

**WTHX SUPPLEMENTAL REPORT
DEMONSTRATING 100%
COVERAGE OF HODGENVILLE, KY BY
THE MEASURED DIRECTIONAL PATTERN
UTILIZING LONGLEY-RICE**

This report is provided as a supplement to the license application for WTHX to demonstrate that the measured pattern provides coverage to the community of license based on the use of Longley-Rice.


II. Use of Longley-Rice to establish 70 dBu

All terrain utilized in this report were obtained from the V-Soft NGDC thirty (30) second terrain database. All contours and allocation exhibits were developed using V-Soft Probe 3 computer programs. Longley-Rice contour predictions were calculated using the V-Soft Probe 3 software and the very conservative "first occurrence". Probe 3 calculations have been routinely accepted by the Commission in the prediction of Longley-Rice contours.

The proposed facility will comply with Section 73.315 based on the use of Longley-Rice (see Exhibits E1A, E1B and E1C). The terrain on the 177 degree radial to the southern boundary of Hodgenville at a distance of 13.7 km has a ***Delta h*** of 11.91 meters, and the ***delta h*** to the southern extent of the Longley-Rice predicted 70 dBu on the same azimuth at 17.8 km is 16.3 meters -- both less than the required 20 meters. Furthermore, the Longley-Rice predicted 70 dBu based on the measured pattern exceeds the FCC predicted values for the measured pattern by more than 10% on all relevant azimuths -- 169-185 degrees -- as documented in the attached exhibits. Therefore, the use of Longley-Rice is permitted based on established Commission policy.

Anderson Communications, LLC

Exhibit E1A demonstrates that the proposed Longley-Rice contour will encompass 100% of the area of Hodgenville, KY.



Charles M. Anderson June 7, 2008
1519 Euclid Avenue
Bowling Green, KY 42103
270-782-0246

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E1A WTHX.C

BPH20070118AEO
Latitude: 37-40-21 N
Longitude: 085-44-34 W
ERP: 3.80 kW
HAAT: 128.0 m
Channel: 297
Frequency: 107.3 MHz
RCAMSL Height: 348.0 m
Site Elevation: 271.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: Longley/Rice
Climate: Cont temperate
Conductivity: 0.0050
Dielec Const: 15.0
Refractivity: 311.0
Receiver Ht AG: 9.1 m
Receiver Gain: 0 dB
Time Variability: 50.0%
Sit. Variability: 50.0%
ITM Mode: Broadcast

MEASURED PATTERN FCC 70 DBU

**HODGENVILLE
BOUNDARIES**

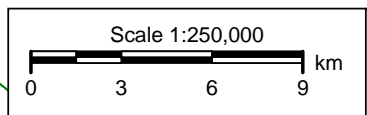
**13.7 KM TO SOUTHERN BOUNDARY
17.8 KM TO EXTENT OF LONGLEY-RICE 70 DBU**

177.0° Larue

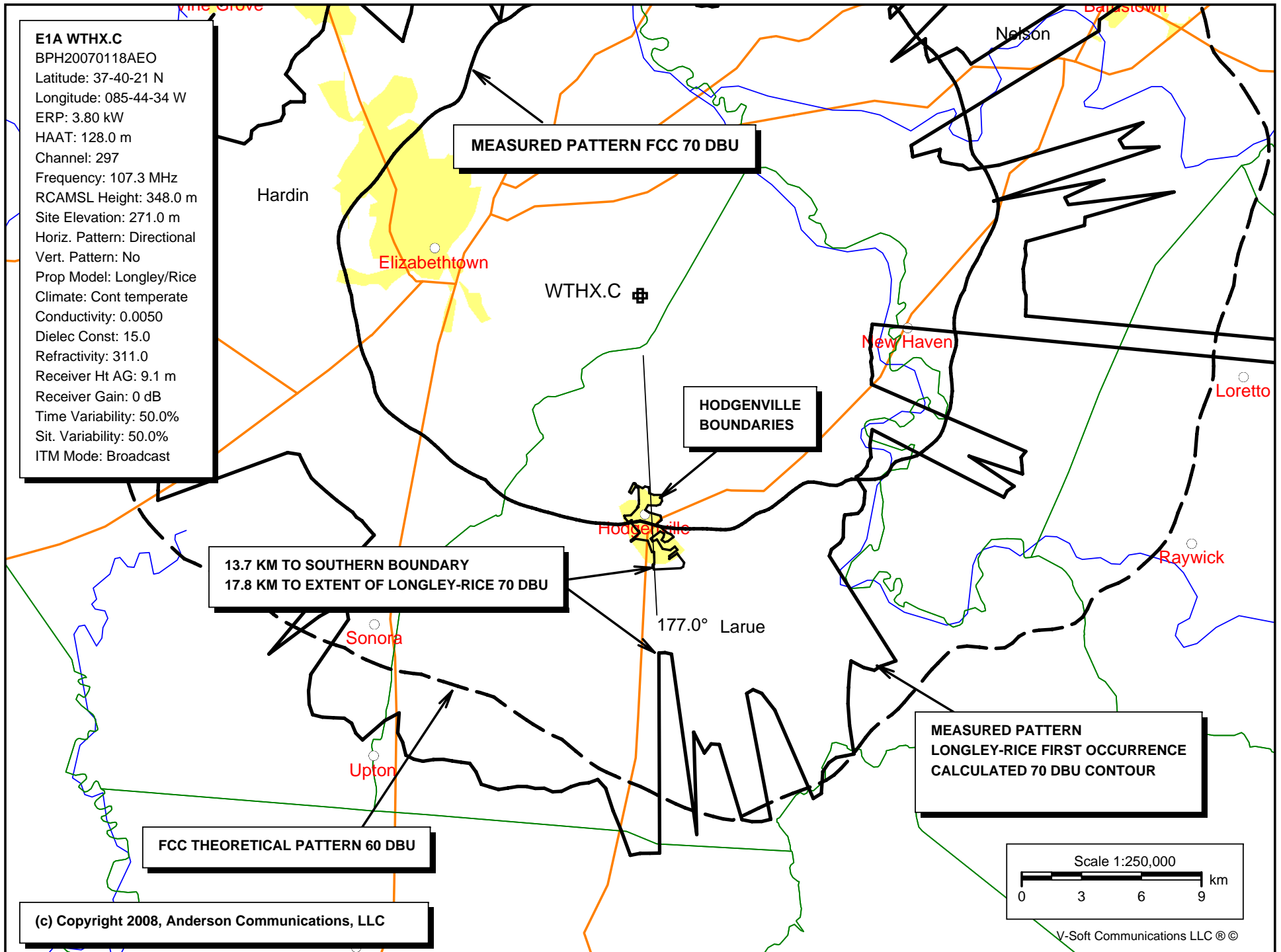
**MEASURED PATTERN
LONGLEY-RICE FIRST OCCURRENCE
CALCULATED 70 DBU CONTOUR**

FCC THEORETICAL PATTERN 60 DBU

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E1B LONGLEY-RICE AND FCC CONTOUR TABULATIONS

Call Letters: WTHX.C
File Number: BPH20070118AEO
Latitude: 37-40-21 N
Longitude: 085-44-34 W
ERP: 3.80 kW
Channel: 297
Frequency: 107.3 MHz
AMSL Height: 348.0 m
Elevation: 271.0 m
Horiz. Antenna Pattern: Directional-measured

Longley-Rice contour calculated using the first occurrence method at
70.0 dBu - 30 second terrain.

Bearing (degree)	FCC 70 dBu km	LR 70 dBu km	% Increase	HAAT (m)
169.0	11.9	26.5*	122.7	109.6
170.0	11.8	22.8	93.2	110.7
171.0	11.8	22.7	92.3	111.6
172.0	11.7	23.1	97.4	112.1
173.0	11.7	22.0	88.0	112.6
174.0	11.6	25.9*	123.2	113.3
175.0	11.6	18.0	55.2	113.8
176.0	11.5	17.9	55.7	114.0
177.0	11.5	17.9	55.7	114.2
178.0	11.4	25.0*	119.3	114.5
179.0	11.3	24.8*	119.5	114.9
180.0	11.3	24.5*	116.8	115.6
181.0	11.3	24.4*	115.9	116.3
182.0	11.3	24.2*	114.2	117.0
183.0	11.4	24.1*	111.4	117.7
184.0	11.4	23.9*	109.6	118.7
185.0	11.5	23.7*	106.1	119.6

* Longley-Rice predicted 70 dBu values truncated to the FCC 60 dBu
theoretical pattern predicted 60 dBu contour values.

10.0	268.6	10.1	268.4	10.2	268.3	10.3	268.3	10.4	268.2	10.5	268.1
10.6	268.0	10.7	266.7	10.8	264.1	10.9	261.6	11.0	259.0	11.1	256.5
11.2	253.9	11.3	251.3	11.4	248.7	11.5	246.1	11.6	243.9	11.7	243.3
11.8	242.6	11.9	241.9	12.0	241.3	12.1	240.7	12.2	240.1	12.3	239.5
12.4	239.0	12.5	238.5	12.6	239.8	12.7	241.1	12.8	242.4	12.9	243.7
13.0	244.9	13.1	246.1	13.2	247.3	13.3	248.5	13.4	249.7	13.5	249.5
13.6	248.9	13.7	248.2								

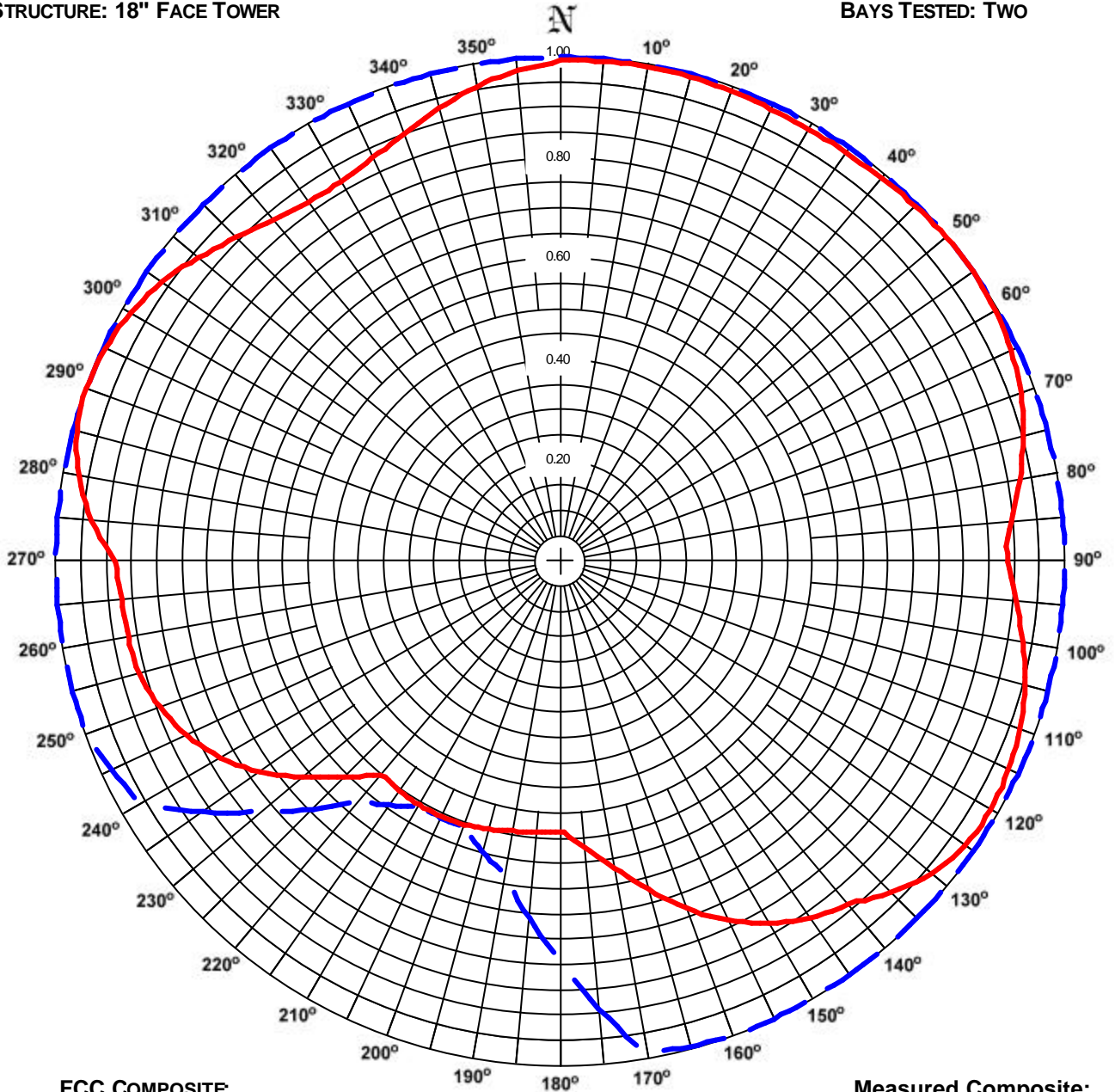
[illegible]

ERI® *Horizontal Plane Relative Field Pattern*

Electronics Research, Inc. 7777 Gardner Rd. Chandler, In 47610 Phone (812) 925-6000 Fax (812) 925-4030 <http://www.eriinc.com/>

FIGURE NO: 1
STATION: WKMO
LOCATION: HODGENVILLE, KY.
ANTENNA: LP-4C-DA-HW
STRUCTURE: 18" FACE TOWER

DATE: 1/16/2008
FREQUENCY: 107.3 MHz
Orientation: 25° True
MOUNTING: STANDARD
BAYS TESTED: TWO



FCC COMPOSITE
RMS: 0.950
MAXIMUM: 1.000 @ 0° TRUE
MINIMUM: 0.560 @ 200° TRUE

Measured Composite:
RMS: 0.873
Maximum: 1.000 @ 53° True
Minimum: 0.535 @ 180° True

COMMENTS: COMPOSITE PATTERN: THIS PATTERN SHOWS THE MAXIMUM OF EITHER THE H OR V AZIMUTH VALUES. THIS PATTERN IS GREATER THAN 85% OF THE FCC FILED COMPOSITE PATTERN BPH-20070118AEO.

ERI® *Horizontal Plane Relative Field List*

Electronics Research, Inc. 7777 Gardner Rd. Chandler, In 47610 Phone (812) 925-6000 Fax (812) 925-4030 <http://www.eriinc.com/>

Station: WKMO
Location: Hodgenville, KY.
Frequency: 107.3 MHz

Antenna: LP-4C-DA-HW
Orientation: 25° True
Tower: 18" Face Tower

Figure: 1
Date: 1/16/2008
Reference: wkmo1m.fig

Angle	Envelope			Polarization	Angle	Envelope			Polarization
	Field	kW	dBk			Field	kW	dBk	
0°	0.994	3.75	5.74	Horizontal	180°	0.535	1.09	0.37	Vertical
5°	0.996	3.77	5.76	Horizontal	185°	0.538	1.10	0.41	Vertical
10°	0.997	3.77	5.77	Horizontal	190°	0.542	1.12	0.49	Vertical
15°	0.995	3.76	5.75	Horizontal	195°	0.549	1.15	0.59	Vertical
20°	0.992	3.74	5.73	Horizontal	200°	0.555	1.17	0.68	Vertical
25°	0.989	3.72	5.70	Horizontal	205°	0.557	1.18	0.72	Vertical
30°	0.988	3.71	5.69	Horizontal	210°	0.558	1.18	0.72	Vertical
35°	0.989	3.72	5.70	Horizontal	215°	0.555	1.17	0.68	Vertical
40°	0.992	3.74	5.73	Horizontal	220°	0.553	1.16	0.65	Horizontal
45°	0.996	3.77	5.77	Horizontal	225°	0.603	1.38	1.41	Horizontal
50°	0.999	3.80	5.79	Horizontal	230°	0.665	1.68	2.25	Horizontal
55°	1.000	3.80	5.79	Horizontal	235°	0.727	2.01	3.02	Horizontal
60°	0.996	3.77	5.76	Horizontal	240°	0.777	2.29	3.61	Horizontal
65°	0.987	3.70	5.68	Horizontal	245°	0.817	2.53	4.04	Horizontal
70°	0.972	3.59	5.55	Horizontal	250°	0.845	2.71	4.34	Horizontal
75°	0.950	3.43	5.35	Horizontal	255°	0.863	2.83	4.52	Horizontal
80°	0.925	3.25	5.12	Horizontal	260°	0.869	2.87	4.58	Horizontal
85°	0.898	3.06	4.86	Horizontal	265°	0.873	2.89	4.62	Horizontal
90°	0.889	3.00	4.78	Vertical	270°	0.882	2.95	4.70	Horizontal
95°	0.908	3.13	4.96	Vertical	275°	0.931	3.30	5.18	Vertical
100°	0.932	3.30	5.18	Vertical	280°	0.969	3.57	5.52	Vertical
105°	0.954	3.46	5.39	Vertical	285°	0.991	3.74	5.72	Vertical
110°	0.970	3.57	5.53	Vertical	290°	1.000	3.80	5.80	Vertical
115°	0.980	3.65	5.62	Vertical	295°	0.996	3.77	5.76	Vertical
120°	0.985	3.69	5.67	Vertical	300°	0.984	3.68	5.65	Vertical
125°	0.980	3.65	5.62	Vertical	305°	0.964	3.53	5.48	Vertical
130°	0.961	3.51	5.45	Vertical	310°	0.937	3.34	5.23	Vertical
135°	0.929	3.28	5.16	Vertical	315°	0.909	3.14	4.97	Horizontal
140°	0.889	3.00	4.78	Horizontal	320°	0.885	2.98	4.74	Horizontal
145°	0.862	2.83	4.51	Horizontal	325°	0.870	2.88	4.59	Horizontal
150°	0.827	2.60	4.15	Horizontal	330°	0.870	2.87	4.58	Horizontal
155°	0.783	2.33	3.68	Horizontal	335°	0.881	2.95	4.70	Horizontal
160°	0.731	2.03	3.08	Horizontal	340°	0.903	3.10	4.91	Horizontal
165°	0.672	1.72	2.34	Horizontal	345°	0.929	3.28	5.16	Horizontal
170°	0.617	1.44	1.60	Horizontal	350°	0.956	3.47	5.40	Horizontal
175°	0.570	1.23	0.91	Horizontal	355°	0.976	3.62	5.59	Horizontal

Polarization:	Envelope
Maximum Field:	1.000 @ 53° True
Minimum Field:	0.535 @ 180° True
RMS:	0.873
Maximum ERP:	3.800 kW
Maximum Power Gain:	1.747 (2.422 dB)

Total Input Power: 2.176 kW