

## **Explanation for Amendment to CP Tolling Request**

Joan and Kenneth Wright (“Licensees”), filed a Tolling Request pursuant to FCC Public Notice, DA 17-442, released May 12, 2017,<sup>1</sup> regarding WGBS-LD, Carrollton, Virginia (Facility ID 31350) on July 6, 2021. On July 29, 2021, the Federal Communications Commission’s Video Division sent a letter to Licensees requested additional information in support of the Tolling Request. This Amended Tolling Request responds to the Video Division’s July 29 Letter.

Specifically, the Video Division requested the following:

1. A detailed accounting of all steps taken to complete construction since the grant of the construction permit including dates for each action and supporting documentation.
2. A detailed accounting of any and all circumstances outside Licensees’ control that prevented construction since the grant of the construction permit including dates of each circumstance and supporting documentation.
3. A detailed accounting of what construction remains and a timeline plan of how and when licensees expect to complete construction and begin operations.

### **Steps Taken to Complete Construction**

Licensees began taking steps to complete construction in April 2018. On April 5, 2018, JAMPRO Antennas, Inc. provided a technical proposal to Licensees. *See* Exhibit A. Licensees were also working with their long-time engineer Bill Barrow to make preparations to transition WGBS to its post-repack station. Licensees opted not to move forward with the JAMPRO proposal in 2018 due to industry-wide financial uncertainty that limited the resources available to low power television stations at that time. Unfortunately, while Licensees were prepared to continue moving forward with WGBS’s channel transition, a confluence of events prevented significant work from being performed in 2019 and 2020.

Licensee did receive another quote from JAMPRO regarding a replacement antenna for WGBS on April 2, 2020. *See* Exhibit B. However, as will be described more fully below, circumstances prevented Licensees from moving forward with the JAMPRO antenna at that time. In any event, a change in the owner of WGBS’s tower and subsequent that tower by a co-located low power station revealed structural issues with the tower. *See* Exhibit C. As a result, the new tower owner delayed work on the tower pending a structural analysis. Licensees also determined that a structurally smaller antenna would better suit WGBS’s tower’s structural limits.

On April 6, 2021, Licensees obtained a final proposal for equipment form Anywave Communications Technologies. *See* Exhibit D. That proposal includes all remaining equipment

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<sup>1</sup> *The Incentive Auction Task Force and Media Bureau Announce Procedures for Low Power Television, Television Translator and Replacement Translators During the Post-Incentive Auction Transition*, Public Notice, 32 FCC Rcd 3860 (2017) (“LPTV Displacement Public Notice”).

necessary to complete WGBS's transition. Licensees have initiated ordering the necessary equipment, and Licensees expect to complete construction pursuant to the schedule provided below.

### **Circumstances Impacting Delay**

Licensees understand the LPTV Displacement Public Notice as expanding the Commission's typical approach to construction permit tolling requests. Generally, industry-wide circumstances are not sufficient to justify a tolling a construction permit. However, given the unique circumstances of the television repack and, now, the unprecedented impact of the Covid-19 pandemic, Licensees believe the LPTV Displacement Public Notice applies to Licensees situation and grant of the tolling request is appropriate.

Moreover, notwithstanding the LPTV Displacement Public Notice's broad application, a number of events specifically impact Licensees and directly impacted their ability to complete construction. In addition to the delays mentioned above, Licensee Joan Wright suffered a work injury onboard a U.S. Navy ship on June 20, 2019. The injury required dozens of rehabilitation appointments. Licensees also filed for divorce on March 15, 2019. While filing for divorce itself may be within Licensees control, on October 8, 2019, the court presiding over Licensees' divorce froze Licensees' assets to accommodate the divorce proceeding. As a result, moving significant sums of money, money needed for equipment purchases for example, became administratively prohibitive for both Licensees. Finally, the Covid-19 pandemic significantly disrupted construction plans. Already scarce consulting engineers and tower crews became more difficult to schedule. Licensees' college-aged child also had classes disrupted during the pandemic forcing Licensees to scramble to retrieve their child from college and make alternative living arrangements that could allow their child to continue taking classes remotely.

### **Schedule for Completing Construction**

Licensees hope to be able to launch WGBS on its post-repack channel by December 2021. Transmitter shipment and delivery is expected in September-October timeframe. Shipment of WGBS's new antenna should also take place in September. Along with the equipment that will be shipped next month, Licensees expect that work crews will be able to remove WGBS's existing antenna and feedlines in September. Antenna installation is currently planned for October along with feedline tests and cable loss measurements. Field performance testing and measurements are planned for November. The current buildout schedule also includes four (4) weeks for schedule slippage/contingency for further weather, tower crew, and field testing delays. As noted above, Licensees hope to bring WGBS back on air in December 2021, but Licensees are still requesting a six month tolling extension through January 31, 2022 to ensure sufficient time to complete WGBS's channel transition.

## **Exhibit A**



# WGBS-LD

## Hampton, VA

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Thursday, April 05, 2018



# JHD-HR2

Omni-Directional

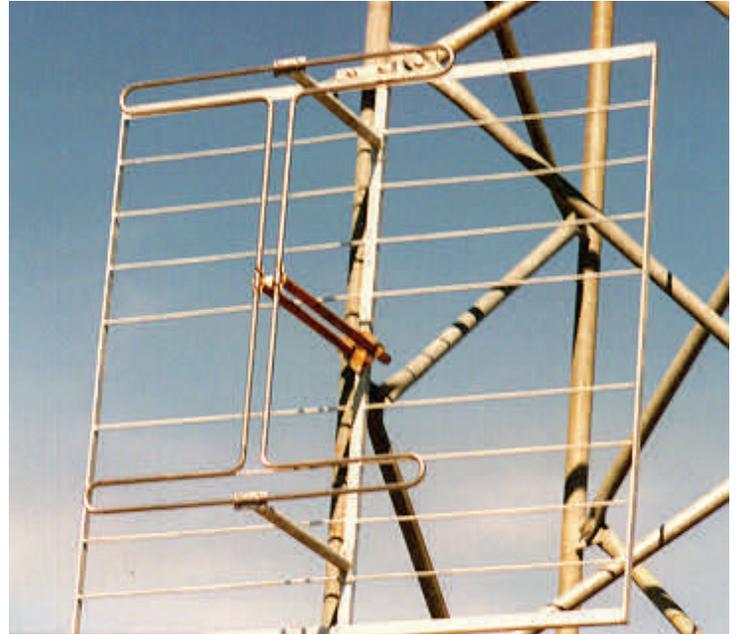
Channel 12

Horizontal Polarization



## HORIZONTAL DUAL DIPOLE FLAT PANEL ANTENNA

The JAMPRO JHD-HR2 antenna is a half wave spaced dual dipole horizontally polarized flat panel antenna system. Galvanized steel panel construction & stainless steel dipole insures many years of dependable performance. The JHD antenna has been proven to have excellent bandwidth, with typical VSWR of <math><1.05:1</math> on carrier, and <math><1.1:1</math> across the channel. Many standard and custom directional patterns are available to fit any of your coverage requirements.



**Designed for high band VHF  
(Ch 7-13) band III (174-230 MHz)**

**Typical single channel VSWR <math><1.1:1</math> on channel**

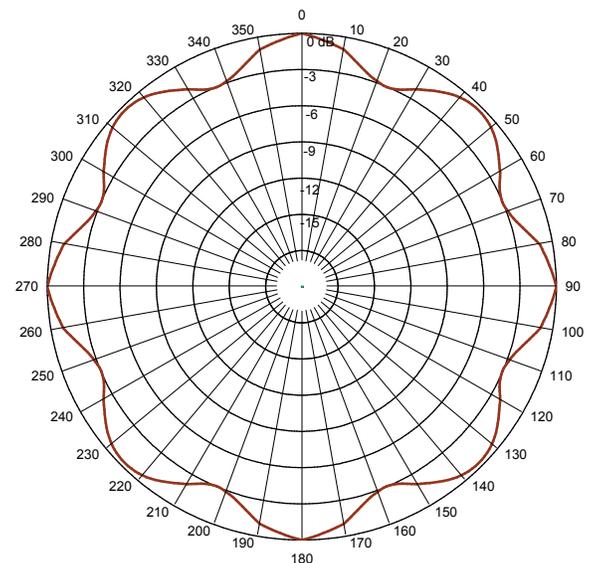
**Omni-directional or custom  
directional patterns**

**Hot dipped galvanized steel construction**

**Stainless steel dipoles**

**Custom mounting brackets available for  
easy installation**

**Single panel gain 7.5 dBd is at mid-band 8.0 dB  
Gain at high end of band III**



Standard 4 Round Omni Azimuth Pattern



## JAMPRO JHD HR2 BROADCAST ANTENNA

# Bays	Panels per Bay	Gain (times)	Gain (dBd)	Height (ft)	Projected Area (sq. ft.)
1	2	2.5	4	4.1	Contact Factory
	3	1.6	2.04		
	4	1.25	0.97		
2	2	5	7	9.4	
	3	3.3	5.2		
	4	2.5	4		
4	2	10	10	19.9	
	3	6.6	8.2		
	4	5	7		
6	2	15	11.75	30.3	
	3	10	10		
	4	7.5	8.75		
8	2	20	13	40.4	
	3	13.3	11.25		
	4	10	10		

All stated gains are Peak gains. Gains do not include losses for feed system, beam tilt or null fill.

### Notes:

- Weights and windloads contact factory.
- All input EIA flange, female 50 ohm
- Input N, 7/16 or 7/8 (other type of connectors on request).
- Frequency range one channel in Band III (174-230 MHz).
- Null fill and beam tilt on request.
- Specifications are based on one wave spaced bays. Other spacing available.
- VSWR for individual panels and complete systems typical  $\leq 1.1:1$
- Power rating per panel varies with input power
- Total number of frequencies/channels limited only by total input power.
- In an omni-directional configuration typical circularity +/- 1.5 dB or better. Directional patterns available

### Options

Options available include FCC-Directionalization, Pattern Measurement Service, beam tilt, null fill, and special mounting brackets.

### Non-ionizing Radiation

Since many factors contribute to a station's compliance with the FCC exposure guidelines for radio frequency radiation, JAMPRO Antennas, Inc. cannot accept any responsibility in this matter. The station must examine and determine its status based on each individual situation.

\*All specifications are subject to change.



## **TV ANTENNA SPECIFICATIONS**

<u>PROJECT:</u>	WGBS-LD
<u>CHANNEL:</u>	12 (204-210 MHz)
<u>ANTENNA DESCRIPTION:</u>	Horizontal Dual Dipole VHF Panel Antenna
<u>ANTENNA TYPE:</u>	JHD-HR2-2/4 (8)

### **ELECTRICAL SPECIFICATIONS**

Peak power gain:	2.5x / 4.0 dBd
Array configuration:	2 bays, 4 directions (2-2-2-2, 8 Panels)
Electrical beam tilt:	-0°
Null fill:	0%
Antenna VSWR:	1.1:1 across channel
Input power:	4 kW
Antenna input impedance:	50 ohm

### **MECHANICAL SPECIFICATIONS**

Overall height of antenna, est:	see mechanical drawing
Antenna net weight, est:	see mechanical drawing
Effective projected area (EPA):	see mechanical drawing
Antenna input connector size:	1-5/8" EIA female

**NOTE:** THESE SPECIFICATIONS ARE PREDICTIONS BASED ON AVAILABLE DATA. THE ACTUAL PERFORMANCE MAY DIFFER FROM THESE DUE TO THE ELECTRICAL, MECHANICAL AND MEASURED LIMITATIONS AT YOUR FREQUENCIES.



## **TV ANTENNA SPECIFICATIONS**

<u>PROJECT:</u>	WGBS-LD
<u>CHANNEL:</u>	12 (204-210 MHz)
<u>ANTENNA DESCRIPTION:</u>	Horizontal Dual Dipole VHF Panel Antenna
<u>ANTENNA TYPE:</u>	JHD-HR2-3/4 (12)

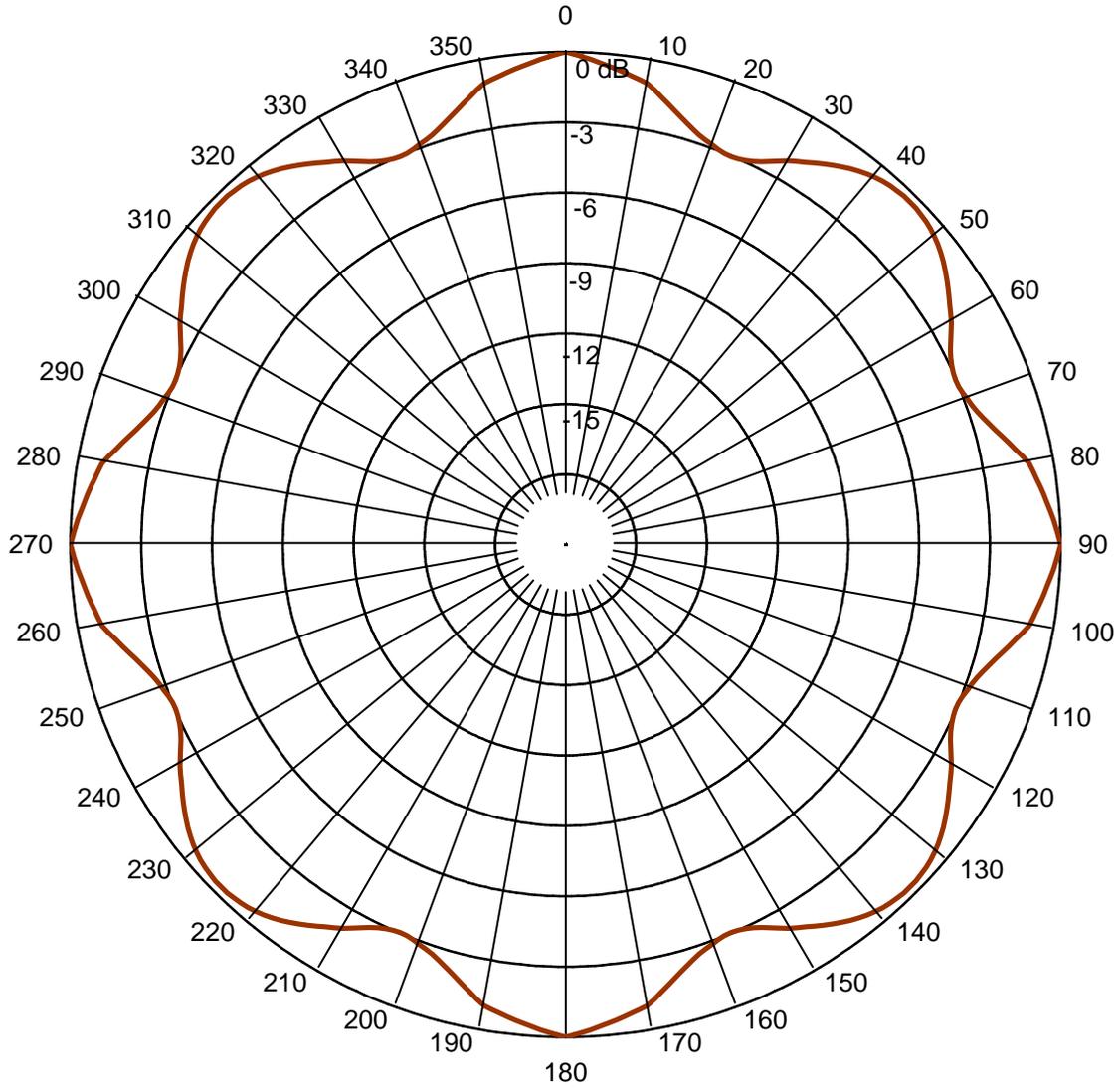
### **ELECTRICAL SPECIFICATIONS**

Peak power gain:	3.8x / 5.8 dBd
Array configuration:	3 bays, 4 directions (3-3-3-3, 12 Panels)
Electrical beam tilt:	-0°
Null fill:	0%
Antenna VSWR:	1.1:1 across channel
Input power:	4 kW
Antenna input impedance:	50 ohm

### **MECHANICAL SPECIFICATIONS**

Overall height of antenna, est:	see mechanical drawing
Antenna net weight, est:	see mechanical drawing
Effective projected area (EPA):	see mechanical drawing
Antenna input connector size:	1-5/8" EIA female

**NOTE:** THESE SPECIFICATIONS ARE PREDICTIONS BASED ON AVAILABLE DATA. THE ACTUAL PERFORMANCE MAY DIFFER FROM THESE DUE TO THE ELECTRICAL, MECHANICAL AND MEASURED LIMITATIONS AT YOUR FREQUENCIES.



Values in dB

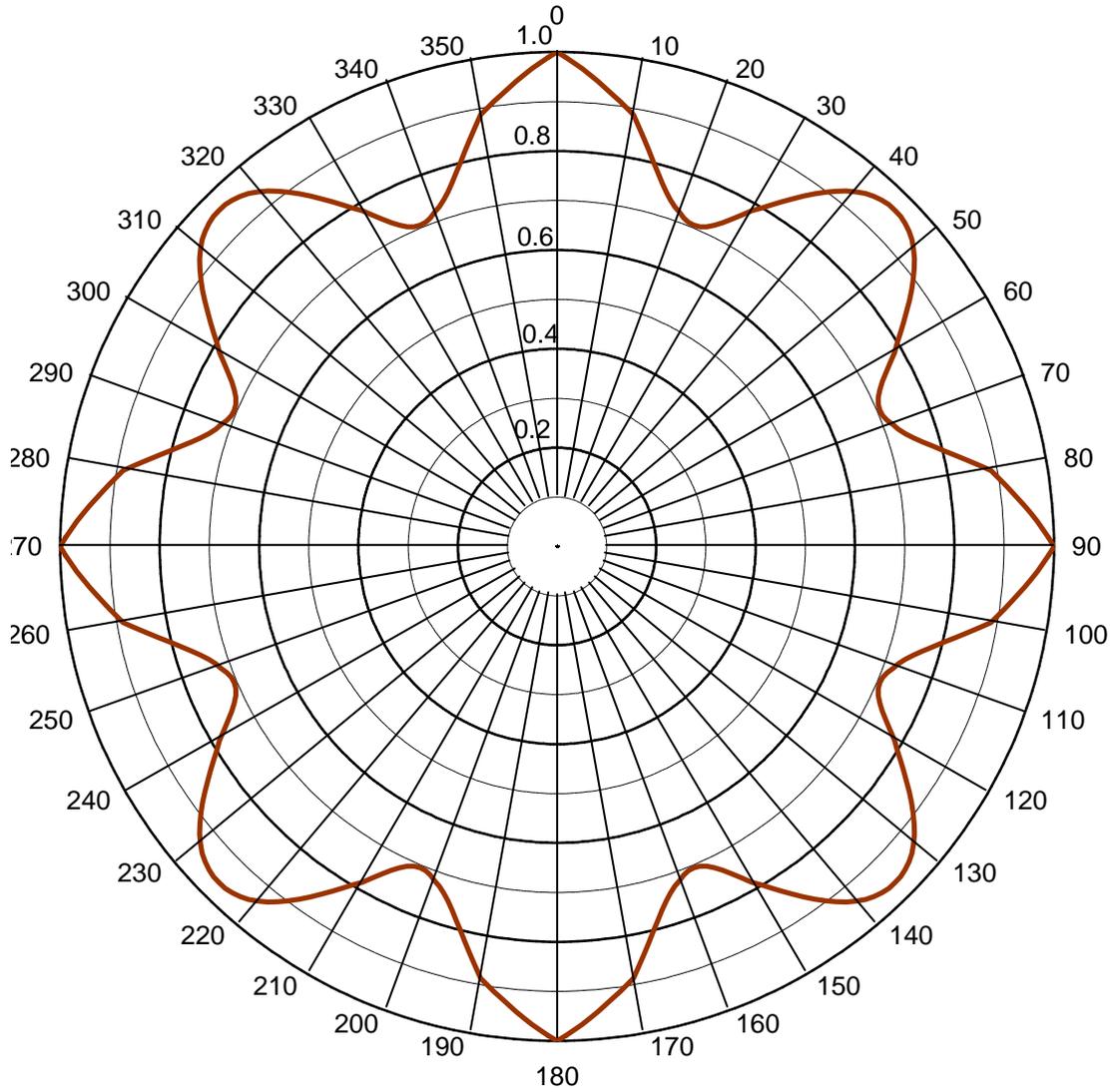
**Customer: WGBS-LD**

**Channel: 12**

**Model: JHD-HR2-2/4 (8) or 3/4 (12)**

**Description: VHF Panel Antenna**

**Notes: Horizontal Polarization**



Values in Relative Field

**Customer: WGBS-LD**

**Channel: 12**

**Model: JHD-HR2-2/4 (8) or 3/4 (12)**

**Description: VHF Panel Antenna**

**Notes: Horizontal Polarization**



## Azimuth Pattern Tabulation

<u>AZIMUTH</u>	<u>Relative</u> <u>Field</u>	<u>dB</u>	<u>AZIMUTH</u>	<u>Relative</u> <u>Field</u>	<u>dB</u>
0	1.000	0.000	180	1.000	0.000
5	0.944	-0.497	185	0.944	-0.497
10	0.886	-1.047	190	0.886	-1.047
15	0.783	-2.125	195	0.783	-2.125
20	0.720	-2.851	200	0.720	-2.851
25	0.714	-2.929	205	0.714	-2.929
30	0.784	-2.109	210	0.784	-2.109
35	0.865	-1.258	215	0.865	-1.258
40	0.937	-0.569	220	0.937	-0.569
45	0.962	-0.335	225	0.962	-0.335
50	0.937	-0.569	230	0.937	-0.569
55	0.865	-1.258	235	0.865	-1.258
60	0.784	-2.109	240	0.784	-2.109
65	0.714	-2.929	245	0.714	-2.929
70	0.720	-2.851	250	0.720	-2.851
75	0.783	-2.125	255	0.783	-2.125
80	0.886	-1.047	260	0.886	-1.047
85	0.944	-0.497	265	0.944	-0.497
90	1.000	0.000	270	1.000	0.000
95	0.944	-0.497	275	0.944	-0.497
100	0.886	-1.047	280	0.886	-1.047
105	0.783	-2.125	285	0.783	-2.125
110	0.720	-2.851	290	0.720	-2.851
115	0.714	-2.929	295	0.714	-2.929
120	0.784	-2.109	300	0.784	-2.109
125	0.865	-1.258	305	0.865	-1.258
130	0.937	-0.569	310	0.937	-0.569
135	0.962	-0.335	315	0.962	-0.335
140	0.937	-0.569	320	0.937	-0.569
145	0.865	-1.258	325	0.865	-1.258
150	0.784	-2.109	330	0.784	-2.109
155	0.714	-2.929	335	0.714	-2.929
160	0.720	-2.851	340	0.720	-2.851
165	0.783	-2.125	345	0.783	-2.125
170	0.886	-1.047	350	0.886	-1.047
175	0.944	-0.497	355	0.944	-0.497

Customer: WGBS-LD

Channel: 12

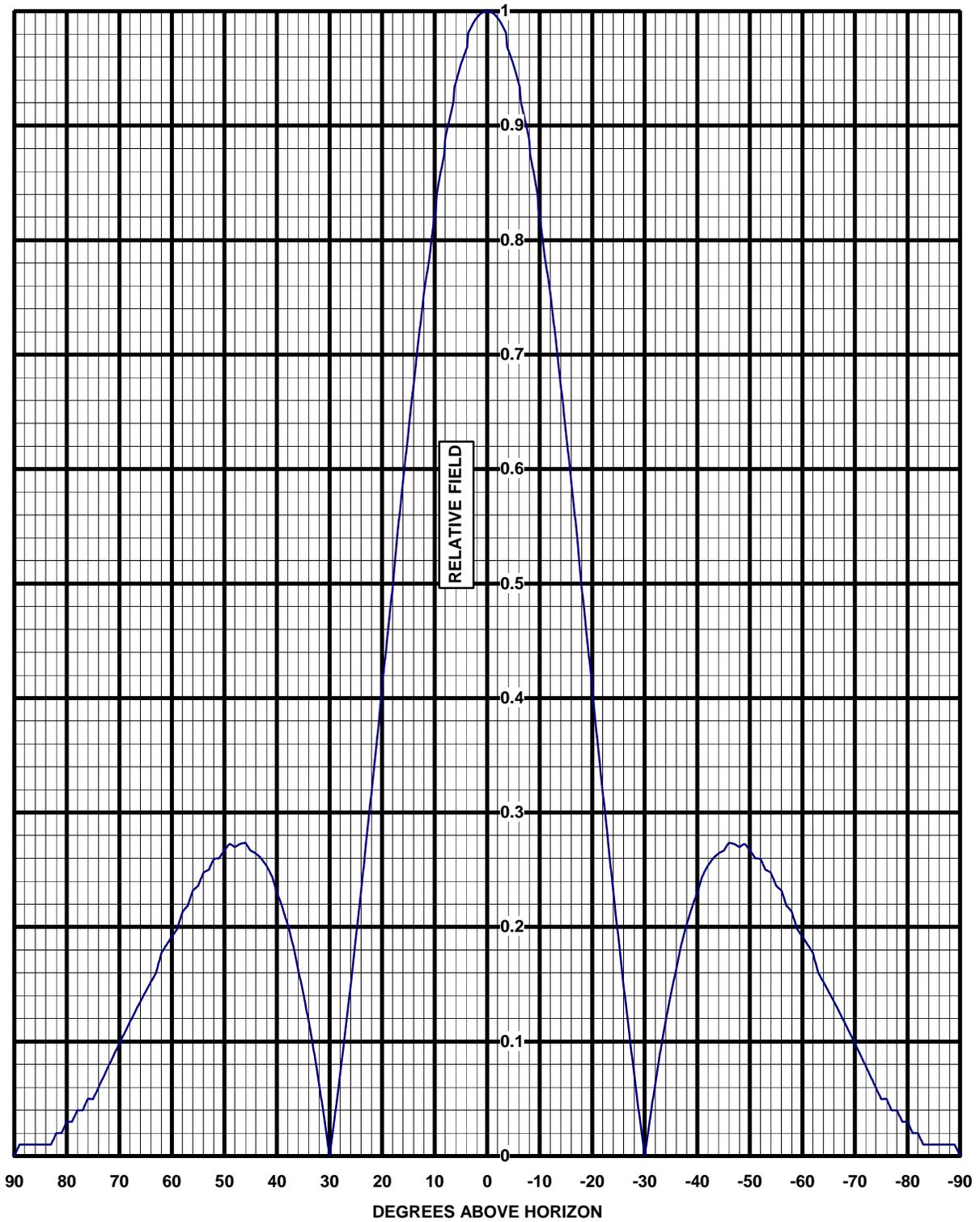
Model: JHD-HR2-2/4 (8) or 3/4 (12)

Description: VHF Panel Antenna

Notes: Horizontal Polarization



COMPUTED ELEVATION PATTERN

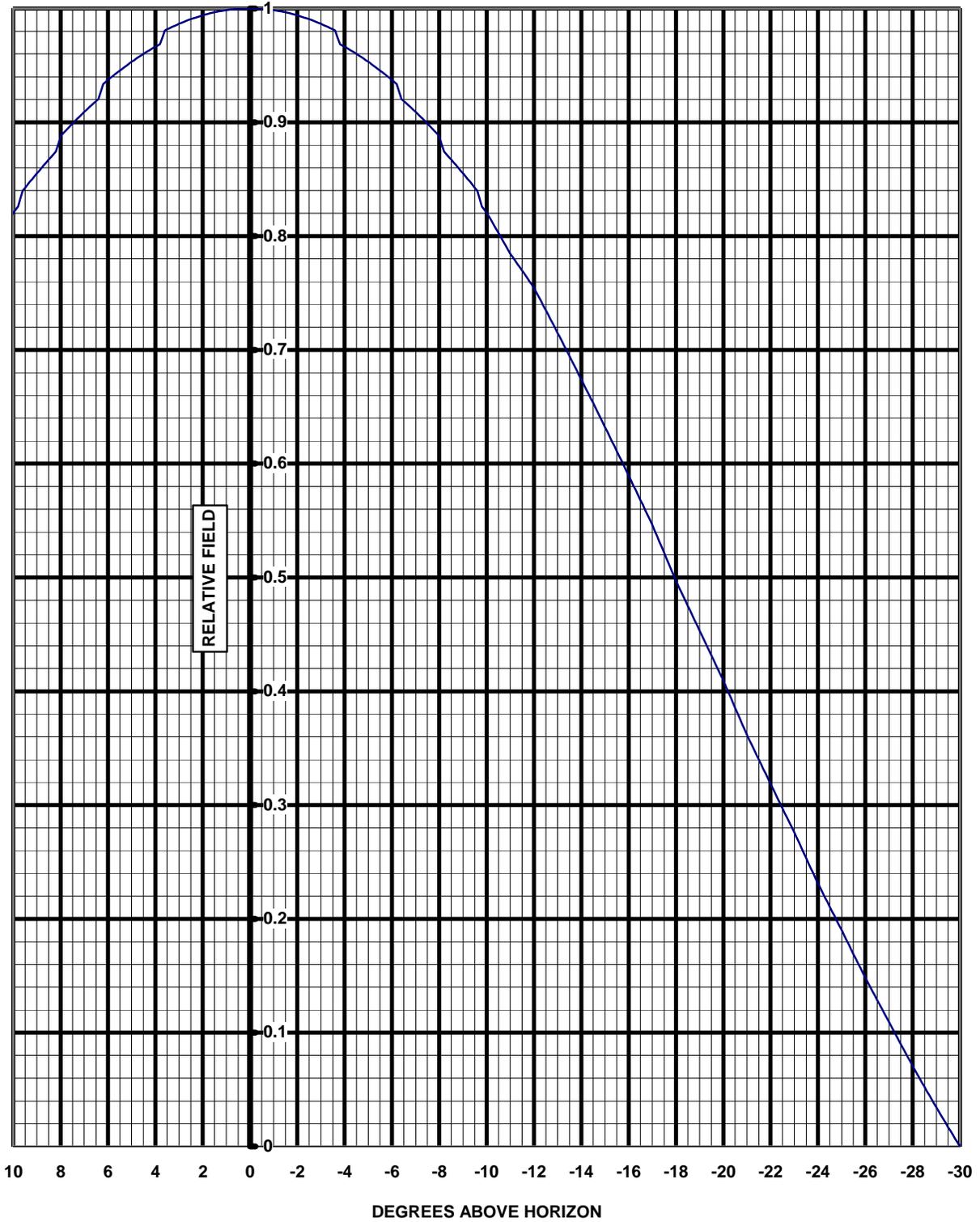


Site: WGBS-LD  
Bays: 2

Model: JHD-HR2-2/4 (8)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



COMPUTED ELEVATION PATTERN



Site: WGBS-LD  
Bays: 2

Model: JHD-HR2-2/4 (8)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



## Elevation Pattern Tabulation

### ELEVATION PATTERN TABULATION

#### RELATIVE FIELD VS ELEVATION ANGLE

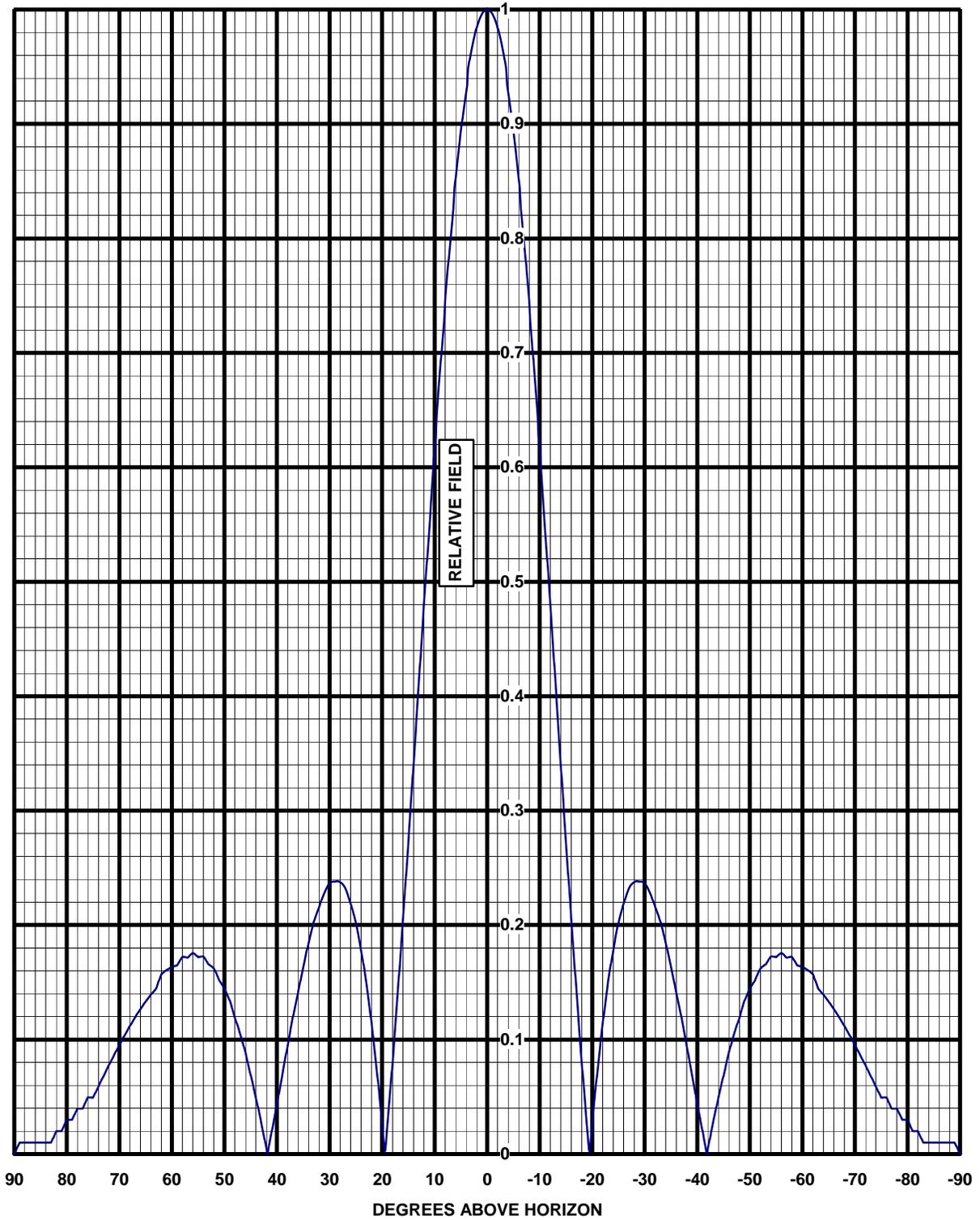
<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>
10	0.821	-26	0.148	-61	0.185
9	0.855	-27	0.109	-62	0.177
8	0.888	-28	0.071	-63	0.160
7	0.909	-29	0.034	-64	0.152
6	0.937	-30	0.000	-65	0.144
5	0.953	-31	0.033	-66	0.135
4	0.966	-32	0.063	-67	0.126
3	0.987	-33	0.092	-68	0.117
2	0.994	-34	0.118	-69	0.108
1	0.998	-35	0.142	-70	0.098
0	1.000	-36	0.163	-71	0.089
-1	0.998	-37	0.186	-72	0.079
-2	0.994	-38	0.203	-73	0.069
-3	0.987	-39	0.217	-74	0.060
-4	0.966	-40	0.230	-75	0.050
-5	0.953	-41	0.245	-76	0.050
-6	0.937	-42	0.253	-77	0.040
-7	0.909	-43	0.260	-78	0.040
-8	0.888	-44	0.264	-79	0.030
-9	0.855	-45	0.267	-80	0.030
-10	0.821	-46	0.273	-81	0.020
-11	0.784	-47	0.272	-82	0.020
-12	0.754	-48	0.270	-83	0.010
-13	0.715	-49	0.273	-84	0.010
-14	0.674	-50	0.267	-85	0.010
-15	0.632	-51	0.260	-86	0.010
-16	0.590	-52	0.259	-87	0.010
-17	0.546	-53	0.250	-88	0.010
-18	0.497	-54	0.248	-89	0.010
-19	0.453	-55	0.236	-90	0.000
-20	0.410	-56	0.232		
-21	0.362	-57	0.219		
-22	0.319	-58	0.213		
-23	0.276	-59	0.198		
-24	0.231	-60	0.192		
-25	0.190				

Site: WGBS-LD  
Bays: 2

Model: JHD-HR2-2/4 (8)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



COMPUTED ELEVATION PATTERN

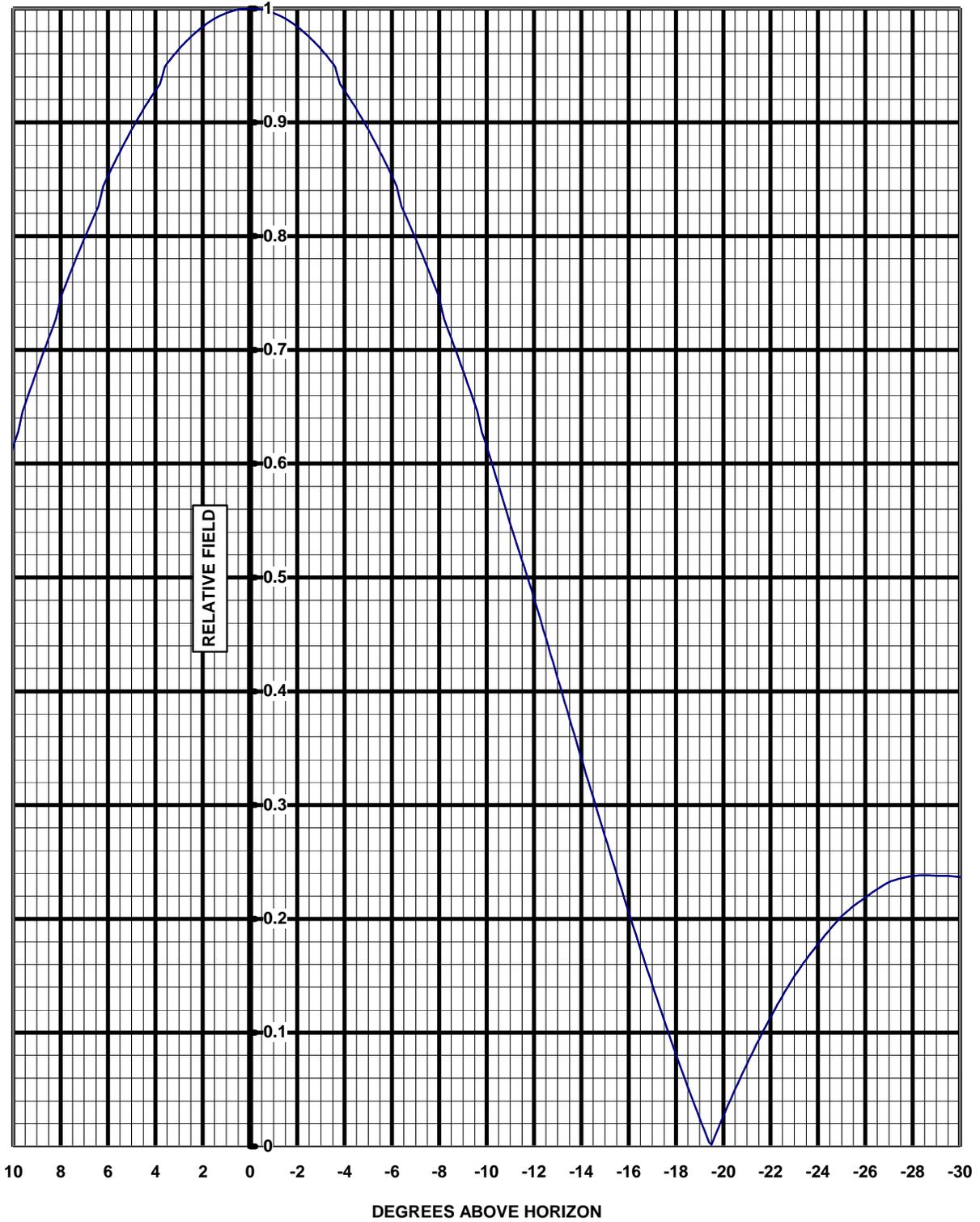


Site: WGBS-LD  
Bays: 3

Model: JHD-HR2-3/4 (12)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



COMPUTED ELEVATION PATTERN



Site: WGBS-LD  
Bays: 3

Model: JHD-HR2-3/4 (12)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



## Elevation Pattern Tabulation

### ELEVATION PATTERN TABULATION

#### RELATIVE FIELD VS ELEVATION ANGLE

<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>
10	0.615	-26	0.219	-61	0.161
9	0.682	-27	0.232	-62	0.157
8	0.746	-28	0.238	-63	0.144
7	0.798	-29	0.238	-64	0.139
6	0.853	-30	0.237	-65	0.133
5	0.893	-31	0.228	-66	0.127
4	0.928	-32	0.215	-67	0.119
3	0.964	-33	0.203	-68	0.112
2	0.984	-34	0.184	-69	0.104
1	0.996	-35	0.163	-70	0.095
0	1.000	-36	0.141	-71	0.087
-1	0.996	-37	0.119	-72	0.077
-2	0.984	-38	0.094	-73	0.068
-3	0.964	-39	0.069	-74	0.059
-4	0.928	-40	0.044	-75	0.049
-5	0.893	-41	0.020	-76	0.049
-6	0.853	-42	0.004	-77	0.040
-7	0.798	-43	0.027	-78	0.040
-8	0.746	-44	0.049	-79	0.030
-9	0.682	-45	0.069	-80	0.030
-10	0.615	-46	0.088	-81	0.020
-11	0.547	-47	0.105	-82	0.020
-12	0.482	-48	0.119	-83	0.010
-13	0.412	-49	0.134	-84	0.010
-14	0.341	-50	0.144	-85	0.010
-15	0.273	-51	0.152	-86	0.010
-16	0.206	-52	0.162	-87	0.010
-17	0.142	-53	0.166	-88	0.010
-18	0.081	-54	0.172	-89	0.010
-19	0.025	-55	0.172	-90	0.000
-20	0.027	-56	0.176		
-21	0.073	-57	0.171		
-22	0.114	-58	0.172		
-23	0.149	-59	0.165		
-24	0.178	-60	0.163		
-25	0.202				

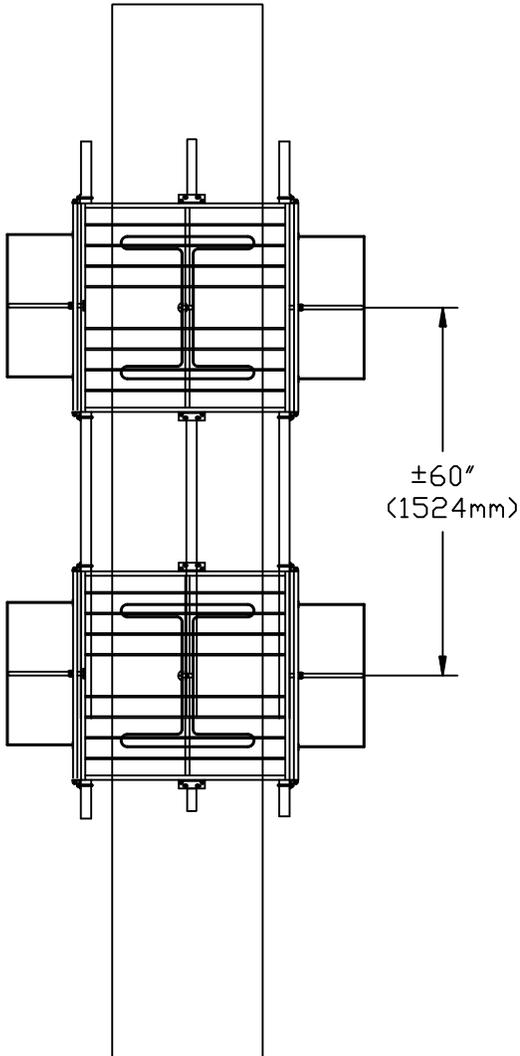
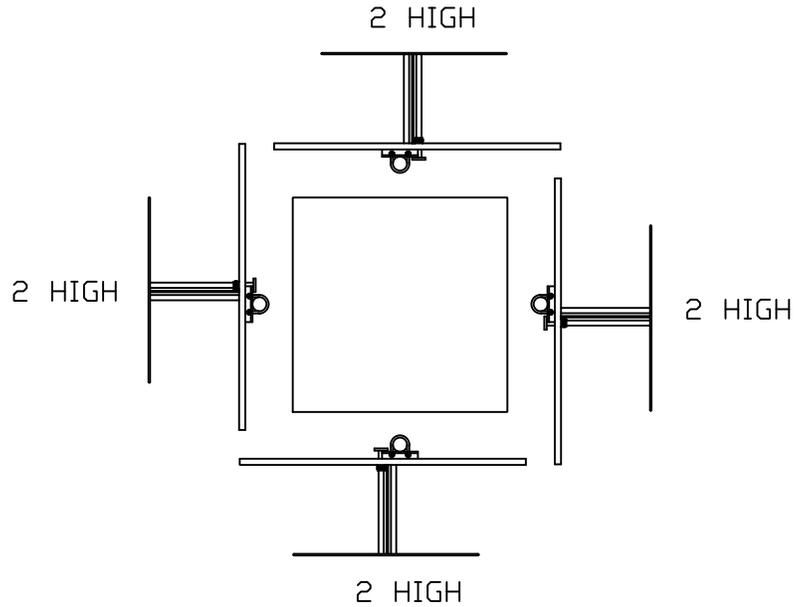
Site: WGBS-LD  
Bays: 3

Model: JHD-HR2-3/4 (12)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



6340 Sky Creek Drive, Sacramento, California 95828  
P.O. Box 292880, Sacramento, California 95829-2880

(916)383-1177 FAX (916)383-1182



NOTES:

REF TIA-222-G

- Assumptions:
- Importance Class II
  - Latticed Structure w/square cross section
  - Exposure Category C
  - Topographic Category 1

70 MPH (113 KM/HR) BASIC WIND SPEED  
NO ICE

INCLUDES ANTENNA, VERTICAL MOUNTING PIPE,  
POWER DIVIDER AND CABLES.  
DOES NOT INCLUDE TOWER OR MOUNTING BRACKETS

Weight, Wt. = 492 lbs. (223 kg)

Effective Projected Area, EPA  
EPA (no ice) = 41 sq. ft. (3.8 sq.m.)

## PRELIMINARY DRAWING AND CALCULATIONS

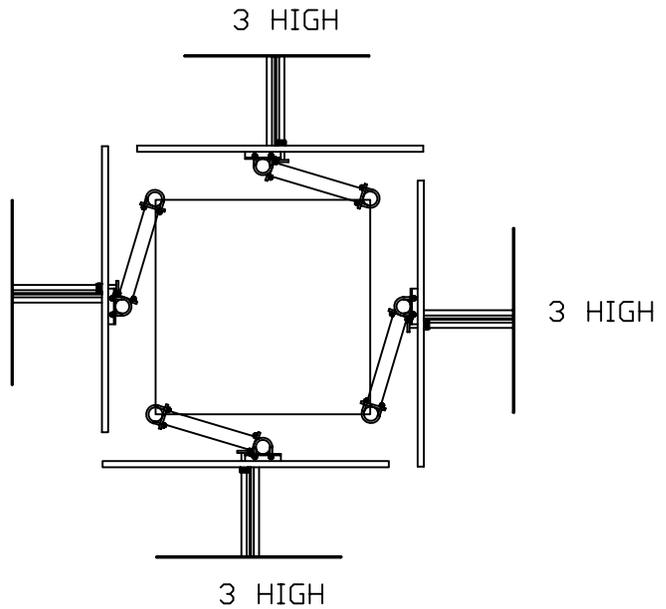
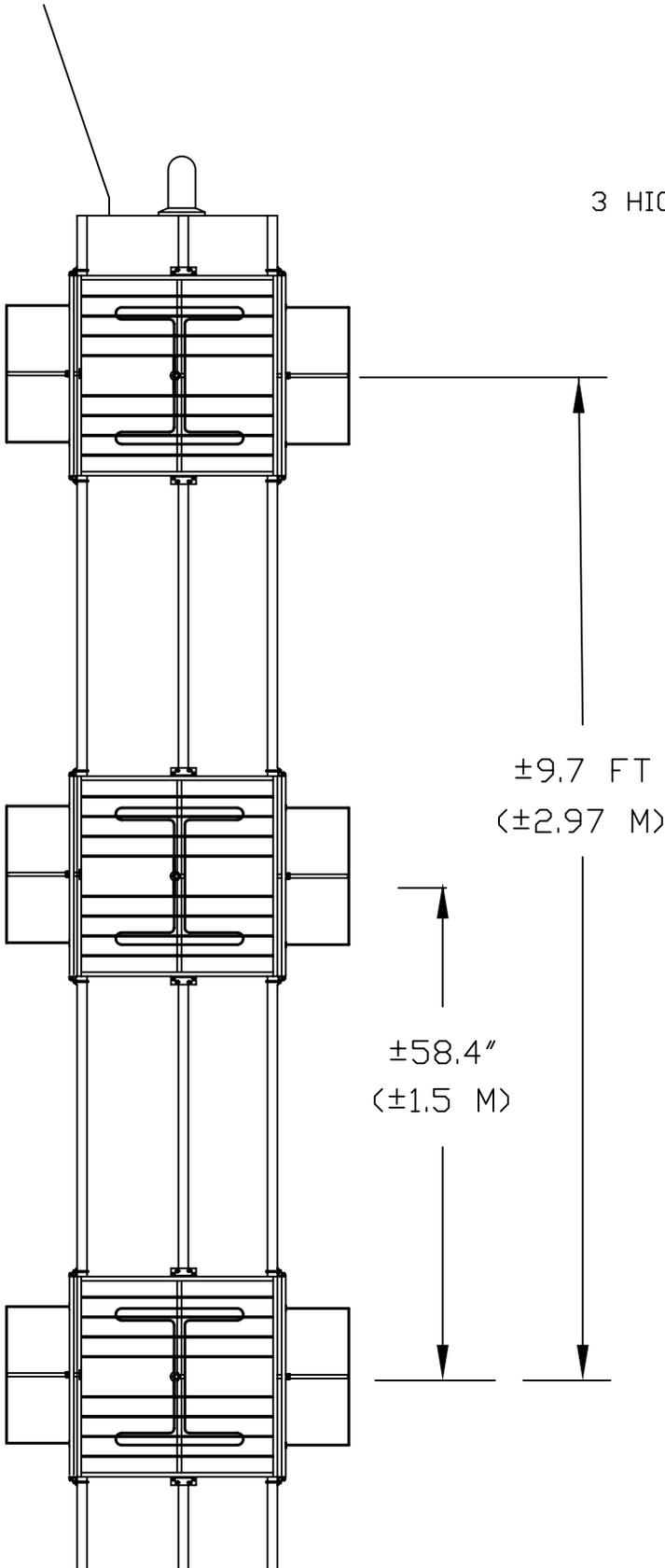
JHD-HR2-2/4 (8)

30 June 2014  
JHD-HR2-2.4 (8).DWG



6340 Sky Creek Drive, Sacramento, California 95828  
 P.O. Box 292880, Sacramento, California 95829-2880

(916)383-1177 FAX (916)383-1182



NOTES:

REF RS-222-F  
 125 MPH (200 KPH) WIND  
 NO ICE

$$V(\text{no ice}) = 2720 \text{ lbs (1235 Kg)}$$

$$W(\text{no ice}) = 360 \text{ lbs (165 Kg)}$$

INCLUDES ANTENNAS, MOUNTING,  
 REFLECTOR PANEL, AND FEED.  
 DOES NOT INCLUDE CENTER SPINE.

JHD-HR2-3/4(12)

REV "--" 10/10/2005  
 JHD-HR2-3-4.DWG



JCPD

Omni-Directional

Channel 12

Circular Polarization



## THE JAMPRO JCPD 4-DIPOLE FLAT PANEL ANTENNA

The JAMPRO JCPD antenna is a circularly polarized 4-dipole flat panel antenna system. Rugged galvanized steel construction insures many years of dependable performance in even the harshest environments. Protective lightweight dipole radomes may be added as protection against heavy ice buildup. The JCPD antenna has proven to provide excellent bandwidth, with typical VSWR of <math><1.1:1</math> or better. Many standard and custom directional patterns are available to fit any of your coverage requirements.

**Band I (54-88 mhz)**

**Band II (87.5-108 mhz.)**

**Band III (174-230 mhz.)**

**Excellent for multi-frequency,  
broadband applications**

**Omni-directional or custom directional  
patterns available**

**Rugged construction of stainless steel,  
marine brass and hot dipped galvanized steel**

**All insulators constructed from virgin Teflon**

**Radomes & custom mounting brackets available**

**Pressurized feed system and dipoles**



The design of this circularly polarized antenna may be configured to include varying levels of vertical polarization, with results ranging from small amounts of elliptical polarization to full circular polarization.



# Bays	Panels per Bay	Gain (times)	Gain (dB)	Height (ft/m)	Projected Area (sq. ft)
1	2	1.6	2	7ft / 2.13m	Contact Factory
	3	1.1	0.4		
	4	0.8	-1		
2	2	3.2	5.1	17ft / 5.18m	
	3	2.2	3.4		
	4	1.6	2		
4	2	6.5	8.1	37ft / 11.27m	
	3	4.5	6.5		
	4	3.3	5.2		
6	2	9.8	9.9	57ft / 17.87m	
	3	6.8	8.3		
	4	4.9	6.9		
8	2	13.2	11.2	77ft / 23.47m	
	3	9.2	9.6		
	4	6.6	8.2		
10	2	16.5	12.17	97ft / 29.57m	
	3	11.0	10.4		
	4	8.25	9.15		
12	2	19.8	12.96	117ft / 35.66m	
	3	13.2	11.2		
	4	9.9	9.95		

\*Values provided average/RMS gains; All other stated gains are Peak gains. Gains do not include losses for feed system beam tit or null fill.

**NOTES:**

- Weights and wind loads contact factory
- Total area shown in feet and are subject to change.
- All inputs EIA flange, female, 50 ohm.
- Polarization is circular.
- Input power capability available in many different ratings.
- Optimized bandwidth over nominal 50 ohm VSWR of 1.1:1 available. Contact factory for details.

- Power gain is based on half wave dipole in free space.
- Radomes optional. Contact factory for details.
- Weights and wind loads calculated without ice.
- All specifications are subject to change.

**OPTIONS:**

Options available include FCC-Directionalization, Pattern Measurement Service, Beam tilt and Null fill, Special mounting brackets.

**Non-ionizing Radiation**

Since many factors contribute to a station's compliance with the FCC exposure guidelines for radio frequency radiation, JAMPRO ANTENNAS, INC. cannot accept any responsibility in this matter. The station must examine and determine its status based on each individual situation.

\*All specifications are subject to change without notice.



## **VHF ANTENNA SPECIFICATIONS**

<u>PREPARED FOR:</u>	WGBS-LD
<u>CHANNEL:</u>	12
<u>ANTENNA DESCRIPTION:</u>	4-Dipole Circularly Polarized VHF Panel Antenna
<u>ANTENNA TYPE:</u>	JCPD-2/4 (8)-V

### **ELECTRICAL SPECIFICATIONS**

Est. power gain:	1.6x / 2.0 dBd
Array Configuration:	2 bays, 4 directions (2-2-2-2, 8 panels)
Electrical beam tilt:	-0°
Null fill:	0%
Antenna VSWR:	1.1:1
Max. input power rating	4 kW
Antenna input impedance:	50 ohm

### **MECHANICAL SPECIFICATIONS**

Overall height of antenna, est:	To be provided
Antenna net weight, est:	To be provided
Effective projected area (EPA):	To be provided
Antenna input connector size:	1-5/8" EIA

**NOTE:** THESE SPECIFICATIONS ARE PREDICTIONS BASED ON AVAILABLE DATA. THE ACTUAL PERFORMANCE MAY DIFFER FROM THESE DUE TO THE ELECTRICAL, MECHANICAL AND MEASURED LIMITATIONS AT YOUR FREQUENCIES.



## **VHF ANTENNA SPECIFICATIONS**

<u>PREPARED FOR:</u>	WGBS-LD
<u>CHANNEL:</u>	12
<u>ANTENNA DESCRIPTION:</u>	4-Dipole Circularly Polarized VHF Panel Antenna
<u>ANTENNA TYPE:</u>	JCPD-3/4 (12)-V

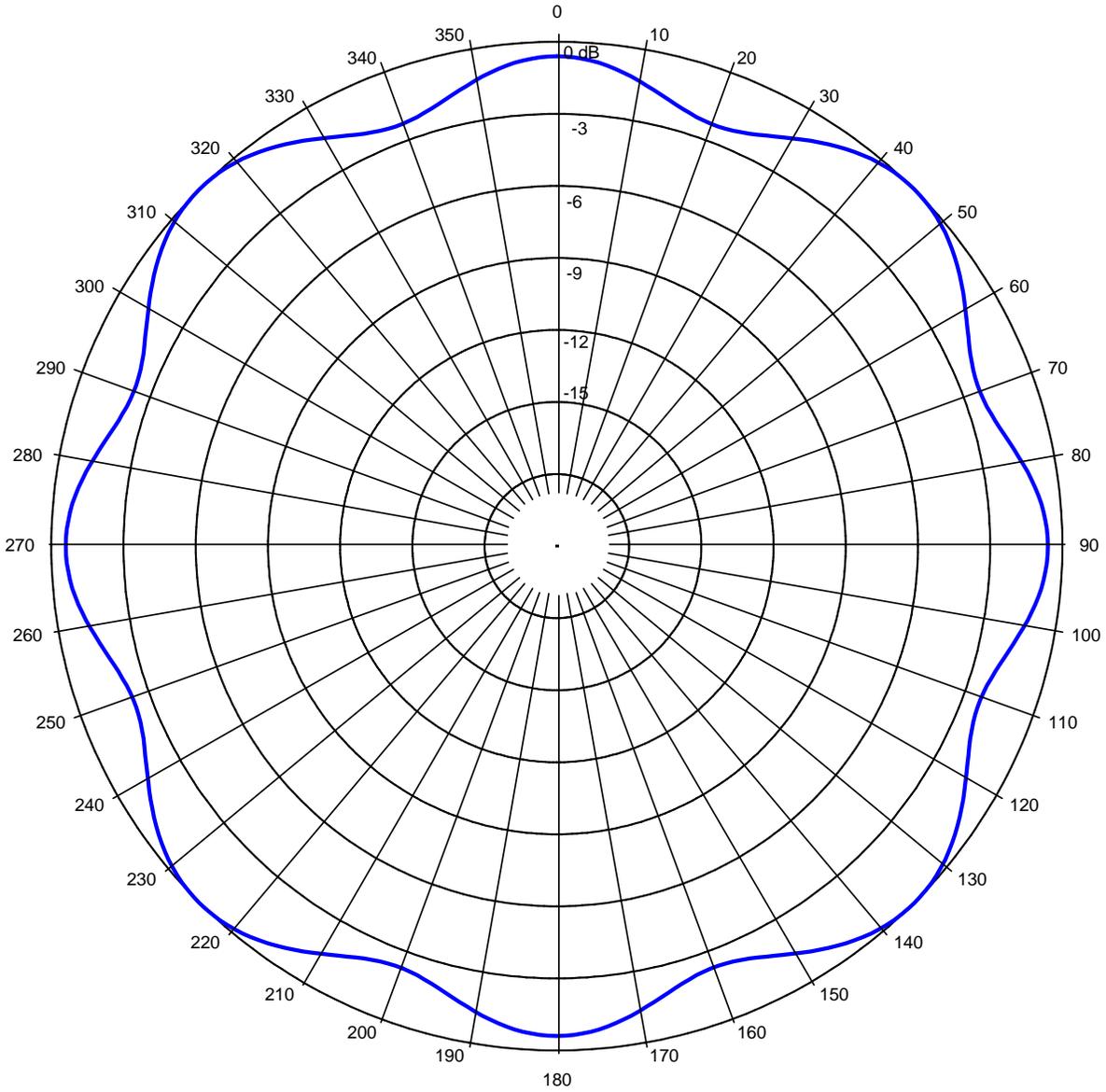
### **ELECTRICAL SPECIFICATIONS**

Est. power gain:	2.4x / 3.8 dBd
Array Configuration:	3 bays, 4 directions (3-3-3-3, 12 panels)
Electrical beam tilt:	-0°
Null fill:	0%
Antenna VSWR:	1.1:1
Max. input power rating	4 kW
Antenna input impedance:	50 ohm

### **MECHANICAL SPECIFICATIONS**

Overall height of antenna, est:	To be provided
Antenna net weight, est:	To be provided
Effective projected area (EPA):	To be provided
Antenna input connector size:	1-5/8" EIA

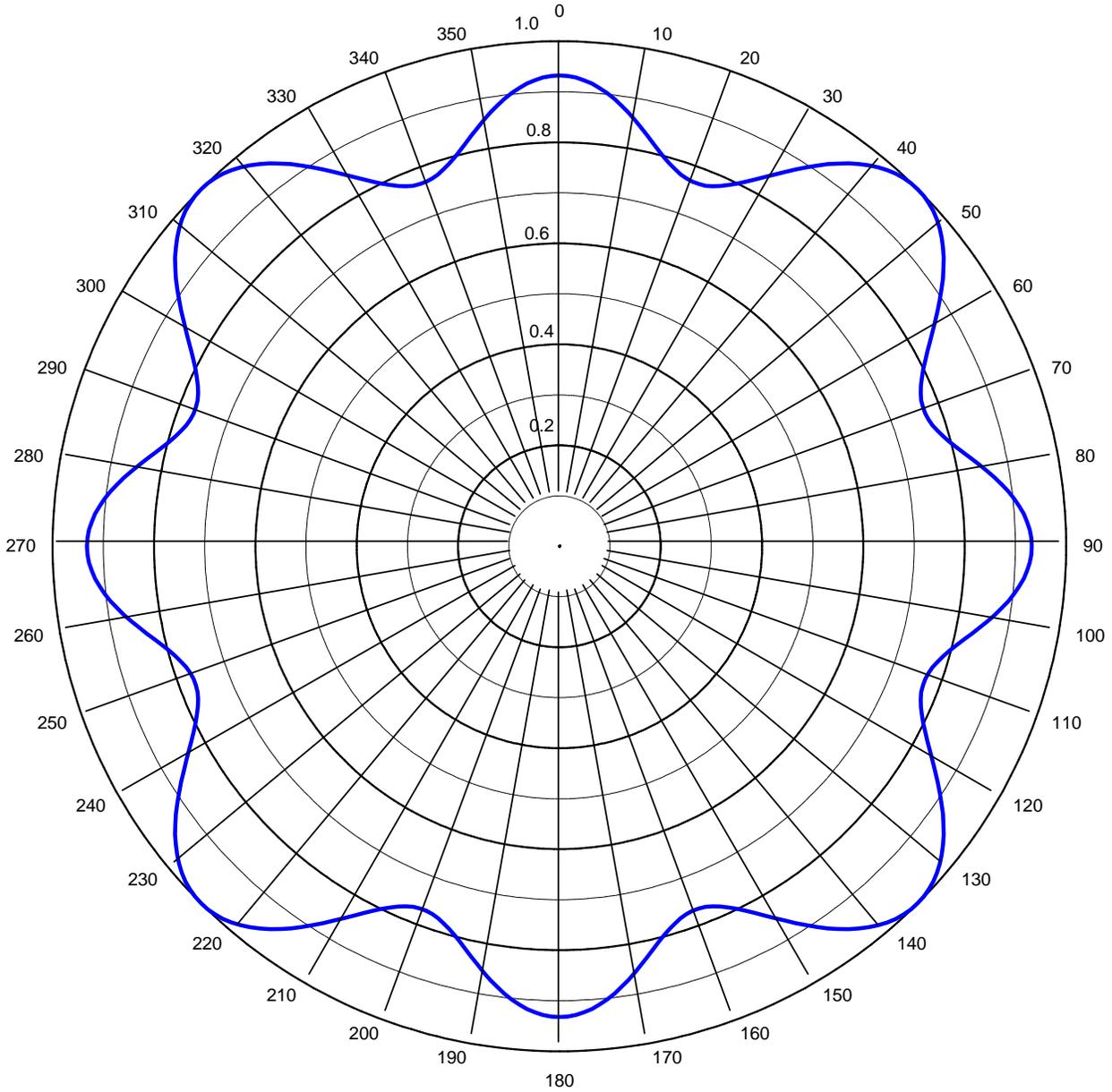
**NOTE:** THESE SPECIFICATIONS ARE PREDICTIONS BASED ON AVAILABLE DATA. THE ACTUAL PERFORMANCE MAY DIFFER FROM THESE DUE TO THE ELECTRICAL, MECHANICAL AND MEASURED LIMITATIONS AT YOUR FREQUENCIES.



Values in dB

**Customer: WGBS-LD**  
**Channel: 12**

**Model: JCPD-2/4 (8) or 3/4 (12)**  
**Description: VHF Panel Antenna**  
**Notes: Omni-Directional**



Values in Relative Field

**Customer: WGBS-LD**  
**Channel: 12**

**Model: JCPD-2/4 (8) or 3/4 (12)**  
**Description: VHF Panel Antenna**  
**Notes: Omni-Directional**



**Azimuth Pattern Tabulation**

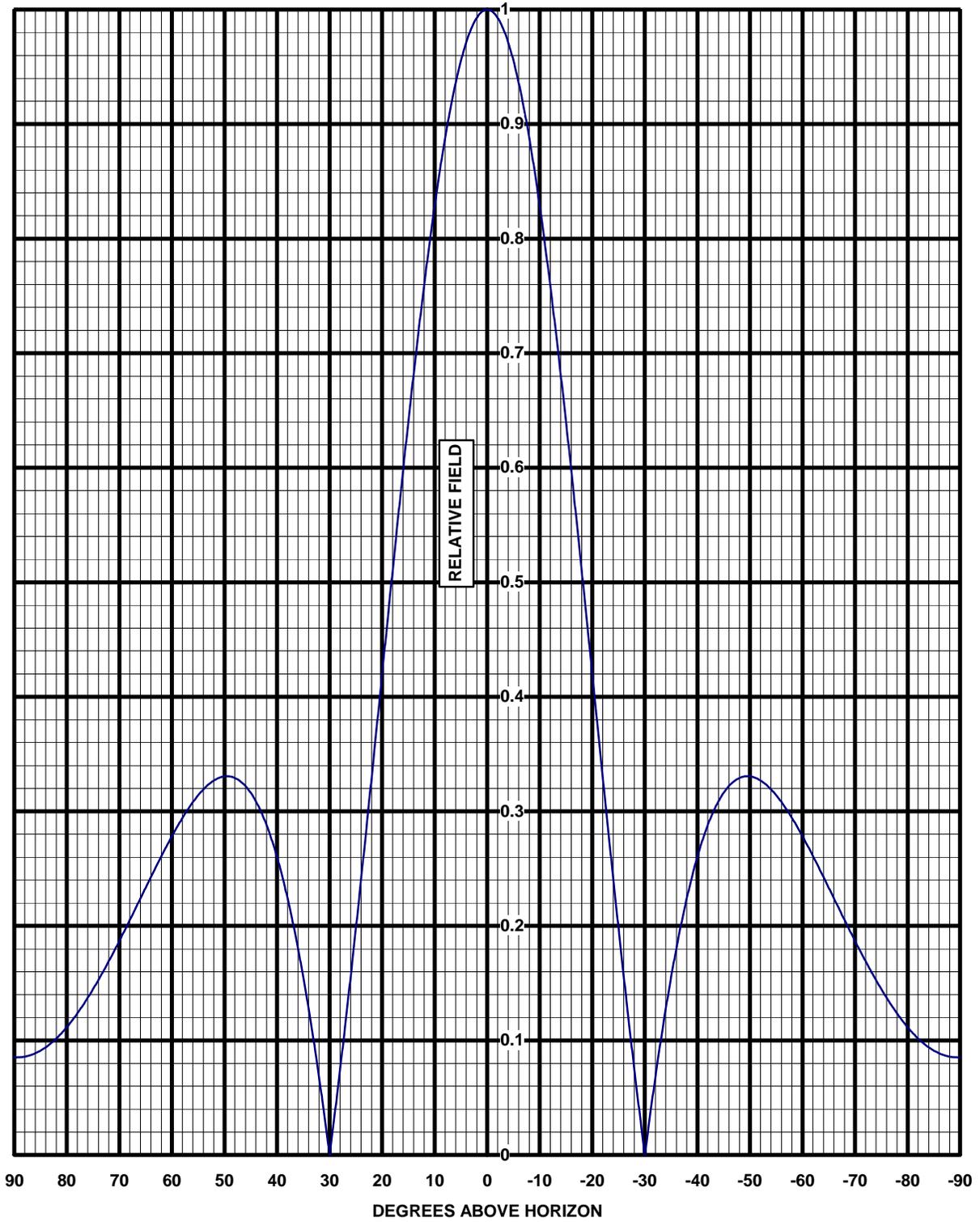
<u>AZ</u>	<u>HPOL</u>	<u>dB</u>		<u>AZ</u>	<u>HPOL</u>	<u>dB</u>
0	0.920	-0.722		180	0.920	-0.722
5	0.896	-0.953		185	0.896	-0.953
10	0.835	-1.570		190	0.835	-1.570
15	0.765	-2.322		195	0.765	-2.322
20	0.728	-2.754		200	0.728	-2.754
25	0.750	-2.495		205	0.750	-2.495
30	0.822	-1.702		210	0.822	-1.702
35	0.909	-0.833		215	0.909	-0.833
40	0.975	-0.219		220	0.975	-0.219
45	1.000	0.000		225	1.000	0.000
50	0.975	-0.219		230	0.975	-0.219
55	0.909	-0.833		235	0.909	-0.833
60	0.822	-1.702		240	0.822	-1.702
65	0.750	-2.495		245	0.750	-2.495
70	0.728	-2.754		250	0.728	-2.754
75	0.765	-2.322		255	0.765	-2.322
80	0.835	-1.570		260	0.835	-1.570
85	0.896	-0.953		265	0.896	-0.953
90	0.920	-0.722		270	0.920	-0.722
95	0.896	-0.953		275	0.896	-0.953
100	0.835	-1.570		280	0.835	-1.570
105	0.765	-2.322		285	0.765	-2.322
110	0.728	-2.754		290	0.728	-2.754
115	0.750	-2.495		295	0.750	-2.495
120	0.822	-1.702		300	0.822	-1.702
125	0.909	-0.833		305	0.909	-0.833
130	0.975	-0.219		310	0.975	-0.219
135	1.000	0.000		315	1.000	0.000
140	0.975	-0.219		320	0.975	-0.219
145	0.909	-0.833		325	0.909	-0.833
150	0.822	-1.702		330	0.822	-1.702
155	0.750	-2.495		335	0.750	-2.495
160	0.728	-2.754		340	0.728	-2.754
165	0.765	-2.322		345	0.765	-2.322
170	0.835	-1.570		350	0.835	-1.570
175	0.896	-0.953		355	0.896	-0.953

**Customer: WGBS-LD**  
**Channel: 12**

**Model: JCPD-2/4 (8) or 3/4 (12)**  
**Description: VHF Panel Antenna**  
**Notes: Omni-Directional**



COMPUTED ELEVATION PATTERN

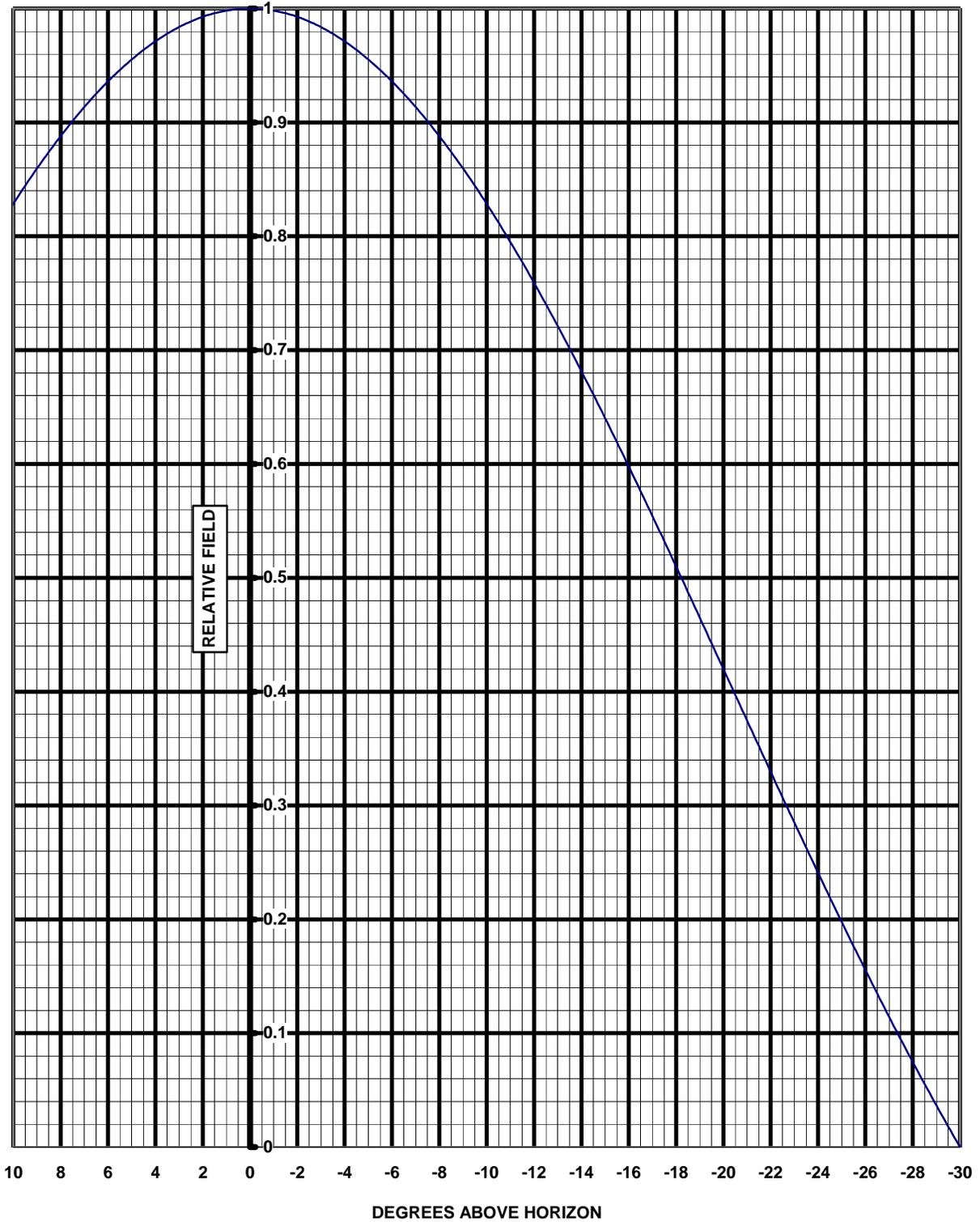


Site: WGBS-LD  
Bays: 2

Model: JCPD-2/4 (8)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



COMPUTED ELEVATION PATTERN



Site: WGBS-LD  
Bays: 2

Model: JCPD-2/4 (8)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



## Elevation Pattern Tabulation

### ELEVATION PATTERN TABULATION

#### RELATIVE FIELD VS ELEVATION ANGLE

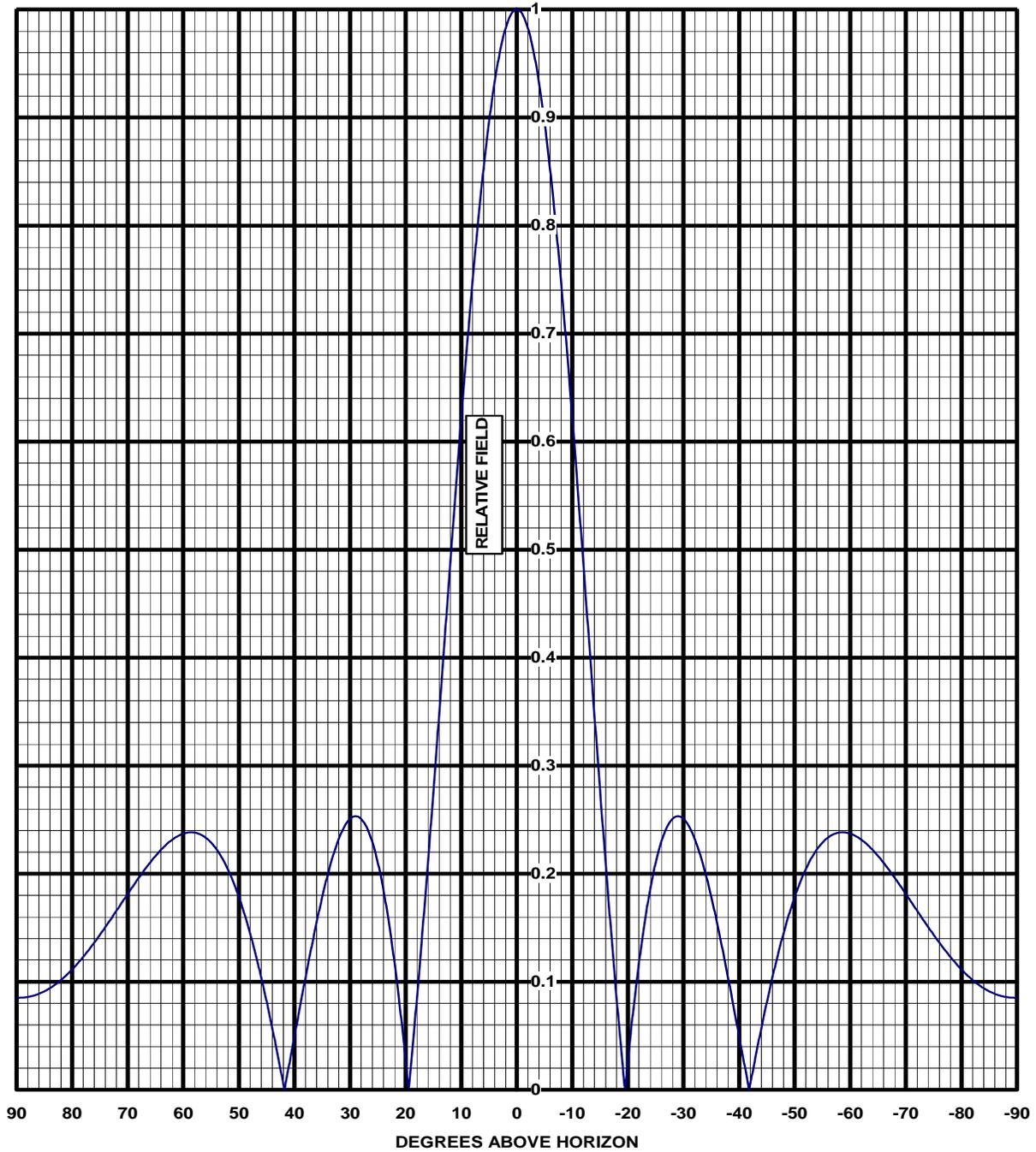
<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>
10	0.828	-26	0.155	-61	0.270
9	0.860	-27	0.114	-62	0.261
8	0.888	-28	0.075	-63	0.252
7	0.913	-29	0.037	-64	0.243
6	0.936	-30	0.000	-65	0.233
5	0.955	-31	0.035	-66	0.224
4	0.971	-32	0.068	-67	0.215
3	0.984	-33	0.099	-68	0.205
2	0.993	-34	0.128	-69	0.196
1	0.998	-35	0.155	-70	0.187
0	1.000	-36	0.180	-71	0.178
-1	0.998	-37	0.203	-72	0.169
-2	0.993	-38	0.224	-73	0.161
-3	0.984	-39	0.243	-74	0.153
-4	0.971	-40	0.260	-75	0.145
-5	0.955	-41	0.275	-76	0.137
-6	0.936	-42	0.288	-77	0.130
-7	0.913	-43	0.299	-78	0.124
-8	0.888	-44	0.309	-79	0.117
-9	0.860	-45	0.316	-80	0.112
-10	0.828	-46	0.322	-81	0.106
-11	0.795	-47	0.326	-82	0.102
-12	0.759	-48	0.329	-83	0.098
-13	0.721	-49	0.330	-84	0.094
-14	0.682	-50	0.331	-85	0.091
-15	0.640	-51	0.329	-86	0.089
-16	0.598	-52	0.327	-87	0.087
-17	0.554	-53	0.324	-88	0.086
-18	0.510	-54	0.319	-89	0.085
-19	0.465	-55	0.314	-90	0.085
-20	0.420	-56	0.308		
-21	0.375	-57	0.302		
-22	0.330	-58	0.294		
-23	0.285	-59	0.287		
-24	0.241	-60	0.278		
-25	0.198				

Site: WGBS-LD  
Bays: 2

Model: JCPD-2/4 (8)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



COMPUTED ELEVATION PATTERN

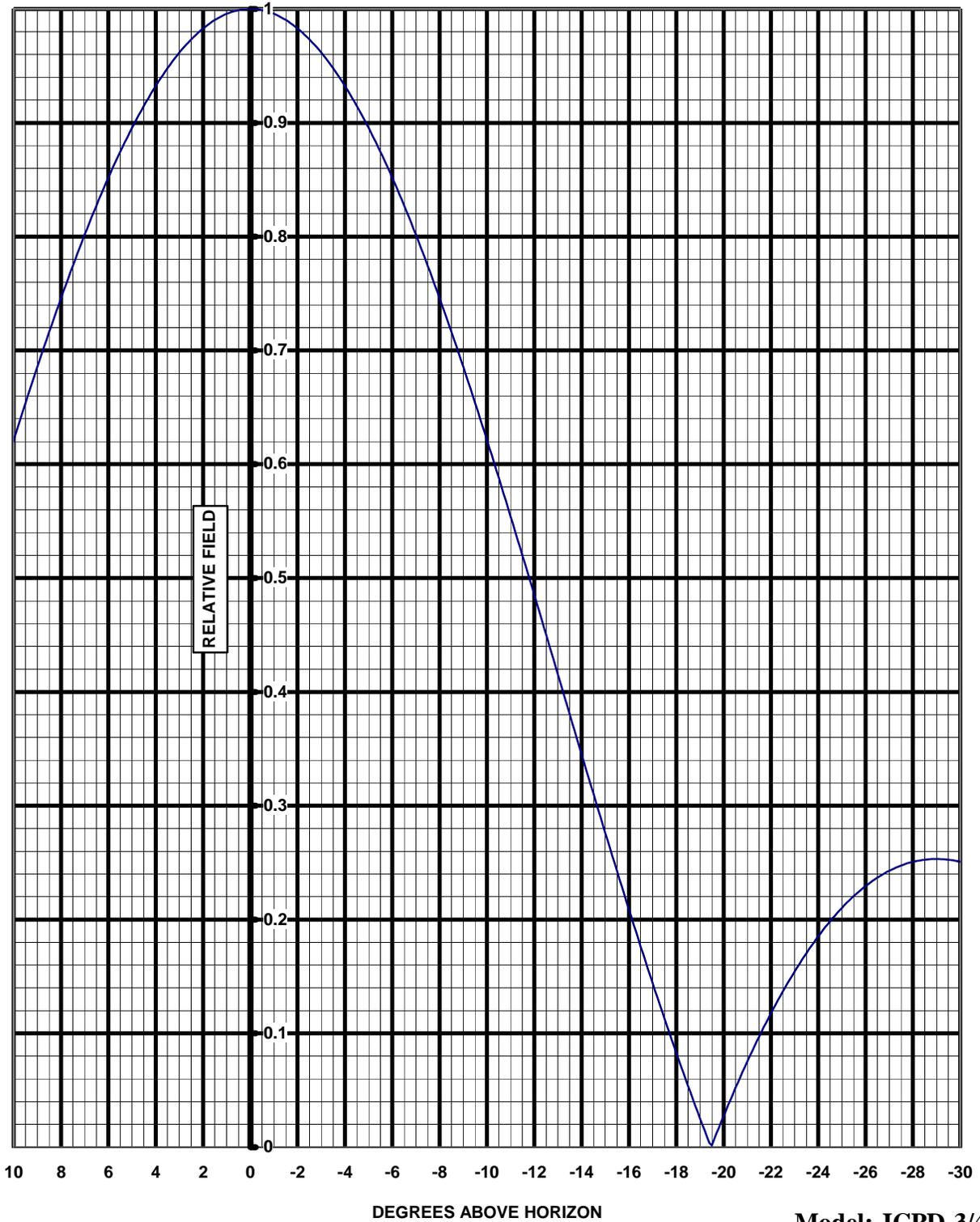


Site: WGBS-LD  
Bays: 3

Model: JCPD-3/4 (12)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



COMPUTED ELEVATION PATTERN



Site: WGBS-LD  
Bays: 3

Model: JCPD-3/4 (12)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**



## Elevation Pattern Tabulation

### ELEVATION PATTERN TABULATION

#### RELATIVE FIELD VS ELEVATION ANGLE

<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>	<u>ELEVATION ANGLE</u>	<u>RELATIVE FIELD</u>
10	0.621	-26	0.229	-61	0.235
9	0.685	-27	0.243	-62	0.231
8	0.746	-28	0.251	-63	0.227
7	0.802	-29	0.253	-64	0.222
6	0.852	-30	0.251	-65	0.216
5	0.895	-31	0.244	-66	0.210
4	0.932	-32	0.233	-67	0.203
3	0.962	-33	0.218	-68	0.196
2	0.983	-34	0.199	-69	0.189
1	0.996	-35	0.179	-70	0.181
0	1.000	-36	0.155	-71	0.174
-1	0.996	-37	0.130	-72	0.166
-2	0.983	-38	0.104	-73	0.158
-3	0.962	-39	0.077	-74	0.151
-4	0.932	-40	0.050	-75	0.143
-5	0.895	-41	0.022	-76	0.136
-6	0.852	-42	0.005	-77	0.130
-7	0.802	-43	0.032	-78	0.123
-8	0.746	-44	0.057	-79	0.117
-9	0.685	-45	0.081	-80	0.111
-10	0.621	-46	0.104	-81	0.106
-11	0.554	-47	0.125	-82	0.102
-12	0.485	-48	0.145	-83	0.098
-13	0.415	-49	0.163	-84	0.094
-14	0.345	-50	0.178	-85	0.091
-15	0.276	-51	0.192	-86	0.089
-16	0.209	-52	0.204	-87	0.087
-17	0.144	-53	0.214	-88	0.086
-18	0.083	-54	0.222	-89	0.085
-19	0.025	-55	0.229	-90	0.085
-20	0.027	-56	0.233		
-21	0.075	-57	0.237		
-22	0.118	-58	0.238		
-23	0.154	-59	0.238		
-24	0.185	-60	0.237		
-25	0.210				

Site: WGBS-LD  
Bays: 3

Model: JCPD-3/4 (12)  
Description: VHF Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**

## **Exhibit B**



Jampro Antennas, Inc.  
 6340 Sky Creek Drive  
 Sacramento, CA 95828  
 916-383-1177 Fax 916-383-1182

**Proposal #**  
**GM 033018G-R1**

## Quote

**Prepared For**

Name Ken Wright  
 Company WGBS-LD  
 Address Hampton, VA

For: **WGBS-LD; Channel 12**

Date	4/2/2020
Valid until	5/2/2020
Rep	Greg M.
Est. Ship Date (business days)	90 days

Item	Qty	Part #	Description	Unit Price	Total USD
1	1	JHD-HR2-2/4 (8)	<p><b>JAMPRO JHD-HR2-2/4 (8) Horizontally Polarized, Dual Dipole VHF Panel Antenna, to be configured to produce an omni-directional pattern.</b></p> <p>VSWR: 1.1:1            Polarization: Horizontal            Input power: &lt;1 kW            Input size: 1-5/8"            Channel: 12            Estimated power gain: 2.5x / 4.0 dBd</p> <p>Price to include JHD-HR2-2/4 (8) antenna, mounting hardware, power dividers, interbay cables.</p> <p><b>NOTE:</b>            *Mounting Brackets not included. To be quoted separately upon receipt and review of tower information and orientation.</p>	\$ 13,490.00	\$ 13,490.00
2	1	JHD-HR2-3/4 (12)	<p><b>JAMPRO JHD-HR2-3/4 (12) Horizontally Polarized, Dual Dipole VHF Panel Antenna, to be configured to produce an omni-directional pattern.</b></p> <p>VSWR 1.1:1            Polarization: Horizontal            Input power: &lt;1 kW            Input size: 1-5/8"            Channel: 12            Estimated power gain 3.75x / 5.74 dBd</p> <p>Price to include JHD-HR2-3/4 (12) antenna, mounting hardware, power dividers, interbay cables.</p> <p><b>NOTE:</b>            *Mounting Brackets not included. To be quoted separately upon receipt and review of tower information and orientation.</p>	\$ 19,220.00	\$ 19,220.00



Jampro Antennas, Inc.  
 6340 Sky Creek Drive  
 Sacramento, CA 95828  
 916-383-1177 Fax 916-383-1182

**Proposal #**  
**GM 033018G-R1**

## Quote

**Prepared For**

Name Ken Wright  
 Company WGBS-LD  
 Address Hampton, VA

For: **WGBS-LD; Channel 12**

Date	4/2/2020
Valid until	5/2/2020
Rep	Greg M.
Est. Ship Date (business days)	90 days

Item	Qty	Part #	Description	Unit Price	Total USD
3	1	JCPD-2/4(8)V	<p><b>JAMPRO JCPD-2 Bay, 4 Around Circularly Polarized VHF 4-Dipole Panel Antenna System to be configured to produce an omni-directional pattern.</b></p> <p>VSWR: 1.1:1            Polarization: Circular            Input power: 1 kW            Input size: 1-5/8"            Channel: 12            Estimated power gain: 1.6x / 3.2 dBd</p> <p>Price to include JCPD-2/4(8) antenna, mounting hardware, power dividers and interbay cables.</p> <p><b>NOTE:</b>  <u>*Mounting Brackets not included.</u> To be quoted separately upon receipt and review of tower information and orientation.</p>	\$ 30,495.00	\$ 30,495.00
4	1	JCPD-3/4(12)V	<p><b>JAMPRO JCPD-3 Bay, 4 Around Circularly Polarized VHF 4-Dipole Panel Antenna System to be configured to produce an omni-directional pattern.</b></p> <p>VSWR: 1.1:1            Polarization: Circular            Input power: 1 kW            Input size: 1-5/8"            Channel: 12            Estimated power gain: 2.4x / 3.8 dBd</p> <p>Price to include JCPD-3/4(12) antenna, mounting hardware, power dividers and interbay cables.</p> <p><b>NOTE:</b>  <u>*Mounting Brackets not included.</u> To be quoted separately upon receipt and review of tower information and orientation.</p>	\$ 48,819.00	\$ 48,819.00



Jampro Antennas, Inc.  
 6340 Sky Creek Drive  
 Sacramento, CA 95828  
 916-383-1177 Fax 916-383-1182

**Proposal #**  
**GM 033018G-R1**

## Quote

**Prepared For**

Name Ken Wright  
 Company WGBS-LD  
 Address Hampton, VA

For: **WGBS-LD; Channel 12**

Date	4/2/2020
Valid until	5/2/2020
Rep	Greg M.
Est. Ship Date <small>(business days)</small>	90 days

Item	Qty	Part #	Description	Unit Price	Total USD
5	1 Set		<b>415' (127M) 1-5/8" Foam Transmission Line &amp; Installation Accessories, to include the following:</b>	\$5,389.00	\$ 5,389.00
	415		1 5/8" Low Loss Foam Coax Cable		
	1		1-5/8" Connector for 1-5/8" Foam Transmission Line Gas Pass		
	1		1-5/8" Connector for 1-5/8" Foam Transmission Line Gas block		
	10		Butterfly Hanger Kit for 1 5/8" Cable, Hardware Included		
	10		Round Member Adaptor W/ 3/8" Hole, 2" - 3" OD, Stainless Steel		
	5		Standard Ground Kit for 1 5/8" Cables, 5' Lead W/ Unattached 3/8" Two Hole Lug		
	2		Pre-Laced Hoisting Grip for 1 5/8" Cables		
	1		4" Boot Assembly Kit W/ 1 Hole for 1 5/8" Cable		
	1		Standard Port Cushion W/ 1 Hole for 1 5/8" Cable		
			All prices are (USD) Freight not included Price does not include any consolidation of freight		



Jampro Antennas, Inc.  
 6340 Sky Creek Drive  
 Sacramento, CA 95828  
 916-383-1177 Fax 916-383-1182

**Proposal #**  
**GM 033018G-R1**

**Quote**

**Prepared For**

Name Ken Wright  
 Company WGBS-LD  
 Address Hampton, VA

For: **WGBS-LD; Channel 12**

Date	4/2/2020
Valid until	5/2/2020
Rep	Greg M.
Est. Ship Date (business days)	90 days

Item	Qty	Part #	Description	Unit Price	Total USD	
<b>Any questions please contact your sales representative:</b>					Sub-total	
<b>Greg Montano</b>						
<b>E-mail: Greg@jampro.com</b>						
<b>Office: 1 (916) 383-1177</b>						
<b>Fax: 1 (916) 383-1182</b>					<b>Total</b>	<b>\$ -</b>

Accepted by:		
Signature	_____	Date _____
Title	_____	
Accepted by:		
Signature	_____	Date _____
Title	Jampro Antennas, Inc.	

**Terms of Sale:**

- 1) If applicable, freight cost is an estimate only and is subject to change, contact factory to confirm pricing
- 2) Delivery is an estimate, to be confirmed after receipt of required information and contingent upon backlog at the time of order. Ship time is based on business days and excludes major US Holidays.
- 3) **Payment Terms are 1/3 Down Payment, Balance Before Ship.** All prices are in USD. Other terms and conditions/warranty of this order are at www.jampro.com, and upon acceptance of this order by Seller shall be binding upon seller & purchaser. For more information, call 916-383-1177.

## **Exhibit C**



Joan Wright &lt;joan.wright83@gmail.com&gt;

---

## WGBS LD Repack Eligibility

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**proservice@transmitterservice.com** <proservice@transmitterservice.com>

Thu, Feb 25, 2021 at 12:08 PM

To: Joan Wright &lt;joan.wright83@gmail.com&gt;

Cc: Broadcast - Client Management &lt;broadcast.contact@widelity.com&gt;, Mike Lasky &lt;mike.lasky@widelity.com&gt;

American Tower is now the owner as of Jan 2021. When the tower was owned, the owners simply did not ask. Now, ATC wants a permit and if you can get a notice from the local authorities, that a permit is not required, that will satisfy ATC. Unfortunately, when WYSJ went to the Hampton city authorities, that are requiring a complete tower study. The same locals owned this tower that also owned the Pirtmouth tower.

Currently we are in a delay that required the FCC to grant an extension for WYSJ. WYSJ has been dark now for close to two years due to various problems with the tower. One tower crew I contracted got tired of the delays and pulled out. We found another crew, but they had to start from scratch to get certified to work on ATC towers. Just trying to get you ahead of potential problems. I am currently working for the WYSJ group to install a new transmitter and antenna at the Pirtmouth site.

[Quoted text hidden]

## **Exhibit D**



**Commercial proposal**

Ref. : PR2103-1261 Rev.1

Date : 04/06/2021

Validity ending date : 05/06/2021

Customer code : CU2103-0453

From:

**Anywave Communication Technologies**

100 N Fairway Drive, Suite 128  
Vernon Hills, Illinois, 60061

Phone: 847-415-2258 - Fax: 847-415-2112  
Email: sales\_us@anywavecom.com  
Web: www.anywavecom.net

Bill To:

**Joan and Kenneth Wright**

226 Woodland Road  
Hampton, Virginia, 23669

**Channel 12 Transmitter for WGBS-LD with antenna and options for transmission line and a new encoder**

Prepared for:

Joan Wright  
phone: 757-291-5909  
email: joan.wright83@gmail.com

cc: Bill Barrow

Pro Service, Inc.  
215-499-9104  
email: proservice@transmitterservice.com

Prepared by:

Joe Wozniak, Eastern Region Sales Manager  
Anywave Communication Technologies  
phone: 610.792.7283  
mobile: 267.408.3037

Amount in US Dollars currency

Description	Sales tax	U.P. (net)	Qty	Reduc.	Total (net of tax)
101800.01 - TRN-VIII-1K4-24-FA Transmitter VHF III High Band Air Cooled <b>Channel: 12</b> <b>RF Output: 1400W ATSC (before filter) 1200W (after filter),</b> <b>VHF Band III 1 5/8" EIA connector</b> AC Input: Single-phase 240VAC or three Ø 208VAC, 50/60Hz Specify Voltage with order _____ VAC / _____ Hz Rack/Cabinet w/ swivel wheels and removable panels include: (2) RF Power Amplifier slots RF Combiner - 2-Way, with connecting cables and ballast load Operational Manual on USB Drive Specify Site Altitude _____ M ASL	0%	44,490.00	1	30%	31,143.00
100036.01 - EXC-3X-C Exciter Digital 3X Series ATSC all band, auto adaptive correction. RF & ASI inputs	0%	0.00	1		0.00
102309.01 - CTL-VIII-C Control Unit with built in VHF pre-amp Quartzite MPTV Series VHF Band III					

Includes LCD display for control and Monitoring RJ45 Ethernet connection for web browser	0%	0.00	1		0.00
100520.01 - PA-VIII-640-FA RF Power Amplifier VHF Band III 800W ATSC 640W ATSC3.0 (OFDM) (before filter) Operates on VHF Band III (174-216MHz) RF input: "N" Input type RF output: 7-16 DIN female 50VDC power supplies hot-pluggable front panel access Compact 5RU +2RU controller Cooling: Forced air front to back with temperature speed-controlled fans RJ 45 ethernet monitor (back)	0%	0.00	2		0.00
Band Pass Filter, VHF Band III, 6-pole, input power rating, 2.1kW, 1-5/8" EIA flange input/output connectors	0%	3,300.00	1		3,300.00
200876.01 - DC-158-N-1B-V3 Directional Coupler 1 5/8" EIA male input/output Single N type female sample port Operates on VHF Band III Used on "B" Before filter port Typical sample sensitivity :50dB +/-0.25dB	0%	0.00	1		0.00
200881.01 - DC-158-N-1A-V3 Directional Coupler 1 5/8" EIA male input 1 5/8" EIA female output Single N type female sample port Operates on VHF Band III Used on "A" After filter port Typical sample sensitivity :50dB +/-0.25dB	0%	0.00	1		0.00
201206.01 - CBL-RF-NM-BNCOM-6 Cable RF 6' (900mm) N type male to BNC male	0%	0.00	2		0.00
202251.01 - ATT-N-20dB Attenuator 20dB N Type	0%	0.00	2		0.00
VHF Antenna, TVO-6/SFX/1.5KW Side Mounted, Cross Dipole Array for channel 12, maximum gain: 4.8 dBd, maximum input power: 1.5kW, with 716 DIN inputs and mounting hardware to attach individual antenna to a customer supplied 2-3/8" OD pipe.	0%	12,473.00	1		12,473.00
Transmission Line, 150' of 1-5/8" Foam Dielectric Cable, AVA7-50, with (1) 7-16 DIN Male (not connected), and (1) 1-5/8" EIA flange (not connected), (1) Hoisting Grip, grounding kits (3), hanger kits (5) hardware kits (5) and (1) Wall/Roof Feed Thru. Pricing is FOB-Plants of Origin	0%	4,500.00			Option
202152.01 - ENC-d-8CVBS-AS 8 CVBS MPEG2 & 4 Encoder CVBS input, ASI/IP Output	0%	12,500.00	1	40%	7,500.00
202161.01 - ENC-d-4HD-SDI-AS Encoder with 4 HD/SD-SDI MPEG2 & 4 Inputs					



**Commercial proposal**

Ref. : PR2103-1261 Rev.1

Date : 04/06/2021

Validity ending date : 05/06/2021

Customer code : CU2103-0453

SD & HD-SDI input ASI/IP Output 1RU system with Dual Power supply and LCD Display, 4 HD-SDI inputs, One IP (1 MPTS or 4 SPTS ) over UDP or RTP, 10/100 Base-T , RJ-45 Two ASI output, BNC type Simultaneous ASI/IP output. Supports; H.264 and MPEG2 video encoding of multiple resolutions, VBR/CBR, Dolby AC-3, MPEG-1 Layer 2, LC-ACC, CC EAA 608 & EIA 708 pass through, Low Latency, Static PSIP.	0%	8,400.00			Option
Shipping and Handling (estimated)	0%	2,500.00	1		2,500.00

**Planned date of delivery:** June 30, 2021

**Payment terms:** 50% in advance, 50% on delivery

**Check payment (including tax) are payable to Anywave Communication Technologies send to**

100 N Fairway Drive, Suite 128  
Vernon Hills, Illinois, 60061

Total (net of tax) 56,916.00

**Total (inc. tax) 56,916.00**

Written acceptance, company stamp, date and signature

## TERMS AND CONDITIONS

### ACCEPTANCE

All orders are subject to confirmation via e-mail or other from an official of ANYWAVE. The banking by ANYWAVE of any funds paid by the Purchaser shall not constitute acceptance of any order.

### PRICES

All prices are in US dollars, Ex Works, 100 N. Fairway Drive, Suite 128, Vernon Hills, IL 60061, USA or OEM manufacturer's shipping point. Prices are based on net cash transactions and do not include taxes, duties, fees, bank charges, special equipment tests or non-standard service or equipment requirements, all of which are for the account of the Purchaser. Until order is confirmed, all prices are subject to change without notice, and orders are filled based on prices and specifications in effect at the time of shipment, or otherwise as specified in the order.

### PACKING, SHIPPING and INSURANCE CHARGES

All such charges applicable to any order are estimated on the face thereof and are for the account of the Purchaser. Charges are estimated based on normal land freight packing, inland and ocean freight rates (where applicable). Should ANYWAVE incur any additional charges with respect to these services, Purchaser agrees to reimburse ANYWAVE for such additional costs.

### LICENSES AND PERMITS

Purchaser shall promptly obtain and forward copies or documents necessary to permit Anywave to ship and Purchaser to receive delivery of ordered equipment. All permits necessary in importation, installation, erection and operation of equipment covered by any order shall be the sole responsibility of the Purchaser. The Purchaser expressly agrees to comply with all applicable United States of America laws pertaining to the sales of any and all equipment ordered.

### DELIVERY

All equipment will be delivered Ex-Works, 100 N. Fairway Drive, Suite 128, Vernon Hills, IL 60061, USA or OEM manufacturer's shipping point. An estimated factory shipment schedule is usually provided with the order acknowledgement. ANYWAVE's delivery obligations are subject to delays including but not limited to: labor difficulties; fires, casualties and accidents; acts of the elements; act of a public enemy; component failures on test; transportation difficulties; inability to obtain equipment, materials or qualified labor sufficient to fill its orders, governmental interference or regulations; and causes beyond ANYWAVE's control. In such case ANYWAVE may apply or prorate shipments of its products to or among its customers as in its judgment is reasonable in the circumstances. If Purchaser delays shipment, payments are to be made as though shipment has been stored by Anywave at Purchaser's expense. Purchaser assumes all responsibility for and risk of loss of, or damage to the equipment upon shipment at ANYWAVE's shipping point, notwithstanding the fact that ANYWAVE selected the carrier.

### PAYMENT ARRANGEMENTS

ANYWAVE's standard payment arrangements if not otherwise noted in the footer or in the content of the proposal are through the medium of a wire transfer or U.S. check. Checks to be paid in U.S. dollars and made payable to Anywave Communication Technologies Inc., or via wire transfer to: JP Morgan Chase Bank. Account name: ANYWAVE COMMUNICATION TECHNOLOGIES INC Account number: 918897299 ABA/Routing #: 071000013 SWIFT Code: CHASUS33

### PAYMENT TERMS

ANYWAVE's standard payment terms if not noted in the footer or in the content of the proposal are as follows; Fifty percent (50%) deposit with signed order, and fifty percent (50%) upon notification of availability of shipment Ex-Works, IL. However, if the order is for stock equipment, Anywave requires full payment with the order. To assure expeditious handling of parts orders, or any equipment needed urgently, ANYWAVE requires that orders be accompanied by full payment in the form of a bank draft or certified check in U.S. dollars. ANYWAVE will consider other payment arrangements. However, no order is to be considered accepted by ANYWAVE until a payment schedule is agreed by ANYWAVE and Purchaser. Until full payment of all obligations by Purchaser, ANYWAVE reserves title to all equipment furnished.



#### **CANCELLATION POLICY**

If an order is cancelled by the Purchaser for any reason whatsoever, the following penalties will be applied from date of accepted order: Zero percent (0%) for less than five (5) working days, forty percent (40%) for greater than five (5) but less than twenty (20) working days, Sixty percent (60%) for greater than twenty (20) working days and One hundred (100) percent for any date after notification of availability of shipment ex-works Vernon Hills, IL.

#### **OTHER CONDITIONS**

ANYWAVE and or its suppliers reserve the right to modify at any time the design or specification of equipment orders, provided that any modifications shall not adversely affect the performance of the equipment so modified. ANYWAVE may at any time withdraw its offer to sell any equipment not of ANYWAVE's manufacture. In no event shall ANYWAVE be liable under any provision of this contract for loss of business or of anticipated profits by Purchaser, damages of any kind, or for damages on account of negligence. Any contract resulting from an order by Purchaser shall be governed by the laws of the State of Illinois, United States of America.

#### **LIMITED WARRANTY**

The limited warranty covers defects in materials and workmanship under normal use and does not apply: to damage arising from improper installation, maintenance, or service; to malicious damage or damage arising from accident, abuse, modification, abnormal use or misuse; to damage caused by a power surge or a disaster including but not limited to items such as fire, flood, wind, earthquake, or lightning. Unless otherwise stated in the proposal herein, ANYWAVE warrants equipment of its manufacture against defects in material or workmanship at the time of delivery, that develop under normal use, within a period of one year from the date of shipment, of which Purchaser gives ANYWAVE prompt written notice, and of which Purchaser is responsible to return equipment to ANYWAVE's facility as needed. Other manufacturers and Supplier's equipment and services that are separate from the Anywave equipment, if any, including but not limited to transmission line, antennas, towers, related equipment and installation and erection services shall carry only such manufacturers' or Suppliers' standard warranty. A defect is defined as a failure of any unit or component manufactured or supplied by ANYWAVE which is not attributable to lack of care in operation, maintenance or handling. The written notice of claim of defect must include a description of the defect with detailed information which will enable ANYWAVE to identify the defect and determine its probable cause. Components claimed to be defective by Purchaser must be available to ANYWAVE for inspection and test. No defective equipment or parts are to be returned without first receiving written authorization and instructions from ANYWAVE. Customs clearance (where applicable) for all replacement parts under this warranty or otherwise will be the sole responsibility of the Purchaser. In the event that this order includes repaired or refurbished equipment, the following warranty period shall apply: Repaired (Refurbished) Equipment – standard 3 month warranty (no option for extension); Warranty on repairs – 3 month warranty on the repaired part or related circuit only – an unrelated failure on the same module is not covered under this repair warranty. ANYWAVE's sole responsibility for any breach of the foregoing provisions of this contract, with respect to any Equipment or parts not conforming to the limited warranty or the description herein contained, is at its option to repair or replace such Equipment or parts, Ex-works ANYWAVE's shipping point, upon the return thereof, freight prepaid, within the period aforesaid. Any replacement equipment provided for this purpose will be of comparable functionality and quality, but may not be a completely new piece of equipment. ANYWAVE assumes no responsibility for design characteristics of special equipment manufactured to specifications supplied by or on behalf of Purchaser and shall not be liable for any expenses whether for repairs, replacements, material, service, labor or otherwise, incurred by Purchaser or for modifications made by Purchaser to the Equipment without prior written consent of ANYWAVE. Except as set forth herein there are no warranties, or affirmations of fact or promises by ANYWAVE, with reference to the equipment, application, signal coverage infringement, or otherwise, which extend beyond the description. The building where the equipment is to be located must comply with the following environmental conditions. Failure to comply with these environmental conditions will void the limited warranty of the equipment.

The equipment should operate in a clean, dust free, temperature controlled room.

1. The equipment room should be kept at a temperature of 70 deg F, +/- 10 deg F. Elevated temperature is a major factor in electronic component deterioration and failure.
2. The equipment should be well insulated and shielded from any potential water leaks (due to internal plumbing or external storms).
3. A relative humidity of up to 95% non-condensing is allowable for the operation of the transmitter.
4. The internal equipment, tower, incoming transmission line, and electrical panel should all be bonded to the building lightning protective ground
5. A well-regulated and conditioned AC Main supply is required to protect the electronic equipment from externally induced transients, dropouts and brownouts.

## **INSTALLATION AND MAINTENANCE**

Purchaser is responsible for properly installing and maintaining the equipment and furnishing all necessary facilities, equipment, personnel, materials and services not specifically set out in any order.

### **INSTALLATION CONDITIONS**

Unless otherwise specified in writing, ANYWAVE's price does not include any installation services or performance testing. Installation services, when covered by this offer, will be performed by ANYWAVE as specified in the offer provided, however, that all the Purchaser's obligations have been met. Any installation services to be performed shall be subject to the following conditions provided at purchaser's expense: The building where Equipment is to be located must be satisfactory to ANYWAVE and complete to the extent that:

1. It is reasonably dust free, weather proof, and secured from unauthorized entry.
2. Satisfactory heat, lighting, telephone, toilet facilities, and electrical service are available at the building for use by the ANYWAVE employees or agents.
3. Sufficient electrical service to the area within which the Equipment will be installed may include, but not limited to, 3-phase power, main disconnect switches, circuit breakers, water pump and heat exchanger motor starters, disconnect switches, conduit runs, service panels, and service wiring to ANYWAVE's equipment.
4. Services of a properly licensed electrician to install and connect items listed above in accordance with ANYWAVE's requirements and applicable codes.
5. \* If applicable, sufficient quantities of water, distilled water, and glycol to flush and fill Equipment's cooling system according to ANYWAVE's recommendations.
6. \* Ventilated protective roofing and sun-shielding for outdoor components (if applicable).
7. Adequate heating and/or air conditioning to maintain optimal environmental conditions for Equipment according to industry standard recommendations.
8. Structurally suitable roof, ceiling, and floors to support Equipment loading and location according to industry standard recommendations.
9. Minimum doorway, ceiling height clearances, and floor capacities appropriate for Equipment purchased.
10. Adequate devices or systems to protect personnel and Equipment from harm or damage from electrical hazards. ANYWAVE requires that the Purchaser install sufficient grounding systems. ANYWAVE recommends that Purchaser installs transient and lightning protection systems to satisfactorily protect the equipment from external damaging environmental conditions.
11. Purchaser will be responsible for the resolution of disputes arising from conflicts during installation with professional or trade union regulations. Purchaser will be responsible for delays or additional cost or expense incurred by ANYWAVE as a result of any labor regulations.
12. Purchaser will provide tower riggers to perform any adjustments to external transmission line systems and or antenna as needed.

\* On site liquid requirements are applicable to Liquid cooled transmitters only.



**[www.anywavecom.net](http://www.anywavecom.net)**



**Anywave Communication Technologies**

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**Phone:** +1 (847) 415 2258

**Fax:** +1 (847) 415 2112

**Address:** 100 N Fairway Drive, Suite 128,  
Vernon Hills, IL 60061

**Website:** [www.anywavecom.net](http://www.anywavecom.net)

