

Antenna Model:

**TLP-16B**

Reference Number: **20200618WTG**  
Date: **18-Jun-20**  
Customer: **Nexstar**  
Location: **Round Rock, TEXAS**

### Electrical Specifications

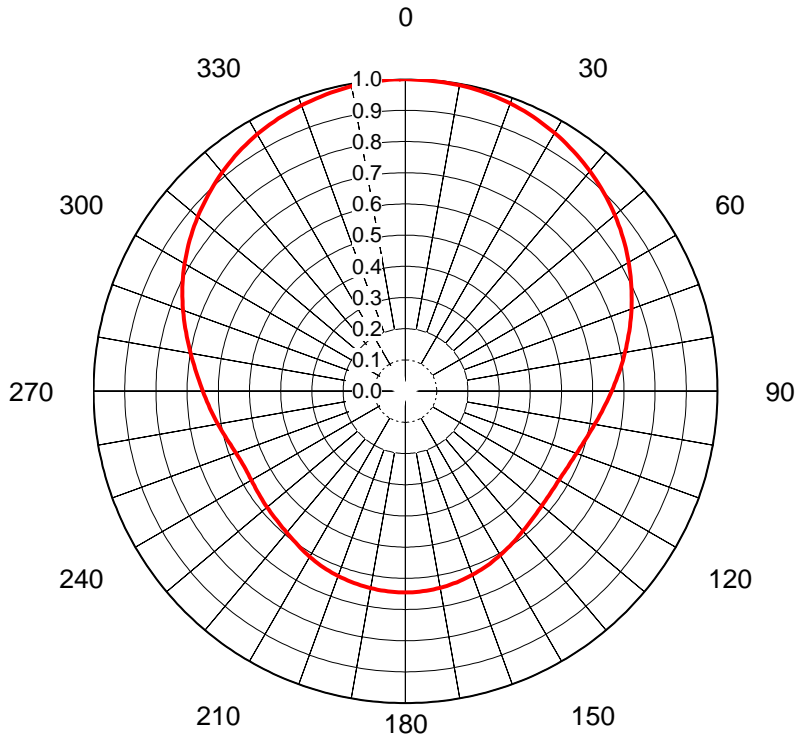
Polarization: **Horizontal**  
Azimuth Pattern: **B**  
Antenna Input: **1-5/8" 50 Ohm**  
VSWR: **Channel 1.08 : 1**  
Bandwidth: **6 MHz**  
Rated Input Power: **7.5 kW** **Maximum Average Power**

### Mechanical Specifications

Mounting: **Side Mounted**  
Environmental Protection: **Slot Cover**  
Height: **33.4 ft ( 10.2 m)**  
Weight: **240 lb (109 kg)** Excludes Mounts  
Effective Projected Area: **40 ft² (3.7 m²)** Basic Wind Speed: **mph (0 km/h)**

### Channel Specifications

Call	Ch	Freq	Hpol ERP	TPO	Peak Gain Main Lobe Hpol	Peak Gain at Horizontal Hpol
KHPZ-CD	25	539	0.085 kW -(10.71 dBk)	0.005 kW #####	28.88 (14.61dB)	26.45 (14.22dB)



## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **20200618WTG**  
 Date **18-Jun-20**  
 Call Letters **KHPZ-CD**  
 Channel **25**  
 Frequency **539 MHz**  
 Antenna Type **TLP-16B**  
 Gain **1.76 (2.45dB)**  
 Calculated

Pattern Number **TLP-B-25 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.935	72	0.759	108	0.589	144	0.594	180	0.645	216	0.600	252	0.584	288	0.747	324	0.930
1	1.000	37	0.932	73	0.754	109	0.586	145	0.596	181	0.645	217	0.598	253	0.587	289	0.753	325	0.934
2	0.999	38	0.928	74	0.748	110	0.583	146	0.598	182	0.645	218	0.596	254	0.590	290	0.759	326	0.938
3	0.999	39	0.924	75	0.742	111	0.581	147	0.600	183	0.645	219	0.594	255	0.593	291	0.765	327	0.941
4	0.999	40	0.920	76	0.737	112	0.579	148	0.603	184	0.645	220	0.592	256	0.596	292	0.771	328	0.944
5	0.998	41	0.916	77	0.731	113	0.577	149	0.605	185	0.644	221	0.590	257	0.600	293	0.777	329	0.948
6	0.998	42	0.912	78	0.726	114	0.575	150	0.607	186	0.644	222	0.589	258	0.603	294	0.783	330	0.951
7	0.998	43	0.908	79	0.720	115	0.574	151	0.609	187	0.643	223	0.587	259	0.607	295	0.789	331	0.954
8	0.997	44	0.904	80	0.714	116	0.573	152	0.611	188	0.643	224	0.586	260	0.610	296	0.795	332	0.956
9	0.996	45	0.899	81	0.709	117	0.571	153	0.614	189	0.642	225	0.584	261	0.614	297	0.801	333	0.959
10	0.996	46	0.895	82	0.703	118	0.570	154	0.616	190	0.641	226	0.583	262	0.618	298	0.806	334	0.962
11	0.995	47	0.890	83	0.698	119	0.569	155	0.618	191	0.640	227	0.582	263	0.622	299	0.812	335	0.964
12	0.994	48	0.886	84	0.692	120	0.569	156	0.619	192	0.640	228	0.581	264	0.625	300	0.817	336	0.966
13	0.993	49	0.881	85	0.687	121	0.568	157	0.621	193	0.639	229	0.580	265	0.629	301	0.823	337	0.968
14	0.992	50	0.876	86	0.682	122	0.568	158	0.623	194	0.638	230	0.579	266	0.633	302	0.828	338	0.971
15	0.990	51	0.872	87	0.676	123	0.568	159	0.625	195	0.637	231	0.578	267	0.637	303	0.834	339	0.973
16	0.989	52	0.867	88	0.671	124	0.568	160	0.627	196	0.636	232	0.577	268	0.641	304	0.839	340	0.975
17	0.987	53	0.862	89	0.666	125	0.568	161	0.628	197	0.634	233	0.576	269	0.646	305	0.844	341	0.977
18	0.985	54	0.857	90	0.661	126	0.568	162	0.630	198	0.633	234	0.575	270	0.650	306	0.849	342	0.979
19	0.983	55	0.852	91	0.656	127	0.569	163	0.632	199	0.632	235	0.574	271	0.654	307	0.854	343	0.980
20	0.981	56	0.847	92	0.651	128	0.569	164	0.633	200	0.631	236	0.573	272	0.659	308	0.859	344	0.982
21	0.979	57	0.842	93	0.646	129	0.570	165	0.634	201	0.629	237	0.572	273	0.663	309	0.864	345	0.984
22	0.977	58	0.836	94	0.641	130	0.571	166	0.636	202	0.628	238	0.572	274	0.668	310	0.869	346	0.986
23	0.975	59	0.831	95	0.637	131	0.572	167	0.637	203	0.626	239	0.571	275	0.673	311	0.874	347	0.988
24	0.972	60	0.826	96	0.632	132	0.573	168	0.638	204	0.625	240	0.570	276	0.678	312	0.879	348	0.990
25	0.970	61	0.820	97	0.628	133	0.574	169	0.639	205	0.623	241	0.570	277	0.683	313	0.883	349	0.991
26	0.967	62	0.815	98	0.624	134	0.575	170	0.640	206	0.621	242	0.570	278	0.688	314	0.888	350	0.993
27	0.964	63	0.810	99	0.619	135	0.577	171	0.641	207	0.619	243	0.570	279	0.694	315	0.893	351	0.994
28	0.961	64	0.804	100	0.615	136	0.578	172	0.642	208	0.618	244	0.570	280	0.699	316	0.897	352	0.995
29	0.958	65	0.799	101	0.612	137	0.580	173	0.643	209	0.616	245	0.571	281	0.705	317	0.902	353	0.996
30	0.955	66	0.793	102	0.608	138	0.582	174	0.643	210	0.613	246	0.572	282	0.711	318	0.906	354	0.997
31	0.952	67	0.787	103	0.604	139	0.584	175	0.644	211	0.611	247	0.573	283	0.716	319	0.910	355	0.998
32	0.949	68	0.782	104	0.601	140	0.586	176	0.644	212	0.609	248	0.575	284	0.722	320	0.914	356	0.999
33	0.946	69	0.776	105	0.597	141	0.588	177	0.645	213	0.607	249	0.577	285	0.728	321	0.919	357	0.999
34	0.942	70	0.771	106	0.594	142	0.590	178	0.645	214	0.605	250	0.579	286	0.734	322	0.923	358	0.999
35	0.939	71	0.765	107	0.591	143	0.592	179	0.645	215	0.602	251	0.581	287	0.740	323	0.927	359	1.000

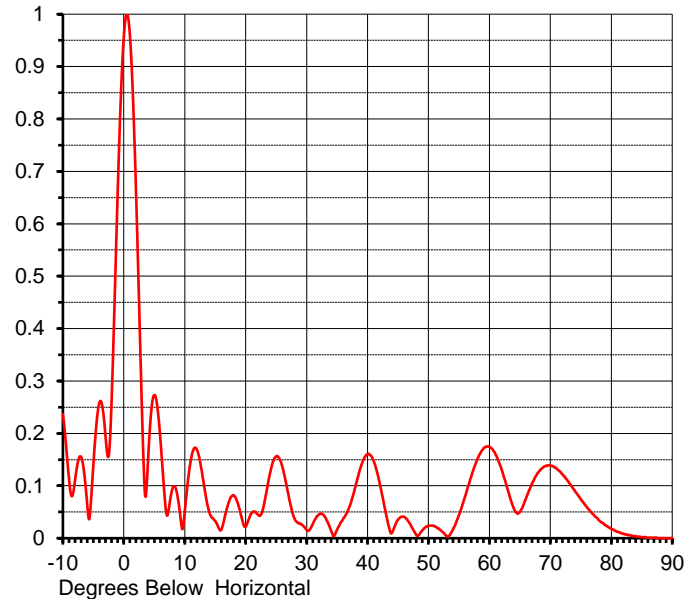
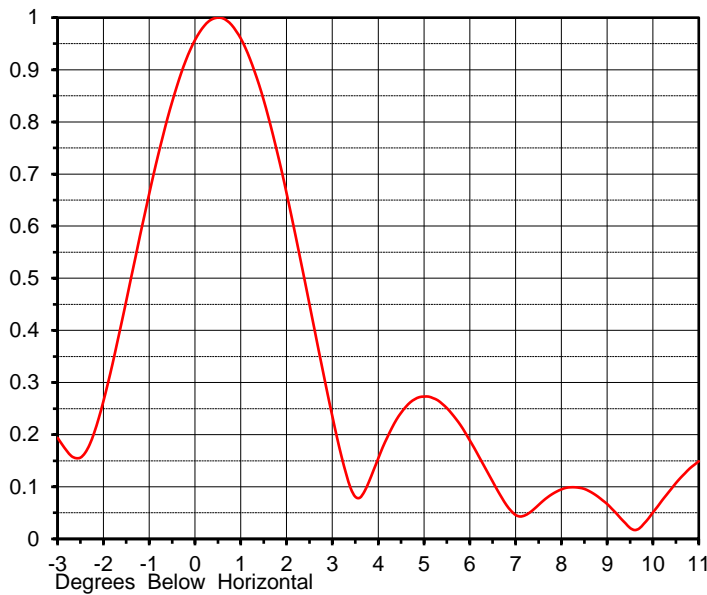
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## ELEVATION PATTERN

Proposal No. **20200618WTG**  
 Date **18-Jun-20**  
 Call Letters **KHPZ-CD**  
 Channel **25**  
 Frequency **539 MHz**  
 Antenna Type **TLP-16B**

RMS Directivity at Main Lobe **16.4 ( 12.16 dB )**  
 RMS Directivity at Horizontal **15.1 ( 11.79 dB )**  
**Calculated**

Beam Tilt **0.50 deg**  
 Pattern Number **16L164050-25**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.237	10.0	0.051	30.0	0.016	50.0	0.024	70.0	0.139
-9.0	0.114	11.0	0.149	31.0	0.027	51.0	0.023	71.0	0.133
-8.0	0.111	12.0	0.169	32.0	0.045	52.0	0.015	72.0	0.122
-7.0	0.155	13.0	0.113	33.0	0.041	53.0	0.004	73.0	0.107
-6.0	0.063	14.0	0.051	34.0	0.015	54.0	0.016	74.0	0.091
-5.0	0.140	15.0	0.033	35.0	0.016	55.0	0.044	75.0	0.074
-4.0	0.259	16.0	0.016	36.0	0.037	56.0	0.079	76.0	0.059
-3.0	0.194	17.0	0.060	37.0	0.059	57.0	0.117	77.0	0.046
-2.0	0.264	18.0	0.082	38.0	0.098	58.0	0.150	78.0	0.034
-1.0	0.662	19.0	0.055	39.0	0.140	59.0	0.171	79.0	0.025
0.0	0.957	20.0	0.022	40.0	0.160	60.0	0.174	80.0	0.018
1.0	0.960	21.0	0.048	41.0	0.147	61.0	0.160	81.0	0.012
2.0	0.663	22.0	0.045	42.0	0.104	62.0	0.131	82.0	0.008
3.0	0.235	23.0	0.064	43.0	0.048	63.0	0.093	83.0	0.006
4.0	0.154	24.0	0.124	44.0	0.010	64.0	0.057	84.0	0.004
5.0	0.273	25.0	0.156	45.0	0.035	65.0	0.050	85.0	0.002
6.0	0.189	26.0	0.137	46.0	0.041	66.0	0.076	86.0	0.001
7.0	0.046	27.0	0.084	47.0	0.027	67.0	0.104	87.0	0.001
8.0	0.095	28.0	0.038	48.0	0.006	68.0	0.125	88.0	0.000
9.0	0.067	29.0	0.027	49.0	0.015	69.0	0.137	89.0	0.000
								90.0	0.000

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## Summary

Proposal No.	20200618WTG
Date	18-Jun-20
Call Letters	KHPZ-CD
Channel	25
Frequency	539 MHz
Antenna Type	TLP-16B

## Antenna

ERP:	<b>0.085 kW</b>	<b>-( 10.71 dBk )</b>
Peak Gain	28.88	( 14.61 dBd )

Antenna Input Power	<b>0.003 kW</b>	<b>-( 25.31 dBk )</b>
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## Transmission Line

Type:	<b>Flexline Air</b>	Attenuation:	<b>( 2.36 dB )</b>
Size:	<b>1-5/8"</b>	Efficiency:	<b>58.0%</b>
Impedance:	<b>50 Ohm</b>		
Length:	<b>475 ft</b>	<b>144.8 m</b>	

## Transmitter Output

	<b>0.005 kW</b>	<b>-( 22.95 dBk )</b>
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Transmitter filter losses not included

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