

## AZIMUTH PATTERN Horizontal Polarization

Proposal No. **C-70061-9**  
 Date **12-Feb-18**  
 Call Letters **WPSG**  
 Channel **33**  
 Frequency **587 MHz**  
 Antenna Type **TFU-24ETT/VP-R 4C150**  
 Gain **1.51 (1.8dB)**  
 Calculated

TFU-4C150-CH33

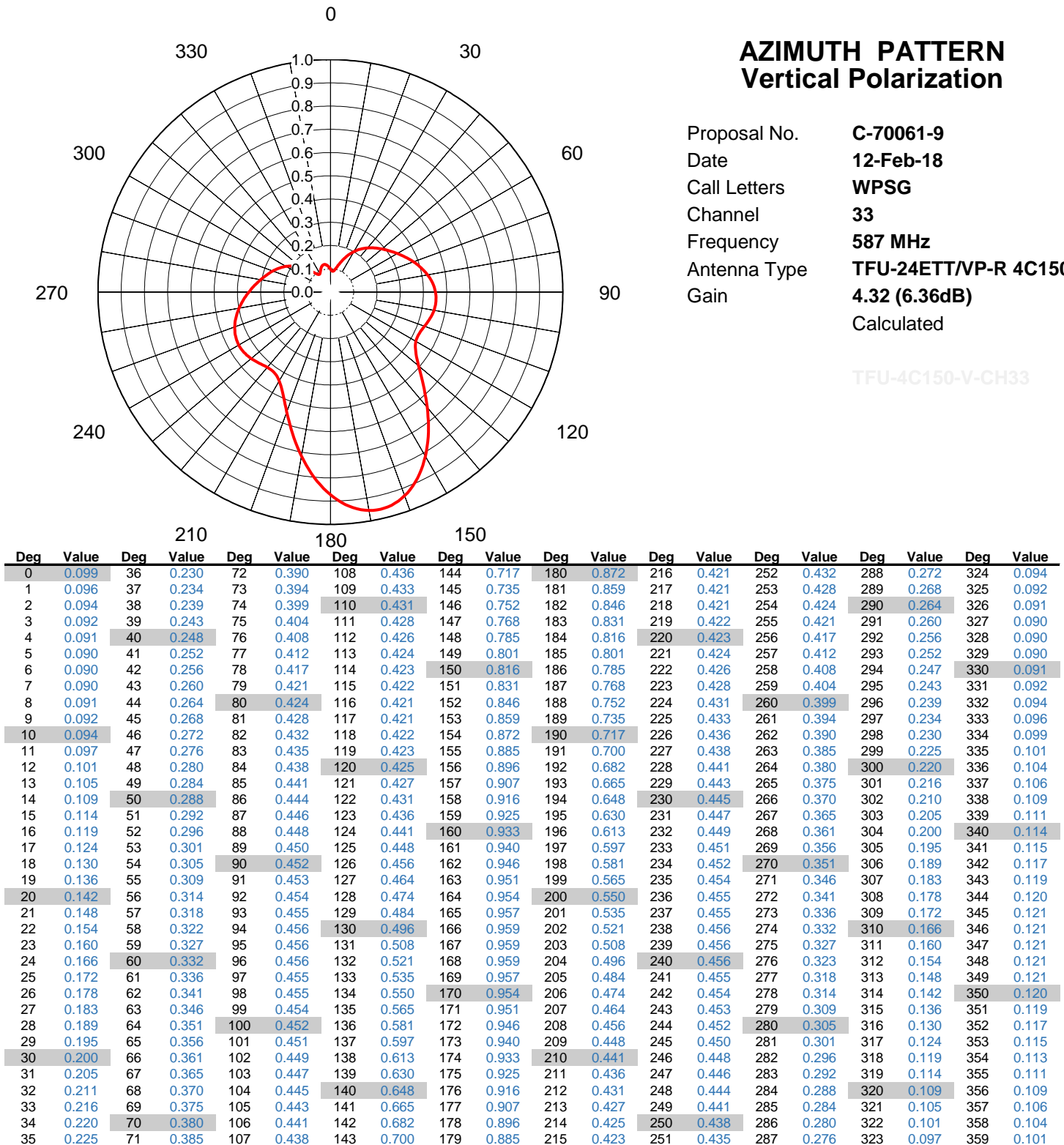
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.302	36	0.806	72	0.886	108	0.949	144	0.851	180	0.904	216	1.000	252	0.843	288	0.851
1	0.314	37	0.812	73	0.883	109	0.958	145	0.851	181	0.895	217	0.999	253	0.847	289	0.848
2	0.327	38	0.818	74	0.880	110	0.965	146	0.854	182	0.888	218	0.997	254	0.852	290	0.844
3	0.340	39	0.823	75	0.876	111	0.973	147	0.857	183	0.880	219	0.994	255	0.857	291	0.840
4	0.355	40	0.828	76	0.871	112	0.979	148	0.862	184	0.873	220	0.990	256	0.862	292	0.836
5	0.369	41	0.832	77	0.867	113	0.986	149	0.867	185	0.867	221	0.986	257	0.867	293	0.832
6	0.385	42	0.836	78	0.862	114	0.990	150	0.873	186	0.862	222	0.979	258	0.871	294	0.828
7	0.401	43	0.840	79	0.857	115	0.994	151	0.880	187	0.857	223	0.973	259	0.876	295	0.823
8	0.418	44	0.844	80	0.852	116	0.997	152	0.888	188	0.854	224	0.965	260	0.880	296	0.818
9	0.435	45	0.848	81	0.847	117	0.999	153	0.895	189	0.851	225	0.958	261	0.883	297	0.812
10	0.453	46	0.851	82	0.843	118	1.000	154	0.904	190	0.851	226	0.949	262	0.886	298	0.806
11	0.470	47	0.854	83	0.838	119	1.000	155	0.912	191	0.851	227	0.940	263	0.889	299	0.800
12	0.488	48	0.857	84	0.834	120	0.998	156	0.920	192	0.853	228	0.930	264	0.892	300	0.793
13	0.506	49	0.861	85	0.831	121	0.996	157	0.928	193	0.854	229	0.921	265	0.894	301	0.785
14	0.524	50	0.864	86	0.828	122	0.993	158	0.935	194	0.859	230	0.911	266	0.895	302	0.777
15	0.542	51	0.867	87	0.825	123	0.989	159	0.943	195	0.863	231	0.901	267	0.896	303	0.768
16	0.560	52	0.870	88	0.824	124	0.983	160	0.949	196	0.869	232	0.891	268	0.896	304	0.758
17	0.577	53	0.873	89	0.822	125	0.977	161	0.956	197	0.876	233	0.882	269	0.896	305	0.748
18	0.594	54	0.876	90	0.823	126	0.970	162	0.961	198	0.884	234	0.873	270	0.896	306	0.737
19	0.611	55	0.879	91	0.823	127	0.963	163	0.965	199	0.891	235	0.864	271	0.895	307	0.726
20	0.627	56	0.881	92	0.826	128	0.954	164	0.968	200	0.900	236	0.856	272	0.894	308	0.714
21	0.643	57	0.884	93	0.828	129	0.946	165	0.971	201	0.909	237	0.849	273	0.893	309	0.701
22	0.658	58	0.886	94	0.832	130	0.937	166	0.972	202	0.918	238	0.843	274	0.891	310	0.687
23	0.673	59	0.889	95	0.837	131	0.928	167	0.973	203	0.928	239	0.837	275	0.889	311	0.673
24	0.687	60	0.891	96	0.843	132	0.918	168	0.972	204	0.937	240	0.832	276	0.886	312	0.658
25	0.701	61	0.893	97	0.849	133	0.909	169	0.971	205	0.946	241	0.828	277	0.884	313	0.643
26	0.714	62	0.894	98	0.856	134	0.900	170	0.968	206	0.954	242	0.826	278	0.881	314	0.627
27	0.726	63	0.895	99	0.864	135	0.891	171	0.965	207	0.963	243	0.823	279	0.878	315	0.611
28	0.737	64	0.896	100	0.873	136	0.884	172	0.961	208	0.970	244	0.823	280	0.876	316	0.594
29	0.749	65	0.896	101	0.882	137	0.876	173	0.956	209	0.977	245	0.822	281	0.873	317	0.577
30	0.758	66	0.896	102	0.891	138	0.869	174	0.949	210	0.983	246	0.824	282	0.870	318	0.560
31	0.768	67	0.896	103	0.901	139	0.863	175	0.943	211	0.989	247	0.825	283	0.867	319	0.542
32	0.777	68	0.895	104	0.911	140	0.859	176	0.935	212	0.993	248	0.828	284	0.864	320	0.524
33	0.785	69	0.894	105	0.921	141	0.854	177	0.928	213	0.996	249	0.830	285	0.861	321	0.506
34	0.793	70	0.892	106	0.930	142	0.853	178	0.920	214	0.998	250	0.834	286	0.857	322	0.488
35	0.800	71	0.889	107	0.940	143	0.851	179	0.912	215	1.000	251	0.838	287	0.854	323	0.470

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## AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70061-9**  
 Date **12-Feb-18**  
 Call Letters **WPSG**  
 Channel **33**  
 Frequency **587 MHz**  
 Antenna Type **TFU-24ETT/VP-R 4C150**  
 Gain **4.32 (6.36dB)**  
 Calculated

TFU-4C150-V-CH33



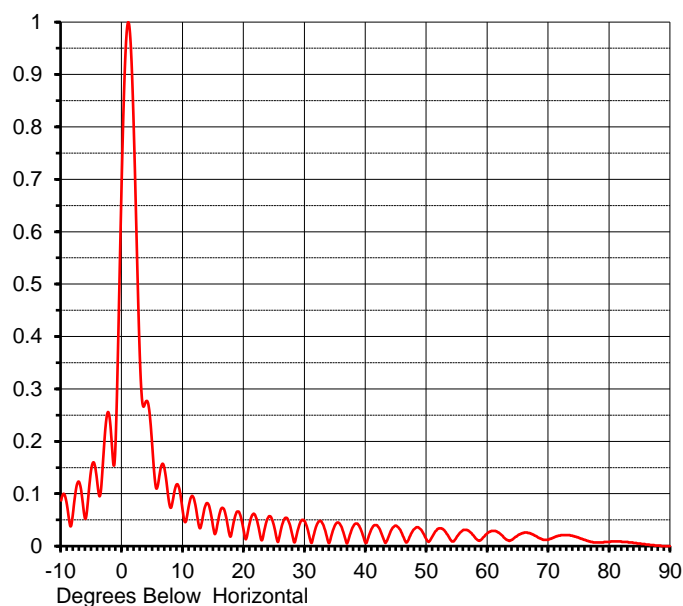
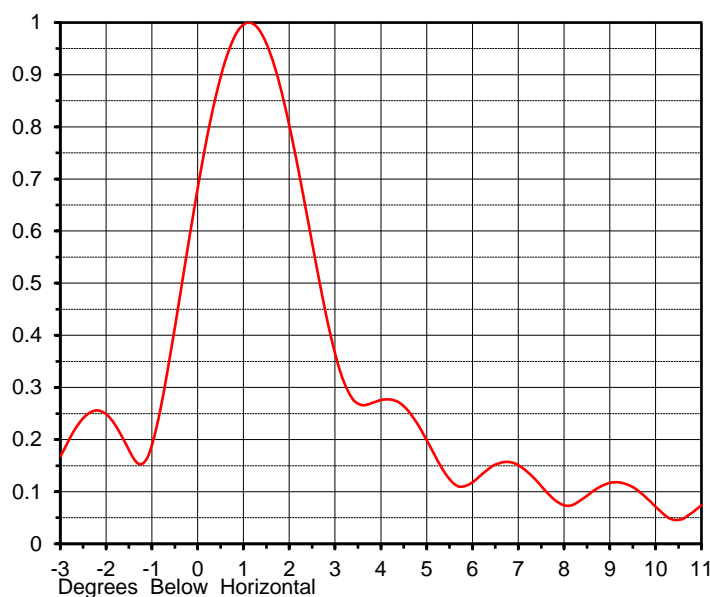
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## ELEVATION PATTERN

Proposal No. **C-70061-9**  
 Date **12-Feb-18**  
 Call Letters **WPSG**  
 Channel **33**  
 Frequency **587 MHz**  
 Antenna Type **TFU-24ETT/VP-R 4C150**

RMS Directivity at Main Lobe **24.2 ( 13.84 dB )**  
 RMS Directivity at Horizontal **12.9 ( 11.11 dB )**  
**Calculated**

Beam Tilt **1.00 deg**  
 Pattern Number **24E242100**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.087	10.0	0.063	30.0	0.047	50.0	0.012	70.0	0.013
-9.0	0.075	11.0	0.080	31.0	0.007	51.0	0.020	71.0	0.017
-8.0	0.069	12.0	0.080	32.0	0.042	52.0	0.034	72.0	0.021
-7.0	0.121	13.0	0.041	33.0	0.041	53.0	0.028	73.0	0.021
-6.0	0.052	14.0	0.082	34.0	0.006	54.0	0.011	74.0	0.019
-5.0	0.151	15.0	0.033	35.0	0.041	55.0	0.019	75.0	0.016
-4.0	0.114	16.0	0.062	36.0	0.037	56.0	0.031	76.0	0.012
-3.0	0.184	17.0	0.059	37.0	0.007	57.0	0.028	77.0	0.008
-2.0	0.240	18.0	0.027	38.0	0.039	58.0	0.015	78.0	0.007
-1.0	0.223	19.0	0.066	39.0	0.036	59.0	0.013	79.0	0.007
0.0	0.731	20.0	0.027	40.0	0.006	60.0	0.025	80.0	0.008
1.0	1.000	21.0	0.047	41.0	0.034	61.0	0.029	81.0	0.009
2.0	0.761	22.0	0.054	42.0	0.037	62.0	0.024	82.0	0.008
3.0	0.334	23.0	0.012	43.0	0.011	63.0	0.013	83.0	0.008
4.0	0.277	24.0	0.055	44.0	0.026	64.0	0.012	84.0	0.006
5.0	0.183	25.0	0.035	45.0	0.039	65.0	0.021	85.0	0.005
6.0	0.125	26.0	0.028	46.0	0.022	66.0	0.026	86.0	0.003
7.0	0.145	27.0	0.054	47.0	0.012	67.0	0.024	87.0	0.002
8.0	0.073	28.0	0.018	48.0	0.033	68.0	0.019	88.0	0.001
9.0	0.118	29.0	0.037	49.0	0.032	69.0	0.013	89.0	0.000
								90.0	0.000

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