

Antenna Model: **TFU-16WB-R C160**

Reference Number: **20200227WTG**
Date: **27-Feb-20**
Customer: **Nexstar**
Location: **Utica, New York**

Electrical Specifications

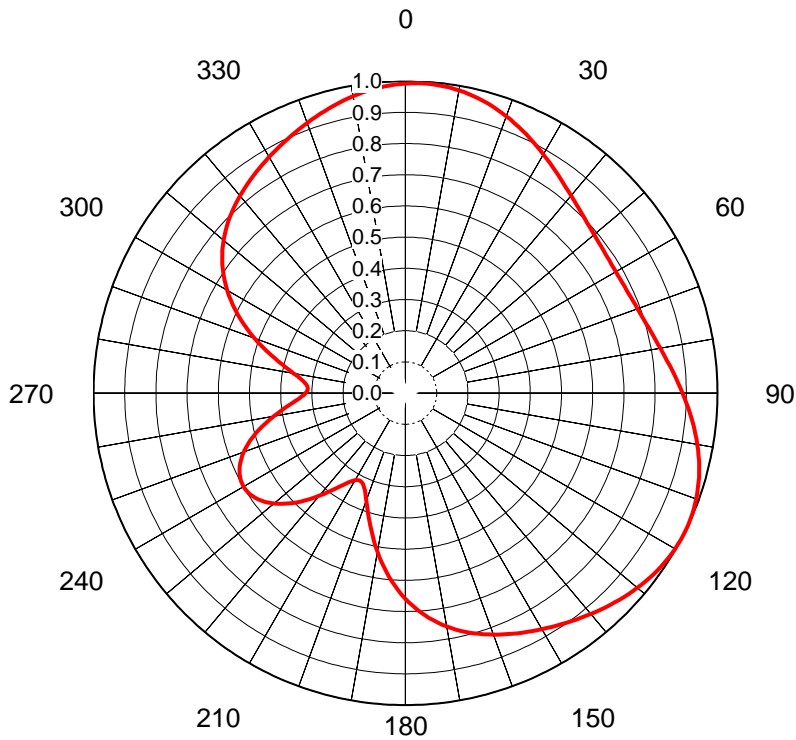
Polarization: **Horizontal**
Azimuth Pattern: **C160**
Antenna Input: **6-1/8 in 50 Ohm EIA/DCA**
VSWR: **Channel 1.15:1 Band 1.15:1**
Bandwidth: **470-698 MHz**
Rated Input Power: **40 kW (16.02 dBk) Maximum Average Power**

Mechanical Specifications

Mounting: **Side Mounted**
Environmental Protection: **Full Radome**
Height: **28.9 ft (8.8m)**
Weight: **1260 lb (572 kg) mounts excluded**
Effective Projected Area: **61.1 ft² (5.7m²)**

Channel Specifications

Call	Ch	Freq	Hpol ERP	TPO	Peak Gain Main Lobe	Peak Gain at Horizontal
					Hpol	Hpol
WFXV	34	593	500 kW (26.99 dBk)	23.7 kW (13.75 dBk)	24.14 (13.83dB)	22.43 (13.51dB)



AZIMUTH PATTERN Horizontal Polarization

Proposal No. **20200227WTG**
 Date **27-Feb-20**
 Call Letters **WFXV**
 Channel **34**
 Frequency **593 MHz**
 Antenna Type **TFU-16WB-R C160**
 Gain **1.69 (2.27dB)**
 Calculated

Pattern Number **WB-C160-34 Hpol**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.992	36	0.847	72	0.797	108	0.986	144	0.904	180	0.659	216	0.376	252	0.531	288	0.483	324	0.846
1	0.993	37	0.842	73	0.800	109	0.989	145	0.899	181	0.647	217	0.389	253	0.520	289	0.499	325	0.850
2	0.994	38	0.836	74	0.804	110	0.991	146	0.894	182	0.634	218	0.402	254	0.509	290	0.515	326	0.855
3	0.994	39	0.831	75	0.807	111	0.994	147	0.889	183	0.621	219	0.415	255	0.496	291	0.531	327	0.860
4	0.994	40	0.826	76	0.811	112	0.996	148	0.884	184	0.607	220	0.429	256	0.483	292	0.547	328	0.865
5	0.994	41	0.821	77	0.815	113	0.997	149	0.879	185	0.593	221	0.442	257	0.470	293	0.562	329	0.869
6	0.993	42	0.817	78	0.820	114	0.999	150	0.874	186	0.578	222	0.456	258	0.457	294	0.577	330	0.874
7	0.991	43	0.813	79	0.824	115	0.999	151	0.869	187	0.563	223	0.469	259	0.443	295	0.592	331	0.879
8	0.990	44	0.809	80	0.829	116	1.000	152	0.864	188	0.548	224	0.483	260	0.429	296	0.607	332	0.883
9	0.988	45	0.805	81	0.834	117	1.000	153	0.859	189	0.532	225	0.495	261	0.416	297	0.621	333	0.888
10	0.986	46	0.801	82	0.840	118	1.000	154	0.854	190	0.517	226	0.508	262	0.402	298	0.634	334	0.893
11	0.983	47	0.798	83	0.845	119	0.999	155	0.849	191	0.501	227	0.519	263	0.389	299	0.647	335	0.898
12	0.980	48	0.795	84	0.851	120	0.998	156	0.844	192	0.485	228	0.530	264	0.376	300	0.660	336	0.902
13	0.976	49	0.792	85	0.857	121	0.997	157	0.839	193	0.469	229	0.541	265	0.364	301	0.672	337	0.907
14	0.973	50	0.790	86	0.863	122	0.995	158	0.834	194	0.453	230	0.551	266	0.353	302	0.684	338	0.912
15	0.969	51	0.788	87	0.869	123	0.993	159	0.829	195	0.438	231	0.559	267	0.343	303	0.695	339	0.917
16	0.964	52	0.786	88	0.875	124	0.991	160	0.824	196	0.422	232	0.568	268	0.334	304	0.706	340	0.922
17	0.960	53	0.784	89	0.882	125	0.988	161	0.818	197	0.408	233	0.575	269	0.326	305	0.716	341	0.927
18	0.955	54	0.782	90	0.888	126	0.985	162	0.813	198	0.393	234	0.581	270	0.320	306	0.726	342	0.931
19	0.950	55	0.781	91	0.894	127	0.982	163	0.807	199	0.380	235	0.587	271	0.316	307	0.736	343	0.936
20	0.945	56	0.780	92	0.901	128	0.978	164	0.801	200	0.367	236	0.591	272	0.314	308	0.745	344	0.941
21	0.939	57	0.779	93	0.907	129	0.975	165	0.795	201	0.355	237	0.595	273	0.314	309	0.753	345	0.945
22	0.933	58	0.779	94	0.914	130	0.971	166	0.788	202	0.345	238	0.597	274	0.315	310	0.761	346	0.950
23	0.927	59	0.779	95	0.920	131	0.967	167	0.782	203	0.336	239	0.599	275	0.319	311	0.769	347	0.954
24	0.921	60	0.779	96	0.926	132	0.962	168	0.774	204	0.328	240	0.599	276	0.325	312	0.776	348	0.958
25	0.915	61	0.779	97	0.932	133	0.958	169	0.767	205	0.322	241	0.599	277	0.332	313	0.783	349	0.962
26	0.909	62	0.779	98	0.938	134	0.953	170	0.759	206	0.319	242	0.597	278	0.341	314	0.790	350	0.966
27	0.903	63	0.780	99	0.944	135	0.949	171	0.751	207	0.317	243	0.595	279	0.352	315	0.797	351	0.970
28	0.896	64	0.781	100	0.950	136	0.944	172	0.743	208	0.317	244	0.592	280	0.364	316	0.803	352	0.974
29	0.890	65	0.782	101	0.955	137	0.939	173	0.734	209	0.318	245	0.587	281	0.376	317	0.809	353	0.977
30	0.884	66	0.783	102	0.960	138	0.934	174	0.725	210	0.322	246	0.582	282	0.390	318	0.815	354	0.980
31	0.877	67	0.785	103	0.965	139	0.929	175	0.715	211	0.328	247	0.576	283	0.405	319	0.820	355	0.983
32	0.871	68	0.787	104	0.970	140	0.924	176	0.705	212	0.335	248	0.568	284	0.420	320	0.825	356	0.985
33	0.865	69	0.789	105	0.974	141	0.919	177	0.694	213	0.344	249	0.560	285	0.435	321	0.831	357	0.987
34	0.859	70	0.791	106	0.979	142	0.914	178	0.683	214	0.354	250	0.551	286	0.451	322	0.836	358	0.989
35	0.853	71	0.794	107	0.982	143	0.909	179	0.671	215	0.365	251	0.542	287	0.467	323	0.841	359	0.991

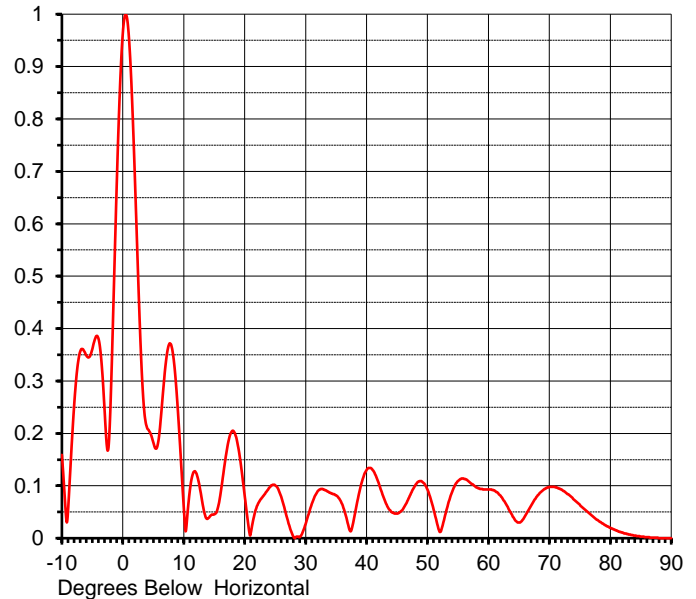
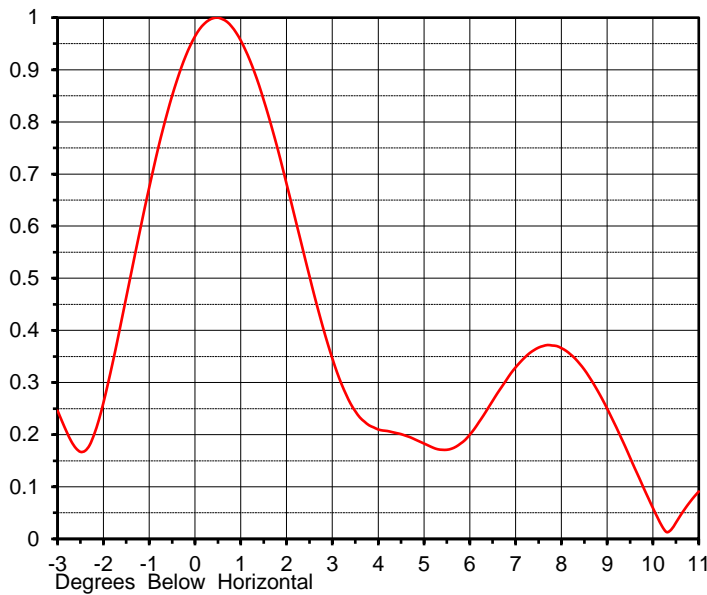
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ELEVATION PATTERN

Proposal No. **20200227WTG**
 Date **27-Feb-20**
 Call Letters **WFXV**
 Channel **34**
 Frequency **593 MHz**
 Antenna Type **TFU-16WB-R C160**

RMS Directivity at Main Lobe **14.3 (11.56 dB)**
 RMS Directivity at Horizontal **13.3 (11.24 dB)**
Calculated

Beam Tilt **0.55 deg**
 Pattern Number **16W143055-34**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.159	10.0	0.059	30.0	0.027	50.0	0.093	70.0	0.098
-9.0	0.051	11.0	0.091	31.0	0.065	51.0	0.055	71.0	0.097
-8.0	0.251	12.0	0.125	32.0	0.090	52.0	0.012	72.0	0.093
-7.0	0.356	13.0	0.072	33.0	0.093	53.0	0.048	73.0	0.084
-6.0	0.349	14.0	0.038	34.0	0.087	54.0	0.087	74.0	0.074
-5.0	0.361	15.0	0.046	35.0	0.082	55.0	0.109	75.0	0.064
-4.0	0.381	16.0	0.082	36.0	0.065	56.0	0.113	76.0	0.053
-3.0	0.246	17.0	0.163	37.0	0.025	57.0	0.106	77.0	0.043
-2.0	0.261	18.0	0.205	38.0	0.041	58.0	0.097	78.0	0.034
-1.0	0.674	19.0	0.170	39.0	0.097	59.0	0.094	79.0	0.026
0.0	0.964	20.0	0.081	40.0	0.130	60.0	0.093	80.0	0.020
1.0	0.956	21.0	0.010	41.0	0.130	61.0	0.091	81.0	0.015
2.0	0.681	22.0	0.061	42.0	0.105	62.0	0.081	82.0	0.011
3.0	0.346	23.0	0.080	43.0	0.072	63.0	0.063	83.0	0.007
4.0	0.210	24.0	0.096	44.0	0.051	64.0	0.041	84.0	0.005
5.0	0.183	25.0	0.101	45.0	0.047	65.0	0.030	85.0	0.003
6.0	0.200	26.0	0.079	46.0	0.056	66.0	0.042	86.0	0.002
7.0	0.329	27.0	0.037	47.0	0.078	67.0	0.062	87.0	0.001
8.0	0.366	28.0	0.003	48.0	0.101	68.0	0.080	88.0	0.000
9.0	0.250	29.0	0.002	49.0	0.109	69.0	0.092	89.0	0.000
								90.0	0.000

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Summary

Proposal No.	20200227WTG
Date	27-Feb-20
Call Letters	WFXV
Channel	34
Frequency	593 MHz
Antenna Type	TFU-16WB-R C160

Antenna

		Hpol
ERP:	500 kW	(26.99 dBk)
Peak Gain	24.14	(13.83 dBd)

Antenna Input Power	20.7 kW	(13.16 dBk)
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Transmission Line

Type:	Rigid	Attenuation:	(0.58 dB)
Size:	4-1/16"	Efficiency:	87.4%
Impedance:	50 Ohm		
Length:	355 ft	108.2 m	

Transmitter Output

23.7 kW	(13.75 dBk)
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Transmitter filter losses not included

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