

AZIMUTH PATTERN Horizontal Polarization

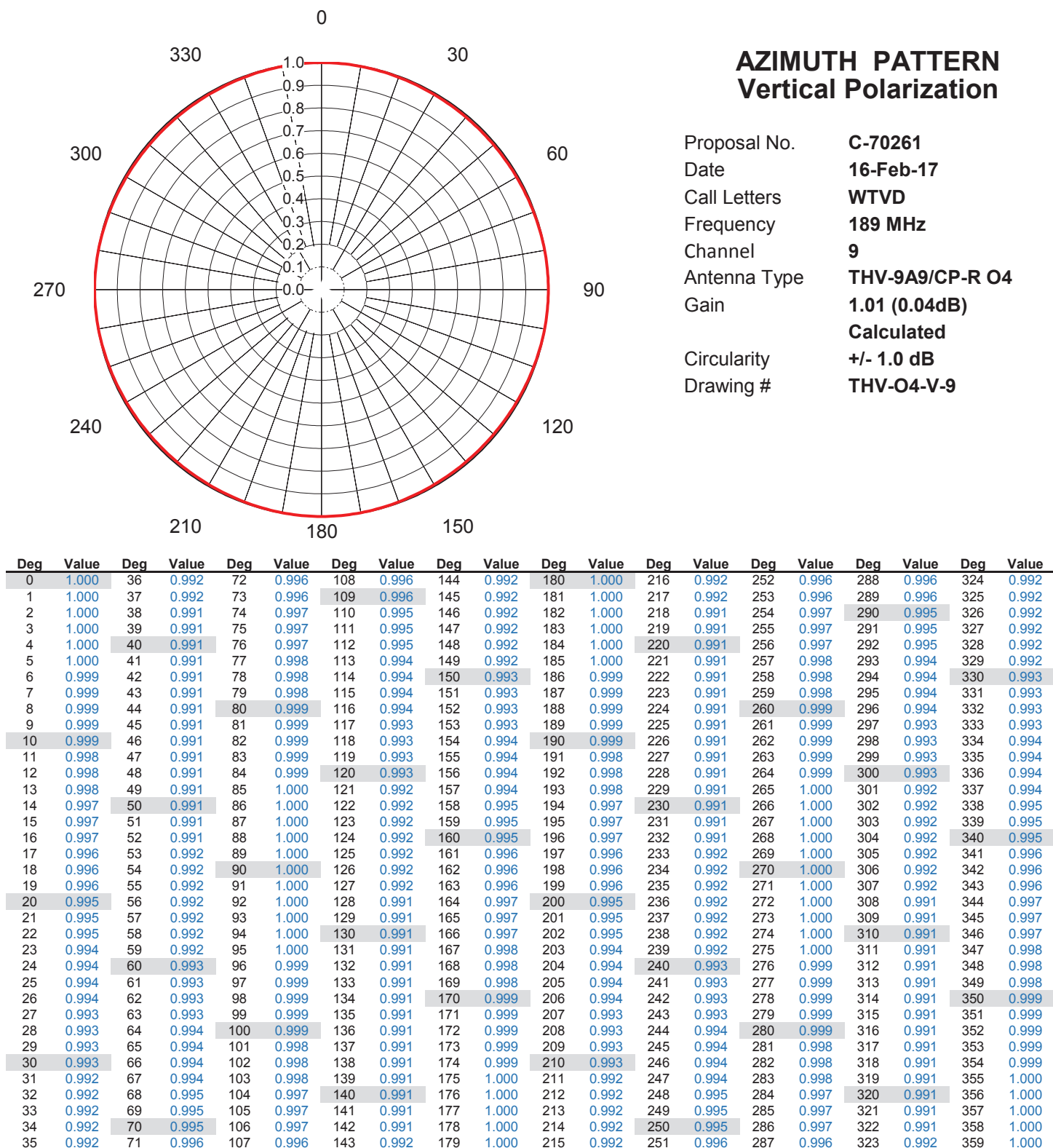
Proposal No. **C-70261**
 Date **16-Feb-17**
 Call Letters **WTVD**
 Frequency **189 MHz**
 Channel **9**
 Antenna Type **THV-9A9/CP-R O4**
 Gain **1.01 (0.05dB)**
Calculated
 Circularity **+/- 1.0 dB**
 Drawing # **THV-O4-H-9**

Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	1.000	36	0.989	72	0.996	108	0.996	144	0.989	180	1.000	216	0.989	252	0.996	288	0.996	324	0.989
1	1.000	37	0.989	73	0.996	109	0.995	145	0.989	181	1.000	217	0.989	253	0.996	289	0.995	325	0.989
2	1.000	38	0.988	74	0.997	110	0.995	146	0.989	182	1.000	218	0.988	254	0.997	290	0.995	326	0.989
3	1.000	39	0.988	75	0.997	111	0.994	147	0.990	183	1.000	219	0.988	255	0.997	291	0.994	327	0.990
4	1.000	40	0.988	76	0.997	112	0.994	148	0.990	184	1.000	220	0.988	256	0.997	292	0.994	328	0.990
5	1.000	41	0.988	77	0.998	113	0.994	149	0.990	185	1.000	221	0.988	257	0.998	293	0.994	329	0.990
6	0.999	42	0.988	78	0.998	114	0.993	150	0.991	186	0.999	222	0.988	258	0.998	294	0.993	330	0.991
7	0.999	43	0.988	79	0.998	115	0.993	151	0.991	187	0.999	223	0.988	259	0.998	295	0.993	331	0.991
8	0.999	44	0.988	80	0.999	116	0.992	152	0.992	188	0.999	224	0.988	260	0.999	296	0.992	332	0.992
9	0.999	45	0.988	81	0.999	117	0.992	153	0.992	189	0.999	225	0.988	261	0.999	297	0.992	333	0.992
10	0.999	46	0.988	82	0.999	118	0.992	154	0.992	190	0.999	226	0.988	262	0.999	298	0.992	334	0.992
11	0.998	47	0.988	83	0.999	119	0.991	155	0.993	191	0.998	227	0.988	263	0.999	299	0.991	335	0.993
12	0.998	48	0.988	84	0.999	120	0.991	156	0.993	192	0.998	228	0.988	264	0.999	300	0.991	336	0.993
13	0.998	49	0.988	85	1.000	121	0.990	157	0.994	193	0.998	229	0.988	265	1.000	301	0.990	337	0.994
14	0.997	50	0.988	86	1.000	122	0.990	158	0.994	194	0.997	230	0.988	266	1.000	302	0.990	338	0.994
15	0.997	51	0.988	87	1.000	123	0.990	159	0.994	195	0.997	231	0.988	267	1.000	303	0.990	339	0.994
16	0.997	52	0.988	88	1.000	124	0.989	160	0.995	196	0.997	232	0.988	268	1.000	304	0.989	340	0.995
17	0.996	53	0.989	89	1.000	125	0.989	161	0.995	197	0.996	233	0.989	269	1.000	305	0.989	341	0.995
18	0.996	54	0.989	90	1.000	126	0.989	162	0.996	198	0.996	234	0.989	270	1.000	306	0.989	342	0.996
19	0.995	55	0.989	91	1.000	127	0.989	163	0.996	199	0.995	235	0.989	271	1.000	307	0.989	343	0.996
20	0.995	56	0.989	92	1.000	128	0.988	164	0.997	200	0.995	236	0.989	272	1.000	308	0.988	344	0.997
21	0.994	57	0.990	93	1.000	129	0.988	165	0.997	201	0.994	237	0.990	273	1.000	309	0.988	345	0.997
22	0.994	58	0.990	94	1.000	130	0.988	166	0.997	202	0.994	238	0.990	274	1.000	310	0.988	346	0.997
23	0.994	59	0.990	95	1.000	131	0.988	167	0.998	203	0.994	239	0.990	275	1.000	311	0.988	347	0.998
24	0.993	60	0.991	96	0.999	132	0.988	168	0.998	204	0.993	240	0.991	276	0.999	312	0.988	348	0.998
25	0.993	61	0.991	97	0.999	133	0.988	169	0.998	205	0.993	241	0.991	277	0.999	313	0.988	349	0.998
26	0.992	62	0.992	98	0.999	134	0.988	170	0.999	206	0.992	242	0.992	278	0.999	314	0.988	350	0.999
27	0.992	63	0.992	99	0.999	135	0.988	171	0.999	207	0.992	243	0.992	279	0.999	315	0.988	351	0.999
28	0.992	64	0.992	100	0.999	136	0.988	172	0.999	208	0.992	244	0.992	280	0.999	316	0.988	352	0.999
29	0.991	65	0.993	101	0.998	137	0.988	173	0.999	209	0.991	245	0.993	281	0.998	317	0.988	353	0.999
30	0.991	66	0.993	102	0.998	138	0.988	174	0.999	210	0.991	246	0.993	282	0.998	318	0.988	354	0.999
31	0.990	67	0.994	103	0.998	139	0.988	175	1.000	211	0.990	247	0.994	283	0.998	319	0.988	355	1.000
32	0.990	68	0.994	104	0.997	140	0.988	176	1.000	212	0.990	248	0.994	284	0.997	320	0.988	356	1.000
33	0.990	69	0.994	105	0.997	141	0.988	177	1.000	213	0.990	249	0.994	285	0.997	321	0.988	357	1.000
34	0.989	70	0.995	106	0.997	142	0.988	178	1.000	214	0.989	250	0.995	286	0.997	322	0.988	358	1.000
35	0.989	71	0.995	107	0.996	143	0.989	179	1.000	215	0.989	251	0.995	287	0.996	323	0.989	359	1.000

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AZIMUTH PATTERN Vertical Polarization

Proposal No. **C-70261**
 Date **16-Feb-17**
 Call Letters **WTVD**
 Frequency **189 MHz**
 Channel **9**
 Antenna Type **THV-9A9/CP-R O4**
 Gain **1.01 (0.04dB)**
 Calculated
 Circularity **+/- 1.0 dB**
 Drawing # **THV-O4-V-9**



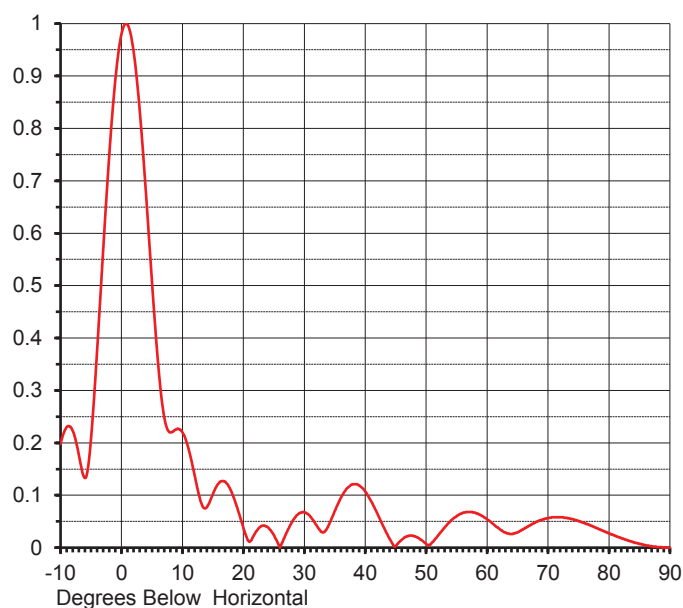
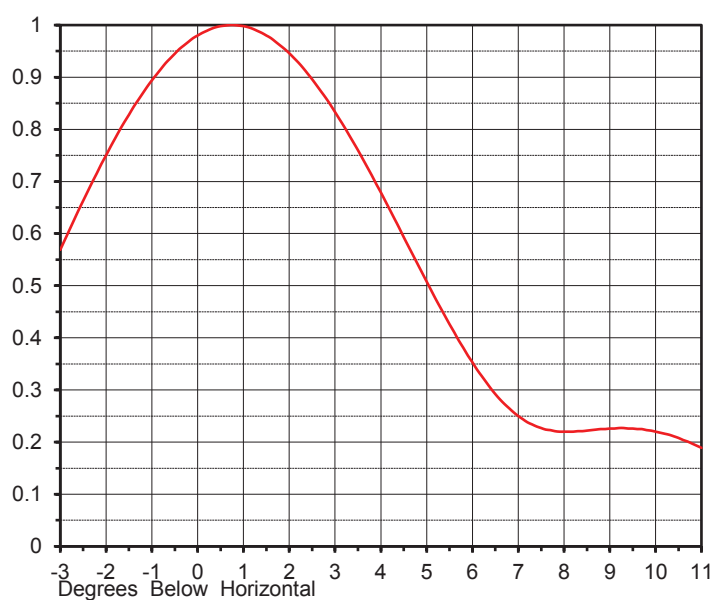
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ELEVATION PATTERN

Proposal No. **C-70261**
 Date **16-Feb-17**
 Call Letters **WTVD**
 Frequency **189 MHz**
 Channel **9**
 Antenna Type **THV-9A9/CP-R O4**

RMS Directivity at Main Lobe **9.00 (9.54 dB)**
 RMS Directivity at Horizontal **8.60 (9.34 dB)**
Calculated

Beam Tilt **0.75 deg**
 Drawing Number **09v090075**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.198	10.0	0.220	30.0	0.067	50.0	0.007	70.0	0.056
-9.0	0.230	11.0	0.189	31.0	0.059	51.0	0.010	71.0	0.058
-8.0	0.223	12.0	0.138	32.0	0.043	52.0	0.024	72.0	0.058
-7.0	0.177	13.0	0.088	33.0	0.029	53.0	0.038	73.0	0.057
-6.0	0.133	14.0	0.077	34.0	0.043	54.0	0.051	74.0	0.054
-5.0	0.208	15.0	0.102	35.0	0.070	55.0	0.060	75.0	0.051
-4.0	0.377	16.0	0.123	36.0	0.095	56.0	0.066	76.0	0.047
-3.0	0.569	17.0	0.126	37.0	0.113	57.0	0.068	77.0	0.042
-2.0	0.750	18.0	0.108	38.0	0.121	58.0	0.067	78.0	0.037
-1.0	0.894	19.0	0.076	39.0	0.119	59.0	0.062	79.0	0.032
0.0	0.980	20.0	0.038	40.0	0.107	60.0	0.054	80.0	0.027
1.0	0.998	21.0	0.011	41.0	0.088	61.0	0.045	81.0	0.023
2.0	0.946	22.0	0.029	42.0	0.065	62.0	0.036	82.0	0.018
3.0	0.833	23.0	0.041	43.0	0.040	63.0	0.029	83.0	0.014
4.0	0.679	24.0	0.039	44.0	0.017	64.0	0.026	84.0	0.010
5.0	0.508	25.0	0.024	45.0	0.003	65.0	0.029	85.0	0.007
6.0	0.353	26.0	0.000	46.0	0.015	66.0	0.036	86.0	0.005
7.0	0.250	27.0	0.026	47.0	0.022	67.0	0.042	87.0	0.003
8.0	0.220	28.0	0.049	48.0	0.022	68.0	0.049	88.0	0.001
9.0	0.226	29.0	0.064	49.0	0.016	69.0	0.053	89.0	0.000
								90.0	0.000

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