



Antenna Model: **TFU-24DSC/VP-R 4P200 BB**

Proposal Number: **C-71908-**  
Date: **23-Jun-22**  
Customer: **New Orleans EDU**  
Location: **New Orleans, LA**

### Electrical Specifications

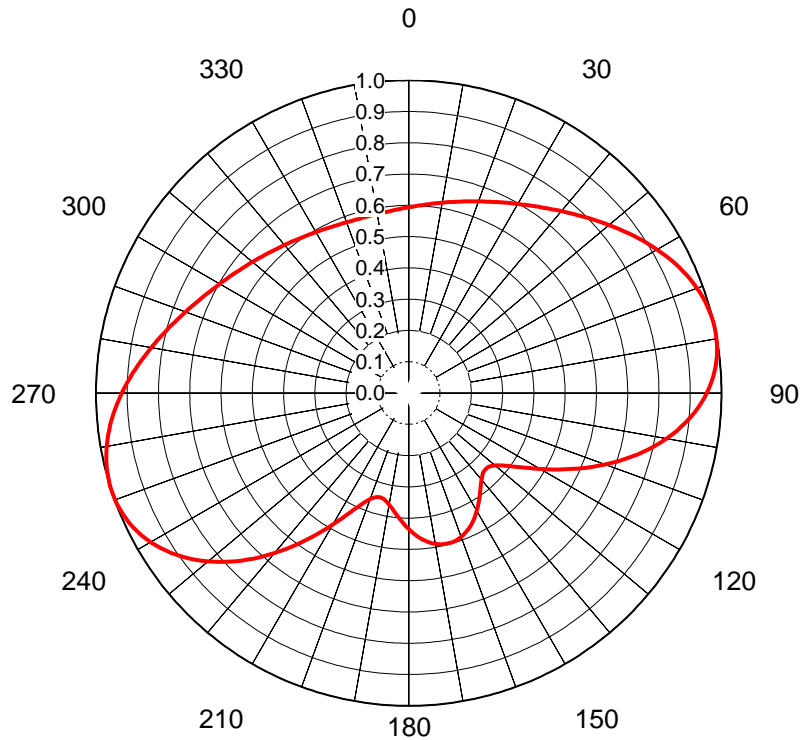
Polarization: **Elliptical**  
Azimuth Pattern: **Directional**  
Antenna Input: **6-1/8"** **75 Ohm** **EIA/DCA**  
VSWR: **Channel** **1.20 : 1**  
Bandwidth: **MHz**  
Rated Input Power: **50 kW** **(16.99 dBk)** **Maximum combined average power**

### Mechanical Specifications

Mounting: **Side Mounted**  
Environmental Protection: **Full Radome**  
Height: **56.8 ft (17.3m)**  
Weight: **1750 lb (0.8t)** **Excludes Mounts**  
Effective Projected Area: **59.2 ft² (5.5m²)** **TIA-222-G** **Basic Wind Speed: 135 m/h (217.3 km/h)**

### Channel Specifications

	Call	CH	Freq	Hpol ERP	Vpol ERP	TPO	Peak Main Lobe Hpol Gain	Peak Main Lobe Vpol Gain	Peak at Horizontal Hpol Gain	Peak at Horizontal Vpol Gain
1	WYES	28	557 MHz	1,000 kW (30.00 dBk)	500 kW (26.99 dBk)	41.7 kW (16.20 dBk)	32.08 (15.06dB)	16.04 (12.05dB)	13.14 (11.19dB)	6.57 (8.18dB)
2	WLAE	23	527 MHz	300 kW (24.77 dBk)	150 kW (21.76 dBk)	13.4 kW (11.27 dBk)	29.71 (14.73dB)	14.85 (11.72dB)	12.21 (10.87dB)	6.10 (7.86dB)



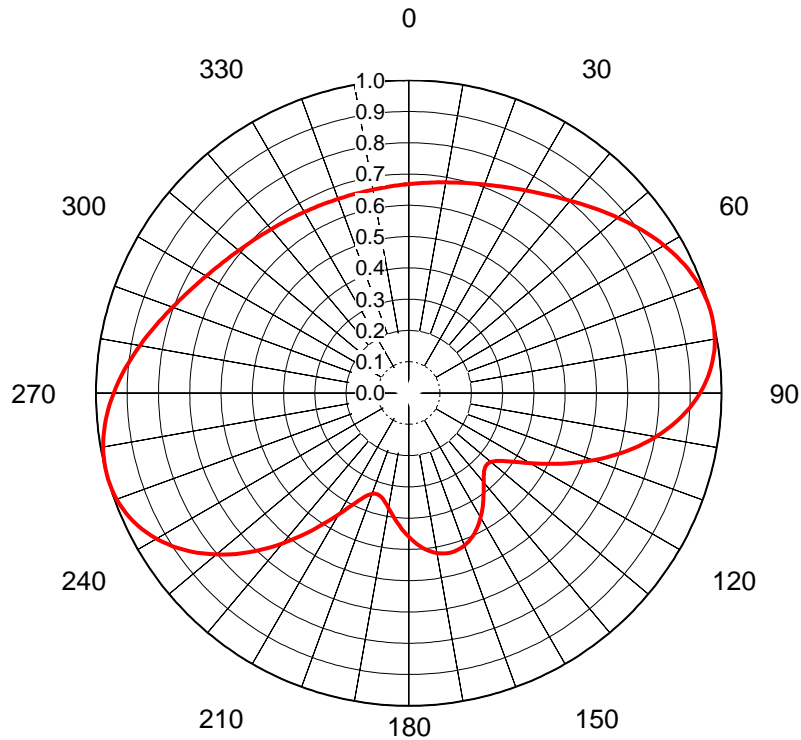
## AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-71908-**  
Date **23-Jun-22**  
Call Letters **WYES**  
Channel **28**  
Frequency **557 MHz**  
Antenna Type **TFU-24DSC/VP-R 4P200 B**  
Gain **1.99 (2.99dB)**  
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.594	36	0.732	72	0.988	108	0.705	144	0.389	180	0.435	216	0.594	252	1.000	288	0.773
1	0.596	37	0.739	73	0.992	109	0.687	145	0.397	181	0.428	217	0.612	253	1.000	289	0.766
2	0.598	38	0.745	74	0.995	110	0.668	146	0.404	182	0.420	218	0.631	254	0.998	290	0.759
3	0.600	39	0.752	75	0.997	111	0.650	147	0.412	183	0.412	219	0.650	255	0.997	291	0.752
4	0.602	40	0.759	76	0.998	112	0.631	148	0.420	184	0.404	220	0.668	256	0.995	292	0.745
5	0.605	41	0.766	77	1.000	113	0.612	149	0.428	185	0.397	221	0.687	257	0.992	293	0.739
6	0.607	42	0.773	78	1.000	114	0.594	150	0.435	186	0.389	222	0.705	258	0.988	294	0.732
7	0.610	43	0.781	79	1.000	115	0.575	151	0.442	187	0.382	223	0.723	259	0.985	295	0.726
8	0.612	44	0.788	80	0.999	116	0.557	152	0.449	188	0.375	224	0.740	260	0.980	296	0.720
9	0.615	45	0.796	81	0.998	117	0.538	153	0.456	189	0.368	225	0.758	261	0.976	297	0.714
10	0.618	46	0.804	82	0.995	118	0.520	154	0.462	190	0.362	226	0.775	262	0.970	298	0.709
11	0.621	47	0.812	83	0.993	119	0.503	155	0.468	191	0.357	227	0.791	263	0.965	299	0.703
12	0.624	48	0.820	84	0.989	120	0.486	156	0.474	192	0.353	228	0.807	264	0.959	300	0.698
13	0.627	49	0.828	85	0.985	121	0.469	157	0.478	193	0.349	229	0.822	265	0.953	301	0.693
14	0.630	50	0.836	86	0.980	122	0.453	158	0.483	194	0.347	230	0.837	266	0.946	302	0.687
15	0.634	51	0.844	87	0.974	123	0.438	159	0.487	195	0.346	231	0.852	267	0.939	303	0.683
16	0.637	52	0.852	88	0.968	124	0.423	160	0.490	196	0.346	232	0.866	268	0.932	304	0.678
17	0.641	53	0.861	89	0.961	125	0.410	161	0.493	197	0.347	233	0.879	269	0.925	305	0.673
18	0.644	54	0.869	90	0.953	126	0.398	162	0.495	198	0.350	234	0.891	270	0.917	306	0.669
19	0.648	55	0.877	91	0.944	127	0.387	163	0.496	199	0.355	235	0.903	271	0.909	307	0.664
20	0.652	56	0.885	92	0.935	128	0.377	164	0.497	200	0.361	236	0.915	272	0.901	308	0.660
21	0.656	57	0.893	93	0.925	129	0.368	165	0.497	201	0.368	237	0.925	273	0.893	309	0.656
22	0.660	58	0.901	94	0.915	130	0.361	166	0.497	202	0.377	238	0.935	274	0.885	310	0.652
23	0.664	59	0.909	95	0.903	131	0.355	167	0.496	203	0.387	239	0.944	275	0.877	311	0.648
24	0.669	60	0.917	96	0.891	132	0.350	168	0.495	204	0.398	240	0.953	276	0.869	312	0.644
25	0.673	61	0.925	97	0.879	133	0.347	169	0.493	205	0.410	241	0.961	277	0.861	313	0.641
26	0.678	62	0.932	98	0.866	134	0.346	170	0.490	206	0.423	242	0.968	278	0.852	314	0.637
27	0.683	63	0.939	99	0.852	135	0.346	171	0.487	207	0.438	243	0.974	279	0.844	315	0.634
28	0.687	64	0.946	100	0.837	136	0.347	172	0.483	208	0.453	244	0.980	280	0.836	316	0.630
29	0.693	65	0.953	101	0.823	137	0.349	173	0.478	209	0.469	245	0.985	281	0.828	317	0.627
30	0.698	66	0.959	102	0.807	138	0.353	174	0.474	210	0.485	246	0.989	282	0.819	318	0.624
31	0.703	67	0.965	103	0.791	139	0.357	175	0.468	211	0.503	247	0.993	283	0.811	319	0.621
32	0.709	68	0.970	104	0.775	140	0.362	176	0.462	212	0.520	248	0.995	284	0.804	320	0.618
33	0.714	69	0.976	105	0.758	141	0.368	177	0.456	213	0.538	249	0.998	285	0.796	321	0.615
34	0.720	70	0.980	106	0.740	142	0.375	178	0.449	214	0.556	250	0.999	286	0.788	322	0.612
35	0.726	71	0.985	107	0.723	143	0.382	179	0.442	215	0.575	251	1.000	287	0.781	323	0.610

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.



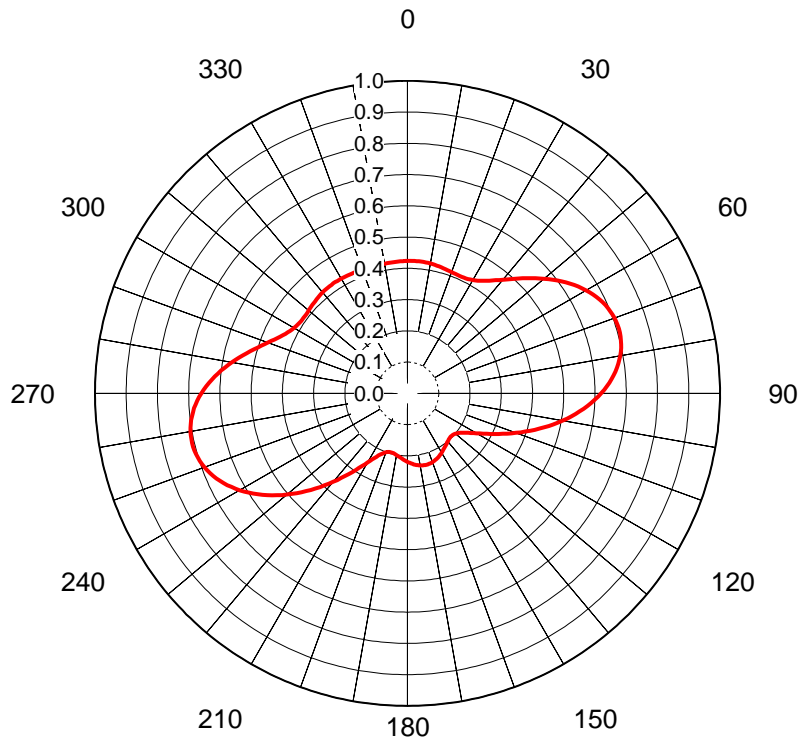
## AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-71908-**  
Date **23-Jun-22**  
Call Letters **WLAE**  
Channel **23**  
Frequency **527 MHz**  
Antenna Type **TFU-24DSC/VP-R 4P200 B**  
Gain **1.89 (2.76dB)**  
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.668	36	0.779	72	0.997	108	0.665	144	0.407	180	0.460	216	0.553	252	0.998	288	0.816
1	0.669	37	0.785	73	0.998	109	0.647	145	0.416	181	0.452	217	0.571	253	0.999	289	0.809
2	0.671	38	0.791	74	0.999	110	0.628	146	0.425	182	0.443	218	0.590	254	1.000	290	0.803
3	0.672	39	0.797	75	1.000	111	0.609	147	0.434	183	0.434	219	0.609	255	1.000	291	0.797
4	0.673	40	0.803	76	1.000	112	0.590	148	0.443	184	0.425	220	0.628	256	0.999	292	0.791
5	0.675	41	0.809	77	0.999	113	0.572	149	0.452	185	0.416	221	0.646	257	0.998	293	0.785
6	0.677	42	0.816	78	0.998	114	0.553	150	0.460	186	0.407	222	0.665	258	0.997	294	0.779
7	0.678	43	0.823	79	0.996	115	0.534	151	0.468	187	0.398	223	0.683	259	0.995	295	0.773
8	0.680	44	0.830	80	0.994	116	0.516	152	0.476	188	0.389	224	0.702	260	0.992	296	0.768
9	0.682	45	0.837	81	0.990	117	0.499	153	0.483	189	0.381	225	0.719	261	0.989	297	0.762
10	0.684	46	0.844	82	0.987	118	0.481	154	0.490	190	0.373	226	0.737	262	0.985	298	0.757
11	0.686	47	0.851	83	0.982	119	0.464	155	0.496	191	0.365	227	0.754	263	0.981	299	0.752
12	0.688	48	0.858	84	0.977	120	0.448	156	0.502	192	0.358	228	0.771	264	0.977	300	0.748
13	0.690	49	0.865	85	0.971	121	0.433	157	0.507	193	0.352	229	0.787	265	0.972	301	0.743
14	0.693	50	0.873	86	0.964	122	0.418	158	0.512	194	0.347	230	0.803	266	0.967	302	0.739
15	0.695	51	0.880	87	0.957	123	0.404	159	0.516	195	0.343	231	0.819	267	0.961	303	0.735
16	0.698	52	0.887	88	0.949	124	0.391	160	0.519	196	0.340	232	0.834	268	0.956	304	0.730
17	0.701	53	0.895	89	0.941	125	0.380	161	0.522	197	0.339	233	0.848	269	0.950	305	0.727
18	0.703	54	0.902	90	0.931	126	0.370	162	0.524	198	0.339	234	0.862	270	0.943	306	0.723
19	0.706	55	0.909	91	0.921	127	0.361	163	0.526	199	0.340	235	0.875	271	0.937	307	0.719
20	0.709	56	0.916	92	0.911	128	0.353	164	0.527	200	0.343	236	0.887	272	0.930	308	0.716
21	0.712	57	0.923	93	0.899	129	0.347	165	0.527	201	0.347	237	0.899	273	0.923	309	0.712
22	0.716	58	0.930	94	0.887	130	0.343	166	0.527	202	0.353	238	0.911	274	0.916	310	0.709
23	0.719	59	0.937	95	0.875	131	0.340	167	0.526	203	0.361	239	0.921	275	0.909	311	0.706
24	0.723	60	0.943	96	0.862	132	0.339	168	0.524	204	0.370	240	0.931	276	0.902	312	0.703
25	0.727	61	0.950	97	0.848	133	0.339	169	0.522	205	0.380	241	0.941	277	0.895	313	0.700
26	0.731	62	0.956	98	0.834	134	0.340	170	0.519	206	0.391	242	0.949	278	0.887	314	0.698
27	0.735	63	0.961	99	0.819	135	0.343	171	0.516	207	0.404	243	0.957	279	0.880	315	0.695
28	0.739	64	0.967	100	0.803	136	0.347	172	0.512	208	0.418	244	0.964	280	0.873	316	0.693
29	0.743	65	0.972	101	0.787	137	0.352	173	0.507	209	0.433	245	0.971	281	0.865	317	0.690
30	0.748	66	0.977	102	0.771	138	0.358	174	0.502	210	0.448	246	0.977	282	0.858	318	0.688
31	0.753	67	0.981	103	0.754	139	0.365	175	0.496	211	0.464	247	0.982	283	0.851	319	0.686
32	0.757	68	0.985	104	0.737	140	0.373	176	0.490	212	0.481	248	0.987	284	0.844	320	0.684
33	0.763	69	0.989	105	0.719	141	0.381	177	0.483	213	0.498	249	0.990	285	0.837	321	0.682
34	0.768	70	0.992	106	0.702	142	0.389	178	0.476	214	0.516	250	0.994	286	0.830	322	0.680
35	0.773	71	0.995	107	0.683	143	0.398	179	0.468	215	0.534	251	0.996	287	0.823	323	0.678

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.



## AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-71908-**  
Date **23-Jun-22**  
Call Letters **WYES**  
Channel **28**  
Frequency **557 MHz**  
Antenna Type **TFU-24DSC/VP-R 4P200 B**  
Gain **2.33 (3.67dB)**  
Calculated

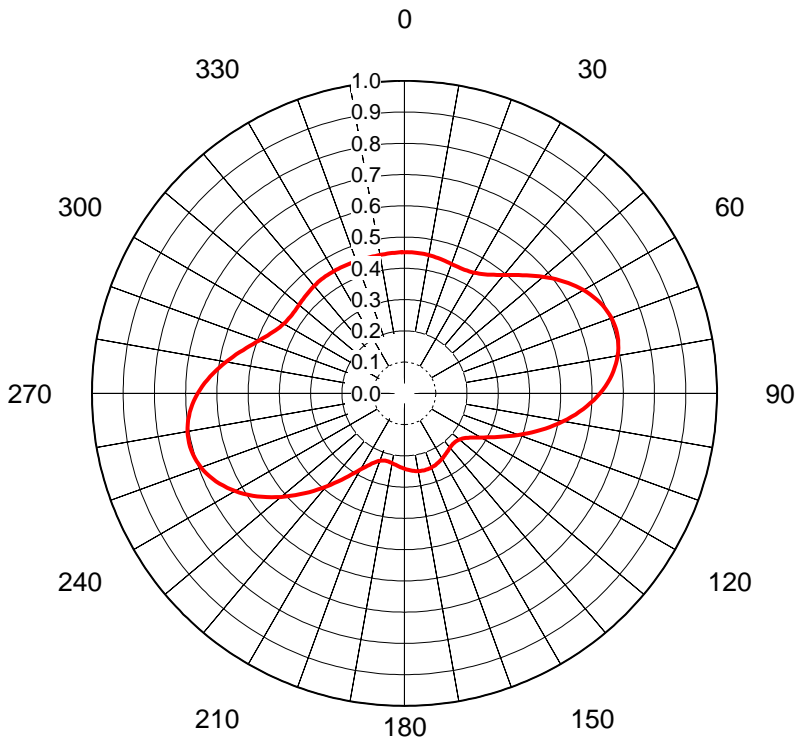
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.424	36	0.446	72	0.707	108	0.396	144	0.207	180	0.219	216	0.319	252	0.699	288	0.492	324	0.424
1	0.424	37	0.452	73	0.707	109	0.383	145	0.209	181	0.217	217	0.331	253	0.702	289	0.483	325	0.424
2	0.424	38	0.459	74	0.707	110	0.370	146	0.211	182	0.215	218	0.344	254	0.704	290	0.475	326	0.424
3	0.424	39	0.467	75	0.706	111	0.357	147	0.213	183	0.213	219	0.357	255	0.706	291	0.467	327	0.424
4	0.424	40	0.475	76	0.704	112	0.344	148	0.215	184	0.211	220	0.370	256	0.707	292	0.459	328	0.424
5	0.424	41	0.483	77	0.702	113	0.331	149	0.217	185	0.209	221	0.383	257	0.707	293	0.452	329	0.424
6	0.424	42	0.492	78	0.699	114	0.319	150	0.219	186	0.207	222	0.396	258	0.707	294	0.446	330	0.424
7	0.423	43	0.501	79	0.695	115	0.307	151	0.221	187	0.205	223	0.410	259	0.706	295	0.440	331	0.424
8	0.423	44	0.511	80	0.691	116	0.296	152	0.223	188	0.204	224	0.423	260	0.705	296	0.434	332	0.423
9	0.423	45	0.520	81	0.686	117	0.285	153	0.225	189	0.202	225	0.437	261	0.703	297	0.430	333	0.423
10	0.422	46	0.530	82	0.681	118	0.275	154	0.226	190	0.201	226	0.450	262	0.700	298	0.425	334	0.423
11	0.421	47	0.540	83	0.675	119	0.265	155	0.228	191	0.199	227	0.464	263	0.697	299	0.422	335	0.422
12	0.420	48	0.550	84	0.669	120	0.256	156	0.229	192	0.198	228	0.477	264	0.693	300	0.419	336	0.422
13	0.419	49	0.561	85	0.662	121	0.247	157	0.231	193	0.197	229	0.491	265	0.689	301	0.416	337	0.422
14	0.419	50	0.571	86	0.655	122	0.239	158	0.232	194	0.196	230	0.504	266	0.684	302	0.414	338	0.422
15	0.417	51	0.581	87	0.647	123	0.232	159	0.233	195	0.196	231	0.517	267	0.679	303	0.413	339	0.421
16	0.416	52	0.590	88	0.638	124	0.225	160	0.234	196	0.196	232	0.530	268	0.673	304	0.412	340	0.421
17	0.415	53	0.600	89	0.629	125	0.220	161	0.235	197	0.196	233	0.542	269	0.666	305	0.411	341	0.421
18	0.414	54	0.610	90	0.620	126	0.214	162	0.235	198	0.197	234	0.554	270	0.660	306	0.411	342	0.421
19	0.413	55	0.619	91	0.610	127	0.210	163	0.236	199	0.199	235	0.566	271	0.652	307	0.411	343	0.421
20	0.413	56	0.628	92	0.599	128	0.206	164	0.236	200	0.201	236	0.578	272	0.644	308	0.411	344	0.421
21	0.412	57	0.636	93	0.589	129	0.203	165	0.236	201	0.203	237	0.589	273	0.636	309	0.412	345	0.421
22	0.411	58	0.644	94	0.578	130	0.201	166	0.236	202	0.206	238	0.599	274	0.628	310	0.413	346	0.421
23	0.411	59	0.652	95	0.566	131	0.199	167	0.236	203	0.210	239	0.610	275	0.619	311	0.413	347	0.421
24	0.411	60	0.660	96	0.554	132	0.197	168	0.235	204	0.214	240	0.620	276	0.610	312	0.414	348	0.421
25	0.411	61	0.666	97	0.542	133	0.196	169	0.235	205	0.220	241	0.629	277	0.600	313	0.415	349	0.421
26	0.412	62	0.673	98	0.530	134	0.196	170	0.234	206	0.225	242	0.638	278	0.590	314	0.416	350	0.421
27	0.413	63	0.679	99	0.517	135	0.196	171	0.233	207	0.232	243	0.647	279	0.581	315	0.417	351	0.421
28	0.414	64	0.684	100	0.504	136	0.196	172	0.232	208	0.239	244	0.655	280	0.571	316	0.419	352	0.422
29	0.416	65	0.689	101	0.491	137	0.197	173	0.231	209	0.247	245	0.662	281	0.561	317	0.419	353	0.422
30	0.419	66	0.693	102	0.477	138	0.198	174	0.229	210	0.256	246	0.669	282	0.550	318	0.420	354	0.422
31	0.422	67	0.697	103	0.464	139	0.199	175	0.228	211	0.265	247	0.675	283	0.540	319	0.421	355	0.422
32	0.425	68	0.700	104	0.450	140	0.201	176	0.226	212	0.275	248	0.681	284	0.530	320	0.422	356	0.423
33	0.430	69	0.703	105	0.437	141	0.202	177	0.225	213	0.285	249	0.686	285	0.520	321	0.423	357	0.423
34	0.434	70	0.705	106	0.423	142	0.204	178	0.223	214	0.296	250	0.691	286	0.511	322	0.423	358	0.423
35	0.440	71	0.706	107	0.410	143	0.205	179	0.221	215	0.307	251	0.695	287	0.501	323	0.423	359	0.424

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

## AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-71908-**  
Date **23-Jun-22**  
Call Letters **WLAE**  
Channel **23**  
Frequency **527 MHz**  
Antenna Type **TFU-24DSC/VP-R 4P200 B**  
Gain **2.19 (3.41dB)**  
Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.452	36	0.469	72	0.707	108	0.414	144	0.232	180	0.241	216	0.341	252	0.700	288	0.510	324	0.451
1	0.452	37	0.475	73	0.707	109	0.401	145	0.233	181	0.240	217	0.353	253	0.702	289	0.502	325	0.451
2	0.452	38	0.481	74	0.707	110	0.389	146	0.235	182	0.238	218	0.364	254	0.704	290	0.495	326	0.452
3	0.452	39	0.488	75	0.706	111	0.376	147	0.237	183	0.237	219	0.376	255	0.706	291	0.488	327	0.452
4	0.452	40	0.495	76	0.704	112	0.364	148	0.238	184	0.235	220	0.389	256	0.707	292	0.481	328	0.452
5	0.451	41	0.502	77	0.702	113	0.353	149	0.240	185	0.233	221	0.401	257	0.707	293	0.475	329	0.452
6	0.451	42	0.510	78	0.700	114	0.341	150	0.241	186	0.232	222	0.414	258	0.707	294	0.469	330	0.452
7	0.451	43	0.518	79	0.696	115	0.330	151	0.243	187	0.231	223	0.427	259	0.706	295	0.464	331	0.451
8	0.450	44	0.526	80	0.693	116	0.320	152	0.244	188	0.229	224	0.439	260	0.705	296	0.459	332	0.451
9	0.450	45	0.535	81	0.688	117	0.310	153	0.245	189	0.228	225	0.452	261	0.703	297	0.455	333	0.451
10	0.449	46	0.544	82	0.683	118	0.300	154	0.247	190	0.227	226	0.465	262	0.700	298	0.452	334	0.451
11	0.448	47	0.553	83	0.678	119	0.291	155	0.248	191	0.226	227	0.478	263	0.697	299	0.449	335	0.451
12	0.448	48	0.562	84	0.672	120	0.282	156	0.249	192	0.225	228	0.490	264	0.693	300	0.446	336	0.450
13	0.447	49	0.571	85	0.665	121	0.274	157	0.250	193	0.224	229	0.503	265	0.689	301	0.444	337	0.450
14	0.446	50	0.580	86	0.658	122	0.267	158	0.251	194	0.224	230	0.516	266	0.685	302	0.442	338	0.450
15	0.445	51	0.589	87	0.651	123	0.260	159	0.252	195	0.224	231	0.528	267	0.680	303	0.441	339	0.450
16	0.444	52	0.598	88	0.643	124	0.254	160	0.253	196	0.224	232	0.540	268	0.674	304	0.440	340	0.450
17	0.443	53	0.607	89	0.634	125	0.248	161	0.253	197	0.225	233	0.552	269	0.668	305	0.439	341	0.449
18	0.442	54	0.615	90	0.625	126	0.243	162	0.254	198	0.226	234	0.563	270	0.661	306	0.439	342	0.449
19	0.441	55	0.624	91	0.616	127	0.239	163	0.254	199	0.228	235	0.574	271	0.655	307	0.439	343	0.449
20	0.440	56	0.632	92	0.606	128	0.235	164	0.254	200	0.230	236	0.585	272	0.647	308	0.439	344	0.449
21	0.440	57	0.640	93	0.596	129	0.232	165	0.254	201	0.232	237	0.596	273	0.640	309	0.440	345	0.449
22	0.439	58	0.647	94	0.585	130	0.230	166	0.254	202	0.235	238	0.606	274	0.632	310	0.440	346	0.449
23	0.439	59	0.655	95	0.574	131	0.228	167	0.254	203	0.239	239	0.616	275	0.624	311	0.441	347	0.449
24	0.439	60	0.661	96	0.563	132	0.226	168	0.254	204	0.243	240	0.625	276	0.615	312	0.442	348	0.449
25	0.439	61	0.668	97	0.552	133	0.225	169	0.253	205	0.248	241	0.634	277	0.607	313	0.443	349	0.449
26	0.440	62	0.674	98	0.540	134	0.224	170	0.253	206	0.254	242	0.643	278	0.598	314	0.444	350	0.450
27	0.441	63	0.680	99	0.528	135	0.224	171	0.252	207	0.260	243	0.651	279	0.589	315	0.445	351	0.450
28	0.442	64	0.685	100	0.516	136	0.224	172	0.251	208	0.267	244	0.658	280	0.580	316	0.446	352	0.450
29	0.444	65	0.689	101	0.503	137	0.224	173	0.250	209	0.274	245	0.665	281	0.571	317	0.447	353	0.450
30	0.446	66	0.693	102	0.490	138	0.225	174	0.249	210	0.282	246	0.672	282	0.562	318	0.448	354	0.450
31	0.449	67	0.697	103	0.478	139	0.226	175	0.248	211	0.291	247	0.678	283	0.553	319	0.448	355	0.451
32	0.452	68	0.700	104	0.465	140	0.227	176	0.247	212	0.300	248	0.683	284	0.544	320	0.449	356	0.451
33	0.455	69	0.703	105	0.452	141	0.228	177	0.245	213	0.310	249	0.688	285	0.535	321	0.450	357	0.451
34	0.459	70	0.705	106	0.439	142	0.229	178	0.244	214	0.320	250	0.693	286	0.526	322	0.450	358	0.451
35	0.464	71	0.706	107	0.427	143	0.231	179	0.243	215	0.330	251	0.696	287	0.518	323	0.451	359	0.451

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

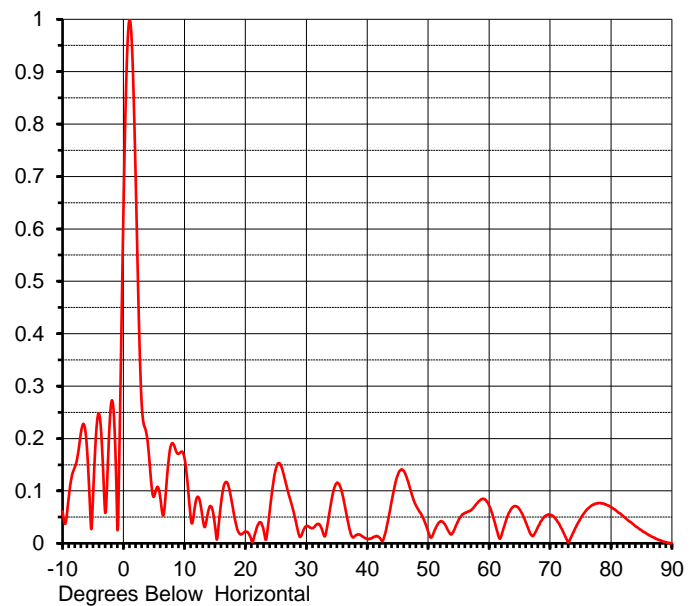
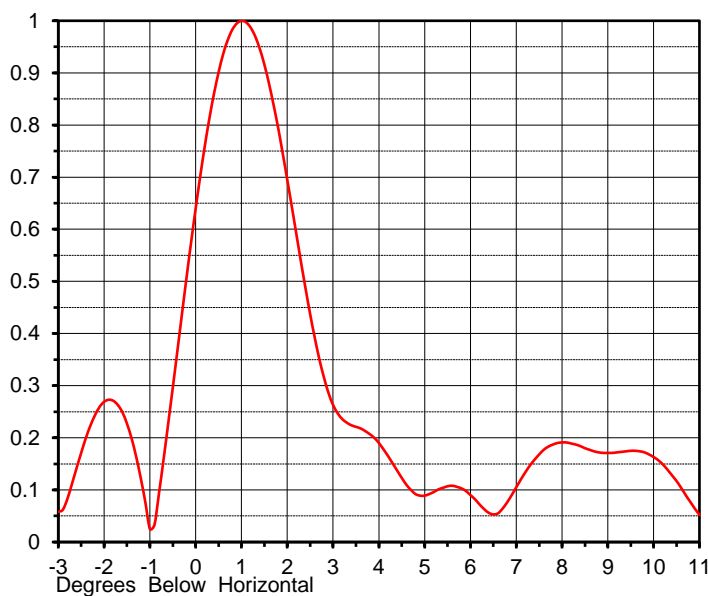


## ELEVATION PATTERN

Proposal No. **C-71908-**  
 Date **23-Jun-22**  
 Call Letters **WYES**  
 Channel **28**  
 Frequency **557 MHz**  
 Antenna Type **TFU-24DSC/VP-R 4P200**

RMS Directivity at Main Lobe **23.0 ( 13.62 dB )**  
 RMS Directivity at Horizontal **9.4 ( 9.73 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Pattern Number **24SP230100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.061	10.0	0.163	30.0	0.033	50.0	0.022	70.0	0.055
-9.0	0.086	11.0	0.052	31.0	0.029	51.0	0.023	71.0	0.045
-8.0	0.145	12.0	0.086	32.0	0.037	52.0	0.042	72.0	0.026
-7.0	0.210	13.0	0.047	33.0	0.013	53.0	0.031	73.0	0.001
-6.0	0.182	14.0	0.065	34.0	0.073	54.0	0.020	74.0	0.025
-5.0	0.089	15.0	0.035	35.0	0.115	55.0	0.045	75.0	0.047
-4.0	0.247	16.0	0.076	36.0	0.090	56.0	0.058	76.0	0.064
-3.0	0.058	17.0	0.116	37.0	0.032	57.0	0.063	77.0	0.073
-2.0	0.269	18.0	0.064	38.0	0.014	58.0	0.076	78.0	0.077
-1.0	0.025	19.0	0.019	39.0	0.015	59.0	0.085	79.0	0.075
0.0	0.640	20.0	0.022	40.0	0.009	60.0	0.072	80.0	0.069
1.0	1.000	21.0	0.006	41.0	0.012	61.0	0.037	81.0	0.061
2.0	0.695	22.0	0.034	42.0	0.011	62.0	0.014	82.0	0.052
3.0	0.263	23.0	0.025	43.0	0.021	63.0	0.051	83.0	0.042
4.0	0.190	24.0	0.062	44.0	0.080	64.0	0.070	84.0	0.033
5.0	0.089	25.0	0.142	45.0	0.130	65.0	0.065	85.0	0.025
6.0	0.090	26.0	0.143	46.0	0.138	66.0	0.041	86.0	0.017
7.0	0.105	27.0	0.099	47.0	0.106	67.0	0.015	87.0	0.011
8.0	0.191	28.0	0.056	48.0	0.072	68.0	0.031	88.0	0.006
9.0	0.171	29.0	0.012	49.0	0.052	69.0	0.050	89.0	0.002
								90.0	0.000

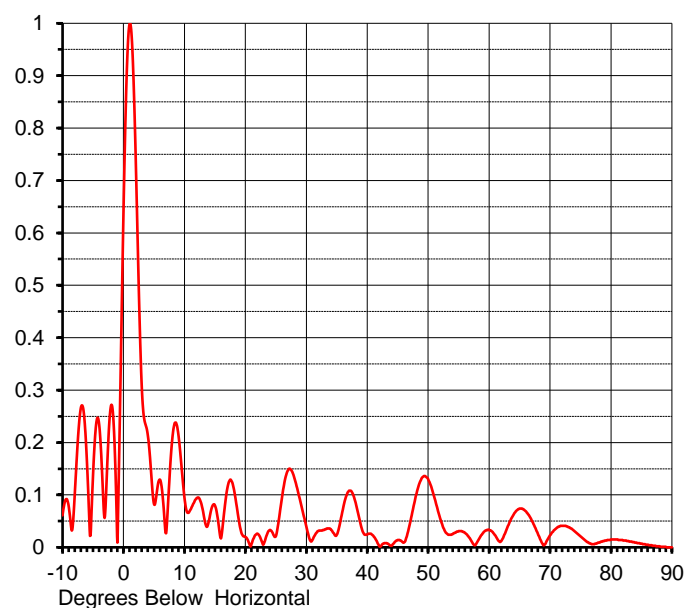
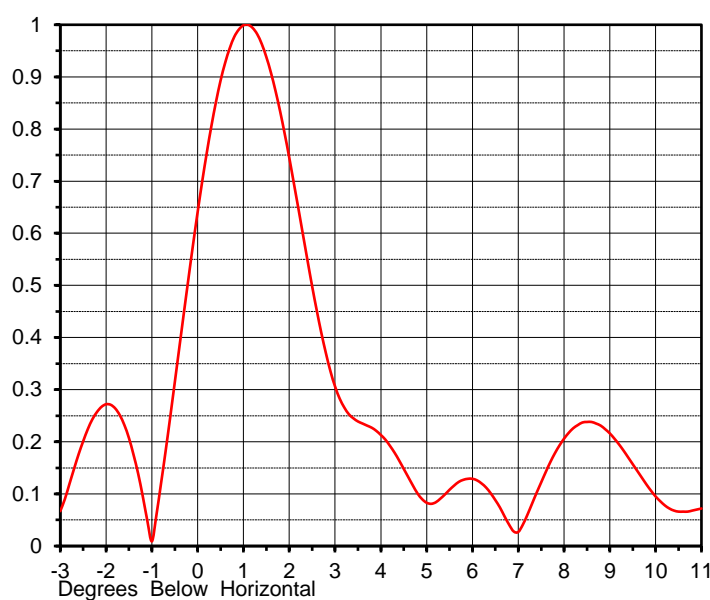
This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

## ELEVATION PATTERN

Proposal No. **C-71908-**  
 Date **23-Jun-22**  
 Call Letters **WLAE**  
 Channel **23**  
 Frequency **527 MHz**  
 Antenna Type **TFU-24DSC/VP-R 4P200**

RMS Directivity at Main Lobe **22.5 ( 13.52 dB )**  
 RMS Directivity at Horizontal **9.2 ( 9.64 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Pattern Number **24SP225100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.061	10.0	0.095	30.0	0.040	50.0	0.130	70.0	0.023
-9.0	0.079	11.0	0.072	31.0	0.014	51.0	0.096	71.0	0.036
-8.0	0.101	12.0	0.094	32.0	0.031	52.0	0.054	72.0	0.041
-7.0	0.266	13.0	0.072	33.0	0.034	53.0	0.027	73.0	0.039
-6.0	0.163	14.0	0.050	34.0	0.035	54.0	0.025	74.0	0.031
-5.0	0.137	15.0	0.080	35.0	0.024	55.0	0.031	75.0	0.021
-4.0	0.235	16.0	0.017	36.0	0.072	56.0	0.028	76.0	0.011
-3.0	0.067	17.0	0.110	37.0	0.108	57.0	0.014	77.0	0.006
-2.0	0.272	18.0	0.117	38.0	0.089	58.0	0.009	78.0	0.009
-1.0	0.009	19.0	0.047	39.0	0.040	59.0	0.027	79.0	0.013
0.0	0.641	20.0	0.020	40.0	0.025	60.0	0.033	80.0	0.015
1.0	0.999	21.0	0.006	41.0	0.022	61.0	0.023	81.0	0.015
2.0	0.745	22.0	0.026	42.0	0.002	62.0	0.012	82.0	0.013
3.0	0.306	23.0	0.006	43.0	0.008	63.0	0.038	83.0	0.011
4.0	0.213	24.0	0.033	44.0	0.003	64.0	0.062	84.0	0.009
5.0	0.083	25.0	0.021	45.0	0.014	65.0	0.074	85.0	0.007
6.0	0.129	26.0	0.094	46.0	0.009	66.0	0.069	86.0	0.005
7.0	0.027	27.0	0.147	47.0	0.045	67.0	0.051	87.0	0.003
8.0	0.206	28.0	0.134	48.0	0.099	68.0	0.026	88.0	0.002
9.0	0.216	29.0	0.089	49.0	0.133	69.0	0.004	89.0	0.001
								90.0	0.000

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

## MECHANICAL SPECIFICATIONS

Proposal No. **C-71908-**  
 Date **23-Jun-22**  
 Call Letters **WYES**  
 Channel **28**  
 Frequency **557 MHz**  
 Antenna Type **TFU-24DSC/VP-R 4P200 B**

### Preliminary Specifications

#### Side Mounted

#### Without ice TIA-222-G

Basic Wind Speed 135 m/h (217.3 km/h)

Structure Class II

Exposure Category B

Topography Category 1

#### Mechanical Specifications

Height	H2	56.8 ft (17.3m)	
Height of Center of Radiation	H3	28.4 ft (8.7m)	
Effective Projected Area	(EPA) <sub>A</sub>	59.2 ft² (5.5m²)	Mounts Excluded
Weight	W	1750 lb (0.8t)	Mounts Excluded

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

Prepared by: CAB

Date: 23-Jun-22

ME:

EE:

0

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric. Mechanical data is based on listed criteria and should be verified by the tower engineer.



## Summary

Proposal No.	<b>C-71908-</b>
Date	<b>23-Jun-22</b>
Call Letters	<b>WYES</b>
Channel	<b>28</b>
Frequency	<b>557 MHz</b>
Antenna Type	<b>TFU-24DSC/VP-R 4P200 BB</b>

## Antenna

	Hpol		Vpol	
ERP:	<b>1,000 kW</b>	<b>( 30.00 dBk )</b>	<b>500 kW</b>	<b>( 26.99 dBk )</b>
Peak Gain*	32.08	( 15.06 dB )	16.04	( 12.05 dB )

<b>Antenna Input Power</b>	<b>31.2 kW</b>	<b>( 14.94 dBk )</b>
----------------------------	----------------	----------------------

## Transmission Line

Type:	<b>Rigid</b>	Attenuation:	<b>( 1.26 dB )</b>
Size:	<b>6-1/8"</b>	Efficiency:	<b>74.8%</b>
Impedance:	<b>75 Ohm</b>		
Length:	<b>1100 ft</b>	<b>335.3 m</b>	

## Transmitter Output

<b>41.7 kW</b>	<b>( 16.20 dBk )</b>
----------------	----------------------

Transmitter filter losses not included

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

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

## Summary

Proposal No.	<b>C-71908-</b>
Date	<b>23-Jun-22</b>
Call Letters	<b>WLAE</b>
Channel	<b>23</b>
Frequency	<b>527 MHz</b>
Antenna Type	<b>TFU-24DSC/VP-R 4P200 BB</b>

## Antenna

	Hpol		Vpol	
ERP:	<b>300 kW</b>	<b>( 24.77 dBk )</b>	<b>150 kW</b>	<b>( 21.76 dBk )</b>
Peak Gain*	29.71	( 14.73 dB )	14.85	( 11.72 dB )

<b>Antenna Input Power</b>	<b>10.1 kW</b>	<b>( 10.04 dBk )</b>
----------------------------	----------------	----------------------

## Transmission Line

Type:	<b>Rigid</b>	Attenuation:	<b>( 1.23 dB )</b>
Size:	<b>6-1/8"</b>	Efficiency:	<b>75.4%</b>
Impedance:	<b>75 Ohm</b>		
Length:	<b>1100 ft</b>	<b>335.3 m</b>	

## Transmitter Output

<b>13.4 kW</b>	<b>( 11.27 dBk )</b>
----------------	----------------------

Transmitter filter losses not included

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

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.