

AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70349**
 Date **5-Mar-17**
 Call Letters **WPXJ**
 Channel **24**
 Frequency **533 MHz**
 Antenna Type **TFU-18ETT/VP-R P220 (SP)**
 Gain **2.32 (3.66dB)**
Calculated

Drawing # **P220H D24**

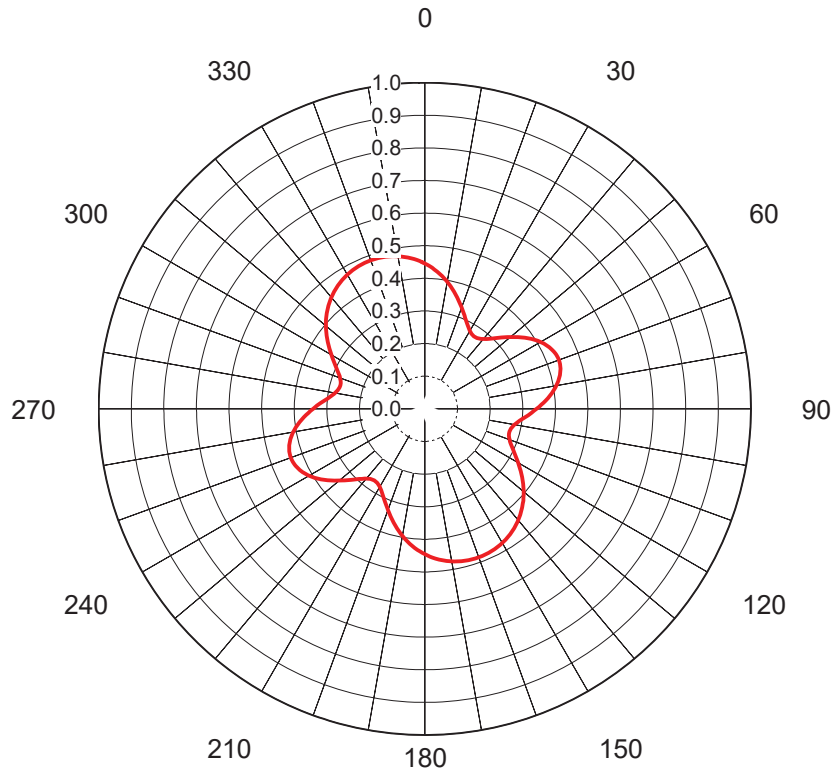
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.465	36	0.622	72	0.998	108	0.555	144	0.493	180	0.465	216	0.622	252	0.998	288	0.555
1	0.458	37	0.639	73	0.996	109	0.540	145	0.499	181	0.458	217	0.639	253	0.996	289	0.540
2	0.451	38	0.656	74	0.994	110	0.524	146	0.505	182	0.451	218	0.656	254	0.994	290	0.524
3	0.444	39	0.673	75	0.990	111	0.510	147	0.511	183	0.444	219	0.673	255	0.990	291	0.510
4	0.437	40	0.690	76	0.986	112	0.495	148	0.517	184	0.437	220	0.690	256	0.986	292	0.495
5	0.430	41	0.707	77	0.980	113	0.482	149	0.522	185	0.430	221	0.707	257	0.980	293	0.482
6	0.424	42	0.724	78	0.974	114	0.469	150	0.527	186	0.424	222	0.724	258	0.974	294	0.469
7	0.418	43	0.741	79	0.967	115	0.458	151	0.531	187	0.418	223	0.741	259	0.967	295	0.458
8	0.413	44	0.757	80	0.960	116	0.446	152	0.535	188	0.413	224	0.757	260	0.960	296	0.446
9	0.408	45	0.773	81	0.952	117	0.436	153	0.539	189	0.408	225	0.773	261	0.952	297	0.436
10	0.403	46	0.789	82	0.943	118	0.427	154	0.542	190	0.403	226	0.789	262	0.943	298	0.427
11	0.400	47	0.805	83	0.933	119	0.419	155	0.544	191	0.400	227	0.805	263	0.933	299	0.419
12	0.397	48	0.820	84	0.923	120	0.412	156	0.547	192	0.397	228	0.820	264	0.923	300	0.412
13	0.396	49	0.834	85	0.912	121	0.407	157	0.548	193	0.396	229	0.834	265	0.912	301	0.407
14	0.394	50	0.849	86	0.901	122	0.401	158	0.550	194	0.394	230	0.849	266	0.901	302	0.401
15	0.395	51	0.862	87	0.888	123	0.398	159	0.550	195	0.395	231	0.862	267	0.888	303	0.398
16	0.395	52	0.876	88	0.876	124	0.395	160	0.551	196	0.395	232	0.876	268	0.876	304	0.395
17	0.398	53	0.888	89	0.862	125	0.395	161	0.550	197	0.398	233	0.888	269	0.862	305	0.395
18	0.401	54	0.901	90	0.849	126	0.394	162	0.550	198	0.401	234	0.901	270	0.849	306	0.394
19	0.407	55	0.912	91	0.834	127	0.396	163	0.548	199	0.407	235	0.912	271	0.834	307	0.396
20	0.412	56	0.923	92	0.820	128	0.397	164	0.547	200	0.412	236	0.923	272	0.820	308	0.397
21	0.419	57	0.933	93	0.805	129	0.400	165	0.544	201	0.419	237	0.933	273	0.805	309	0.400
22	0.427	58	0.943	94	0.789	130	0.403	166	0.542	202	0.427	238	0.943	274	0.789	310	0.403
23	0.436	59	0.952	95	0.773	131	0.408	167	0.539	203	0.436	239	0.952	275	0.773	311	0.408
24	0.446	60	0.960	96	0.757	132	0.413	168	0.535	204	0.446	240	0.960	276	0.757	312	0.413
25	0.458	61	0.967	97	0.741	133	0.418	169	0.531	205	0.458	241	0.967	277	0.741	313	0.418
26	0.469	62	0.974	98	0.724	134	0.424	170	0.527	206	0.469	242	0.974	278	0.724	314	0.424
27	0.482	63	0.980	99	0.707	135	0.430	171	0.522	207	0.482	243	0.980	279	0.707	315	0.430
28	0.495	64	0.986	100	0.690	136	0.437	172	0.517	208	0.495	244	0.986	280	0.690	316	0.437
29	0.510	65	0.990	101	0.673	137	0.444	173	0.511	209	0.510	245	0.990	281	0.673	317	0.444
30	0.524	66	0.994	102	0.656	138	0.451	174	0.505	210	0.524	246	0.994	282	0.656	318	0.451
31	0.540	67	0.996	103	0.639	139	0.458	175	0.499	211	0.540	247	0.996	283	0.639	319	0.458
32	0.555	68	0.998	104	0.622	140	0.465	176	0.493	212	0.555	248	0.998	284	0.622	320	0.465
33	0.572	69	0.999	105	0.605	141	0.472	177	0.486	213	0.572	249	0.999	285	0.605	321	0.472
34	0.588	70	1.000	106	0.588	142	0.479	178	0.479	214	0.588	250	1.000	286	0.588	322	0.479
35	0.605	71	0.999	107	0.572	143	0.486	179	0.472	215	0.605	251	0.999	287	0.572	323	0.486

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70349**
 Date **5-Mar-17**
 Call Letters **WPXJ**
 Channel **24**
 Frequency **533 MHz**
 Antenna Type **TFU-18ETT/VP-R P220 (SP)**
 Gain **1.57 (1.97dB)**
Calculated

Drawing # **P220V D24**



Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.446	36	0.269	72	0.436	108	0.271	144	0.460	180	0.446	216	0.269	252	0.436	288	0.271
1	0.442	37	0.271	73	0.435	109	0.273	145	0.463	181	0.442	217	0.271	253	0.435	289	0.273
2	0.437	38	0.273	74	0.433	110	0.276	146	0.466	182	0.437	218	0.273	254	0.433	290	0.276
3	0.433	39	0.276	75	0.430	111	0.280	147	0.468	183	0.433	219	0.276	255	0.430	291	0.280
4	0.428	40	0.280	76	0.427	112	0.284	148	0.471	184	0.428	220	0.280	256	0.427	292	0.284
5	0.423	41	0.284	77	0.424	113	0.289	149	0.473	185	0.423	221	0.284	257	0.424	293	0.289
6	0.418	42	0.289	78	0.419	114	0.294	150	0.475	186	0.418	222	0.289	258	0.419	294	0.294
7	0.413	43	0.294	79	0.415	115	0.299	151	0.477	187	0.413	223	0.294	259	0.415	295	0.299
8	0.407	44	0.300	80	0.410	116	0.305	152	0.478	188	0.407	224	0.300	260	0.410	296	0.305
9	0.402	45	0.307	81	0.404	117	0.311	153	0.480	189	0.402	225	0.307	261	0.404	297	0.311
10	0.396	46	0.313	82	0.399	118	0.317	154	0.481	190	0.396	226	0.313	262	0.399	298	0.317
11	0.390	47	0.320	83	0.392	119	0.324	155	0.482	191	0.390	227	0.320	263	0.392	299	0.324
12	0.383	48	0.328	84	0.386	120	0.330	156	0.483	192	0.383	228	0.328	264	0.386	300	0.330
13	0.377	49	0.335	85	0.379	121	0.337	157	0.483	193	0.377	229	0.335	265	0.379	301	0.337
14	0.371	50	0.342	86	0.372	122	0.344	158	0.484	194	0.371	230	0.342	266	0.372	302	0.344
15	0.364	51	0.350	87	0.365	123	0.351	159	0.484	195	0.364	231	0.350	267	0.365	303	0.351
16	0.357	52	0.357	88	0.357	124	0.357	160	0.484	196	0.357	232	0.357	268	0.357	304	0.357
17	0.351	53	0.365	89	0.350	125	0.364	161	0.484	197	0.351	233	0.365	269	0.350	305	0.364
18	0.344	54	0.372	90	0.342	126	0.371	162	0.484	198	0.344	234	0.372	270	0.342	306	0.371
19	0.337	55	0.379	91	0.335	127	0.377	163	0.483	199	0.337	235	0.379	271	0.335	307	0.377
20	0.330	56	0.386	92	0.328	128	0.383	164	0.483	200	0.330	236	0.386	272	0.328	308	0.383
21	0.324	57	0.392	93	0.320	129	0.390	165	0.482	201	0.324	237	0.392	273	0.320	309	0.390
22	0.317	58	0.399	94	0.313	130	0.396	166	0.481	202	0.317	238	0.399	274	0.313	310	0.396
23	0.311	59	0.404	95	0.307	131	0.402	167	0.480	203	0.311	239	0.404	275	0.307	311	0.402
24	0.305	60	0.410	96	0.300	132	0.407	168	0.478	204	0.305	240	0.410	276	0.300	312	0.407
25	0.299	61	0.415	97	0.294	133	0.413	169	0.477	205	0.299	241	0.415	277	0.294	313	0.413
26	0.294	62	0.419	98	0.289	134	0.418	170	0.475	206	0.294	242	0.419	278	0.289	314	0.418
27	0.289	63	0.424	99	0.284	135	0.423	171	0.473	207	0.289	243	0.424	279	0.284	315	0.423
28	0.284	64	0.427	100	0.280	136	0.428	172	0.471	208	0.284	244	0.427	280	0.280	316	0.428
29	0.280	65	0.430	101	0.276	137	0.433	173	0.468	209	0.280	245	0.430	281	0.276	317	0.433
30	0.276	66	0.433	102	0.273	138	0.437	174	0.466	210	0.276	246	0.433	282	0.273	318	0.437
31	0.273	67	0.435	103	0.271	139	0.442	175	0.463	211	0.273	247	0.435	283	0.271	319	0.442
32	0.271	68	0.436	104	0.269	140	0.446	176	0.460	212	0.271	248	0.436	284	0.269	320	0.446
33	0.270	69	0.437	105	0.269	141	0.450	177	0.457	213	0.270	249	0.437	285	0.269	321	0.450
34	0.269	70	0.437	106	0.269	142	0.453	178	0.453	214	0.269	250	0.437	286	0.269	322	0.453
35	0.269	71	0.437	107	0.270	143	0.457	179	0.450	215	0.269	251	0.437	287	0.270	323	0.457

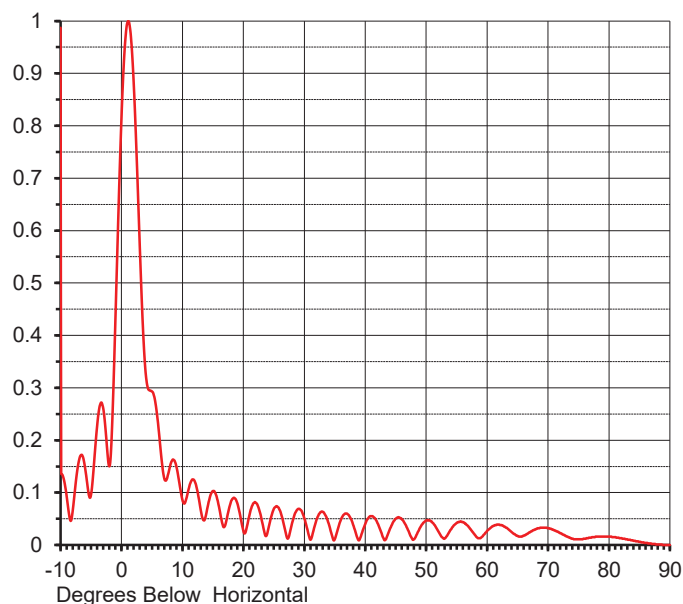
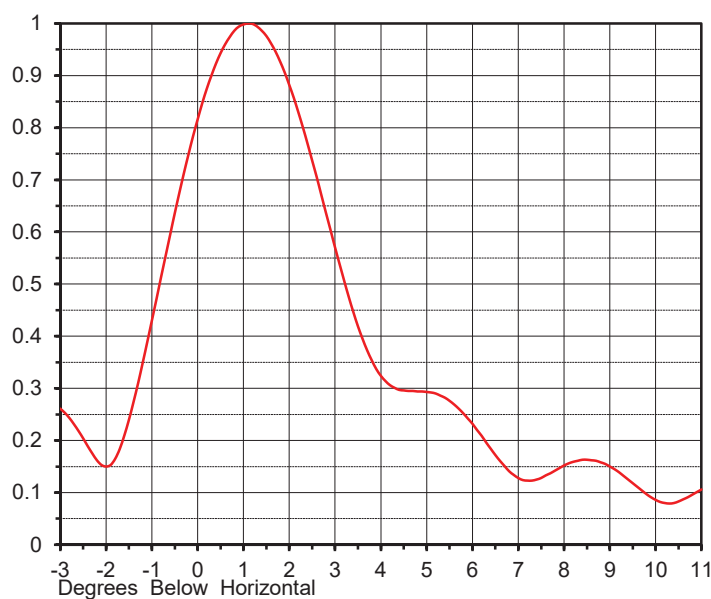
This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

ELEVATION PATTERN

Proposal No. **C-70349**
 Date **5-Mar-17**
 Call Letters **WPXJ**
 Channel **24**
 Frequency **533 MHz**
 Antenna Type **TFU-18ETT/VP-R P220 (SP)**

RMS Directivity at Main Lobe **17.6 (12.46 dB)**
 RMS Directivity at Horizontal **11.7 (10.68 dB)**
Calculated

Beam Tilt **1.00 deg**
 Drawing Number **18E176100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.987	10.0	0.086	30.0	0.051	50.0	0.047	70.0	0.032
-9.0	0.093	11.0	0.106	31.0	0.010	51.0	0.043	71.0	0.028
-8.0	0.066	12.0	0.122	32.0	0.048	52.0	0.026	72.0	0.023
-7.0	0.160	13.0	0.067	33.0	0.063	53.0	0.012	73.0	0.017
-6.0	0.149	14.0	0.065	34.0	0.041	54.0	0.029	74.0	0.012
-5.0	0.096	15.0	0.103	35.0	0.011	55.0	0.042	75.0	0.011
-4.0	0.227	16.0	0.073	36.0	0.048	56.0	0.044	76.0	0.012
-3.0	0.261	17.0	0.037	37.0	0.060	57.0	0.034	77.0	0.014
-2.0	0.150	18.0	0.084	38.0	0.039	58.0	0.019	78.0	0.016
-1.0	0.430	19.0	0.080	39.0	0.009	59.0	0.014	79.0	0.016
0.0	0.816	20.0	0.027	40.0	0.040	60.0	0.027	80.0	0.016
1.0	0.998	21.0	0.057	41.0	0.055	61.0	0.036	81.0	0.015
2.0	0.882	22.0	0.081	42.0	0.042	62.0	0.039	82.0	0.013
3.0	0.570	23.0	0.048	43.0	0.013	63.0	0.034	83.0	0.011
4.0	0.324	24.0	0.026	44.0	0.029	64.0	0.025	84.0	0.008
5.0	0.293	25.0	0.069	45.0	0.050	65.0	0.017	85.0	0.006
6.0	0.232	26.0	0.066	46.0	0.049	66.0	0.018	86.0	0.004
7.0	0.128	27.0	0.021	47.0	0.029	67.0	0.024	87.0	0.002
8.0	0.152	28.0	0.042	48.0	0.011	68.0	0.030	88.0	0.001
9.0	0.150	29.0	0.069	49.0	0.033	69.0	0.033	89.0	0.000
								90.0	0.000

disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.