

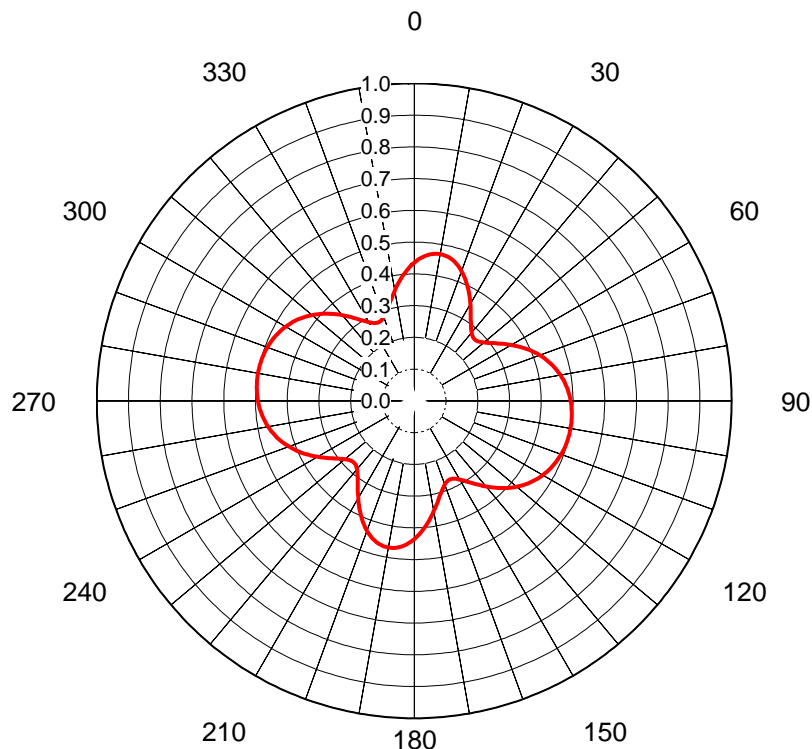
AZIMUTH PATTERN Horizontal Polarization

In Free Space

Proposal No. **C-71567-**
Date **7-Aug-20**
Call Letters **WRGB**
Channel **35**
Frequency **599 MHz**
Antenna Type **TFU-25JSC/VP-R P220**
Gain **2.23 (3.48dB)**
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.961	36	0.761	72	0.449	108	0.566	144	0.470	180	0.961	216	0.761	252	0.449	288	0.566
1	0.968	37	0.745	73	0.454	109	0.562	145	0.480	181	0.968	217	0.745	253	0.454	289	0.562
2	0.975	38	0.729	74	0.460	110	0.558	146	0.490	182	0.975	218	0.729	254	0.460	290	0.558
3	0.980	39	0.713	75	0.466	111	0.553	147	0.502	183	0.980	219	0.713	255	0.466	291	0.553
4	0.986	40	0.697	76	0.473	112	0.548	148	0.514	184	0.986	220	0.697	256	0.473	292	0.548
5	0.990	41	0.680	77	0.479	113	0.543	149	0.527	185	0.990	221	0.680	257	0.479	293	0.543
6	0.994	42	0.664	78	0.486	114	0.537	150	0.540	186	0.994	222	0.664	258	0.486	294	0.537
7	0.996	43	0.648	79	0.493	115	0.532	151	0.555	187	0.996	223	0.648	259	0.493	295	0.532
8	0.998	44	0.631	80	0.499	116	0.525	152	0.569	188	0.998	224	0.631	260	0.499	296	0.525
9	1.000	45	0.615	81	0.506	117	0.519	153	0.584	189	1.000	225	0.615	261	0.506	297	0.519
10	1.000	46	0.600	82	0.513	118	0.513	154	0.600	190	1.000	226	0.600	262	0.513	298	0.513
11	1.000	47	0.584	83	0.519	119	0.506	155	0.615	191	1.000	227	0.584	263	0.519	299	0.506
12	0.998	48	0.569	84	0.525	120	0.499	156	0.631	192	0.998	228	0.569	264	0.525	300	0.499
13	0.996	49	0.555	85	0.532	121	0.493	157	0.648	193	0.996	229	0.555	265	0.532	301	0.493
14	0.994	50	0.540	86	0.537	122	0.486	158	0.664	194	0.994	230	0.540	266	0.537	302	0.486
15	0.990	51	0.527	87	0.543	123	0.479	159	0.680	195	0.990	231	0.527	267	0.543	303	0.479
16	0.986	52	0.514	88	0.548	124	0.473	160	0.697	196	0.986	232	0.514	268	0.548	304	0.473
17	0.980	53	0.502	89	0.553	125	0.466	161	0.713	197	0.980	233	0.502	269	0.553	305	0.466
18	0.975	54	0.490	90	0.558	126	0.460	162	0.729	198	0.975	234	0.490	270	0.558	306	0.460
19	0.968	55	0.480	91	0.562	127	0.454	163	0.745	199	0.968	235	0.480	271	0.562	307	0.454
20	0.961	56	0.470	92	0.566	128	0.449	164	0.761	200	0.961	236	0.470	272	0.566	308	0.449
21	0.952	57	0.461	93	0.569	129	0.444	165	0.777	201	0.952	237	0.461	273	0.569	309	0.444
22	0.944	58	0.454	94	0.572	130	0.440	166	0.793	202	0.944	238	0.454	274	0.572	310	0.440
23	0.934	59	0.447	95	0.574	131	0.436	167	0.808	203	0.934	239	0.447	275	0.574	311	0.436
24	0.924	60	0.441	96	0.576	132	0.433	168	0.823	204	0.924	240	0.441	276	0.576	312	0.433
25	0.913	61	0.437	97	0.578	133	0.431	169	0.837	205	0.913	241	0.437	277	0.578	313	0.431
26	0.902	62	0.433	98	0.579	134	0.429	170	0.851	206	0.902	242	0.433	278	0.579	314	0.429
27	0.890	63	0.431	99	0.580	135	0.429	171	0.864	207	0.890	243	0.431	279	0.580	315	0.429
28	0.877	64	0.429	100	0.580	136	0.429	172	0.877	208	0.877	244	0.429	280	0.580	316	0.429
29	0.864	65	0.429	101	0.580	137	0.431	173	0.890	209	0.864	245	0.429	281	0.580	317	0.431
30	0.851	66	0.429	102	0.579	138	0.433	174	0.902	210	0.851	246	0.429	282	0.579	318	0.433
31	0.837	67	0.431	103	0.578	139	0.437	175	0.913	211	0.837	247	0.431	283	0.578	319	0.437
32	0.823	68	0.433	104	0.576	140	0.441	176	0.924	212	0.823	248	0.433	284	0.576	320	0.441
33	0.808	69	0.436	105	0.574	141	0.447	177	0.934	213	0.808	249	0.436	285	0.574	321	0.447
34	0.793	70	0.440	106	0.572	142	0.454	178	0.944	214	0.793	250	0.440	286	0.572	322	0.454
35	0.777	71	0.444	107	0.569	143	0.461	179	0.952	215	0.777	251	0.444	287	0.569	323	0.461

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

In Free Space

Proposal No. **C-71567-**
Date **7-Aug-20**
Call Letters **WRGB**
Channel **35**
Frequency **599 MHz**
Antenna Type **TFU-25JSC/VP-R P220**
Gain **1.53 (1.84dB)**
Calculated

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.435	36	0.303	72	0.432	108	0.495	144	0.323	180	0.435	216	0.303	252	0.432	288	0.495
1	0.442	37	0.297	73	0.437	109	0.494	145	0.316	181	0.442	217	0.297	253	0.437	289	0.494
2	0.447	38	0.290	74	0.442	110	0.493	146	0.309	182	0.447	218	0.290	254	0.442	290	0.493
3	0.452	39	0.285	75	0.447	111	0.491	147	0.303	183	0.452	219	0.285	255	0.447	291	0.491
4	0.457	40	0.281	76	0.452	112	0.489	148	0.297	184	0.457	220	0.281	256	0.452	292	0.489
5	0.461	41	0.277	77	0.456	113	0.487	149	0.291	185	0.461	221	0.277	257	0.456	293	0.487
6	0.464	42	0.274	78	0.460	114	0.485	150	0.286	186	0.464	222	0.274	258	0.460	294	0.485
7	0.466	43	0.273	79	0.464	115	0.483	151	0.282	187	0.466	223	0.273	259	0.464	295	0.483
8	0.468	44	0.272	80	0.468	116	0.480	152	0.278	188	0.468	224	0.272	260	0.468	296	0.480
9	0.469	45	0.272	81	0.471	117	0.477	153	0.275	189	0.469	225	0.272	261	0.471	297	0.477
10	0.469	46	0.273	82	0.474	118	0.474	154	0.273	190	0.469	226	0.273	262	0.474	298	0.474
11	0.469	47	0.275	83	0.477	119	0.471	155	0.272	191	0.469	227	0.275	263	0.477	299	0.471
12	0.468	48	0.278	84	0.480	120	0.468	156	0.272	192	0.468	228	0.278	264	0.480	300	0.468
13	0.466	49	0.282	85	0.483	121	0.464	157	0.273	193	0.466	229	0.282	265	0.483	301	0.464
14	0.464	50	0.286	86	0.485	122	0.460	158	0.274	194	0.464	230	0.286	266	0.485	302	0.460
15	0.461	51	0.291	87	0.487	123	0.456	159	0.277	195	0.461	231	0.291	267	0.487	303	0.456
16	0.457	52	0.297	88	0.489	124	0.452	160	0.281	196	0.457	232	0.297	268	0.489	304	0.452
17	0.452	53	0.303	89	0.491	125	0.447	161	0.285	197	0.452	233	0.303	269	0.491	305	0.447
18	0.447	54	0.309	90	0.493	126	0.442	162	0.291	198	0.447	234	0.309	270	0.493	306	0.442
19	0.442	55	0.316	91	0.494	127	0.437	163	0.297	199	0.442	235	0.316	271	0.494	307	0.437
20	0.435	56	0.323	92	0.495	128	0.432	164	0.303	200	0.435	236	0.323	272	0.495	308	0.432
21	0.429	57	0.330	93	0.496	129	0.426	165	0.311	201	0.429	237	0.330	273	0.496	309	0.426
22	0.422	58	0.337	94	0.497	130	0.421	166	0.319	202	0.422	238	0.337	274	0.497	310	0.421
23	0.414	59	0.345	95	0.498	131	0.415	167	0.327	203	0.414	239	0.345	275	0.498	311	0.415
24	0.406	60	0.352	96	0.499	132	0.408	168	0.335	204	0.406	240	0.352	276	0.499	312	0.408
25	0.398	61	0.360	97	0.499	133	0.402	169	0.344	205	0.398	241	0.360	277	0.499	313	0.402
26	0.389	62	0.367	98	0.500	134	0.395	170	0.353	206	0.389	242	0.367	278	0.500	314	0.395
27	0.380	63	0.374	99	0.500	135	0.388	171	0.362	207	0.380	243	0.374	279	0.500	315	0.388
28	0.371	64	0.381	100	0.500	136	0.381	172	0.371	208	0.371	244	0.381	280	0.500	316	0.381
29	0.362	65	0.388	101	0.500	137	0.374	173	0.380	209	0.362	245	0.388	281	0.500	317	0.374
30	0.353	66	0.395	102	0.500	138	0.367	174	0.389	210	0.353	246	0.395	282	0.500	318	0.367
31	0.344	67	0.402	103	0.499	139	0.360	175	0.398	211	0.344	247	0.402	283	0.499	319	0.360
32	0.335	68	0.408	104	0.499	140	0.352	176	0.406	212	0.335	248	0.408	284	0.499	320	0.352
33	0.327	69	0.415	105	0.498	141	0.345	177	0.414	213	0.327	249	0.415	285	0.498	321	0.345
34	0.319	70	0.421	106	0.497	142	0.337	178	0.422	214	0.319	250	0.421	286	0.497	322	0.337
35	0.311	71	0.426	107	0.496	143	0.330	179	0.429	215	0.311	251	0.426	287	0.496	323	0.330

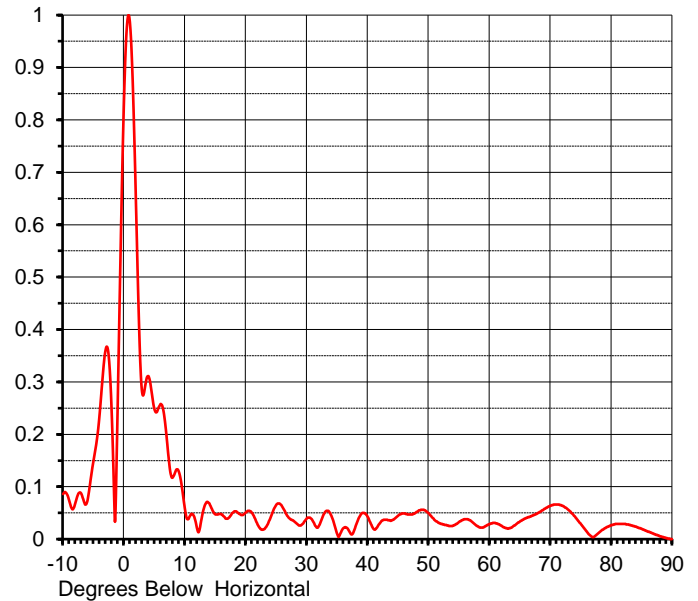
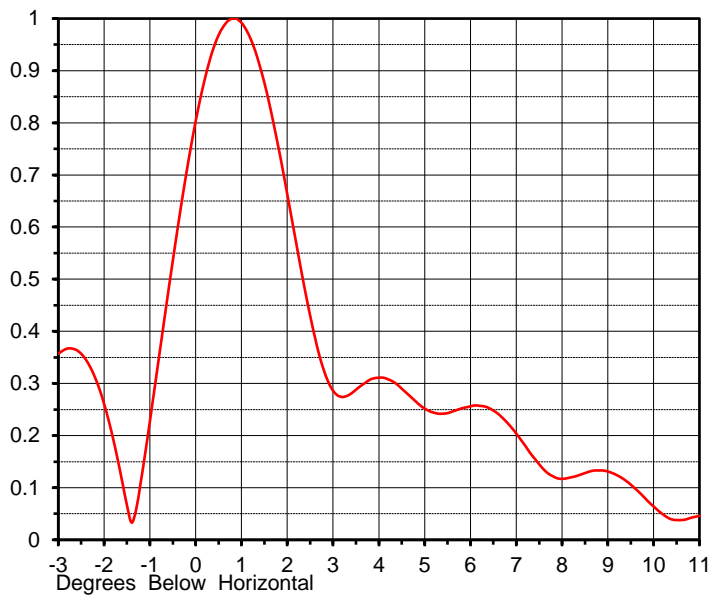
This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

ELEVATION PATTERN

Proposal No. **C-71567-**
 Date **7-Aug-20**
 Call Letters **WRGB**
 Channel **35**
 Frequency **599 MHz**
 Antenna Type **TFU-25JSC/VP-R P220**

RMS Directivity at Main Lobe **22.0 (13.42 dB)**
 RMS Directivity at Horizontal **15.7 (11.96 dB)**
Calculated

Beam Tilt **0.75 deg**
 Pattern Number **25J220075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.086	10.0	0.056	30.0	0.040	50.0	0.049	70.0	0.064
-9.0	0.073	11.0	0.048	31.0	0.034	51.0	0.036	71.0	0.066
-8.0	0.069	12.0	0.019	32.0	0.026	52.0	0.029	72.0	0.063
-7.0	0.086	13.0	0.055	33.0	0.052	53.0	0.026	73.0	0.055
-6.0	0.074	14.0	0.068	34.0	0.045	54.0	0.026	74.0	0.043
-5.0	0.151	15.0	0.047	35.0	0.009	55.0	0.033	75.0	0.028
-4.0	0.241	16.0	0.047	36.0	0.021	56.0	0.038	76.0	0.013
-3.0	0.363	17.0	0.039	37.0	0.014	57.0	0.034	77.0	0.004
-2.0	0.229	18.0	0.052	38.0	0.025	58.0	0.025	78.0	0.013
-1.0	0.289	19.0	0.048	39.0	0.049	59.0	0.023	79.0	0.021
0.0	0.846	20.0	0.051	40.0	0.042	60.0	0.029	80.0	0.027
1.0	0.979	21.0	0.050	41.0	0.019	61.0	0.030	81.0	0.029
2.0	0.615	22.0	0.026	42.0	0.031	62.0	0.025	82.0	0.029
3.0	0.277	23.0	0.019	43.0	0.037	63.0	0.020	83.0	0.027
4.0	0.311	24.0	0.040	44.0	0.036	64.0	0.026	84.0	0.024
5.0	0.247	25.0	0.066	45.0	0.045	65.0	0.034	85.0	0.019
6.0	0.258	26.0	0.061	46.0	0.049	66.0	0.040	86.0	0.014
7.0	0.192	27.0	0.041	47.0	0.047	67.0	0.045	87.0	0.010
8.0	0.118	28.0	0.033	48.0	0.052	68.0	0.050	88.0	0.005
9.0	0.128	29.0	0.026	49.0	0.056	69.0	0.058	89.0	0.002
								90.0	0.000

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.