		40	629 MHz	700.0 kW (28.45 dBk)	23.9 kW (13.79 dBk)	34.27 (15.35dB)	27.20 (14.35dB)



AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No.

Date

5-Jun-17

Call Letters

Channel

27

Frequency

551 MHz

Antenna Type

TFU-24WB-R C160

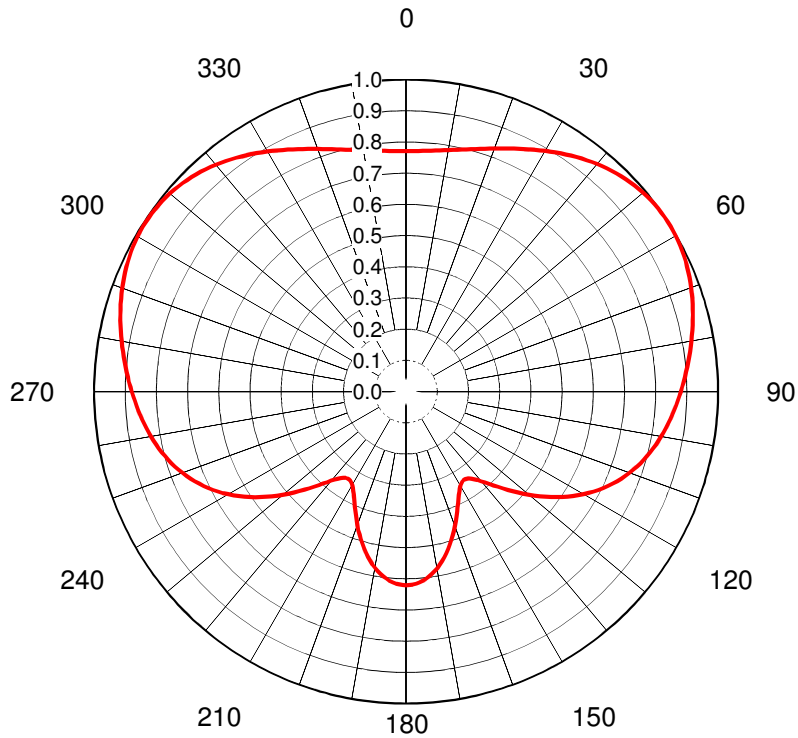
Gain

1.62 (2.11dB)

Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.776	36	0.939	72	0.965	108	0.789	144	0.375	180	0.652	216	0.374	252	0.784	288	0.962
1	0.776	37	0.945	73	0.961	109	0.781	145	0.373	181	0.652	217	0.378	253	0.791	289	0.965
2	0.777	38	0.950	74	0.957	110	0.773	146	0.373	182	0.650	218	0.383	254	0.799	290	0.969
3	0.778	39	0.955	75	0.953	111	0.764	147	0.374	183	0.648	219	0.389	255	0.806	291	0.972
4	0.779	40	0.960	76	0.949	112	0.755	148	0.377	184	0.645	220	0.397	256	0.813	292	0.976
5	0.781	41	0.965	77	0.945	113	0.745	149	0.381	185	0.641	221	0.406	257	0.819	293	0.979
6	0.783	42	0.969	78	0.941	114	0.735	150	0.387	186	0.636	222	0.416	258	0.825	294	0.981
7	0.785	43	0.974	79	0.937	115	0.725	151	0.394	187	0.630	223	0.427	259	0.831	295	0.984
8	0.788	44	0.978	80	0.933	116	0.714	152	0.402	188	0.624	224	0.439	260	0.837	296	0.986
9	0.791	45	0.981	81	0.928	117	0.703	153	0.412	189	0.616	225	0.452	261	0.843	297	0.989
10	0.794	46	0.984	82	0.924	118	0.691	154	0.422	190	0.608	226	0.465	262	0.848	298	0.991
11	0.797	47	0.987	83	0.920	119	0.679	155	0.433	191	0.599	227	0.478	263	0.853	299	0.992
12	0.801	48	0.990	84	0.916	120	0.667	156	0.445	192	0.590	228	0.493	264	0.858	300	0.994
13	0.805	49	0.993	85	0.911	121	0.654	157	0.457	193	0.579	229	0.507	265	0.863	301	0.995
14	0.810	50	0.995	86	0.907	122	0.641	158	0.469	194	0.569	230	0.521	266	0.868	302	0.996
15	0.814	51	0.996	87	0.903	123	0.627	159	0.482	195	0.557	231	0.536	267	0.873	303	0.996
16	0.819	52	0.998	88	0.898	124	0.613	160	0.495	196	0.546	232	0.550	268	0.877	304	0.996
17	0.824	53	0.999	89	0.894	125	0.599	161	0.508	197	0.534	233	0.565	269	0.882	305	0.996
18	0.829	54	1.000	90	0.890	126	0.585	162	0.520	198	0.521	234	0.579	270	0.886	306	0.996
19	0.835	55	1.000	91	0.885	127	0.570	163	0.533	199	0.509	235	0.594	271	0.891	307	0.995
20	0.841	56	1.000	92	0.881	128	0.556	164	0.545	200	0.496	236	0.608	272	0.895	308	0.994
21	0.846	57	1.000	93	0.876	129	0.541	165	0.557	201	0.483	237	0.621	273	0.899	309	0.993
22	0.852	58	0.999	94	0.872	130	0.526	166	0.568	202	0.470	238	0.635	274	0.904	310	0.991
23	0.858	59	0.998	95	0.867	131	0.512	167	0.579	203	0.458	239	0.648	275	0.908	311	0.989
24	0.865	60	0.997	96	0.862	132	0.497	168	0.589	204	0.446	240	0.661	276	0.912	312	0.986
25	0.871	61	0.996	97	0.857	133	0.483	169	0.599	205	0.434	241	0.673	277	0.917	313	0.984
26	0.877	62	0.994	98	0.852	134	0.469	170	0.608	206	0.423	242	0.685	278	0.921	314	0.981
27	0.884	63	0.992	99	0.847	135	0.455	171	0.616	207	0.413	243	0.697	279	0.925	315	0.977
28	0.890	64	0.990	100	0.842	136	0.442	172	0.623	208	0.403	244	0.708	280	0.930	316	0.974
29	0.896	65	0.987	101	0.836	137	0.430	173	0.630	209	0.395	245	0.719	281	0.934	317	0.970
30	0.903	66	0.985	102	0.830	138	0.419	174	0.636	210	0.387	246	0.730	282	0.938	318	0.965
31	0.909	67	0.982	103	0.824	139	0.408	175	0.641	211	0.381	247	0.740	283	0.942	319	0.961
32	0.915	68	0.979	104	0.818	140	0.399	176	0.645	212	0.377	248	0.749	284	0.946	320	0.956
33	0.921	69	0.976	105	0.811	141	0.391	177	0.648	213	0.374	249	0.758	285	0.950	321	0.951
34	0.927	70	0.972	106	0.804	142	0.384	178	0.650	214	0.372	250	0.767	286	0.954	322	0.946
35	0.933	71	0.969	107	0.797	143	0.379	179	0.652	215	0.372	251	0.776	287	0.958	323	0.941

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AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No.

Date

5-Jun-17

Call Letters

Channel

31

Frequency

575 MHz

Antenna Type

TFU-24WB-R C160

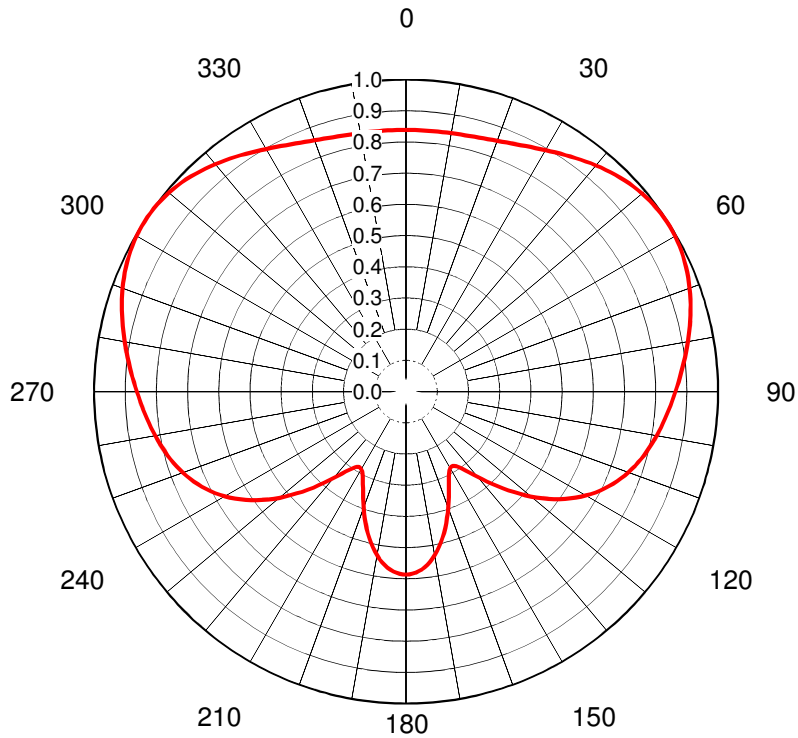
Gain

1.67 (2.22dB)

Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.771	36	0.929	72	0.965	108	0.778	144	0.344	180	0.621	216	0.342	252	0.778	288	0.961
1	0.771	37	0.935	73	0.960	109	0.770	145	0.340	181	0.620	217	0.347	253	0.786	289	0.964
2	0.772	38	0.941	74	0.956	110	0.762	146	0.339	182	0.619	218	0.355	254	0.793	290	0.968
3	0.772	39	0.947	75	0.952	111	0.753	147	0.338	183	0.616	219	0.363	255	0.800	291	0.972
4	0.774	40	0.952	76	0.947	112	0.744	148	0.340	184	0.613	220	0.373	256	0.806	292	0.975
5	0.775	41	0.958	77	0.943	113	0.735	149	0.344	185	0.608	221	0.385	257	0.813	293	0.978
6	0.777	42	0.963	78	0.938	114	0.725	150	0.349	186	0.603	222	0.397	258	0.819	294	0.981
7	0.779	43	0.967	79	0.933	115	0.715	151	0.355	187	0.597	223	0.410	259	0.824	295	0.984
8	0.781	44	0.972	80	0.929	116	0.704	152	0.363	188	0.590	224	0.424	260	0.830	296	0.986
9	0.783	45	0.976	81	0.924	117	0.693	153	0.373	189	0.582	225	0.438	261	0.835	297	0.989
10	0.786	46	0.980	82	0.919	118	0.682	154	0.383	190	0.574	226	0.453	262	0.841	298	0.991
11	0.789	47	0.983	83	0.914	119	0.670	155	0.394	191	0.564	227	0.468	263	0.846	299	0.992
12	0.793	48	0.987	84	0.910	120	0.657	156	0.406	192	0.554	228	0.483	264	0.851	300	0.994
13	0.796	49	0.990	85	0.905	121	0.645	157	0.419	193	0.543	229	0.499	265	0.856	301	0.995
14	0.800	50	0.992	86	0.900	122	0.631	158	0.431	194	0.532	230	0.514	266	0.860	302	0.995
15	0.804	51	0.994	87	0.895	123	0.618	159	0.445	195	0.520	231	0.530	267	0.865	303	0.996
16	0.809	52	0.996	88	0.890	124	0.604	160	0.458	196	0.508	232	0.545	268	0.870	304	0.996
17	0.814	53	0.998	89	0.886	125	0.590	161	0.471	197	0.495	233	0.560	269	0.875	305	0.995
18	0.819	54	0.999	90	0.881	126	0.575	162	0.484	198	0.482	234	0.575	270	0.879	306	0.994
19	0.824	55	1.000	91	0.876	127	0.560	163	0.497	199	0.469	235	0.590	271	0.884	307	0.993
20	0.829	56	1.000	92	0.871	128	0.545	164	0.510	200	0.455	236	0.604	272	0.888	308	0.992
21	0.835	57	1.000	93	0.866	129	0.530	165	0.522	201	0.442	237	0.618	273	0.893	309	0.990
22	0.840	58	1.000	94	0.861	130	0.514	166	0.534	202	0.429	238	0.632	274	0.898	310	0.988
23	0.846	59	0.999	95	0.856	131	0.499	167	0.545	203	0.416	239	0.645	275	0.902	311	0.986
24	0.852	60	0.998	96	0.851	132	0.484	168	0.556	204	0.403	240	0.658	276	0.907	312	0.983
25	0.859	61	0.997	97	0.846	133	0.468	169	0.566	205	0.391	241	0.671	277	0.912	313	0.980
26	0.865	62	0.995	98	0.841	134	0.453	170	0.575	206	0.380	242	0.682	278	0.916	314	0.976
27	0.871	63	0.993	99	0.836	135	0.439	171	0.583	207	0.370	243	0.694	279	0.921	315	0.972
28	0.878	64	0.991	100	0.830	136	0.425	172	0.591	208	0.360	244	0.705	280	0.926	316	0.968
29	0.884	65	0.988	101	0.824	137	0.411	173	0.598	209	0.352	245	0.716	281	0.930	317	0.964
30	0.891	66	0.986	102	0.819	138	0.398	174	0.604	210	0.346	246	0.726	282	0.935	318	0.959
31	0.897	67	0.983	103	0.813	139	0.386	175	0.609	211	0.341	247	0.736	283	0.939	319	0.954
32	0.904	68	0.979	104	0.806	140	0.375	176	0.613	212	0.337	248	0.745	284	0.944	320	0.949
33	0.910	69	0.976	105	0.800	141	0.365	177	0.617	213	0.336	249	0.754	285	0.948	321	0.944
34	0.917	70	0.972	106	0.793	142	0.357	178	0.619	214	0.336	250	0.763	286	0.952	322	0.938
35	0.923	71	0.969	107	0.786	143	0.350	179	0.620	215	0.338	251	0.771	287	0.956	323	0.932

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AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No.

Date

5-Jun-17

Call Letters

Channel

40

Frequency

629 MHz

Antenna Type

TFU-24WB-R C160

Gain

1.67 (2.23dB)

Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.839	36	0.925	72	0.958	108	0.772	144	0.305	180	0.587	216	0.310	252	0.774	288	0.958
1	0.839	37	0.931	73	0.954	109	0.765	145	0.296	181	0.586	217	0.321	253	0.780	289	0.962
2	0.839	38	0.936	74	0.949	110	0.758	146	0.289	182	0.585	218	0.333	254	0.786	290	0.967
3	0.839	39	0.941	75	0.944	111	0.751	147	0.284	183	0.582	219	0.347	255	0.791	291	0.971
4	0.839	40	0.947	76	0.938	112	0.743	148	0.282	184	0.578	220	0.362	256	0.797	292	0.975
5	0.839	41	0.952	77	0.933	113	0.735	149	0.281	185	0.573	221	0.378	257	0.802	293	0.979
6	0.839	42	0.957	78	0.928	114	0.727	150	0.284	186	0.567	222	0.394	258	0.807	294	0.983
7	0.840	43	0.961	79	0.922	115	0.718	151	0.288	187	0.560	223	0.411	259	0.811	295	0.986
8	0.840	44	0.966	80	0.917	116	0.708	152	0.295	188	0.552	224	0.428	260	0.816	296	0.989
9	0.840	45	0.970	81	0.911	117	0.699	153	0.303	189	0.543	225	0.445	261	0.821	297	0.992
10	0.841	46	0.974	82	0.906	118	0.688	154	0.313	190	0.533	226	0.462	262	0.825	298	0.994
11	0.841	47	0.978	83	0.901	119	0.677	155	0.325	191	0.522	227	0.479	263	0.830	299	0.996
12	0.842	48	0.982	84	0.895	120	0.666	156	0.338	192	0.511	228	0.496	264	0.835	300	0.997
13	0.843	49	0.985	85	0.890	121	0.654	157	0.351	193	0.498	229	0.513	265	0.839	301	0.999
14	0.844	50	0.988	86	0.884	122	0.641	158	0.365	194	0.485	230	0.530	266	0.844	302	1.000
15	0.846	51	0.990	87	0.879	123	0.628	159	0.380	195	0.471	231	0.546	267	0.849	303	1.000
16	0.847	52	0.992	88	0.874	124	0.615	160	0.395	196	0.457	232	0.562	268	0.853	304	1.000
17	0.849	53	0.994	89	0.869	125	0.601	161	0.411	197	0.443	233	0.577	269	0.858	305	1.000
18	0.851	54	0.996	90	0.864	126	0.586	162	0.426	198	0.428	234	0.592	270	0.863	306	0.999
19	0.853	55	0.997	91	0.859	127	0.571	163	0.441	199	0.412	235	0.606	271	0.868	307	0.998
20	0.855	56	0.997	92	0.854	128	0.556	164	0.455	200	0.397	236	0.620	272	0.873	308	0.996
21	0.858	57	0.997	93	0.849	129	0.540	165	0.470	201	0.382	237	0.634	273	0.878	309	0.994
22	0.861	58	0.997	94	0.844	130	0.524	166	0.483	202	0.367	238	0.647	274	0.883	310	0.992
23	0.864	59	0.997	95	0.839	131	0.507	167	0.497	203	0.353	239	0.659	275	0.888	311	0.989
24	0.868	60	0.996	96	0.835	132	0.490	168	0.509	204	0.340	240	0.671	276	0.894	312	0.986
25	0.872	61	0.994	97	0.830	133	0.473	169	0.521	205	0.327	241	0.682	277	0.899	313	0.983
26	0.876	62	0.993	98	0.825	134	0.456	170	0.532	206	0.315	242	0.693	278	0.905	314	0.979
27	0.880	63	0.991	99	0.820	135	0.439	171	0.542	207	0.305	243	0.703	279	0.910	315	0.975
28	0.884	64	0.988	100	0.815	136	0.422	172	0.551	208	0.297	244	0.713	280	0.916	316	0.971
29	0.889	65	0.986	101	0.811	137	0.405	173	0.559	209	0.291	245	0.722	281	0.921	317	0.966
30	0.894	66	0.982	102	0.805	138	0.388	174	0.566	210	0.287	246	0.730	282	0.926	318	0.962
31	0.899	67	0.979	103	0.800	139	0.372	175	0.572	211	0.285	247	0.739	283	0.932	319	0.957
32	0.904	68	0.975	104	0.795	140	0.357	176	0.578	212	0.285	248	0.747	284	0.937	320	0.952
33	0.909	69	0.972	105	0.789	141	0.342	177	0.581	213	0.288	249	0.754	285	0.942	321	0.946
34	0.914	70	0.967	106	0.784	142	0.328	178	0.584	214	0.293	250	0.761	286	0.948	322	0.941
35	0.920	71	0.963	107	0.778	143	0.316	179	0.586	215	0.300	251	0.768	287	0.953	323	0.936

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ELEVATION PATTERN

Proposal No.

Date **5-Jun-17**

Call Letters

Channel **27**

Frequency **551 MHz**

Antenna Type **TFU-24WB-R C160**

RMS Directivity at Main Lobe

21.6 (13.34 dB)

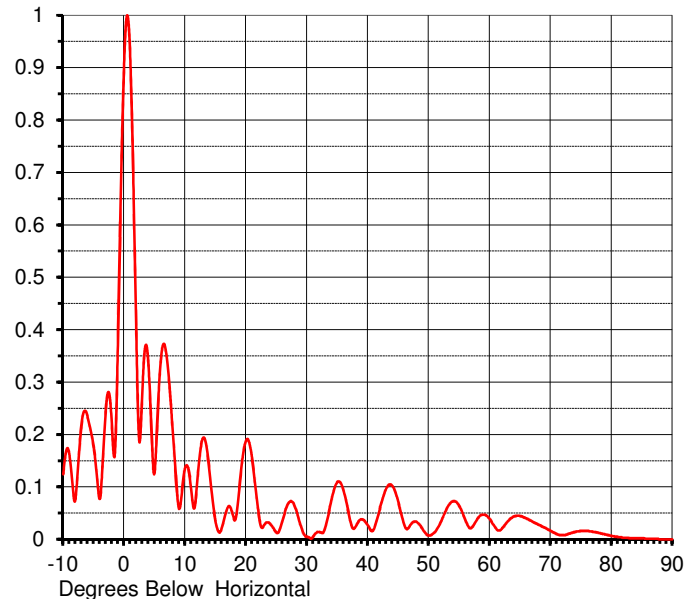
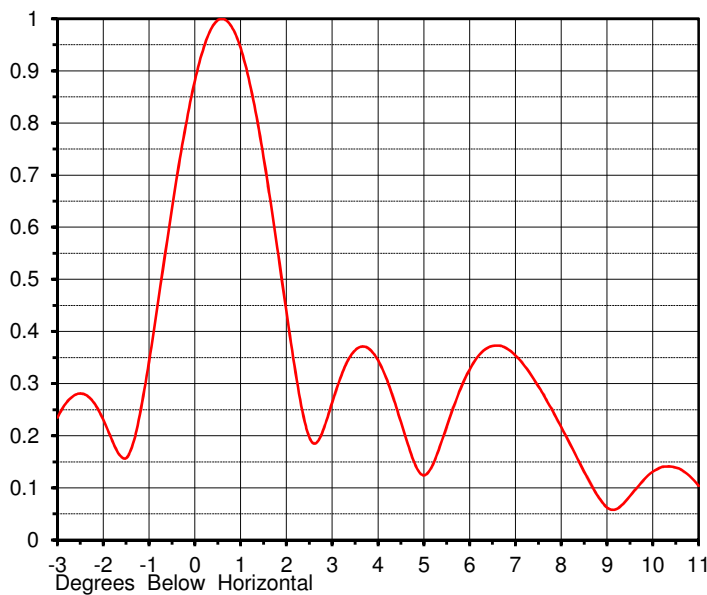
Beam Tilt **0.50 deg**

RMS Directivity at Horizontal

18.1 (12.58 dB)

Pattern Number **24W216050**

Calculated



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.124	10.0	0.136	30.0	0.005	50.0	0.007	70.0	0.016
-9.0	0.162	11.0	0.094	31.0	0.005	51.0	0.014	71.0	0.010
-8.0	0.077	12.0	0.112	32.0	0.014	52.0	0.034	72.0	0.008
-7.0	0.220	13.0	0.194	33.0	0.023	53.0	0.060	73.0	0.011
-6.0	0.233	14.0	0.129	34.0	0.075	54.0	0.073	74.0	0.014
-5.0	0.175	15.0	0.033	35.0	0.110	55.0	0.063	75.0	0.016
-4.0	0.077	16.0	0.021	36.0	0.093	56.0	0.036	76.0	0.016
-3.0	0.251	17.0	0.061	37.0	0.040	57.0	0.022	77.0	0.014
-2.0	0.211	18.0	0.039	38.0	0.025	58.0	0.040	78.0	0.012
-1.0	0.399	19.0	0.111	39.0	0.038	59.0	0.047	79.0	0.009
0.0	0.916	20.0	0.189	40.0	0.026	60.0	0.038	80.0	0.006
1.0	0.913	21.0	0.152	41.0	0.020	61.0	0.021	81.0	0.004
2.0	0.378	22.0	0.053	42.0	0.061	62.0	0.021	82.0	0.003
3.0	0.291	23.0	0.028	43.0	0.097	63.0	0.035	83.0	0.002
4.0	0.327	24.0	0.029	44.0	0.102	64.0	0.044	84.0	0.002
5.0	0.130	25.0	0.012	45.0	0.070	65.0	0.044	85.0	0.002
6.0	0.342	26.0	0.037	46.0	0.026	66.0	0.040	86.0	0.001
7.0	0.345	27.0	0.070	47.0	0.028	67.0	0.034	87.0	0.001
8.0	0.200	28.0	0.062	48.0	0.033	68.0	0.028	88.0	0.000
9.0	0.058	29.0	0.025	49.0	0.019	69.0	0.022	89.0	0.000
								90.0	0.000

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ELEVATION PATTERN

Proposal No.

Date **5-Jun-17**

Call Letters

Channel **31**

Frequency **575 MHz**

Antenna Type **TFU-24WB-R C160**

RMS Directivity at Main Lobe

21.6 (13.34 dB)

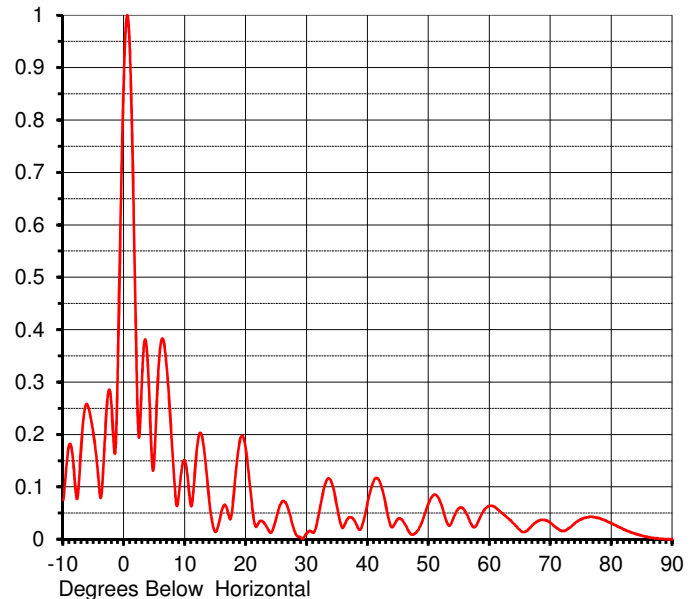
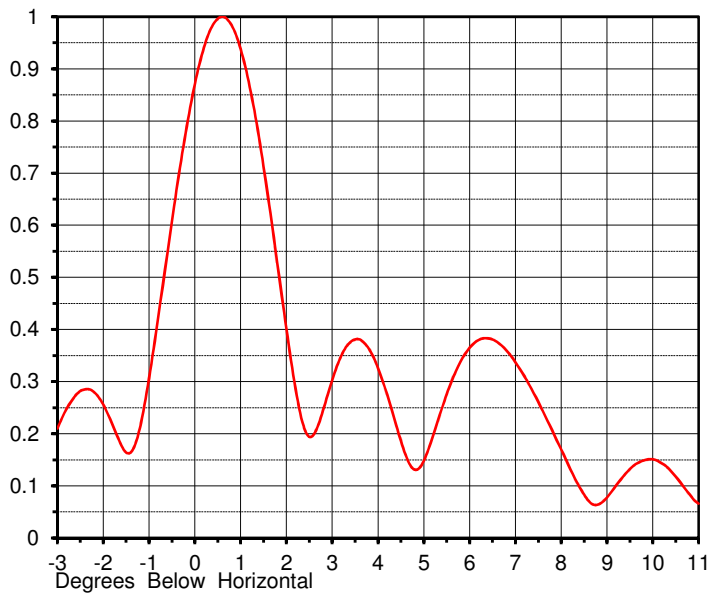
Beam Tilt **0.50 deg**

RMS Directivity at Horizontal

17.8 (12.50 dB)

Pattern Number **24W216050**

Calculated



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.075	10.0	0.148	30.0	0.012	50.0	0.070	70.0	0.031
-9.0	0.181	11.0	0.063	31.0	0.013	51.0	0.085	71.0	0.021
-8.0	0.095	12.0	0.180	32.0	0.052	52.0	0.067	72.0	0.016
-7.0	0.188	13.0	0.181	33.0	0.106	53.0	0.031	73.0	0.021
-6.0	0.256	14.0	0.069	34.0	0.109	54.0	0.040	74.0	0.031
-5.0	0.196	15.0	0.014	35.0	0.058	55.0	0.060	75.0	0.038
-4.0	0.086	16.0	0.054	36.0	0.024	56.0	0.052	76.0	0.042
-3.0	0.230	17.0	0.052	37.0	0.042	57.0	0.028	77.0	0.042
-2.0	0.238	18.0	0.089	38.0	0.031	58.0	0.032	78.0	0.040
-1.0	0.363	19.0	0.190	39.0	0.024	59.0	0.055	79.0	0.036
0.0	0.909	20.0	0.167	40.0	0.073	60.0	0.064	80.0	0.030
1.0	0.905	21.0	0.061	41.0	0.113	61.0	0.060	81.0	0.024
2.0	0.341	22.0	0.030	42.0	0.108	62.0	0.050	82.0	0.019
3.0	0.329	23.0	0.030	43.0	0.061	63.0	0.040	83.0	0.014
4.0	0.302	24.0	0.013	44.0	0.023	64.0	0.029	84.0	0.010
5.0	0.170	25.0	0.043	45.0	0.039	65.0	0.017	85.0	0.007
6.0	0.374	26.0	0.073	46.0	0.030	66.0	0.016	86.0	0.004
7.0	0.324	27.0	0.054	47.0	0.010	67.0	0.027	87.0	0.002
8.0	0.151	28.0	0.014	48.0	0.014	68.0	0.035	88.0	0.001
9.0	0.089	29.0	0.003	49.0	0.038	69.0	0.037	89.0	0.000
								90.0	0.000

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ELEVATION PATTERN

Proposal No.

Date **5-Jun-17**

Call Letters

Channel **40**

Frequency **629 MHz**

Antenna Type **TFU-24WB-R C160**

RMS Directivity at Main Lobe

20.5 (13.12 dB)

Beam Tilt

0.50 deg

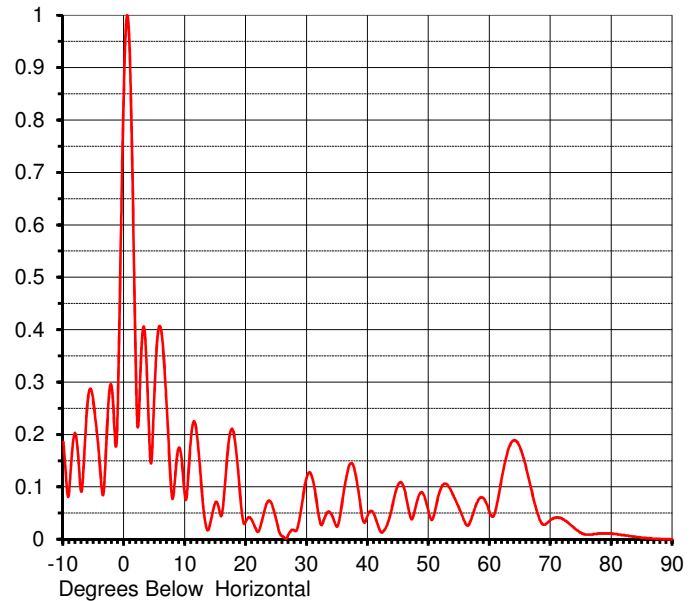
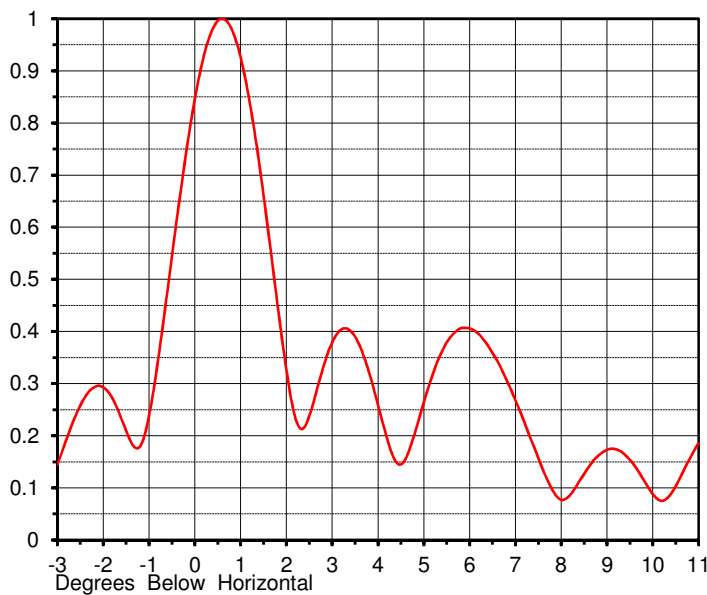
RMS Directivity at Horizontal

16.3 (12.12 dB)

Pattern Number

24W205050

Calculated



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.186	10.0	0.079	30.0	0.120	50.0	0.050	70.0	0.037
-9.0	0.097	11.0	0.198	31.0	0.111	51.0	0.055	71.0	0.042
-8.0	0.201	12.0	0.193	32.0	0.040	52.0	0.098	72.0	0.038
-7.0	0.091	13.0	0.059	33.0	0.044	53.0	0.104	73.0	0.030
-6.0	0.263	14.0	0.024	34.0	0.048	54.0	0.084	74.0	0.020
-5.0	0.256	15.0	0.071	35.0	0.025	55.0	0.058	75.0	0.012
-4.0	0.140	16.0	0.046	36.0	0.088	56.0	0.030	76.0	0.009
-3.0	0.169	17.0	0.170	37.0	0.143	57.0	0.040	77.0	0.010
-2.0	0.285	18.0	0.201	38.0	0.122	58.0	0.072	78.0	0.011
-1.0	0.288	19.0	0.088	39.0	0.046	59.0	0.078	79.0	0.011
0.0	0.891	20.0	0.035	40.0	0.047	60.0	0.051	80.0	0.011
1.0	0.886	21.0	0.035	41.0	0.047	61.0	0.058	81.0	0.009
2.0	0.272	22.0	0.015	42.0	0.016	62.0	0.119	82.0	0.008
3.0	0.395	23.0	0.054	43.0	0.024	63.0	0.170	83.0	0.006
4.0	0.226	24.0	0.072	44.0	0.064	64.0	0.189	84.0	0.004
5.0	0.293	25.0	0.034	45.0	0.105	65.0	0.174	85.0	0.003
6.0	0.402	26.0	0.005	46.0	0.094	66.0	0.135	86.0	0.002
7.0	0.247	27.0	0.010	47.0	0.041	67.0	0.086	87.0	0.001
8.0	0.079	28.0	0.016	48.0	0.071	68.0	0.043	88.0	0.000
9.0	0.175	29.0	0.056	49.0	0.088	69.0	0.028	89.0	0.000
								90.0	0.000

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MECHANICAL SPECIFICATIONS

Proposal No.	
Date	5-Jun-17
Call Letters	
Channel	27
Frequency	551 MHz
Antenna Type	TFU-24WB-R C160

Preliminary Specifications

Side Mounted

Without ice TIA/EIA-222-F

Height AGL	700 ft (213.4 m)
Basic Wind Speed	90 m/h (144.8 km/h)

Mechanical Specifications

Height	H2	43.5 ft (13.3m)	
Height of Center of Radiation	H3	21.7 ft (6.6m)	
Force Coeff. x Projected Area	CaAc	96.5 ft² (9m²)	Mounts Excluded
Weight	W	1850 lb (0.8t)	Mounts Excluded

Antenna designed in accordance with AISC specifications for design of structural steel as prescribed by TIA/EIA-222-F

Prepared by: KLP

Date: 5-Jun-17

ME:

EE:

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Summary

Proposal No.
Date **5-Jun-17**
Call Letters
Channel **27**
Frequency **551 MHz**
Antenna Type **TFU-24WB-R C160**

Antenna

		Hpol
ERP:	700 kW	(28.45 dBk)
Peak Gain*	35.03	(15.44 dB)

Antenna Input Power **20.0 kW (13.01 dBk)**

Transmission Line

Type:	Rigid	Attenuation:	(0.64 dB)
Size:	8-3/16"	Efficiency:	86.3%
Impedance:	75 Ohm		
Length:	750 ft	228.6 m	

Transmitter Output

23.1 kW (13.65 dBk)

Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.
Date **5-Jun-17**
Call Letters
Channel **31**
Frequency **575 MHz**
Antenna Type **TFU-24WB-R C160**

Antenna

		Hpol
ERP:	700 kW	(28.45 dBk)
Peak Gain*	35.94	(15.56 dB)

Antenna Input Power **19.5 kW (12.90 dBk)**

Transmission Line

Type:	Rigid	Attenuation:	(0.65 dB)
Size:	8-3/16"	Efficiency:	86.0%
Impedance:	75 Ohm		
Length:	750 ft	228.6 m	

Transmitter Output

22.6 kW (13.55 dBk)

Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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Summary

Proposal No.
Date **5-Jun-17**
Call Letters
Channel **40**
Frequency **629 MHz**
Antenna Type **TFU-24WB-R C160**

Antenna

		Hpol
ERP:	700 kW	(28.45 dBk)
Peak Gain*	34.27	(15.35 dB)

Antenna Input Power **20.4 kW (13.10 dBk)**

Transmission Line

Type:	Rigid	Attenuation:	(0.68 dB)
Size:	8-3/16"	Efficiency:	85.5%
Impedance:	75 Ohm		
Length:	750 ft	228.6 m	

Transmitter Output

23.9 kW (13.79 dBk)

Transmitter filter losses not included

* Directivity and Gain are with respect to half wave dipole. The gain includes feed system losses

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