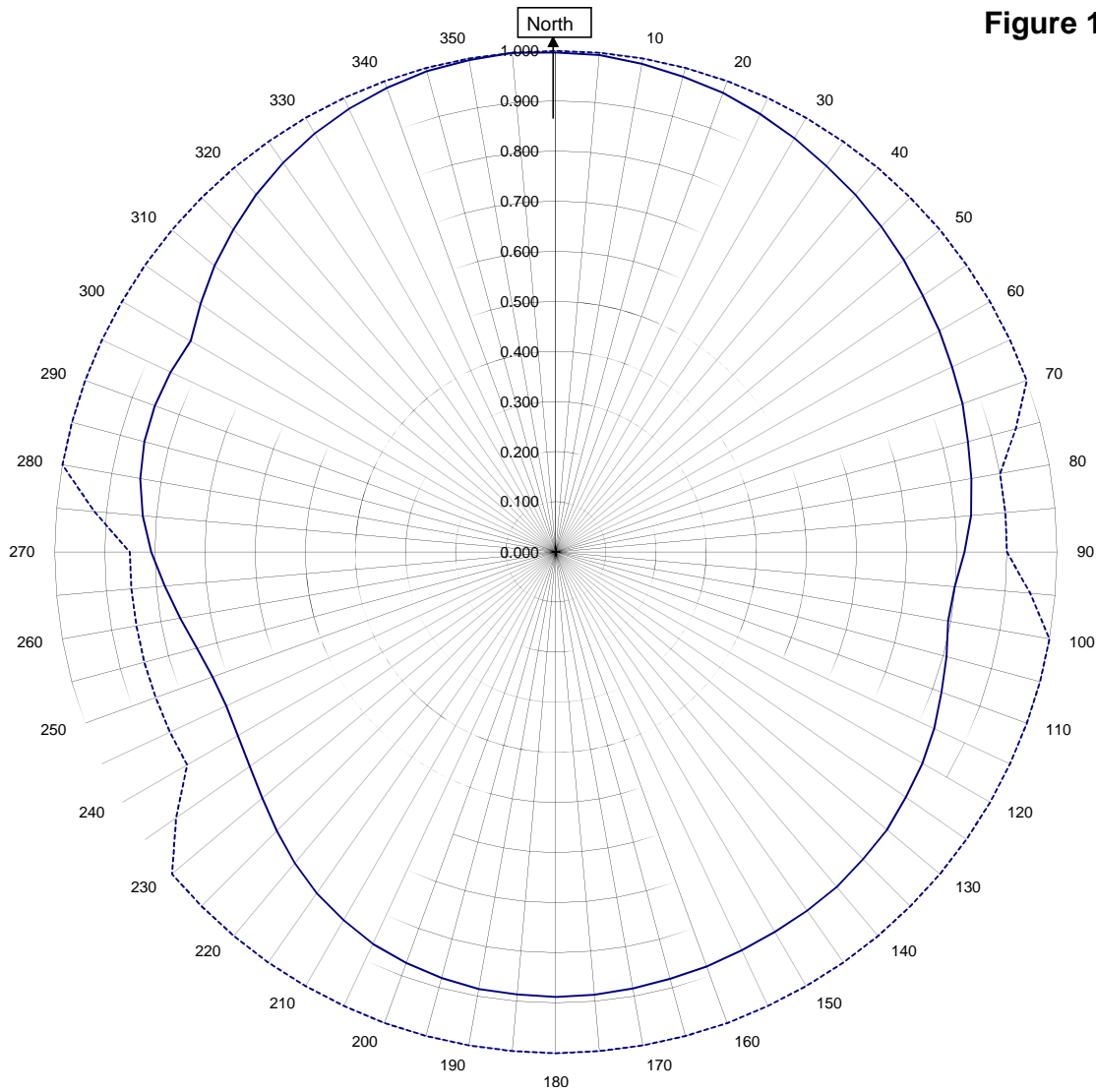


# Shively Labs

Shively Labs, a division of Howell Laboratories, Inc. Bridgton, ME (207)647-3327

Figure 1B



**W296CX**      **Winder, GA**  
32479  
March 13, 2015

—————H/VComposite RMS	0.875
.....FCC Composite RMS	0.979

Frequency	107.1 / 481.95    mHz
Plot	Relative Field
Scale	4.5 : 1
See Figure 2 for Mechanical Details	

Antenna Model	6812-7-SS(0.5)-DA-Translator
Pattern Type	Directional H/V Composite

Figure 1E

Tabulation of Composite Azimuth Pattern  
W296CX Winder, GA

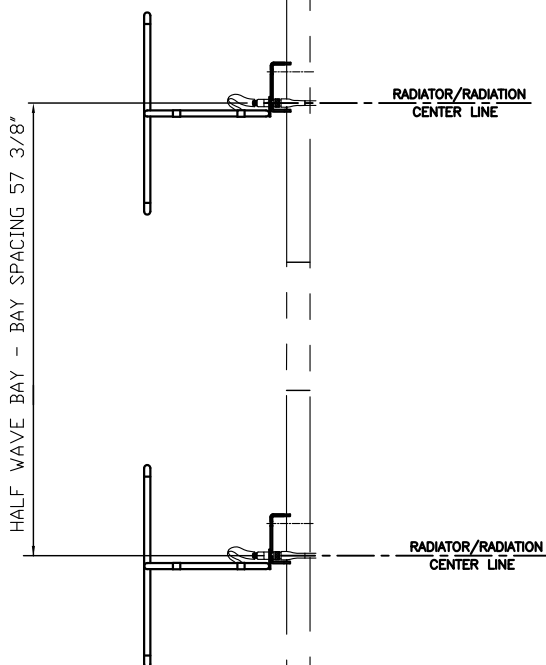
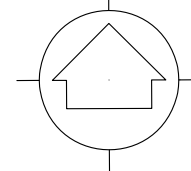
Azimuth	Rel Field	Azimuth	Rel Field
0	0.997	180	0.888
10	0.989	190	0.885
20	0.975	200	0.873
30	0.953	210	0.848
40	0.930	220	0.810
45	0.918	225	0.788
50	0.906	230	0.764
60	0.883	240	0.733
70	0.864	250	0.729
80	0.841	260	0.761
90	0.815	270	0.807
100	0.795	280	0.842
110	0.818	290	0.852
120	0.844	300	0.842
130	0.862	310	0.889
135	0.866	315	0.910
140	0.872	320	0.931
150	0.875	330	0.964
160	0.880	340	0.986
170	0.884	350	0.997

Figure 1F

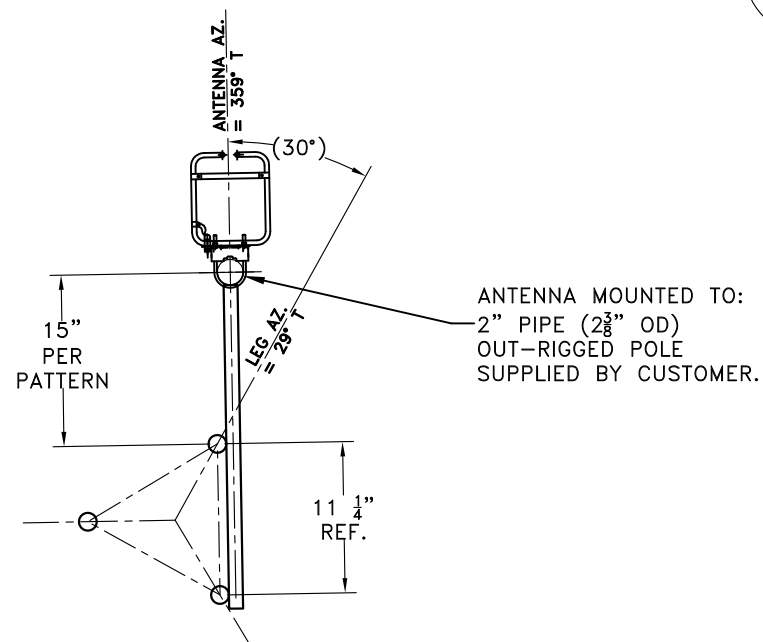
Tabulation of FCC Directional Composite  
W296CX Winder, GA

Azimuth	Rel Field	Azimuth	Rel Field
0	1.000	180	1.000
10	1.000	190	1.000
20	1.000	200	1.000
30	1.000	210	1.000
40	1.000	220	1.000
50	1.000	230	1.000
60	1.000	240	0.850
70	1.000	250	0.850
80	0.900	260	0.850
90	0.900	270	0.850
100	1.000	280	1.000
110	1.000	290	1.000
120	1.000	300	1.000
130	1.000	310	1.000
140	1.000	320	1.000
150	1.000	330	1.000
160	1.000	340	1.000
170	1.000	350	1.000

TRUE NORTH



SIDE VIEW



TOP VIEW

TOWER MAKE: ROHN G25

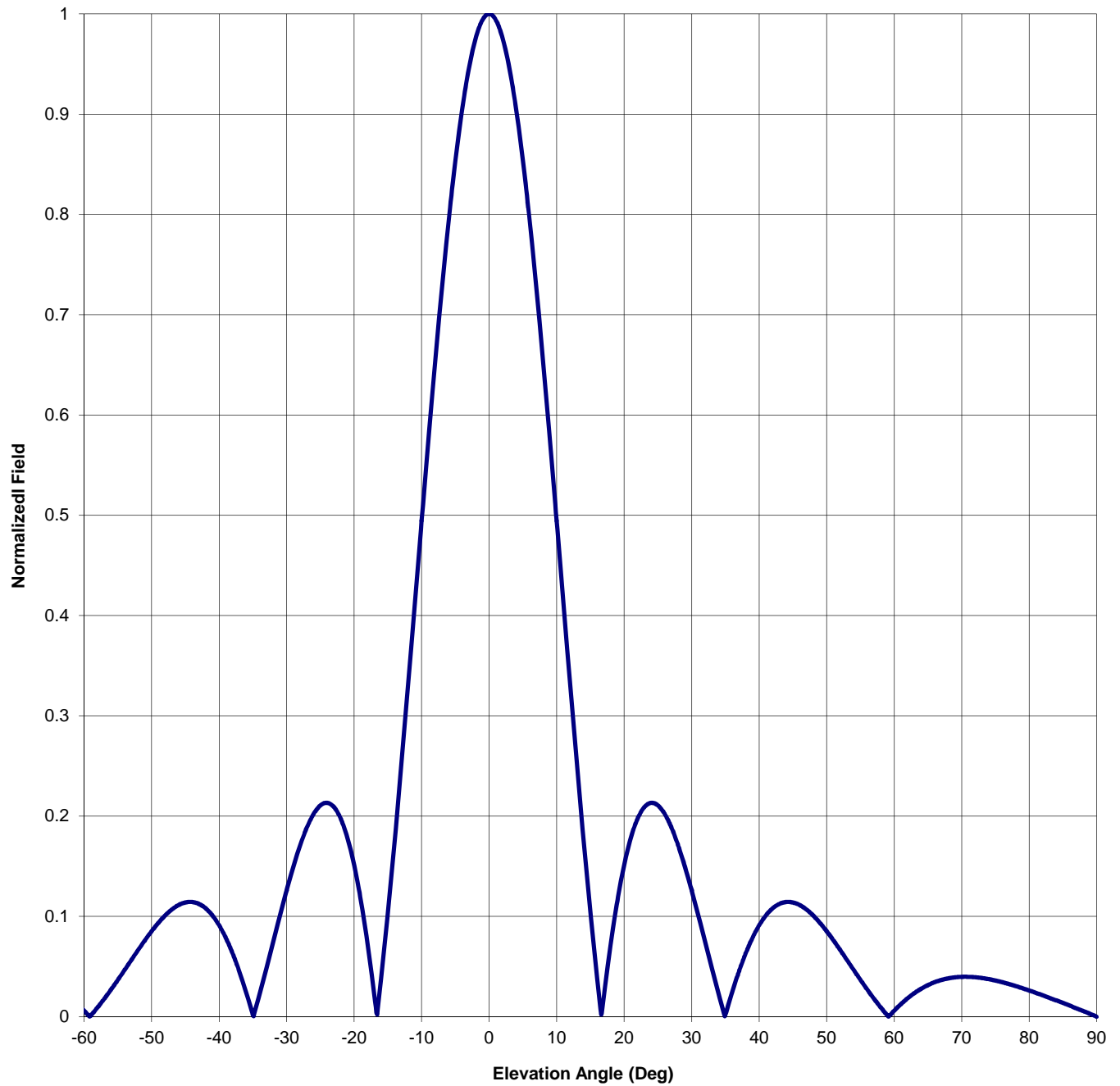
ANTENNA HEADING 359° TRUE NORTH

SHIVELY LABS			
A DIVISION OF HOWELL LABORATORIES INC.,BRIDGTON, MAINE			
SHOP ORDER:	FREQUENCY:	SCALE:	DRAWN BY:
32479	107.1	N.T.S.	ASP
TITLE:		APPROVED BY:	
MODEL-6812B-7-.5SS-DIRECTIONAL ANTENNA		DAB	
DATE:	FIGURE 2		
3-12-15			

Antenna Mfg.: Shively Labs  
Antenna Type: 6812-7-SS(0.5)-DA-Translator  
Station: W296CX  
Frequency: 107.1  
Channel #: 296  
Figure: Figure 3

Date: 3/12/2015

Beam Tilt	0	
Gain (Max)	2.618	4.179 dB
Gain (Horizon)	2.618	4.179 dB



Antenna Mfg.: Shively Labs

Date: 3/12/2015

Antenna Type: 6812-7-SS(0.5)-DA-Translator

Station: W296CX

Beam Tilt 0

Frequency: 107.1

Gain (Max) 2.618

4.179 dB

Channel #: 296

Gain (Horizon) 2.618

4.179 dB

Figure: Figure 3

Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field	Angle of Depression (Deg)	Relative Field
-90	0.000	-44	0.114	0	1.000	46	0.111
-89	0.003	-43	0.113	1	0.994	47	0.107
-88	0.006	-42	0.108	2	0.976	48	0.101
-87	0.008	-41	0.101	3	0.946	49	0.094
-86	0.011	-40	0.091	4	0.905	50	0.085
-85	0.014	-39	0.079	5	0.854	51	0.076
-84	0.016	-38	0.063	6	0.794	52	0.067
-83	0.019	-37	0.045	7	0.727	53	0.057
-82	0.021	-36	0.024	8	0.653	54	0.047
-81	0.024	-35	0.002	9	0.575	55	0.037
-80	0.026	-34	0.023	10	0.494	56	0.027
-79	0.028	-33	0.048	11	0.412	57	0.018
-78	0.031	-32	0.074	12	0.331	58	0.009
-77	0.033	-31	0.101	13	0.251	59	0.001
-76	0.034	-30	0.126	14	0.175	60	0.006
-75	0.036	-29	0.150	15	0.104	61	0.013
-74	0.037	-28	0.171	16	0.038	62	0.018
-73	0.039	-27	0.189	17	0.021	63	0.024
-72	0.039	-26	0.202	18	0.072	64	0.028
-71	0.040	-25	0.211	19	0.116	65	0.032
-70	0.040	-24	0.213	20	0.151	66	0.034
-69	0.039	-23	0.209	21	0.179	67	0.037
-68	0.038	-22	0.198	22	0.198	68	0.038
-67	0.037	-21	0.179	23	0.209	69	0.039
-66	0.034	-20	0.151	24	0.213	70	0.040
-65	0.032	-19	0.116	25	0.211	71	0.040
-64	0.028	-18	0.072	26	0.202	72	0.039
-63	0.024	-17	0.021	27	0.189	73	0.039
-62	0.018	-16	0.038	28	0.171	74	0.037
-61	0.013	-15	0.104	29	0.150	75	0.036
-60	0.006	-14	0.175	30	0.126	76	0.034
-59	0.001	-13	0.251	31	0.101	77	0.033
-58	0.009	-12	0.331	32	0.074	78	0.031
-57	0.018	-11	0.412	33	0.048	79	0.028
-56	0.027	-10	0.494	34	0.023	80	0.026
-55	0.037	-9	0.575	35	0.002	81	0.024
-54	0.047	-8	0.653	36	0.024	82	0.021
-53	0.057	-7	0.727	37	0.045	83	0.019
-52	0.067	-6	0.794	38	0.063	84	0.016
-51	0.076	-5	0.854	39	0.079	85	0.014
-50	0.085	-4	0.905	40	0.091	86	0.011
-49	0.094	-3	0.946	41	0.101	87	0.008
-48	0.101	-2	0.976	42	0.108	88	0.006
-47	0.107	-1	0.994	43	0.113	89	0.003
-46	0.111	0	1.000	44	0.114	90	0.000
-45	0.114			45	0.114		