

**ANTENNA SPECIFICATIONS**

Compliance with 47 C.F.R. Section 73.682(a)(14)

**Antenna polarization:** The proposed antenna employs horizontal polarization. No vertical polarization is proposed, thus the antenna is in compliance with 47 C.F.R. Section 73.682(a)(14).

Compliance with 47 C.F.R. Section 73.625(c) and 73.685

**Antenna location:** The proposed KNSO-DT antenna will be located at Meadow Lakes east of Fresno, the main antenna farm serving the Fresno/Merced area. The antenna will be mounted on the same tower as the KNSO channel 51 NTSC antenna.

**Directional antenna:** A directional antenna is proposed. The antenna system consists of four side-mounted panel antennas. Tabulated antenna azimuth and elevation pattern data is attached. Azimuth and elevation relative field pattern plots are included. Elevation pattern plots showing radiated power in dBk can be prepared and provided if required.

**Proximate operation:** The proposed location for the KNSO-DT antenna is over 200 feet from any full service TV station operating within 20% of the center channel frequency

**KNSO-DT Application to Modify CP****EXHIBIT 41  
May 2, 2006****TABULATION OF AZIMUTH RADIATION PATTERN: DIELECTRIC THA-C2-2M/4H-1****Major lobe axis of symmetry: 226.5 degrees true****Electrical Beam Tilt: None****Mechanical Beam Tilt: None****Calculated Maximum Horizontal Plane Azimuth Pattern Gain: 2.40 (3.80 dB)****Maximum Horizontal Plane Effective Radiated Power: 7.00 kW**

Angle	Field	ERP (kw)	ERP (dBk)
0	0.064	0.03	-15.43
10	0.037	0.01	-20.18
20	0.017	0.00	-26.94
30	0.000	0.00	-99.00
40	0.000	0.00	-99.00
50	0.000	0.00	-99.00
60	0.000	0.00	-99.00
70	0.017	0.00	-26.94
80	0.037	0.01	-20.18
90	0.064	0.03	-15.43
100	0.136	0.13	-8.88
110	0.238	0.40	-4.02
120	0.389	1.06	0.25
130	0.547	2.09	3.21
140	0.694	3.37	5.28
150	0.819	4.70	6.72
160	0.909	5.78	7.62
170	0.943	6.22	7.94
180	0.937	6.15	7.89
190	0.894	5.59	7.48
200	0.851	5.07	7.05
210	0.881	5.43	7.35
220	0.972	6.61	8.20
230	0.994	6.92	8.40
240	0.911	5.81	7.64
250	0.846	5.01	7.00
260	0.873	5.33	7.27
270	0.924	5.98	7.76
280	0.942	6.21	7.93
290	0.909	5.78	7.62
300	0.819	4.70	6.72
310	0.694	3.37	5.28
320	0.547	2.09	3.21
330	0.389	1.06	0.25
340	0.238	0.40	-4.02
350	0.136	0.13	-8.88

**MAXIMA**

Angle	Field	ERP (kw)	ERP (dBk)
227	1.000	7.00	8.45
174	0.945	6.25	7.96
279	0.943	6.22	7.94

**MINIMA**

Angle	Field	ERP (kw)	ERP (dBk)
45	0.000	0.00	-99.00
203	0.849	5.05	7.03
252	0.843	4.97	6.97

Prepared by Doug Lung, May 2, 2006

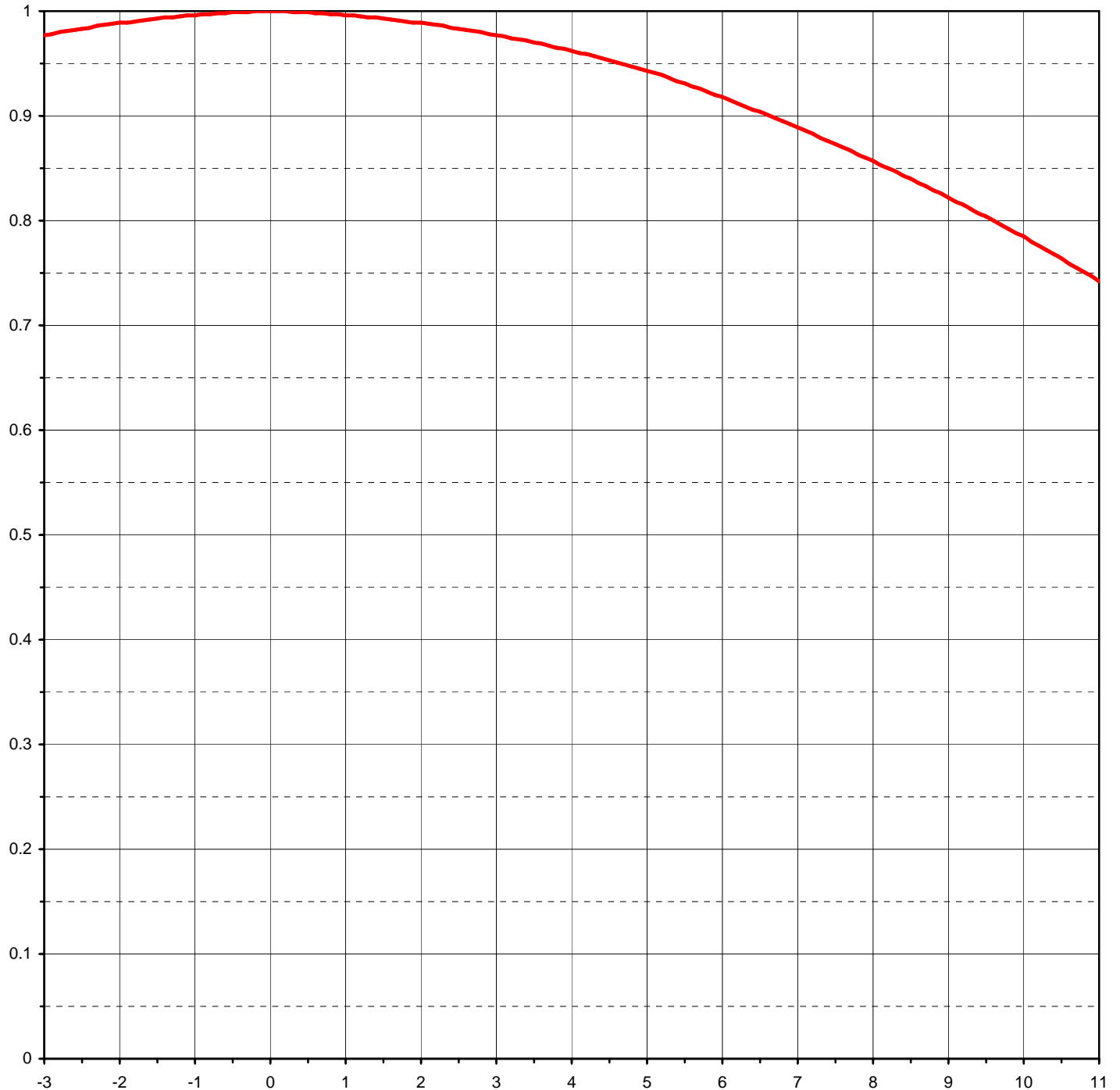


Proposal Number	<b>DCA-11384</b>		
Date	<b>31-Jan-06</b>		
Call Letters	<b>KNSO-DT</b>	Channel	<b>5</b>
Location	<b>Merced, CA</b>		
Customer	<b>NBC Telemundo</b>		
Antenna Type	<b>THA-C2-2M/4H-1</b>		

## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>2.30</b>	<b>( 3.62 dB )</b>
RMS Gain at Horizontal	<b>2.30</b>	<b>( 3.62 dB )</b>
Calculated / Measured	<b>Calculated</b>	

Beam Tilt	<b>0.00 deg</b>
Frequency	<b>79.00 MHz</b>
Drawing #	<b>02H023000</b>

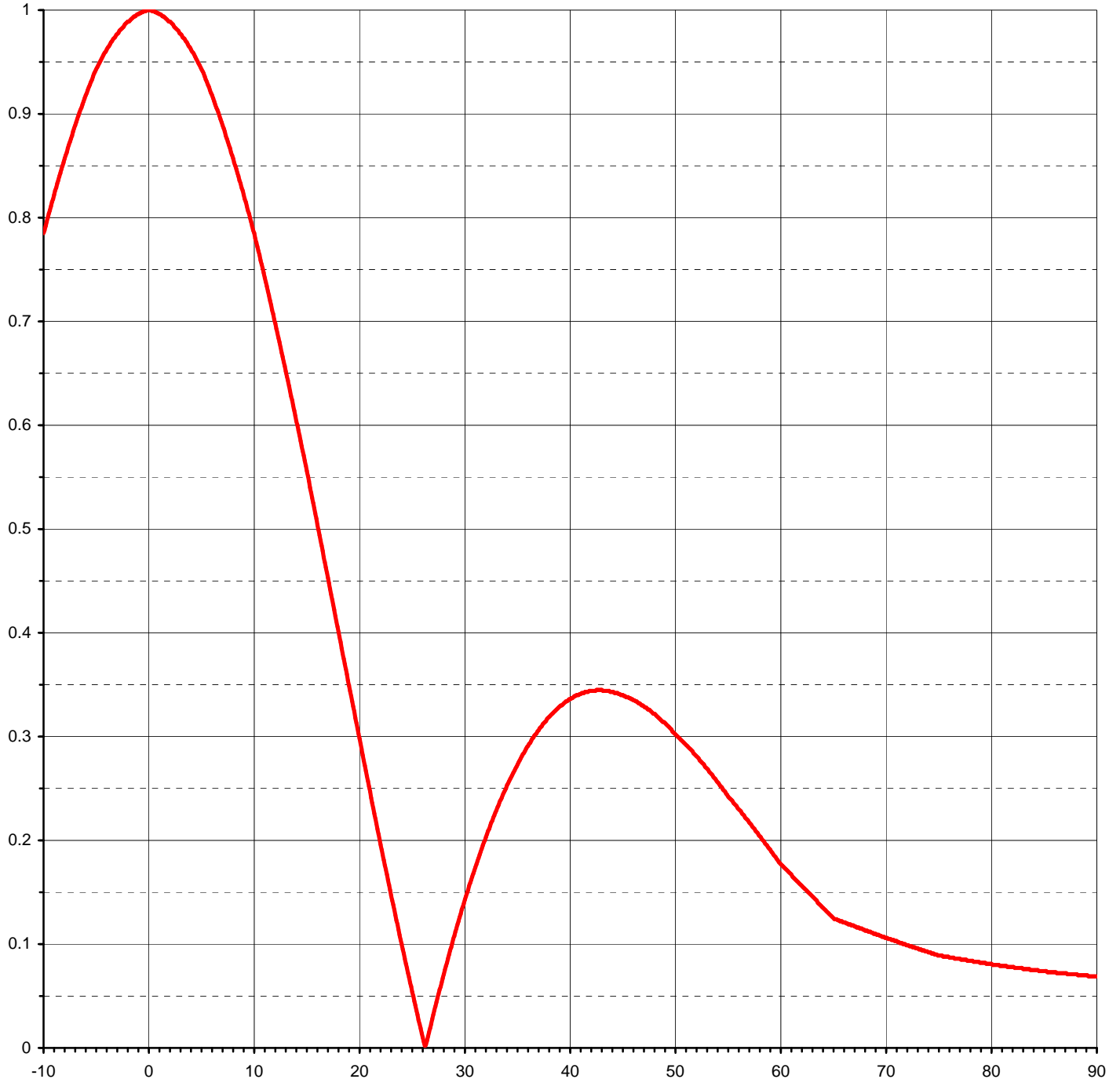




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## ELEVATION PATTERN

RMS Gain at Main Lobe	<b>2.30 ( 3.62 dB )</b>	Beam Tilt	<b>0.00 deg</b>
RMS Gain at Horizontal	<b>2.30 ( 3.62 dB )</b>	Frequency	<b>79.00 MHz</b>
Calculated / Measured	<b>Calculated</b>	Drawing #	<b>02H023000-90</b>





Proposal Number **DCA-11384**  
 Date **31-Jan-06**  
 Call Letters **KNSO-DT** Channel **5**  
 Location **Merced, CA**  
 Customer **NBC Telemundo**  
 Antenna Type **THA-C2-2M/4H-1**

## TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **02H023000-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.785	2.4	0.984	10.6	0.764	30.5	0.156	51.0	0.293	71.5	0.101
-9.5	0.804	2.6	0.982	10.8	0.755	31.0	0.171	51.5	0.288	72.0	0.099
-9.0	0.822	2.8	0.980	11.0	0.747	31.5	0.186	52.0	0.282	72.5	0.097
-8.5	0.840	3.0	0.977	11.5	0.725	32.0	0.200	52.5	0.276	73.0	0.096
-8.0	0.857	3.2	0.974	12.0	0.702	32.5	0.214	53.0	0.270	73.5	0.094
-7.5	0.873	3.4	0.972	12.5	0.680	33.0	0.227	53.5	0.264	74.0	0.092
-7.0	0.889	3.6	0.969	13.0	0.657	33.5	0.239	54.0	0.257	74.5	0.091
-6.5	0.904	3.8	0.965	13.5	0.633	34.0	0.250	54.5	0.251	75.0	0.089
-6.0	0.918	4.0	0.962	14.0	0.609	34.5	0.261	55.0	0.244	75.5	0.088
-5.5	0.931	4.2	0.959	14.5	0.585	35.0	0.271	55.5	0.238	76.0	0.087
-5.0	0.943	4.4	0.955	15.0	0.561	35.5	0.281	56.0	0.231	76.5	0.086
-4.5	0.953	4.6	0.951	15.5	0.535	36.0	0.290	56.5	0.225	77.0	0.086
-4.0	0.962	4.8	0.947	16.0	0.510	36.5	0.298	57.0	0.219	77.5	0.085
-3.5	0.970	5.0	0.943	16.5	0.484	37.0	0.305	57.5	0.212	78.0	0.084
-3.0	0.977	5.2	0.939	17.0	0.458	37.5	0.312	58.0	0.205	78.5	0.083
-2.8	0.980	5.4	0.933	17.5	0.432	38.0	0.318	58.5	0.199	79.0	0.082
-2.6	0.982	5.6	0.928	18.0	0.406	38.5	0.323	59.0	0.192	79.5	0.081
-2.4	0.984	5.8	0.923	18.5	0.380	39.0	0.328	59.5	0.185	80.0	0.081
-2.2	0.987	6.0	0.918	19.0	0.354	39.5	0.332	60.0	0.178	80.5	0.080
-2.0	0.989	6.2	0.912	19.5	0.329	40.0	0.336	60.5	0.173	81.0	0.079
-1.8	0.990	6.4	0.906	20.0	0.303	40.5	0.339	61.0	0.168	81.5	0.078
-1.6	0.992	6.6	0.901	20.5	0.277	41.0	0.341	61.5	0.162	82.0	0.078
-1.4	0.994	6.8	0.895	21.0	0.252	41.5	0.343	62.0	0.157	82.5	0.077
-1.2	0.995	7.0	0.889	21.5	0.226	42.0	0.344	62.5	0.152	83.0	0.076
-1.0	0.996	7.2	0.883	22.0	0.201	42.5	0.344	63.0	0.147	83.5	0.076
-0.8	0.997	7.4	0.876	22.5	0.176	43.0	0.345	63.5	0.142	84.0	0.075
-0.6	0.998	7.6	0.870	23.0	0.152	43.5	0.344	64.0	0.136	84.5	0.074
-0.4	0.999	7.8	0.863	23.5	0.128	44.0	0.343	64.5	0.130	85.0	0.074
-0.2	1.000	8.0	0.857	24.0	0.104	44.5	0.342	65.0	0.125	85.5	0.073
0.0	1.000	8.2	0.850	24.5	0.081	45.0	0.340	65.5	0.123	86.0	0.073
0.2	1.000	8.4	0.843	25.0	0.059	45.5	0.338	66.0	0.121	86.5	0.072
0.4	0.999	8.6	0.836	25.5	0.036	46.0	0.336	66.5	0.119	87.0	0.072
0.6	0.998	8.8	0.829	26.0	0.014	46.5	0.333	67.0	0.117	87.5	0.071
0.8	0.997	9.0	0.822	26.5	0.007	47.0	0.330	67.5	0.115	88.0	0.071
1.0	0.996	9.2	0.815	27.0	0.028	47.5	0.326	68.0	0.113	88.5	0.070
1.2	0.995	9.4	0.807	27.5	0.048	48.0	0.322	68.5	0.112	89.0	0.070
1.4	0.994	9.6	0.800	28.0	0.067	48.5	0.318	69.0	0.110	89.5	0.069
1.6	0.992	9.8	0.796	28.5	0.086	49.0	0.314	69.5	0.108	90.0	0.069
1.8	0.990	10.0	0.788	29.0	0.105	49.5	0.309	70.0	0.106		
2.0	0.989	10.2	0.780	29.5	0.122	50.0	0.303	70.5	0.104		
2.2	0.987	10.4	0.772	30.0	0.139	50.5	0.298	71.0	0.103		



Proposal Number

**DCA-11384**

Date

**31-Jan-06**

Call Letters

**KNSO-DT**

Channel

**5**

Location

**Merced, CA**

Customer

**NBC Telemundo**

Antenna Type

**THA-C2-2M/4H-1**

## AZIMUTH PATTERN

Gain

**2.40**

**( 3.80 dB)**

Frequency

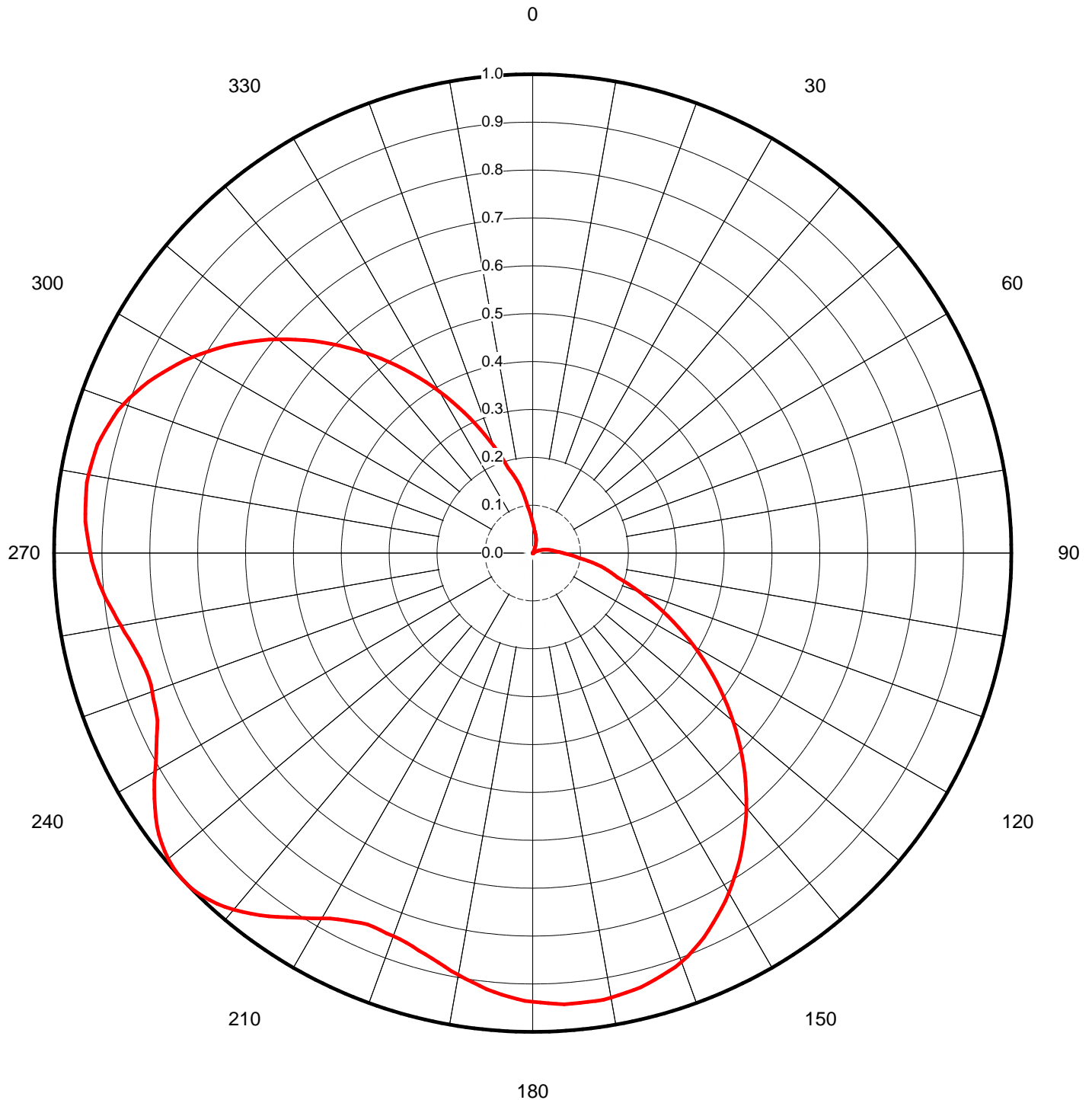
**79.00 MHz**

Calculated / Measured

**Calculated**

Drawing #

**THA-C2-0790**



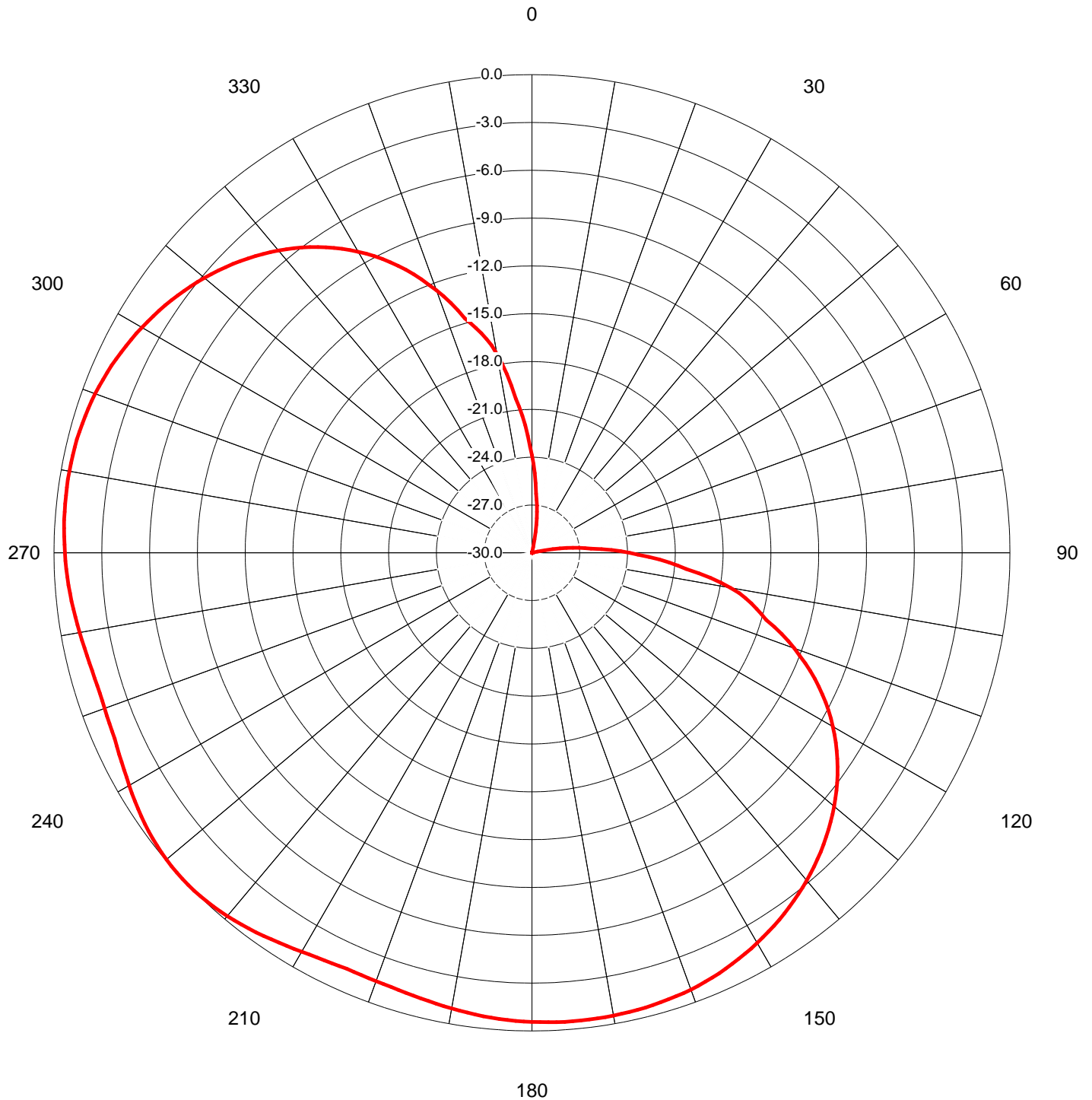


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Customer	<b>NBC Telemundo</b>	
Antenna Type	<b>THA-C2-2M/4H-1</b>	

### AZIMUTH PATTERN (dB)

Gain	<b>2.40</b>	<b>( 3.80 dB)</b>
Calculated / Measured		<b>Calculated</b>

Frequency	<b>79.00 MHz</b>
Drawing #	<b>THA-C2-0790</b>





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## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **THA-C2-0790**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.064	45	0.000	90	0.064	135	0.623	180	0.937	225	0.998	270	0.924	315	0.623
1	0.060	46	0.000	91	0.068	136	0.638	181	0.936	226	1.000	271	0.927	316	0.608
2	0.056	47	0.000	92	0.074	137	0.652	182	0.932	227	1.000	272	0.930	317	0.592
3	0.052	48	0.000	93	0.079	138	0.666	183	0.928	228	0.999	273	0.934	318	0.577
4	0.048	49	0.000	94	0.085	139	0.680	184	0.925	229	0.997	274	0.937	319	0.562
5	0.047	50	0.000	95	0.091	140	0.694	185	0.920	230	0.994	275	0.938	320	0.547
6	0.045	51	0.000	96	0.097	141	0.709	186	0.916	231	0.989	276	0.939	321	0.531
7	0.043	52	0.000	97	0.107	142	0.722	187	0.910	232	0.984	277	0.941	322	0.516
8	0.041	53	0.000	98	0.116	143	0.735	188	0.905	233	0.977	278	0.942	323	0.500
9	0.039	54	0.000	99	0.126	144	0.748	189	0.900	234	0.970	279	0.943	324	0.485
10	0.037	55	0.000	100	0.136	145	0.761	190	0.894	235	0.961	280	0.942	325	0.469
11	0.035	56	0.000	101	0.145	146	0.774	191	0.890	236	0.952	281	0.941	326	0.453
12	0.033	57	0.000	102	0.153	147	0.785	192	0.883	237	0.942	282	0.940	327	0.437
13	0.031	58	0.000	103	0.161	148	0.796	193	0.877	238	0.932	283	0.938	328	0.421
14	0.029	59	0.000	104	0.169	149	0.808	194	0.872	239	0.922	284	0.937	329	0.405
15	0.027	60	0.000	105	0.176	150	0.819	195	0.867	240	0.911	285	0.933	330	0.389
16	0.025	61	0.000	106	0.184	151	0.831	196	0.863	241	0.900	286	0.929	331	0.374
17	0.023	62	0.002	107	0.198	152	0.840	197	0.859	242	0.891	287	0.925	332	0.358
18	0.021	63	0.004	108	0.211	153	0.850	198	0.855	243	0.882	288	0.921	333	0.342
19	0.019	64	0.006	109	0.224	154	0.860	199	0.853	244	0.874	289	0.916	334	0.327
20	0.017	65	0.008	110	0.238	155	0.870	200	0.851	245	0.866	290	0.909	335	0.312
21	0.016	66	0.010	111	0.251	156	0.879	201	0.851	246	0.858	291	0.902	336	0.296
22	0.014	67	0.012	112	0.266	157	0.887	202	0.849	247	0.854	292	0.895	337	0.281
23	0.012	68	0.014	113	0.281	158	0.895	203	0.849	248	0.851	293	0.887	338	0.266
24	0.010	69	0.016	114	0.296	159	0.902	204	0.849	249	0.849	294	0.879	339	0.251
25	0.008	70	0.017	115	0.312	160	0.909	205	0.852	250	0.846	295	0.870	340	0.238
26	0.006	71	0.019	116	0.327	161	0.915	206	0.857	251	0.844	296	0.860	341	0.224
27	0.004	72	0.021	117	0.342	162	0.919	207	0.861	252	0.843	297	0.850	342	0.211
28	0.002	73	0.023	118	0.358	163	0.923	208	0.866	253	0.844	298	0.840	343	0.198
29	0.000	74	0.025	119	0.374	164	0.927	209	0.873	254	0.847	299	0.831	344	0.184
30	0.000	75	0.027	120	0.389	165	0.931	210	0.881	255	0.849	300	0.819	345	0.176
31	0.000	76	0.029	121	0.405	166	0.935	211	0.890	256	0.853	301	0.808	346	0.169
32	0.000	77	0.031	122	0.421	167	0.937	212	0.899	257	0.857	302	0.796	347	0.161
33	0.000	78	0.033	123	0.437	168	0.939	213	0.908	258	0.862	303	0.785	348	0.153
34	0.000	79	0.035	124	0.453	169	0.941	214	0.918	259	0.868	304	0.774	349	0.145
35	0.000	80	0.037	125	0.469	170	0.943	215	0.928	260	0.873	305	0.761	350	0.136
36	0.000	81	0.039	126	0.485	171	0.945	216	0.938	261	0.879	306	0.748	351	0.126
37	0.000	82	0.041	127	0.500	172	0.945	217	0.947	262	0.885	307	0.735	352	0.116
38	0.000	83	0.043	128	0.516	173	0.945	218	0.956	263	0.891	308	0.722	353	0.107
39	0.000	84	0.045	129	0.531	174	0.945	219	0.964	264	0.897	309	0.709	354	0.097
40	0.000	85	0.047	130	0.547	175	0.945	220	0.972	265	0.902	310	0.694	355	0.091
41	0.000	86	0.048	131	0.562	176	0.945	221	0.979	266	0.908	311	0.680	356	0.085
42	0.000	87	0.052	132	0.577	177	0.943	222	0.985	267	0.912	312	0.666	357	0.079
43	0.000	88	0.056	133	0.592	178	0.941	223	0.991	268	0.917	313	0.652	358	0.074
44	0.000	89	0.060	134	0.608	179	0.939	224	0.995	269	0.921	314	0.638	359	0.068