

AZIMUTH PATTERN Horizontal Polarization

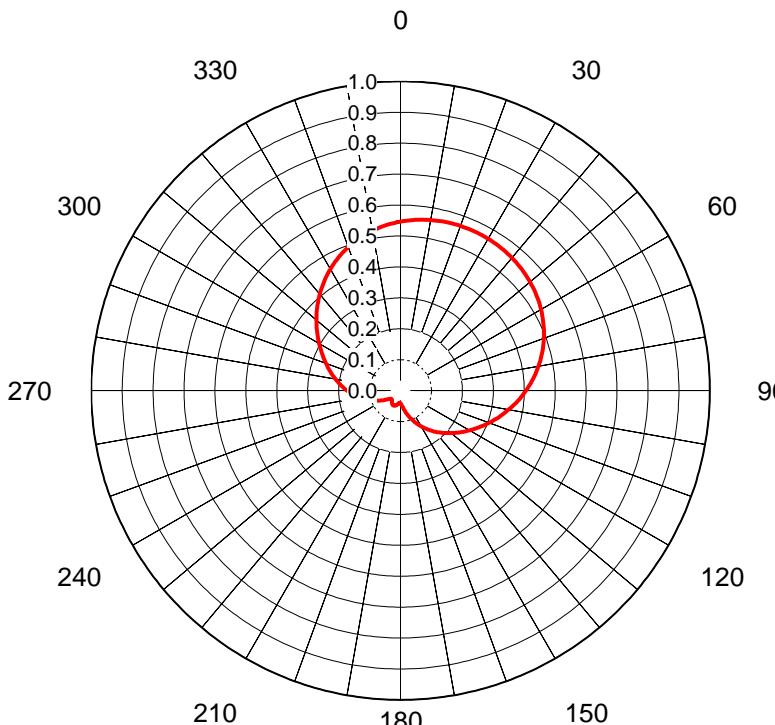
Proposal No. WFGX_Interim
 Date 14-Dec-19
 Call Letters WFGX
 Channel 14
 Frequency 473 MHz
 Antenna Type TFU-8WB/VP-R C160
 Gain 1.55 (1.9dB)
 Calculated

Pattern Number WB-C160-14 Hpol

Deg	Value																		
0	0.993	36	0.977	72	0.990	108	0.872	144	0.623	180	0.489	216	0.603	252	0.475	288	0.804	324	0.953
1	0.992	37	0.978	73	0.988	109	0.868	145	0.612	181	0.497	217	0.596	253	0.484	289	0.810	325	0.956
2	0.991	38	0.979	74	0.986	110	0.864	146	0.601	182	0.506	218	0.589	254	0.493	290	0.815	326	0.959
3	0.990	39	0.981	75	0.984	111	0.859	147	0.590	183	0.515	219	0.582	255	0.503	291	0.820	327	0.962
4	0.989	40	0.982	76	0.982	112	0.855	148	0.579	184	0.524	220	0.574	256	0.513	292	0.825	328	0.965
5	0.987	41	0.983	77	0.979	113	0.851	149	0.568	185	0.533	221	0.566	257	0.523	293	0.830	329	0.968
6	0.986	42	0.984	78	0.977	114	0.846	150	0.557	186	0.542	222	0.557	258	0.534	294	0.835	330	0.971
7	0.985	43	0.985	79	0.974	115	0.842	151	0.546	187	0.550	223	0.548	259	0.545	295	0.840	331	0.974
8	0.984	44	0.987	80	0.972	116	0.837	152	0.535	188	0.559	224	0.540	260	0.556	296	0.844	332	0.977
9	0.982	45	0.988	81	0.969	117	0.833	153	0.524	189	0.567	225	0.531	261	0.567	297	0.849	333	0.979
10	0.981	46	0.989	82	0.966	118	0.828	154	0.514	190	0.575	226	0.522	262	0.578	298	0.853	334	0.982
11	0.980	47	0.990	83	0.963	119	0.823	155	0.504	191	0.583	227	0.513	263	0.589	299	0.857	335	0.984
12	0.979	48	0.992	84	0.960	120	0.817	156	0.494	192	0.590	228	0.504	264	0.600	300	0.861	336	0.986
13	0.978	49	0.993	85	0.956	121	0.812	157	0.485	193	0.597	229	0.495	265	0.611	301	0.866	337	0.988
14	0.977	50	0.994	86	0.953	122	0.806	158	0.476	194	0.604	230	0.487	266	0.622	302	0.870	338	0.990
15	0.976	51	0.995	87	0.950	123	0.801	159	0.468	195	0.610	231	0.478	267	0.632	303	0.874	339	0.991
16	0.975	52	0.996	88	0.946	124	0.795	160	0.460	196	0.616	232	0.471	268	0.643	304	0.878	340	0.993
17	0.974	53	0.997	89	0.943	125	0.788	161	0.454	197	0.621	233	0.463	269	0.653	305	0.882	341	0.994
18	0.974	54	0.998	90	0.939	126	0.782	162	0.448	198	0.625	234	0.456	270	0.663	306	0.886	342	0.995
19	0.973	55	0.998	91	0.936	127	0.775	163	0.442	199	0.629	235	0.450	271	0.673	307	0.890	343	0.997
20	0.972	56	0.999	92	0.932	128	0.768	164	0.438	200	0.632	236	0.444	272	0.683	308	0.893	344	0.997
21	0.972	57	0.999	93	0.929	129	0.761	165	0.435	201	0.635	237	0.439	273	0.693	309	0.897	345	0.998
22	0.972	58	1.000	94	0.925	130	0.754	166	0.432	202	0.637	238	0.435	274	0.702	310	0.901	346	0.999
23	0.971	59	1.000	95	0.921	131	0.746	167	0.431	203	0.639	239	0.432	275	0.711	311	0.905	347	0.999
24	0.971	60	1.000	96	0.917	132	0.738	168	0.430	204	0.640	240	0.430	276	0.719	312	0.909	348	0.999
25	0.971	61	1.000	97	0.914	133	0.730	169	0.431	205	0.640	241	0.429	277	0.728	313	0.913	349	1.000
26	0.971	62	1.000	98	0.910	134	0.721	170	0.432	206	0.640	242	0.428	278	0.736	314	0.916	350	1.000
27	0.971	63	1.000	99	0.906	135	0.713	171	0.434	207	0.639	243	0.429	279	0.744	315	0.920	351	0.999
28	0.972	64	0.999	100	0.903	136	0.703	172	0.438	208	0.637	244	0.430	280	0.752	316	0.924	352	0.999
29	0.972	65	0.998	101	0.899	137	0.694	173	0.442	209	0.635	245	0.433	281	0.759	317	0.928	353	0.999
30	0.973	66	0.998	102	0.895	138	0.685	174	0.447	210	0.632	246	0.436	282	0.766	318	0.931	354	0.998
31	0.973	67	0.997	103	0.891	139	0.675	175	0.452	211	0.628	247	0.441	283	0.773	319	0.935	355	0.998
32	0.974	68	0.996	104	0.887	140	0.665	176	0.458	212	0.624	248	0.446	284	0.780	320	0.939	356	0.997
33	0.975	69	0.994	105	0.883	141	0.655	177	0.465	213	0.620	249	0.452	285	0.786	321	0.942	357	0.996
34	0.975	70	0.993	106	0.880	142	0.644	178	0.473	214	0.615	250	0.459	286	0.792	322	0.946	358	0.995
35	0.976	71	0.992	107	0.876	143	0.634	179	0.481	215	0.609	251	0.467	287	0.798	323	0.949	359	0.994

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **WFGX_Interim**
 Date **14-Dec-19**
 Call Letters **WFGX**
 Channel **14**
 Frequency **473 MHz**
 Antenna Type **TFU-8WB/VP-R C160**
 Gain **2.61 (4.17dB)**
 Calculated

Pattern Number **WB-C160-14 Vpol**

Deg	Value																		
0	0.547	36	0.564	72	0.486	108	0.314	144	0.157	180	0.040	216	0.047	252	0.103	288	0.247	324	0.426
1	0.548	37	0.563	73	0.482	109	0.309	145	0.153	181	0.040	217	0.046	253	0.107	289	0.252	325	0.431
2	0.550	38	0.562	74	0.478	110	0.305	146	0.149	182	0.039	218	0.045	254	0.111	290	0.256	326	0.436
3	0.552	39	0.561	75	0.474	111	0.300	147	0.145	183	0.039	219	0.044	255	0.114	291	0.261	327	0.440
4	0.553	40	0.560	76	0.470	112	0.295	148	0.142	184	0.039	220	0.044	256	0.118	292	0.265	328	0.445
5	0.554	41	0.559	77	0.466	113	0.290	149	0.138	185	0.040	221	0.043	257	0.122	293	0.270	329	0.449
6	0.556	42	0.558	78	0.462	114	0.285	150	0.134	186	0.040	222	0.042	258	0.126	294	0.275	330	0.454
7	0.557	43	0.557	79	0.457	115	0.280	151	0.130	187	0.041	223	0.041	259	0.130	295	0.280	331	0.458
8	0.558	44	0.556	80	0.453	116	0.276	152	0.126	188	0.041	224	0.041	260	0.134	296	0.284	332	0.463
9	0.559	45	0.555	81	0.448	117	0.271	153	0.122	189	0.042	225	0.040	261	0.138	297	0.289	333	0.467
10	0.560	46	0.553	82	0.444	118	0.266	154	0.118	190	0.043	226	0.040	262	0.142	298	0.294	334	0.471
11	0.561	47	0.552	83	0.439	119	0.262	155	0.114	191	0.044	227	0.040	263	0.146	299	0.299	335	0.475
12	0.562	48	0.550	84	0.435	120	0.257	156	0.110	192	0.045	228	0.040	264	0.150	300	0.304	336	0.479
13	0.563	49	0.548	85	0.430	121	0.253	157	0.107	193	0.046	229	0.040	265	0.153	301	0.309	337	0.483
14	0.564	50	0.547	86	0.425	122	0.248	158	0.103	194	0.047	230	0.041	266	0.157	302	0.314	338	0.487
15	0.564	51	0.545	87	0.420	123	0.244	159	0.099	195	0.048	231	0.042	267	0.161	303	0.319	339	0.490
16	0.565	52	0.543	88	0.416	124	0.239	160	0.095	196	0.049	232	0.043	268	0.165	304	0.324	340	0.494
17	0.565	53	0.541	89	0.411	125	0.235	161	0.091	197	0.050	233	0.045	269	0.169	305	0.329	341	0.497
18	0.566	54	0.539	90	0.406	126	0.231	162	0.088	198	0.050	234	0.046	270	0.173	306	0.334	342	0.501
19	0.566	55	0.537	91	0.401	127	0.226	163	0.084	199	0.051	235	0.048	271	0.177	307	0.339	343	0.504
20	0.567	56	0.534	92	0.396	128	0.222	164	0.080	200	0.051	236	0.050	272	0.181	308	0.345	344	0.507
21	0.567	57	0.532	93	0.391	129	0.218	165	0.077	201	0.052	237	0.053	273	0.185	309	0.350	345	0.511
22	0.567	58	0.530	94	0.386	130	0.214	166	0.073	202	0.052	238	0.055	274	0.189	310	0.355	346	0.514
23	0.567	59	0.527	95	0.381	131	0.209	167	0.070	203	0.053	239	0.058	275	0.193	311	0.360	347	0.517
24	0.568	60	0.525	96	0.375	132	0.205	168	0.067	204	0.053	240	0.061	276	0.197	312	0.365	348	0.519
25	0.568	61	0.522	97	0.370	133	0.201	169	0.064	205	0.053	241	0.064	277	0.201	313	0.371	349	0.522
26	0.568	62	0.519	98	0.365	134	0.197	170	0.061	206	0.053	242	0.067	278	0.205	314	0.376	350	0.525
27	0.567	63	0.516	99	0.360	135	0.193	171	0.058	207	0.053	243	0.070	279	0.209	315	0.381	351	0.527
28	0.567	64	0.513	100	0.355	136	0.189	172	0.055	208	0.052	244	0.074	280	0.213	316	0.386	352	0.530
29	0.567	65	0.510	101	0.350	137	0.185	173	0.052	209	0.052	245	0.077	281	0.217	317	0.391	353	0.532
30	0.567	66	0.507	102	0.345	138	0.181	174	0.050	210	0.052	246	0.081	282	0.222	318	0.396	354	0.535
31	0.566	67	0.504	103	0.340	139	0.177	175	0.048	211	0.051	247	0.084	283	0.226	319	0.401	355	0.537
32	0.566	68	0.500	104	0.335	140	0.173	176	0.046	212	0.050	248	0.088	284	0.230	320	0.406	356	0.539
33	0.566	69	0.497	105	0.330	141	0.169	177	0.044	213	0.050	249	0.092	285	0.234	321	0.411	357	0.541
34	0.565	70	0.493	106	0.324	142	0.165	178	0.043	214	0.049	250	0.095	286	0.239	322	0.416	358	0.543
35	0.564	71	0.490	107	0.319	143	0.161	179	0.041	215	0.048	251	0.099	287	0.243	323	0.421	359	0.545

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ELEVATION PATTERN

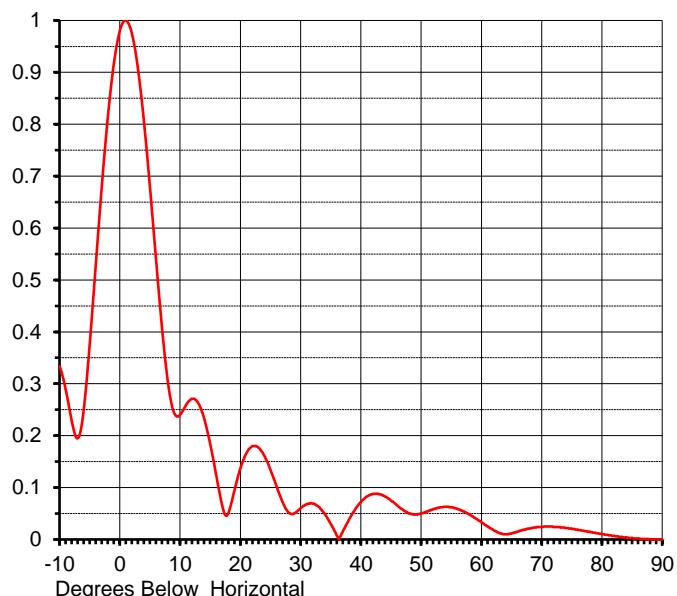
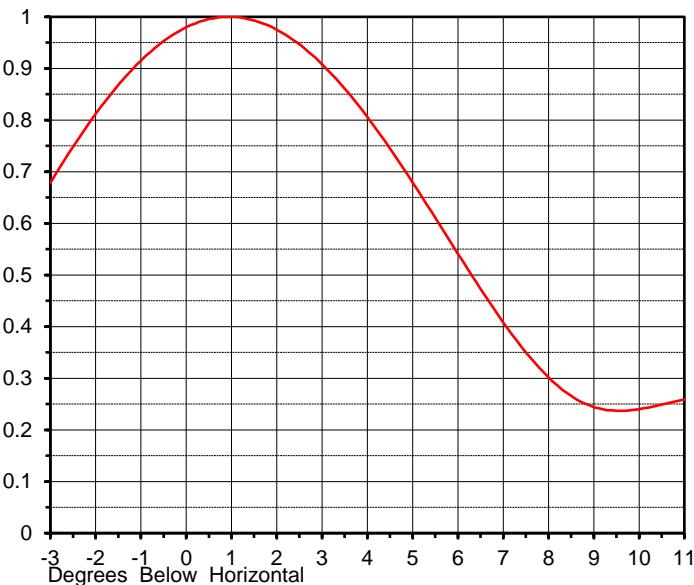
Proposal No. **WFGX_Interim**
 Date **14-Dec-19**
 Call Letters **WFGX**
 Channel **14**
 Frequency **473 MHz**
 Antenna Type **TFU-8WB/VP-R C160**

RMS Directivity at Main Lobe
 RMS Directivity at Horizontal

7.4 (8.69 dB)
7.1 (8.51 dB)

Calculated

Beam Tilt **1.05 deg**
 Pattern Number **08W074105-14**



Angle	Field								
-10.0	0.334	10.0	0.240	30.0	0.060	50.0	0.050	70.0	0.024
-9.0	0.290	11.0	0.259	31.0	0.068	51.0	0.054	71.0	0.025
-8.0	0.230	12.0	0.271	32.0	0.069	52.0	0.058	72.0	0.024
-7.0	0.195	13.0	0.263	33.0	0.063	53.0	0.061	73.0	0.024
-6.0	0.248	14.0	0.233	34.0	0.049	54.0	0.063	74.0	0.022
-5.0	0.375	15.0	0.184	35.0	0.030	55.0	0.062	75.0	0.021
-4.0	0.527	16.0	0.124	36.0	0.008	56.0	0.059	76.0	0.019
-3.0	0.678	17.0	0.065	37.0	0.015	57.0	0.054	77.0	0.017
-2.0	0.812	18.0	0.050	38.0	0.038	58.0	0.048	78.0	0.015
-1.0	0.915	19.0	0.093	39.0	0.057	59.0	0.041	79.0	0.012
0.0	0.980	20.0	0.137	40.0	0.072	60.0	0.033	80.0	0.010
1.0	1.000	21.0	0.166	41.0	0.083	61.0	0.025	81.0	0.009
2.0	0.975	22.0	0.180	42.0	0.088	62.0	0.018	82.0	0.007
3.0	0.908	23.0	0.177	43.0	0.087	63.0	0.012	83.0	0.005
4.0	0.806	24.0	0.161	44.0	0.083	64.0	0.010	84.0	0.004
5.0	0.679	25.0	0.134	45.0	0.075	65.0	0.012	85.0	0.003
6.0	0.541	26.0	0.103	46.0	0.066	66.0	0.015	86.0	0.002
7.0	0.408	27.0	0.072	47.0	0.057	67.0	0.019	87.0	0.001
8.0	0.302	28.0	0.052	48.0	0.050	68.0	0.021	88.0	0.000
9.0	0.244	29.0	0.051	49.0	0.048	69.0	0.023	89.0	0.000
								90.0	0.000

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