

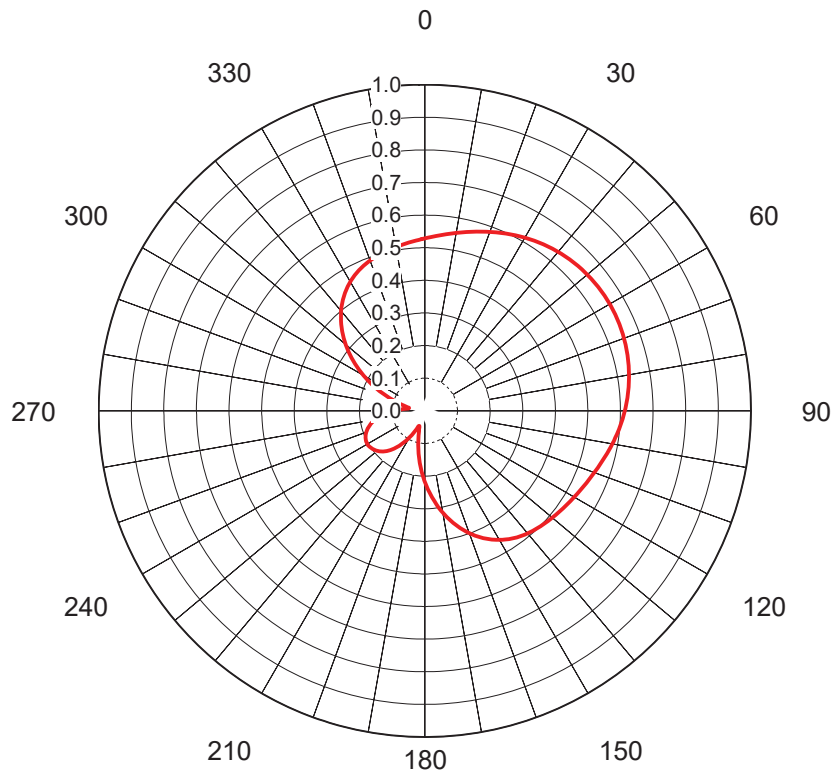
AZIMUTH PATTERN Horizontal Polarization In Free Space

Proposal No. **C-70360-1**
Date **28-Feb-17**
Call Letters **WLPX** 18
Frequency **497 MHz**
Antenna Type **TFU-24DSC/VP-R C170**

Gain **1.7 (2.31dB)**
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.988	36	0.909	72	0.901	108	0.957	144	0.973	180	0.588	216	0.204	252	0.227	288	0.407
1	0.986	37	0.908	73	0.901	109	0.960	145	0.968	181	0.573	217	0.204	253	0.224	289	0.422
2	0.983	38	0.907	74	0.902	110	0.963	146	0.963	182	0.558	218	0.205	254	0.222	290	0.437
3	0.981	39	0.906	75	0.902	111	0.965	147	0.958	183	0.543	219	0.206	255	0.219	291	0.451
4	0.978	40	0.905	76	0.903	112	0.968	148	0.952	184	0.527	220	0.207	256	0.216	292	0.466
5	0.976	41	0.905	77	0.903	113	0.971	149	0.946	185	0.512	221	0.209	257	0.214	293	0.482
6	0.973	42	0.904	78	0.904	114	0.973	150	0.940	186	0.497	222	0.211	258	0.211	294	0.497
7	0.971	43	0.903	79	0.905	115	0.976	151	0.933	187	0.482	223	0.214	259	0.209	295	0.512
8	0.968	44	0.903	80	0.905	116	0.978	152	0.925	188	0.466	224	0.216	260	0.207	296	0.527
9	0.965	45	0.902	81	0.906	117	0.981	153	0.918	189	0.451	225	0.219	261	0.206	297	0.543
10	0.963	46	0.902	82	0.907	118	0.983	154	0.910	190	0.437	226	0.222	262	0.205	298	0.558
11	0.960	47	0.901	83	0.908	119	0.986	155	0.901	191	0.422	227	0.224	263	0.204	299	0.573
12	0.957	48	0.901	84	0.909	120	0.988	156	0.893	192	0.407	228	0.227	264	0.204	300	0.588
13	0.954	49	0.901	85	0.910	121	0.990	157	0.883	193	0.393	229	0.229	265	0.204	301	0.604
14	0.952	50	0.900	86	0.911	122	0.992	158	0.874	194	0.379	230	0.232	266	0.206	302	0.619
15	0.949	51	0.900	87	0.912	123	0.993	159	0.864	195	0.365	231	0.234	267	0.207	303	0.634
16	0.946	52	0.900	88	0.914	124	0.995	160	0.854	196	0.352	232	0.236	268	0.210	304	0.648
17	0.944	53	0.900	89	0.915	125	0.996	161	0.843	197	0.338	233	0.238	269	0.214	305	0.663
18	0.941	54	0.900	90	0.917	126	0.997	162	0.832	198	0.326	234	0.240	270	0.218	306	0.677
19	0.939	55	0.900	91	0.918	127	0.998	163	0.821	199	0.313	235	0.241	271	0.223	307	0.692
20	0.936	56	0.899	92	0.920	128	0.999	164	0.809	200	0.302	236	0.242	272	0.229	308	0.706
21	0.934	57	0.899	93	0.922	129	1.000	165	0.797	201	0.290	237	0.243	273	0.235	309	0.720
22	0.932	58	0.899	94	0.924	130	1.000	166	0.785	202	0.280	238	0.244	274	0.243	310	0.733
23	0.930	59	0.899	95	0.926	131	1.000	167	0.773	203	0.269	239	0.244	275	0.251	311	0.747
24	0.928	60	0.899	96	0.928	132	1.000	168	0.760	204	0.260	240	0.245	276	0.260	312	0.760
25	0.926	61	0.899	97	0.930	133	0.999	169	0.747	205	0.251	241	0.244	277	0.269	313	0.773
26	0.924	62	0.899	98	0.932	134	0.998	170	0.733	206	0.243	242	0.244	278	0.280	314	0.785
27	0.922	63	0.899	99	0.934	135	0.997	171	0.720	207	0.235	243	0.243	279	0.290	315	0.797
28	0.920	64	0.899	100	0.936	136	0.996	172	0.706	208	0.229	244	0.242	280	0.302	316	0.809
29	0.918	65	0.900	101	0.939	137	0.994	173	0.692	209	0.223	245	0.241	281	0.313	317	0.821
30	0.917	66	0.900	102	0.941	138	0.992	174	0.677	210	0.218	246	0.240	282	0.326	318	0.832
31	0.915	67	0.900	103	0.944	139	0.990	175	0.663	211	0.214	247	0.238	283	0.338	319	0.843
32	0.914	68	0.900	104	0.946	140	0.987	176	0.648	212	0.210	248	0.236	284	0.352	320	0.854
33	0.912	69	0.900	105	0.949	141	0.984	177	0.634	213	0.207	249	0.234	285	0.365	321	0.864
34	0.911	70	0.900	106	0.952	142	0.981	178	0.619	214	0.206	250	0.232	286	0.379	322	0.874
35	0.910	71	0.901	107	0.954	143	0.977	179	0.604	215	0.204	251	0.229	287	0.393	323	0.883

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AZIMUTH PATTERN Vertical Polarization

In Free Space

Proposal No. **C-70360-1**
 Date **28-Feb-17**
 Call Letters **WLPX** 18
 Frequency **497 MHz**
 Antenna Type **TFU-24DSC/VP-R C170**
 Gain **2.23 (3.47dB)**
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.529	36	0.628	72	0.648	108	0.559	144	0.480	180	0.217	216	0.132	252	0.185	288	0.096
1	0.531	37	0.630	73	0.647	109	0.556	145	0.476	181	0.207	217	0.138	253	0.182	289	0.106
2	0.533	38	0.632	74	0.646	110	0.554	146	0.473	182	0.196	218	0.143	254	0.179	290	0.115
3	0.535	39	0.634	75	0.644	111	0.551	147	0.469	183	0.186	219	0.149	255	0.175	291	0.125
4	0.538	40	0.636	76	0.643	112	0.548	148	0.465	184	0.176	220	0.154	256	0.171	292	0.135
5	0.540	41	0.638	77	0.641	113	0.545	149	0.461	185	0.165	221	0.158	257	0.167	293	0.145
6	0.543	42	0.640	78	0.640	114	0.543	150	0.457	186	0.155	222	0.163	258	0.163	294	0.155
7	0.545	43	0.641	79	0.638	115	0.540	151	0.452	187	0.145	223	0.167	259	0.158	295	0.165
8	0.548	44	0.643	80	0.636	116	0.538	152	0.448	188	0.135	224	0.171	260	0.154	296	0.176
9	0.551	45	0.644	81	0.634	117	0.535	153	0.442	189	0.125	225	0.175	261	0.149	297	0.186
10	0.554	46	0.646	82	0.632	118	0.533	154	0.437	190	0.115	226	0.179	262	0.143	298	0.196
11	0.556	47	0.647	83	0.630	119	0.531	155	0.431	191	0.106	227	0.182	263	0.138	299	0.207
12	0.559	48	0.648	84	0.628	120	0.529	156	0.426	192	0.096	228	0.185	264	0.132	300	0.217
13	0.562	49	0.649	85	0.626	121	0.527	157	0.419	193	0.088	229	0.188	265	0.127	301	0.228
14	0.565	50	0.650	86	0.623	122	0.525	158	0.413	194	0.079	230	0.191	266	0.121	302	0.238
15	0.568	51	0.651	87	0.621	123	0.523	159	0.406	195	0.071	231	0.193	267	0.115	303	0.248
16	0.571	52	0.652	88	0.618	124	0.521	160	0.399	196	0.064	232	0.195	268	0.108	304	0.258
17	0.575	53	0.652	89	0.616	125	0.519	161	0.392	197	0.058	233	0.197	269	0.102	305	0.268
18	0.578	54	0.653	90	0.613	126	0.517	162	0.385	198	0.054	234	0.199	270	0.095	306	0.278
19	0.581	55	0.653	91	0.610	127	0.515	163	0.377	199	0.050	235	0.200	271	0.089	307	0.288
20	0.584	56	0.654	92	0.608	128	0.514	164	0.369	200	0.049	236	0.201	272	0.083	308	0.298
21	0.587	57	0.654	93	0.605	129	0.512	165	0.361	201	0.049	237	0.202	273	0.076	309	0.307
22	0.590	58	0.654	94	0.602	130	0.510	166	0.353	202	0.051	238	0.203	274	0.070	310	0.317
23	0.593	59	0.655	95	0.599	131	0.509	167	0.344	203	0.055	239	0.203	275	0.064	311	0.326
24	0.596	60	0.655	96	0.596	132	0.507	168	0.335	204	0.059	240	0.203	276	0.059	312	0.335
25	0.599	61	0.655	97	0.593	133	0.505	169	0.326	205	0.064	241	0.203	277	0.055	313	0.344
26	0.602	62	0.654	98	0.590	134	0.503	170	0.317	206	0.070	242	0.203	278	0.051	314	0.353
27	0.605	63	0.654	99	0.587	135	0.501	171	0.307	207	0.076	243	0.202	279	0.049	315	0.361
28	0.608	64	0.654	100	0.584	136	0.499	172	0.298	208	0.083	244	0.201	280	0.049	316	0.369
29	0.610	65	0.653	101	0.581	137	0.497	173	0.288	209	0.089	245	0.200	281	0.050	317	0.377
30	0.613	66	0.653	102	0.578	138	0.495	174	0.278	210	0.095	246	0.199	282	0.054	318	0.385
31	0.616	67	0.652	103	0.575	139	0.493	175	0.268	211	0.102	247	0.197	283	0.058	319	0.392
32	0.618	68	0.652	104	0.571	140	0.491	176	0.258	212	0.108	248	0.195	284	0.064	320	0.399
33	0.621	69	0.651	105	0.568	141	0.488	177	0.248	213	0.115	249	0.193	285	0.071	321	0.406
34	0.623	70	0.650	106	0.565	142	0.485	178	0.238	214	0.121	250	0.191	286	0.079	322	0.413
35	0.626	71	0.649	107	0.562	143	0.483	179	0.228	215	0.127	251	0.188	287	0.088	323	0.419

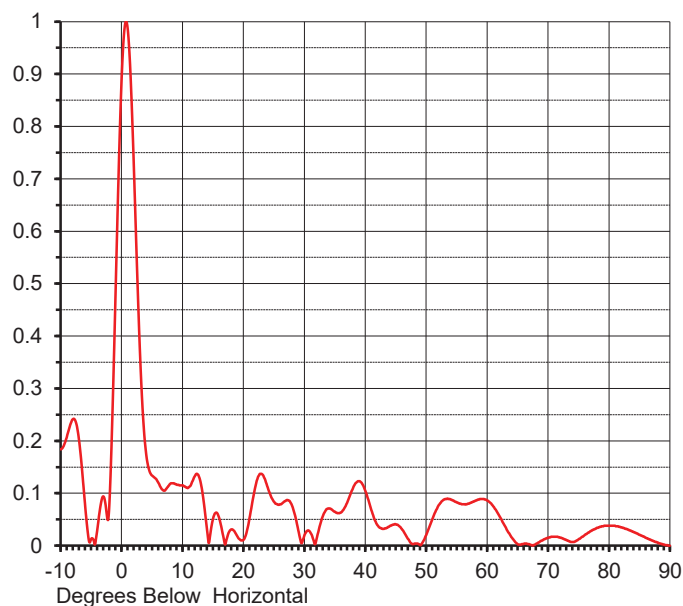
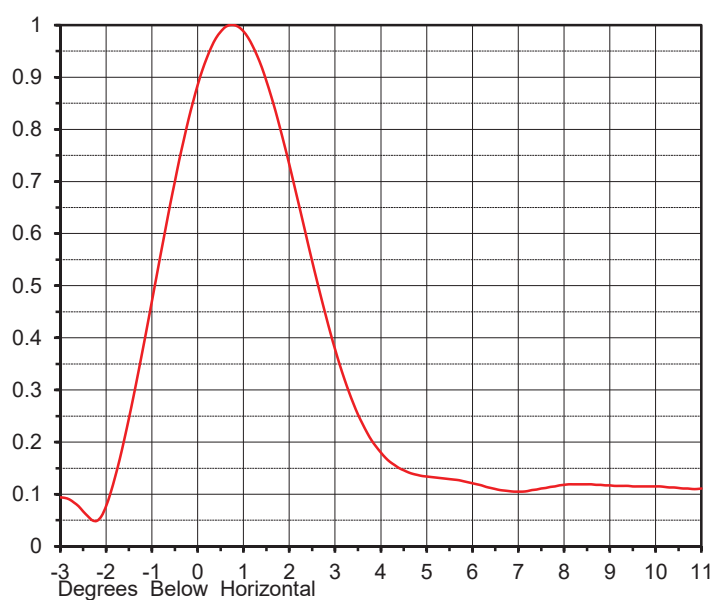
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ELEVATION PATTERN

Proposal No. **C-70360-1**
 Date **28-Feb-17**
 Call Letters **WLPX 18**
 Frequency **497 MHz**
 Antenna Type **TFU-24DSC/VP-R C170**

RMS Directivity at Main Lobe **19.00 (12.79 dB)**
 RMS Directivity at Horizontal **14.90 (11.73 dB)**
Calculated

Beam Tilt **0.75 deg**
 Drawing Number **24Q190075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.184	10.0	0.115	30.0	0.019	50.0	0.020	70.0	0.015
-9.0	0.206	11.0	0.111	31.0	0.025	51.0	0.050	71.0	0.017
-8.0	0.241	12.0	0.132	32.0	0.012	52.0	0.076	72.0	0.015
-7.0	0.204	13.0	0.120	33.0	0.055	53.0	0.088	73.0	0.011
-6.0	0.081	14.0	0.034	34.0	0.071	54.0	0.088	74.0	0.007
-5.0	0.012	15.0	0.050	35.0	0.065	55.0	0.083	75.0	0.012
-4.0	0.028	16.0	0.054	36.0	0.063	56.0	0.079	76.0	0.020
-3.0	0.094	17.0	0.002	37.0	0.081	57.0	0.080	77.0	0.028
-2.0	0.077	18.0	0.031	38.0	0.110	58.0	0.085	78.0	0.034
-1.0	0.470	19.0	0.018	39.0	0.123	59.0	0.089	79.0	0.037
0.0	0.885	20.0	0.011	40.0	0.105	60.0	0.086	80.0	0.038
1.0	0.988	21.0	0.052	41.0	0.068	61.0	0.075	81.0	0.038
2.0	0.733	22.0	0.114	42.0	0.039	62.0	0.057	82.0	0.035
3.0	0.378	23.0	0.137	43.0	0.032	63.0	0.036	83.0	0.031
4.0	0.180	24.0	0.111	44.0	0.037	64.0	0.016	84.0	0.026
5.0	0.134	25.0	0.084	45.0	0.041	65.0	0.003	85.0	0.021
6.0	0.121	26.0	0.079	46.0	0.032	66.0	0.003	86.0	0.015
7.0	0.105	27.0	0.086	47.0	0.013	67.0	0.002	87.0	0.010
8.0	0.118	28.0	0.076	48.0	0.003	68.0	0.003	88.0	0.006
9.0	0.117	29.0	0.030	49.0	0.001	69.0	0.010	89.0	0.002
								90.0	0.000

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