Dielectric®

Antenna Model: **TFU-24WB-R C160**

Reference Number:	**20200527WTG**
Date:	**27-May-20**
Customer:	**NEXSTAR**
Location:	**Abilene, TEXAS**

Electrical Specifications

Polarization:	**Horizontal**
Azimuth Pattern:	**C160**
Antenna Input:	**6-1/8 in 75 Ohm EIA/DCA**
VSWR:	Channel **1.15:1** Band **1.15:1**
Bandwidth:	**470-698 MHz**
Rated Input Power:	**60 kW** **(17.78 dBk)** **Maximum Average Power**

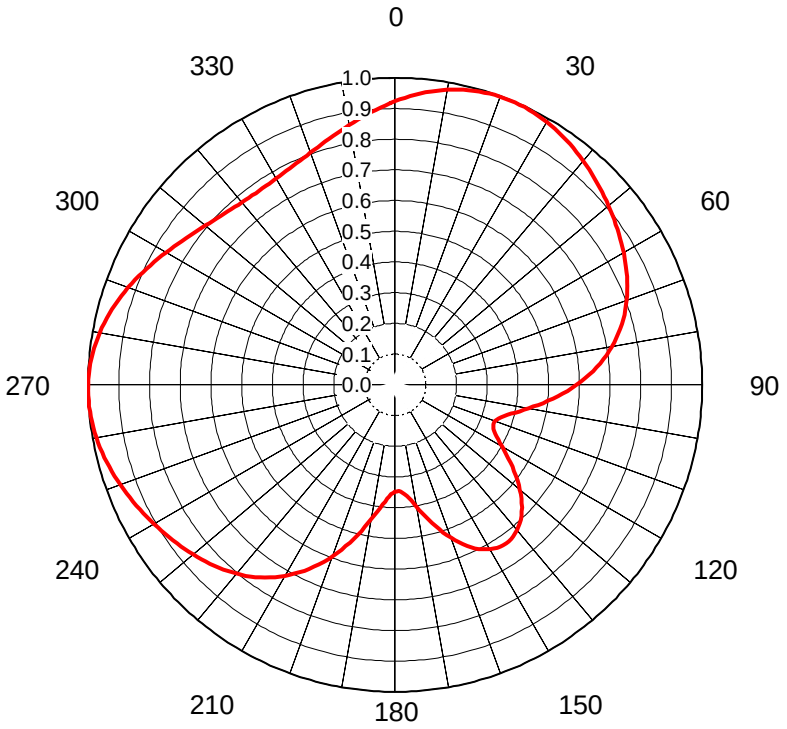
Mechanical Specifications

Mounting:	**Side Mounted**
Environmental Protection:	**Full Radome**
Height:	**43.5 ft (13.3m)**
Weight:	**1850 lb (840 kg)** mounts excluded
Effective Projected Area:	**96.5 ft² (9m²)**

Channel Specifications

Call	Ch	Freq	Hpol ERP	TPO	Peak Gain Main Lobe Hpol	Peak Gain at Horizontal Hpol
KTAB	30	569	1,000 kW (30.00 dBk)	32.7 kW (15.14 dBk)	35.69 (15.52dB)	31.73 (15.02dB)

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

Proposal No.	**20200527WTG**
Date	**27-May-20**
Call Letters	**KTAB**
Channel	**30**
Frequency	**569 MHz**
Antenna Type	**TFU-24WB-R C160**
Gain	**1.65 (2.18dB)** Calculated
Pattern Number	**WB-C160-30 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.923	36	0.969	72	0.788	108	0.354	144	0.629	180	0.348	216	0.774	252	0.961	288	0.938	324	0.772
1	0.929	37	0.965	73	0.780	109	0.349	145	0.630	181	0.352	217	0.781	253	0.965	289	0.932	325	0.772
2	0.935	38	0.961	74	0.772	110	0.346	146	0.629	182	0.357	218	0.789	254	0.969	290	0.926	326	0.772
3	0.941	39	0.957	75	0.764	111	0.344	147	0.628	183	0.364	219	0.796	255	0.972	291	0.920	327	0.773
4	0.947	40	0.953	76	0.756	112	0.345	148	0.626	184	0.372	220	0.803	256	0.976	292	0.913	328	0.773
5	0.952	41	0.949	77	0.746	113	0.347	149	0.622	185	0.382	221	0.810	257	0.979	293	0.907	329	0.774
6	0.957	42	0.944	78	0.737	114	0.350	150	0.618	186	0.392	222	0.816	258	0.983	294	0.900	330	0.776
7	0.962	43	0.940	79	0.727	115	0.356	151	0.613	187	0.404	223	0.822	259	0.986	295	0.894	331	0.777
8	0.967	44	0.935	80	0.717	116	0.363	152	0.607	188	0.417	224	0.828	260	0.988	296	0.887	332	0.779
9	0.971	45	0.930	81	0.706	117	0.371	153	0.600	189	0.430	225	0.833	261	0.991	297	0.881	333	0.781
10	0.976	46	0.926	82	0.695	118	0.380	154	0.592	190	0.444	226	0.839	262	0.993	298	0.874	334	0.784
11	0.979	47	0.921	83	0.683	119	0.391	155	0.584	191	0.459	227	0.844	263	0.995	299	0.868	335	0.787
12	0.983	48	0.916	84	0.671	120	0.402	156	0.574	192	0.474	228	0.849	264	0.997	300	0.862	336	0.790
13	0.986	49	0.912	85	0.659	121	0.414	157	0.564	193	0.489	229	0.854	265	0.998	301	0.856	337	0.793
14	0.989	50	0.907	86	0.646	122	0.427	158	0.554	194	0.504	230	0.859	266	0.999	302	0.849	338	0.797
15	0.992	51	0.902	87	0.633	123	0.439	159	0.542	195	0.519	231	0.864	267	1.000	303	0.843	339	0.801
16	0.994	52	0.898	88	0.619	124	0.453	160	0.531	196	0.534	232	0.869	268	1.000	304	0.838	340	0.805
17	0.996	53	0.893	89	0.605	125	0.466	161	0.518	197	0.549	233	0.874	269	1.000	305	0.832	341	0.810
18	0.997	54	0.888	90	0.591	126	0.479	162	0.506	198	0.564	234	0.878	270	1.000	306	0.826	342	0.814
19	0.998	55	0.884	91	0.576	127	0.492	163	0.493	199	0.579	235	0.883	271	0.999	307	0.821	343	0.819
20	0.999	56	0.879	92	0.561	128	0.505	164	0.480	200	0.594	236	0.888	272	0.998	308	0.816	344	0.824
21	0.999	57	0.874	93	0.546	129	0.518	165	0.466	201	0.608	237	0.893	273	0.997	309	0.811	345	0.830
22	0.999	58	0.869	94	0.531	130	0.530	166	0.453	202	0.622	238	0.897	274	0.995	310	0.807	346	0.835
23	0.999	59	0.864	95	0.516	131	0.542	167	0.440	203	0.635	239	0.902	275	0.993	311	0.803	347	0.841
24	0.999	60	0.859	96	0.501	132	0.553	168	0.427	204	0.648	240	0.906	276	0.990	312	0.798	348	0.847
25	0.998	61	0.854	97	0.485	133	0.564	169	0.415	205	0.661	241	0.911	277	0.988	313	0.795	349	0.853
26	0.996	62	0.849	98	0.470	134	0.574	170	0.403	206	0.674	242	0.916	278	0.985	314	0.791	350	0.859
27	0.995	63	0.844	99	0.455	135	0.583	171	0.392	207	0.685	243	0.920	279	0.981	315	0.788	351	0.866
28	0.993	64	0.839	100	0.441	136	0.592	172	0.381	208	0.697	244	0.925	280	0.977	316	0.785	352	0.872
29	0.991	65	0.833	101	0.427	137	0.600	173	0.372	209	0.708	245	0.930	281	0.973	317	0.782	353	0.878
30	0.988	66	0.827	102	0.414	138	0.607	174	0.364	210	0.719	246	0.934	282	0.969	318	0.780	354	0.885
31	0.986	67	0.821	103	0.401	139	0.613	175	0.357	211	0.729	247	0.939	283	0.964	319	0.778	355	0.891
32	0.983	68	0.815	104	0.389	140	0.618	176	0.352	212	0.739	248	0.943	284	0.960	320	0.776	356	0.898
33	0.980	69	0.809	105	0.379	141	0.622	177	0.349	213	0.748	249	0.948	285	0.954	321	0.775	357	0.904
34	0.976	70	0.802	106	0.369	142	0.626	178	0.347	214	0.757	250	0.952	286	0.949	322	0.774	358	0.911
35	0.973	71	0.795	107	0.361	143	0.628	179	0.347	215	0.765	251	0.956	287	0.943	323	0.773	359	0.917

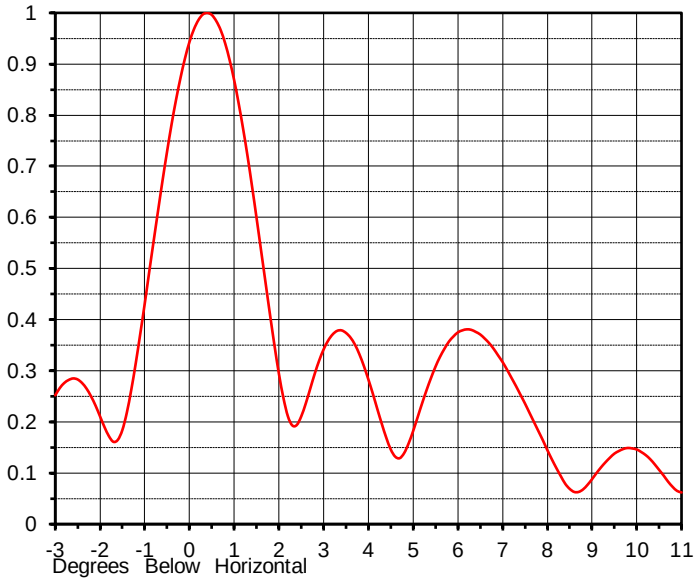
This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided.
No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

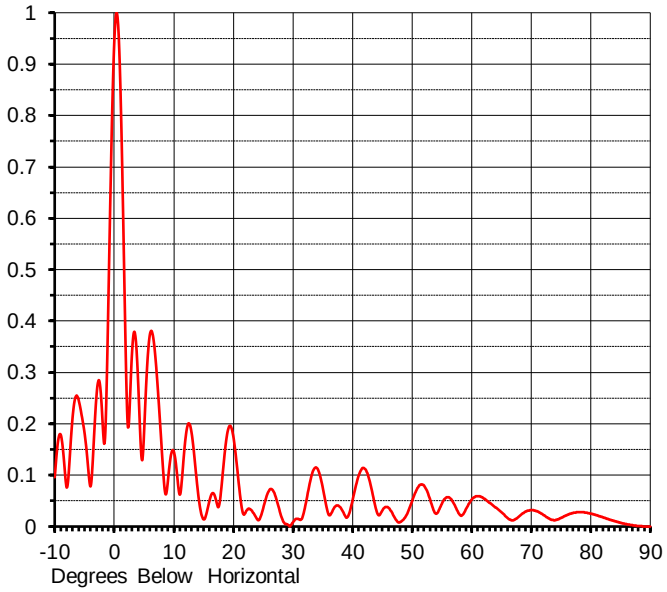
ELEVATION PATTERN

Proposal No.	**20200527WTG**
Date	**27-May-20**
Call Letters	**KTAB**
Channel	**30**
Frequency	**569 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	**19.2 (12.83 dB)**	Pattern Number	**24W216050-30**

Calculated





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.096	10.0	0.146	30.0	0.008	50.0	0.049	70.0	0.032
-9.0	0.179	11.0	0.062	31.0	0.014	51.0	0.076	71.0	0.030
-8.0	0.076	12.0	0.175	32.0	0.036	52.0	0.080	72.0	0.023
-7.0	0.212	13.0	0.181	33.0	0.093	53.0	0.054	73.0	0.016
-6.0	0.247	14.0	0.073	34.0	0.114	54.0	0.025	74.0	0.012
-5.0	0.183	15.0	0.014	35.0	0.076	55.0	0.044	75.0	0.017
-4.0	0.078	16.0	0.051	36.0	0.023	56.0	0.057	76.0	0.022
-3.0	0.252	17.0	0.055	37.0	0.038	57.0	0.045	77.0	0.026
-2.0	0.211	18.0	0.077	38.0	0.037	58.0	0.023	78.0	0.028
-1.0	0.431	19.0	0.183	39.0	0.017	59.0	0.033	79.0	0.027
0.0	0.943	20.0	0.175	40.0	0.050	60.0	0.052	80.0	0.025
1.0	0.868	21.0	0.074	41.0	0.098	61.0	0.059	81.0	0.022
2.0	0.294	22.0	0.026	42.0	0.113	62.0	0.055	82.0	0.018
3.0	0.342	23.0	0.032	43.0	0.083	63.0	0.046	83.0	0.014
4.0	0.283	24.0	0.014	44.0	0.032	64.0	0.037	84.0	0.011
5.0	0.182	25.0	0.035	45.0	0.031	65.0	0.028	85.0	0.007
6.0	0.375	26.0	0.070	46.0	0.037	66.0	0.017	86.0	0.005
7.0	0.317	27.0	0.061	47.0	0.019	67.0	0.012	87.0	0.003
8.0	0.145	28.0	0.021	48.0	0.009	68.0	0.020	88.0	0.001
9.0	0.088	29.0	0.004	49.0	0.021	69.0	0.029	89.0	0.000
								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.

Summary

Proposal No.	**20200527WTG**
Date	**27-May-20**
Call Letters	**KTAB**
Channel	**30**
Frequency	**569 MHz**
Antenna Type	**TFU-24WB-R C160**

Antenna

	Hpol	
ERP:	**1,000 kW**	**(30.00 dBk)**
Peak Gain	35.69	(15.52 dBd)

Antenna Input Power

28.0 kW **(14.48 dBk)**

Transmission Line

Type:	**Rigid**	Attenuation:		**(0.67 dB)**
Size:	**6-1/8"**	Efficiency:	**85.7%**	
Impedance:	**75 Ohm**			
Length:	**575 ft**	**175.3 m**		

Transmitter Output

32.7 kW **(15.14 dBk)**

Transmitter filter losses not included

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.