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**WHYY INCORPORATED**

**PHILADELPHIA, PA**

**PERMITTEE OF WHYY-DT CHANNEL 12**

**WILMINGTON, DELAWARE**

**FCC Facility ID #72338**

**FCC FILE No. BMPEDT-20080208ABY**

**APPLICATION FOR A FURTHER MODIFICATION OF  
CONSTRUCTION PERMIT TO INCREASE ERP AND CHANGE  
DIRECTIONAL ANTENNA**

**ENGINEERING EXHIBIT 34**

**June 1, 2008**

**WHYY INCORPORATED**

**PERMITTEE OF WHYY-DT CHANNEL 12**

**APPLICATION FOR A FURTHER MODIFICATION OF CP TO INCREASE  
ERP AND CHANGE DIRECTIONAL ANTENNA**

**FCC FILE No. BMPEDT-20080208ABY**

**ENGINEERING EXHIBIT 34**

This application is for a further modification of a Construction permit for WHYY-DT to increase ERP and change directional antenna.

The post transition operation of WHYY-DT will be on Channel 12 from the currently utilized Channel 12 analog site and with 20 kW directional and with horizontal polarization. The proposed pattern data is included herein and includes tabulations of the azimuth and elevation patterns along with azimuth and elevation plots.



Proposal Number

Revision

Date

**01 May 2008**

Call Letters

**WHYY**

Channel

**12**

Location

Customer

Antenna Type

**THV-11A12-R C150****ELEVATION PATTERN**

RMS Gain at Main Lobe

**11.0 (10.41 dB)**

Beam Tilt

**0.75 Degrees**

RMS Gain at Horizontal

**10.3 (10.13 dB)**

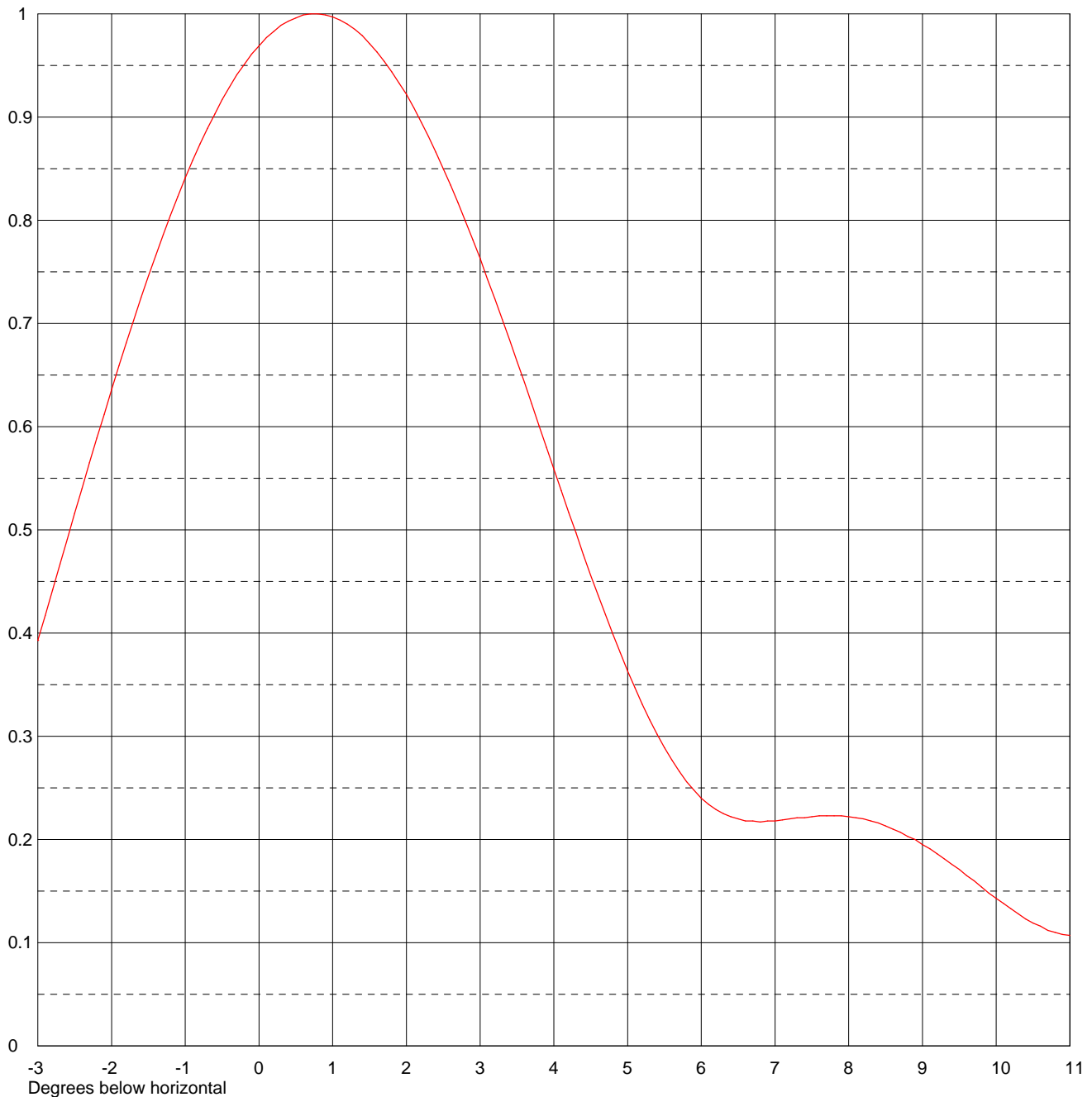
Frequency

**207.00 MHz**

Calculated / Measured

**Calculated**

Drawing #

**11V110075**

Remarks:



Proposal Number

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**01 May 2008**

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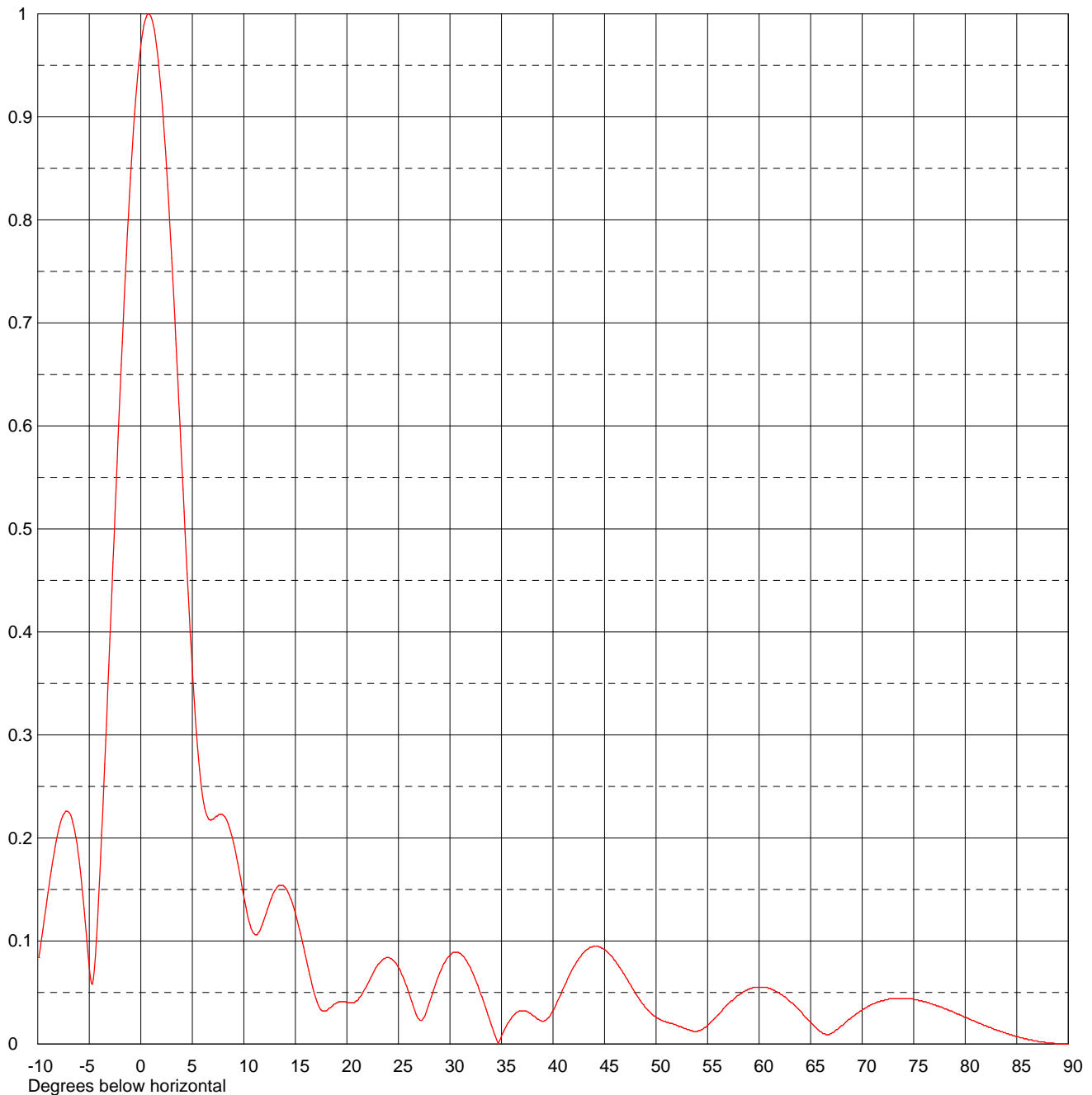
Frequency

**207.00 MHz**

Calculated / Measured

**Calculated**

Drawing #

**11V110075-90**

Remarks:



Proposal Number

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**01 May 2008**

Call Letters

**WHYY**

Channel

**12**

Location

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Antenna Type

**THV-11A12-R C150**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #

**11V110075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.077	2.4	0.866	10.6	0.116	30.5	0.089	51.0	0.021	71.5	0.041
-9.5	0.111	2.6	0.834	10.8	0.110	31.0	0.088	51.5	0.020	72.0	0.042
-9.0	0.147	2.8	0.799	11.0	0.107	31.5	0.082	52.0	0.018	72.5	0.043
-8.5	0.180	3.0	0.763	11.5	0.109	32.0	0.074	52.5	0.016	73.0	0.044
-8.0	0.207	3.2	0.724	12.0	0.122	32.5	0.062	53.0	0.014	73.5	0.044
-7.5	0.223	3.4	0.684	12.5	0.137	33.0	0.048	53.5	0.013	74.0	0.044
-7.0	0.225	3.6	0.643	13.0	0.149	33.5	0.034	54.0	0.012	74.5	0.044
-6.5	0.211	3.8	0.601	13.5	0.154	34.0	0.019	54.5	0.014	75.0	0.043
-6.0	0.180	4.0	0.559	14.0	0.152	34.5	0.005	55.0	0.018	75.5	0.042
-5.5	0.131	4.2	0.517	14.5	0.142	35.0	0.008	55.5	0.023	76.0	0.041
-5.0	0.074	4.4	0.476	15.0	0.127	35.5	0.018	56.0	0.028	76.5	0.040
-4.5	0.073	4.6	0.437	15.5	0.107	36.0	0.026	56.5	0.034	77.0	0.038
-4.0	0.160	4.8	0.399	16.0	0.085	36.5	0.031	57.0	0.039	77.5	0.036
-3.5	0.272	5.0	0.363	16.5	0.063	37.0	0.032	57.5	0.043	78.0	0.034
-3.0	0.393	5.2	0.331	17.0	0.044	37.5	0.031	58.0	0.047	78.5	0.032
-2.8	0.442	5.4	0.302	17.5	0.033	38.0	0.028	58.5	0.051	79.0	0.030
-2.6	0.491	5.6	0.277	18.0	0.032	38.5	0.024	59.0	0.053	79.5	0.028
-2.4	0.540	5.8	0.256	18.5	0.036	39.0	0.022	59.5	0.055	80.0	0.026
-2.2	0.589	6.0	0.240	19.0	0.040	39.5	0.025	60.0	0.055	80.5	0.024
-2.0	0.636	6.2	0.229	19.5	0.041	40.0	0.032	60.5	0.055	81.0	0.022
-1.8	0.681	6.4	0.222	20.0	0.040	40.5	0.043	61.0	0.054	81.5	0.020
-1.6	0.725	6.6	0.218	20.5	0.040	41.0	0.054	61.5	0.052	82.0	0.018
-1.4	0.766	6.8	0.217	21.0	0.042	41.5	0.065	62.0	0.049	82.5	0.016
-1.2	0.805	7.0	0.218	21.5	0.049	42.0	0.075	62.5	0.046	83.0	0.014
-1.0	0.841	7.2	0.220	22.0	0.058	42.5	0.083	63.0	0.041	83.5	0.012
-0.8	0.874	7.4	0.221	22.5	0.068	43.0	0.089	63.5	0.037	84.0	0.010
-0.6	0.903	7.6	0.223	23.0	0.077	43.5	0.093	64.0	0.032	84.5	0.009
-0.4	0.929	7.8	0.223	23.5	0.082	44.0	0.095	64.5	0.026	85.0	0.007
-0.2	0.951	8.0	0.222	24.0	0.084	44.5	0.094	65.0	0.021	85.5	0.006
0.0	0.969	8.2	0.220	24.5	0.081	45.0	0.092	65.5	0.016	86.0	0.005
0.2	0.983	8.4	0.216	25.0	0.074	45.5	0.087	66.0	0.012	86.5	0.004
0.4	0.993	8.6	0.210	25.5	0.064	46.0	0.081	66.5	0.009	87.0	0.003
0.6	0.999	8.8	0.203	26.0	0.050	46.5	0.074	67.0	0.010	87.5	0.002
0.8	1.000	9.0	0.195	26.5	0.035	47.0	0.066	67.5	0.014	88.0	0.001
1.0	0.997	9.2	0.186	27.0	0.024	47.5	0.058	68.0	0.018	88.5	0.001
1.2	0.990	9.4	0.176	27.5	0.026	48.0	0.049	68.5	0.022	89.0	0.000
1.4	0.979	9.6	0.165	28.0	0.040	48.5	0.042	69.0	0.026	89.5	0.000
1.6	0.963	9.8	0.154	28.5	0.055	49.0	0.035	69.5	0.030	90.0	0.000
1.8	0.944	10.0	0.143	29.0	0.069	49.5	0.030	70.0	0.033		
2.0	0.922	10.2	0.133	29.5	0.079	50.0	0.026	70.5	0.036		
2.2	0.895	10.4	0.123	30.0	0.086	50.5	0.023	71.0	0.039		

Remarks:



Proposal Number

Revision

Date

**01 May 2008**

Call Letters

**WHYY**

Channel

**12**

Location

Customer

Antenna Type

**THV-11A12-R C150**

### AZIMUTH PATTERN

Gain

**1.50 (1.76 dB)**

Frequency

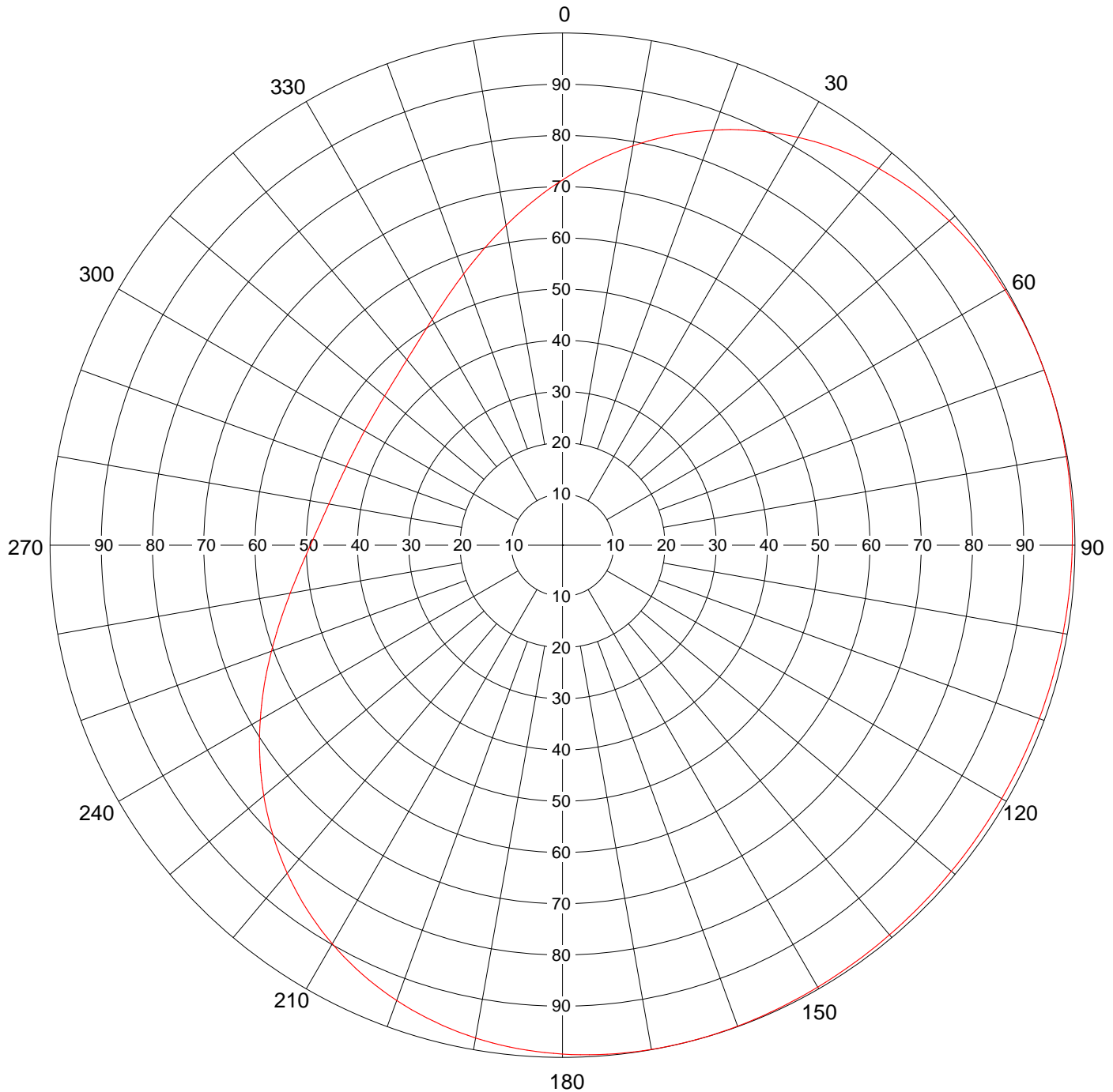
**207 MHz**

Calculated / Measured

**Calculated**

Drawing #

**THV-C150**



Remarks:



Proposal Number  
 Date **01 May 2008**  
 Call Letters **WHYY**  
 Location  
 Customer  
 Antenna Type **THV-11A12-R C150**

Revision  
 Channel **12**

## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **THV-C150**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.713	45	0.974	90	0.995	135	0.992	180	0.994	225	0.799	270	0.492	315	0.461
1	0.721	46	0.977	91	0.994	136	0.992	181	0.992	226	0.792	271	0.488	316	0.463
2	0.729	47	0.979	92	0.994	137	0.992	182	0.991	227	0.784	272	0.485	317	0.465
3	0.737	48	0.981	93	0.994	138	0.992	183	0.990	228	0.777	273	0.481	318	0.467
4	0.745	49	0.983	94	0.993	139	0.993	184	0.988	229	0.769	274	0.478	319	0.470
5	0.753	50	0.985	95	0.993	140	0.993	185	0.987	230	0.761	275	0.475	320	0.472
6	0.761	51	0.987	96	0.993	141	0.993	186	0.985	231	0.753	276	0.472	321	0.475
7	0.769	52	0.988	97	0.993	142	0.993	187	0.983	232	0.745	277	0.470	322	0.478
8	0.777	53	0.990	98	0.992	143	0.994	188	0.981	233	0.737	278	0.467	323	0.481
9	0.784	54	0.991	99	0.992	144	0.994	189	0.979	234	0.729	279	0.465	324	0.485
10	0.792	55	0.992	100	0.992	145	0.994	190	0.977	235	0.721	280	0.463	325	0.488
11	0.799	56	0.994	101	0.992	146	0.995	191	0.974	236	0.713	281	0.461	326	0.492
12	0.807	57	0.995	102	0.991	147	0.995	192	0.972	237	0.705	282	0.459	327	0.496
13	0.814	58	0.995	103	0.991	148	0.995	193	0.969	238	0.697	283	0.457	328	0.500
14	0.822	59	0.996	104	0.991	149	0.996	194	0.966	239	0.689	284	0.456	329	0.504
15	0.829	60	0.997	105	0.991	150	0.996	195	0.963	240	0.681	285	0.454	330	0.509
16	0.836	61	0.998	106	0.991	151	0.997	196	0.960	241	0.673	286	0.453	331	0.513
17	0.843	62	0.998	107	0.990	152	0.997	197	0.957	242	0.665	287	0.452	332	0.518
18	0.849	63	0.999	108	0.990	153	0.997	198	0.953	243	0.657	288	0.451	333	0.523
19	0.856	64	0.999	109	0.990	154	0.998	199	0.950	244	0.649	289	0.450	334	0.528
20	0.863	65	0.999	110	0.990	155	0.998	200	0.946	245	0.642	290	0.449	335	0.534
21	0.869	66	1.000	111	0.990	156	0.998	201	0.942	246	0.634	291	0.448	336	0.539
22	0.875	67	1.000	112	0.990	157	0.998	202	0.938	247	0.627	292	0.448	337	0.545
23	0.881	68	1.000	113	0.990	158	0.999	203	0.933	248	0.619	293	0.447	338	0.551
24	0.887	69	1.000	114	0.990	159	0.999	204	0.929	249	0.612	294	0.447	339	0.557
25	0.893	70	1.000	115	0.990	160	0.999	205	0.924	250	0.604	295	0.446	340	0.564
26	0.899	71	1.000	116	0.990	161	0.999	206	0.920	251	0.597	296	0.446	341	0.570
27	0.904	72	1.000	117	0.990	162	1.000	207	0.914	252	0.590	297	0.446	342	0.577
28	0.909	73	1.000	118	0.990	163	1.000	208	0.909	253	0.583	298	0.446	343	0.583
29	0.914	74	1.000	119	0.990	164	1.000	209	0.904	254	0.577	299	0.446	344	0.590
30	0.920	75	0.999	120	0.990	165	1.000	210	0.899	255	0.570	300	0.446	345	0.597
31	0.924	76	0.999	121	0.990	166	1.000	211	0.893	256	0.564	301	0.446	346	0.604
32	0.929	77	0.999	122	0.990	167	1.000	212	0.887	257	0.557	302	0.447	347	0.612
33	0.933	78	0.999	123	0.990	168	1.000	213	0.881	258	0.551	303	0.447	348	0.619
34	0.938	79	0.998	124	0.990	169	1.000	214	0.875	259	0.545	304	0.448	349	0.627
35	0.942	80	0.998	125	0.990	170	1.000	215	0.869	260	0.539	305	0.448	350	0.634
36	0.946	81	0.998	126	0.990	171	0.999	216	0.863	261	0.534	306	0.449	351	0.642
37	0.950	82	0.998	127	0.990	172	0.999	217	0.856	262	0.528	307	0.450	352	0.649
38	0.953	83	0.997	128	0.990	173	0.999	218	0.849	263	0.523	308	0.451	353	0.657
39	0.957	84	0.997	129	0.990	174	0.998	219	0.843	264	0.518	309	0.452	354	0.665
40	0.960	85	0.997	130	0.991	175	0.998	220	0.836	265	0.513	310	0.453	355	0.673
41	0.963	86	0.996	131	0.991	176	0.997	221	0.829	266	0.509	311	0.454	356	0.681
42	0.966	87	0.996	132	0.991	177	0.996	222	0.822	267	0.504	312	0.456	357	0.689
43	0.969	88	0.995	133	0.991	178	0.995	223	0.814	268	0.500	313	0.457	358	0.697
44	0.972	89	0.995	134	0.991	179	0.995	224	0.807	269	0.496	314	0.459	359	0.705

Remarks: