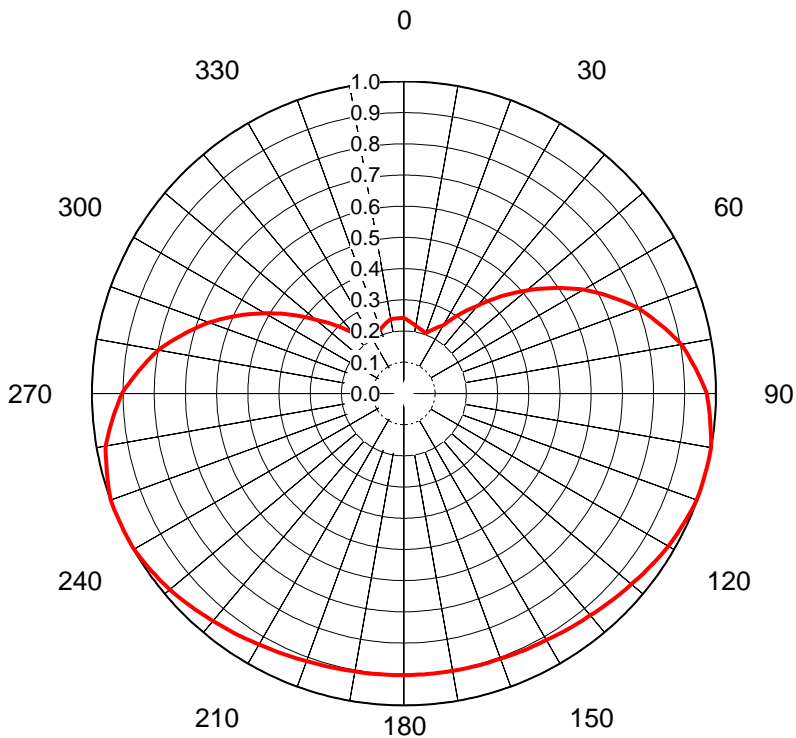


AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70260-1**
 Date **14-Mar-17**
 Call Letters **WVIZ**
 Channel **35**
 Frequency **599 MHz**
 Antenna Type **TFU-10GTH-R C170 (SP)**
 Gain **1.69 (2.29dB)**
 Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.242	36	0.320	72	0.820	108	0.999	144	0.922	180	0.903	216	0.943	252	0.994	288	0.692
1	0.240	37	0.332	73	0.831	109	0.999	145	0.921	181	0.903	217	0.945	253	0.991	289	0.678
2	0.237	38	0.343	74	0.841	110	0.999	146	0.919	182	0.903	218	0.947	254	0.988	290	0.665
3	0.235	39	0.355	75	0.852	111	0.997	147	0.918	183	0.903	219	0.950	255	0.985	291	0.650
4	0.233	40	0.366	76	0.862	112	0.995	148	0.916	184	0.904	220	0.952	256	0.983	292	0.635
5	0.231	41	0.381	77	0.872	113	0.993	149	0.914	185	0.904	221	0.955	257	0.980	293	0.620
6	0.228	42	0.396	78	0.883	114	0.991	150	0.913	186	0.904	222	0.957	258	0.977	294	0.604
7	0.226	43	0.410	79	0.893	115	0.989	151	0.912	187	0.904	223	0.960	259	0.974	295	0.589
8	0.224	44	0.425	80	0.904	116	0.987	152	0.911	188	0.904	224	0.963	260	0.971	296	0.574
9	0.222	45	0.440	81	0.910	117	0.985	153	0.910	189	0.905	225	0.965	261	0.964	297	0.559
10	0.220	46	0.455	82	0.917	118	0.983	154	0.910	190	0.905	226	0.968	262	0.957	298	0.544
11	0.218	47	0.469	83	0.924	119	0.981	155	0.909	191	0.906	227	0.971	263	0.951	299	0.529
12	0.217	48	0.484	84	0.931	120	0.979	156	0.908	192	0.906	228	0.974	264	0.944	300	0.514
13	0.215	49	0.499	85	0.937	121	0.976	157	0.907	193	0.907	229	0.976	265	0.937	301	0.499
14	0.214	50	0.514	86	0.944	122	0.974	158	0.906	194	0.908	230	0.979	266	0.931	302	0.484
15	0.212	51	0.529	87	0.951	123	0.971	159	0.906	195	0.909	231	0.981	267	0.924	303	0.469
16	0.211	52	0.544	88	0.957	124	0.968	160	0.905	196	0.910	232	0.983	268	0.917	304	0.455
17	0.209	53	0.559	89	0.964	125	0.965	161	0.905	197	0.910	233	0.985	269	0.910	305	0.440
18	0.208	54	0.574	90	0.971	126	0.963	162	0.904	198	0.911	234	0.987	270	0.904	306	0.425
19	0.206	55	0.589	91	0.974	127	0.960	163	0.904	199	0.912	235	0.989	271	0.893	307	0.410
20	0.205	56	0.604	92	0.977	128	0.957	164	0.904	200	0.913	236	0.991	272	0.883	308	0.396
21	0.209	57	0.620	93	0.980	129	0.955	165	0.904	201	0.914	237	0.993	273	0.872	309	0.381
22	0.214	58	0.635	94	0.983	130	0.952	166	0.904	202	0.916	238	0.995	274	0.862	310	0.366
23	0.219	59	0.650	95	0.985	131	0.950	167	0.903	203	0.918	239	0.997	275	0.852	311	0.355
24	0.223	60	0.665	96	0.988	132	0.947	168	0.903	204	0.919	240	0.999	276	0.841	312	0.343
25	0.228	61	0.678	97	0.991	133	0.945	169	0.903	205	0.921	241	0.999	277	0.831	313	0.332
26	0.233	62	0.692	98	0.994	134	0.943	170	0.903	206	0.922	242	0.999	278	0.820	314	0.320
27	0.238	63	0.705	99	0.997	135	0.940	171	0.903	207	0.924	243	0.999	279	0.810	315	0.309
28	0.242	64	0.719	100	1.000	136	0.938	172	0.903	208	0.926	244	0.999	280	0.799	316	0.297
29	0.247	65	0.732	101	1.000	137	0.936	173	0.903	209	0.927	245	0.999	281	0.786	317	0.286
30	0.252	66	0.746	102	1.000	138	0.933	174	0.903	210	0.929	246	1.000	282	0.773	318	0.275
31	0.263	67	0.759	103	1.000	139	0.931	175	0.903	211	0.931	247	1.000	283	0.759	319	0.263
32	0.275	68	0.773	104	1.000	140	0.929	176	0.903	212	0.933	248	1.000	284	0.746	320	0.252
33	0.286	69	0.786	105	0.999	141	0.927	177	0.903	213	0.936	249	1.000	285	0.732	321	0.247
34	0.297	70	0.799	106	0.999	142	0.926	178	0.903	214	0.938	250	1.000	286	0.719	322	0.242
35	0.309	71	0.810	107	0.999	143	0.924	179	0.903	215	0.940	251	0.997	287	0.705	323	0.238

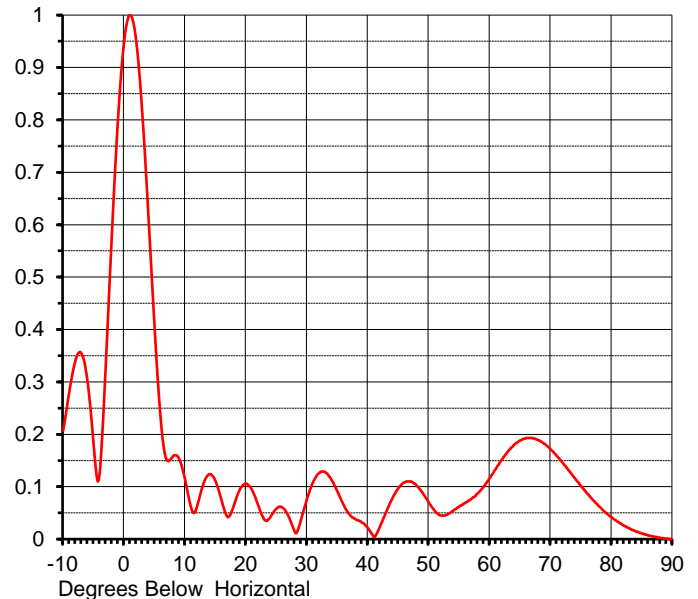
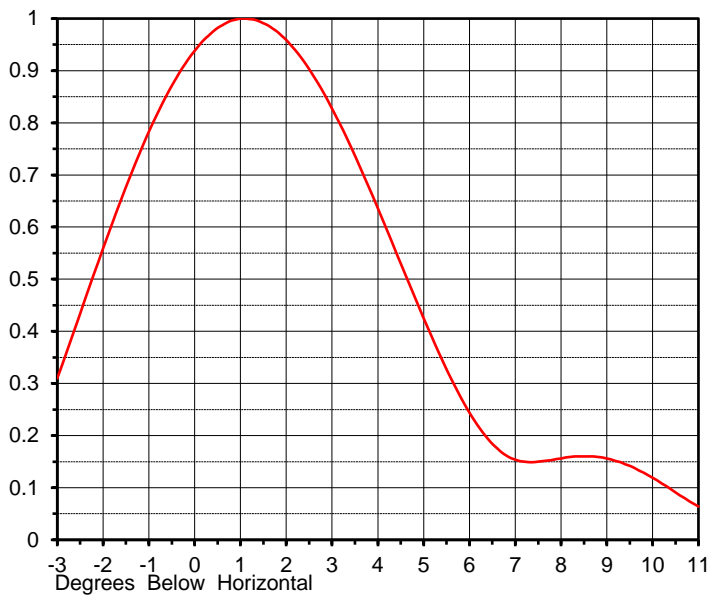
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ELEVATION PATTERN

Proposal No. **C-70260-1**
 Date **14-Mar-17**
 Call Letters **WVIZ**
 Channel **35**
 Frequency **599 MHz**
 Antenna Type **TFU-10GTH-R C170 (SP)**

RMS Directivity at Main Lobe **9.5 (9.78 dB)**
 RMS Directivity at Horizontal **8.4 (9.24 dB)**
Calculated

Beam Tilt **1.00 deg**
 Pattern Number **10Q095100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.207	10.0	0.114	30.0	0.076	50.0	0.070	70.0	0.171
-9.0	0.280	11.0	0.060	31.0	0.108	51.0	0.054	71.0	0.159
-8.0	0.340	12.0	0.063	32.0	0.126	52.0	0.045	72.0	0.145
-7.0	0.354	13.0	0.105	33.0	0.128	53.0	0.047	73.0	0.131
-6.0	0.301	14.0	0.124	34.0	0.114	54.0	0.054	74.0	0.116
-5.0	0.180	15.0	0.111	35.0	0.091	55.0	0.062	75.0	0.101
-4.0	0.128	16.0	0.074	36.0	0.066	56.0	0.069	76.0	0.087
-3.0	0.334	17.0	0.042	37.0	0.047	57.0	0.077	77.0	0.074
-2.0	0.583	18.0	0.064	38.0	0.038	58.0	0.087	78.0	0.062
-1.0	0.802	19.0	0.095	39.0	0.032	59.0	0.100	79.0	0.051
0.0	0.949	20.0	0.106	40.0	0.021	60.0	0.116	80.0	0.042
1.0	1.000	21.0	0.094	41.0	0.004	61.0	0.134	81.0	0.033
2.0	0.949	22.0	0.065	42.0	0.024	62.0	0.152	82.0	0.026
3.0	0.810	23.0	0.038	43.0	0.052	63.0	0.167	83.0	0.020
4.0	0.615	24.0	0.042	44.0	0.077	64.0	0.180	84.0	0.015
5.0	0.405	25.0	0.058	45.0	0.097	65.0	0.188	85.0	0.011
6.0	0.230	26.0	0.060	46.0	0.108	66.0	0.193	86.0	0.007
7.0	0.151	27.0	0.043	47.0	0.110	67.0	0.193	87.0	0.005
8.0	0.158	28.0	0.014	48.0	0.102	68.0	0.189	88.0	0.002
9.0	0.154	29.0	0.036	49.0	0.088	69.0	0.182	89.0	0.001
								90.0	0.000

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WVIZ (Cleveland, OH) Proposed Ch. 35 Facility

		Maxima:	
Parameters:		N100E	23.41 dBk
ERP:	219.5 kW	N250E	23.41 dBk
RCAMSL:	590.4 m	Minima:	
HAAT:	330.0 m	N20E	9.65 dBk
		N330E	9.65 dBk

Directional Antenna dBk Table				
Bearing	Pattern Azimuth	Relative Field	ERP (dBk)	Distance to Noise-Limited Contour (km)
N000E	0	0.242	11.09	73.6
	10	0.220	10.26	
	20	0.205	9.65	
	30	0.252	11.44	
	40	0.366	14.68	
N045E	45	0.440	16.28	76.7
	50	0.514	17.63	
	60	0.665	19.87	
	70	0.799	21.47	
	80	0.904	22.54	
N090E	90	0.971	23.16	88.5
	100	1.000	23.41	
	110	0.999	23.41	
	120	0.979	23.23	
	130	0.952	22.99	
N135E	135	0.940	22.88	88.6
	140	0.929	22.77	
	150	0.913	22.62	
	160	0.905	22.55	
	170	0.903	22.53	
N180E	180	0.903	22.53	76.6
	190	0.905	22.55	
	200	0.913	22.62	
	210	0.929	22.77	
	220	0.952	22.99	
N225E	225	0.965	23.10	82.3
	230	0.979	23.23	
	240	0.999	23.41	
	250	1.000	23.41	
	260	0.971	23.16	
N270E	270	0.904	22.54	86.9
	280	0.799	21.47	
	290	0.665	19.87	
	300	0.514	17.63	
	310	0.366	14.68	
N315E	315	0.309	13.21	74.2
	320	0.252	11.44	
	330	0.205	9.65	
	340	0.220	10.26	
	350	0.242	11.09	