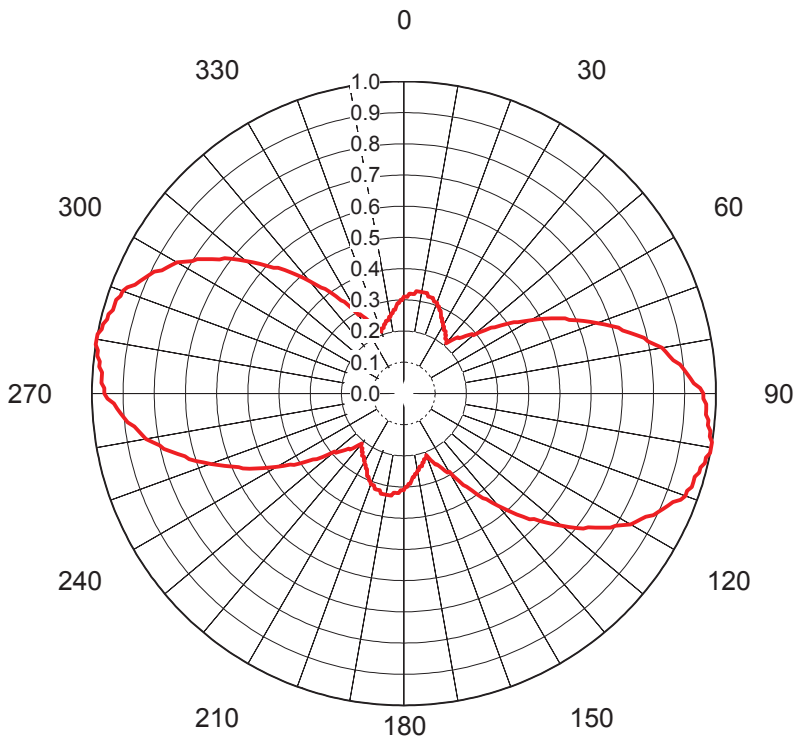


## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70166**  
 Date **16-Mar-17**  
 Call Letters **WJTC**  
 Channel **35**  
 Frequency **599 MHz**  
 Antenna Type **TFU-18ETT/VP-R P290**  
 Gain **2.9 (4.62dB)**  
 Calculated

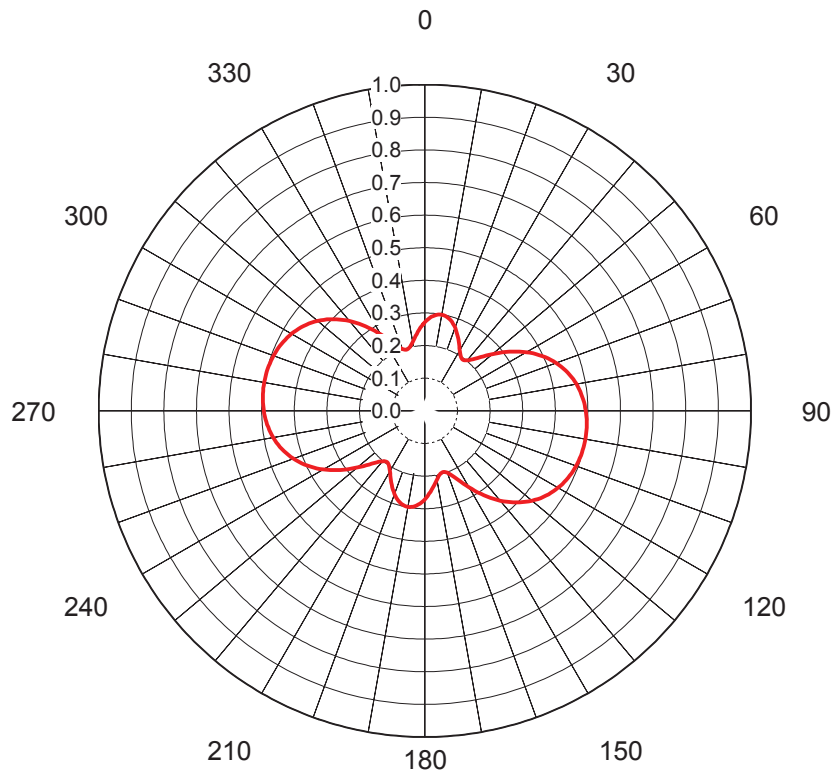


Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.310	36	0.230	72	0.700	108	0.970	144	0.400	180	0.310	216	0.230	252	0.700	288	0.970
1	0.310	37	0.220	73	0.720	109	0.960	145	0.380	181	0.310	217	0.220	253	0.720	289	0.960
2	0.310	38	0.220	74	0.730	110	0.960	146	0.360	182	0.310	218	0.220	254	0.730	290	0.960
3	0.320	39	0.220	75	0.750	111	0.950	147	0.350	183	0.320	219	0.220	255	0.750	291	0.950
4	0.320	40	0.210	76	0.770	112	0.930	148	0.330	184	0.320	220	0.210	256	0.770	292	0.930
5	0.320	41	0.220	77	0.790	113	0.920	149	0.310	185	0.320	221	0.220	257	0.790	293	0.920
6	0.320	42	0.230	78	0.800	114	0.910	150	0.290	186	0.320	222	0.230	258	0.800	294	0.910
7	0.330	43	0.240	79	0.820	115	0.900	151	0.290	187	0.330	223	0.240	259	0.820	295	0.900
8	0.330	44	0.250	80	0.840	116	0.890	152	0.280	188	0.330	224	0.250	260	0.840	296	0.890
9	0.330	45	0.250	81	0.850	117	0.870	153	0.270	189	0.330	225	0.250	261	0.850	297	0.870
10	0.330	46	0.260	82	0.860	118	0.860	154	0.260	190	0.330	226	0.260	262	0.860	298	0.860
11	0.330	47	0.270	83	0.870	119	0.850	155	0.250	191	0.330	227	0.270	263	0.870	299	0.850
12	0.330	48	0.280	84	0.890	120	0.840	156	0.250	192	0.330	228	0.280	264	0.890	300	0.840
13	0.330	49	0.290	85	0.900	121	0.820	157	0.240	193	0.330	229	0.290	265	0.900	301	0.820
14	0.320	50	0.290	86	0.910	122	0.800	158	0.230	194	0.320	230	0.290	266	0.910	302	0.800
15	0.320	51	0.310	87	0.920	123	0.790	159	0.220	195	0.320	231	0.310	267	0.920	303	0.790
16	0.320	52	0.330	88	0.930	124	0.770	160	0.210	196	0.320	232	0.330	268	0.930	304	0.770
17	0.320	53	0.350	89	0.950	125	0.750	161	0.220	197	0.320	233	0.350	269	0.950	305	0.750
18	0.310	54	0.360	90	0.960	126	0.730	162	0.220	198	0.310	234	0.360	270	0.960	306	0.730
19	0.310	55	0.380	91	0.960	127	0.720	163	0.220	199	0.310	235	0.380	271	0.960	307	0.720
20	0.310	56	0.400	92	0.970	128	0.700	164	0.230	200	0.310	236	0.400	272	0.970	308	0.700
21	0.300	57	0.420	93	0.970	129	0.680	165	0.230	201	0.300	237	0.420	273	0.970	309	0.680
22	0.300	58	0.430	94	0.970	130	0.660	166	0.240	202	0.300	238	0.430	274	0.970	310	0.660
23	0.290	59	0.450	95	0.980	131	0.640	167	0.240	203	0.290	239	0.450	275	0.980	311	0.640
24	0.290	60	0.470	96	0.980	132	0.620	168	0.240	204	0.290	240	0.470	276	0.980	312	0.620
25	0.280	61	0.490	97	0.990	133	0.600	169	0.250	205	0.280	241	0.490	277	0.990	313	0.600
26	0.270	62	0.510	98	0.990	134	0.580	170	0.250	206	0.270	242	0.510	278	0.990	314	0.580
27	0.270	63	0.530	99	1.000	135	0.570	171	0.260	207	0.270	243	0.530	279	1.000	315	0.570
28	0.260	64	0.550	100	1.000	136	0.550	172	0.260	208	0.260	244	0.550	280	1.000	316	0.550
29	0.260	65	0.570	101	1.000	137	0.530	173	0.270	209	0.260	245	0.570	281	1.000	317	0.530
30	0.250	66	0.580	102	0.990	138	0.510	174	0.270	210	0.250	246	0.580	282	0.990	318	0.510
31	0.250	67	0.600	103	0.990	139	0.490	175	0.280	211	0.250	247	0.600	283	0.990	319	0.490
32	0.240	68	0.620	104	0.980	140	0.470	176	0.290	212	0.240	248	0.620	284	0.980	320	0.470
33	0.240	69	0.640	105	0.980	141	0.450	177	0.290	213	0.240	249	0.640	285	0.980	321	0.450
34	0.240	70	0.660	106	0.970	142	0.430	178	0.300	214	0.240	250	0.660	286	0.970	322	0.430
35	0.230	71	0.680	107	0.970	143	0.420	179	0.300	215	0.230	251	0.680	287	0.970	323	0.420

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70166**  
 Date **16-Mar-17**  
 Call Letters **WJTC**  
 Channel **35**  
 Frequency **599 MHz**  
 Antenna Type **TFU-18ETT/VP-R P290**  
 Gain **1.9 (2.79dB)**  
 Calculated



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.272	36	0.196	72	0.439	108	0.496	144	0.325	180	0.272	216	0.196	252	0.439	288	0.496
1	0.276	37	0.196	73	0.444	109	0.495	145	0.316	181	0.276	217	0.196	253	0.444	289	0.495
2	0.281	38	0.197	74	0.449	110	0.494	146	0.307	182	0.281	218	0.197	254	0.449	290	0.494
3	0.285	39	0.199	75	0.453	111	0.492	147	0.298	183	0.285	219	0.199	255	0.453	291	0.492
4	0.289	40	0.202	76	0.458	112	0.491	148	0.289	184	0.289	220	0.202	256	0.458	292	0.491
5	0.292	41	0.206	77	0.461	113	0.489	149	0.280	185	0.292	221	0.206	257	0.461	293	0.489
6	0.294	42	0.211	78	0.465	114	0.487	150	0.271	186	0.294	222	0.211	258	0.465	294	0.487
7	0.296	43	0.216	79	0.469	115	0.485	151	0.262	187	0.296	223	0.216	259	0.469	295	0.485
8	0.298	44	0.223	80	0.472	116	0.483	152	0.253	188	0.298	224	0.223	260	0.472	296	0.483
9	0.299	45	0.230	81	0.475	117	0.480	153	0.245	189	0.299	225	0.230	261	0.475	297	0.480
10	0.299	46	0.237	82	0.478	118	0.478	154	0.237	190	0.299	226	0.237	262	0.478	298	0.478
11	0.299	47	0.245	83	0.480	119	0.475	155	0.230	191	0.299	227	0.245	263	0.480	299	0.475
12	0.298	48	0.253	84	0.483	120	0.472	156	0.223	192	0.298	228	0.253	264	0.483	300	0.472
13	0.296	49	0.262	85	0.485	121	0.469	157	0.216	193	0.296	229	0.262	265	0.485	301	0.469
14	0.294	50	0.271	86	0.487	122	0.465	158	0.211	194	0.294	230	0.271	266	0.487	302	0.465
15	0.292	51	0.280	87	0.489	123	0.461	159	0.206	195	0.292	231	0.280	267	0.489	303	0.461
16	0.289	52	0.289	88	0.491	124	0.458	160	0.202	196	0.289	232	0.289	268	0.491	304	0.458
17	0.285	53	0.298	89	0.492	125	0.453	161	0.199	197	0.285	233	0.298	269	0.492	305	0.453
18	0.281	54	0.307	90	0.494	126	0.449	162	0.197	198	0.281	234	0.307	270	0.494	306	0.449
19	0.276	55	0.316	91	0.495	127	0.444	163	0.196	199	0.276	235	0.316	271	0.495	307	0.444
20	0.272	56	0.325	92	0.496	128	0.439	164	0.196	200	0.272	236	0.325	272	0.496	308	0.439
21	0.266	57	0.334	93	0.497	129	0.434	165	0.197	201	0.266	237	0.334	273	0.497	309	0.434
22	0.261	58	0.343	94	0.498	130	0.429	166	0.199	202	0.261	238	0.343	274	0.498	310	0.429
23	0.255	59	0.351	95	0.498	131	0.423	167	0.201	203	0.255	239	0.351	275	0.498	311	0.423
24	0.249	60	0.359	96	0.499	132	0.417	168	0.205	204	0.249	240	0.359	276	0.499	312	0.417
25	0.243	61	0.367	97	0.499	133	0.411	169	0.209	205	0.243	241	0.367	277	0.499	313	0.411
26	0.237	62	0.375	98	0.500	134	0.404	170	0.214	206	0.237	242	0.375	278	0.500	314	0.404
27	0.231	63	0.383	99	0.500	135	0.397	171	0.219	207	0.231	243	0.383	279	0.500	315	0.397
28	0.225	64	0.390	100	0.500	136	0.390	172	0.225	208	0.225	244	0.390	280	0.500	316	0.390
29	0.219	65	0.397	101	0.500	137	0.383	173	0.231	209	0.219	245	0.397	281	0.500	317	0.383
30	0.214	66	0.404	102	0.500	138	0.375	174	0.237	210	0.214	246	0.404	282	0.500	318	0.375
31	0.209	67	0.411	103	0.499	139	0.367	175	0.243	211	0.209	247	0.411	283	0.499	319	0.367
32	0.205	68	0.417	104	0.499	140	0.359	176	0.249	212	0.205	248	0.417	284	0.499	320	0.359
33	0.201	69	0.423	105	0.498	141	0.351	177	0.255	213	0.201	249	0.423	285	0.498	321	0.351
34	0.199	70	0.429	106	0.498	142	0.343	178	0.261	214	0.199	250	0.429	286	0.498	322	0.343
35	0.197	71	0.434	107	0.497	143	0.334	179	0.266	215	0.197	251	0.434	287	0.497	323	0.334

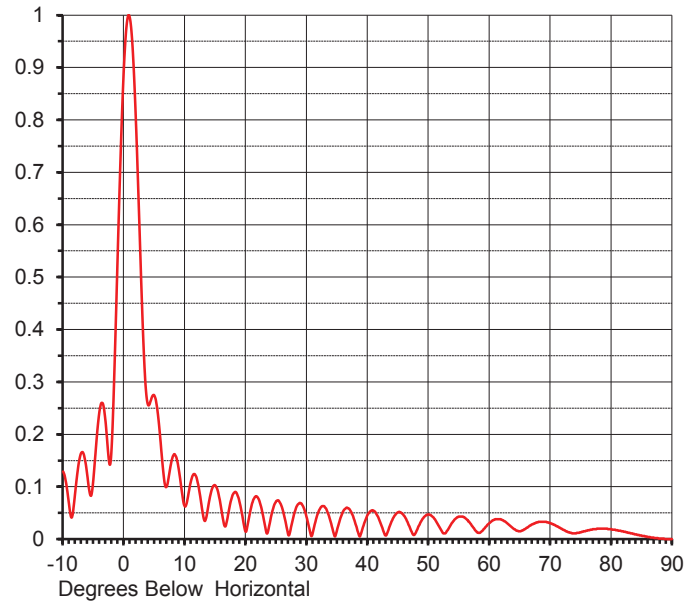
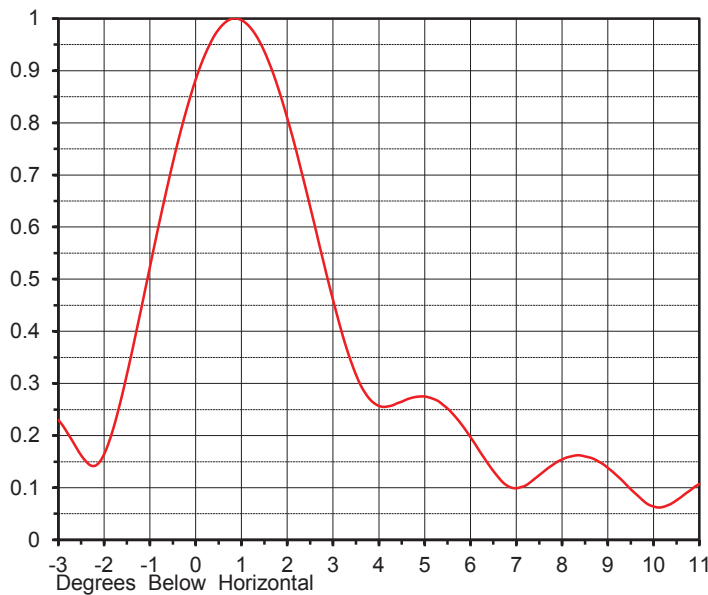
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## ELEVATION PATTERN

Proposal No. **C-70166**  
 Date **16-Mar-17**  
 Call Letters **WJTC**  
 Channel **35**  
 Frequency **599 MHz**  
 Antenna Type **TFU-18ETT/VP-R P290**

RMS Directivity at Main Lobe **18.4 ( 12.65 dB )**  
 RMS Directivity at Horizontal **14.3 ( 11.55 dB )**  
**Calculated**

Beam Tilt **0.75 deg**  
 Pattern Number **18E184075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.129	10.0	0.062	30.0	0.040	50.0	0.047	70.0	0.030
-9.0	0.063	11.0	0.112	31.0	0.014	51.0	0.038	71.0	0.025
-8.0	0.092	12.0	0.112	32.0	0.055	52.0	0.018	72.0	0.018
-7.0	0.165	13.0	0.043	33.0	0.060	53.0	0.016	73.0	0.013
-6.0	0.118	14.0	0.075	34.0	0.029	54.0	0.034	74.0	0.011
-5.0	0.120	15.0	0.102	35.0	0.020	55.0	0.043	75.0	0.013
-4.0	0.247	16.0	0.054	36.0	0.054	56.0	0.040	76.0	0.016
-3.0	0.219	17.0	0.042	37.0	0.057	57.0	0.027	77.0	0.019
-2.0	0.186	18.0	0.088	38.0	0.028	58.0	0.013	78.0	0.020
-1.0	0.565	19.0	0.068	39.0	0.015	59.0	0.019	79.0	0.020
0.0	0.908	20.0	0.014	40.0	0.047	60.0	0.031	80.0	0.019
1.0	0.991	21.0	0.068	41.0	0.054	61.0	0.038	81.0	0.017
2.0	0.778	22.0	0.078	42.0	0.033	62.0	0.037	82.0	0.014
3.0	0.427	23.0	0.033	43.0	0.007	63.0	0.029	83.0	0.012
4.0	0.255	24.0	0.036	44.0	0.036	64.0	0.019	84.0	0.009
5.0	0.273	25.0	0.073	45.0	0.051	65.0	0.015	85.0	0.006
6.0	0.184	26.0	0.057	46.0	0.044	66.0	0.021	86.0	0.004
7.0	0.101	27.0	0.007	47.0	0.019	67.0	0.028	87.0	0.002
8.0	0.158	28.0	0.052	48.0	0.016	68.0	0.033	88.0	0.001
9.0	0.131	29.0	0.068	49.0	0.039	69.0	0.033	89.0	0.000
								90.0	0.000

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