



# JSWB-V1

## **SIDEMOUNT BROADBAND VHF BROADCAST ANTENNA**

The JAMPRO JSWB-V1 Circular Polarized Broadband VHF side mount antenna is designed for VHF Band I broadcast applications that require moderate to high power capability. The JSWB-V1 is a proven product with many multi-channel broadband systems in service world wide. Each element is fabricated with high strength thick marine brass and copper.

Completely pressurized and internally fed, the JSWB-V1 provides excellent pattern performance, gain, and bandwidth.

Capable of handling 10 kW per element, the JSWB-V1 is one of the highest power Broadband side mount VHF Band I antennas available.

### **Band I VHF**

**(Ch. 2 to 6) 54 to 88 mHz**

**Internal Feed System**

**Excellent Azimuth Pattern**

**Outstanding VSWR performance**

**Pressurized Elements**

**High Power Handling**

**Full Size Factory tuned**

**Optional Deicers**

**Circularity is  $\pm 1.0$  dB, Free Space**



The JSWB-V1 is supported by a hot dipped, galvanized steel mounting bracket for good grounding. Standard round leg mounting brackets for uniform face tower are included with each antenna, custom brackets available. Silver plated inner conductor connectors are used throughout for maximum contact life and minimum power loss.

Available with fractional wave length spaced bays for downward radiation control, when needed.



## **VHF ANTENNA SPECIFICATIONS**

<u>CUSTOMER:</u>	Keith Leitch
<u>ANTENNA DESCRIPTION:</u>	Circularly Polarized Broadband VHF Sidemount Antenna
<u>CHANNELS:</u>	3 & 4
<u>ANTENNA TYPE:</u>	JSWB-4 RFR.7

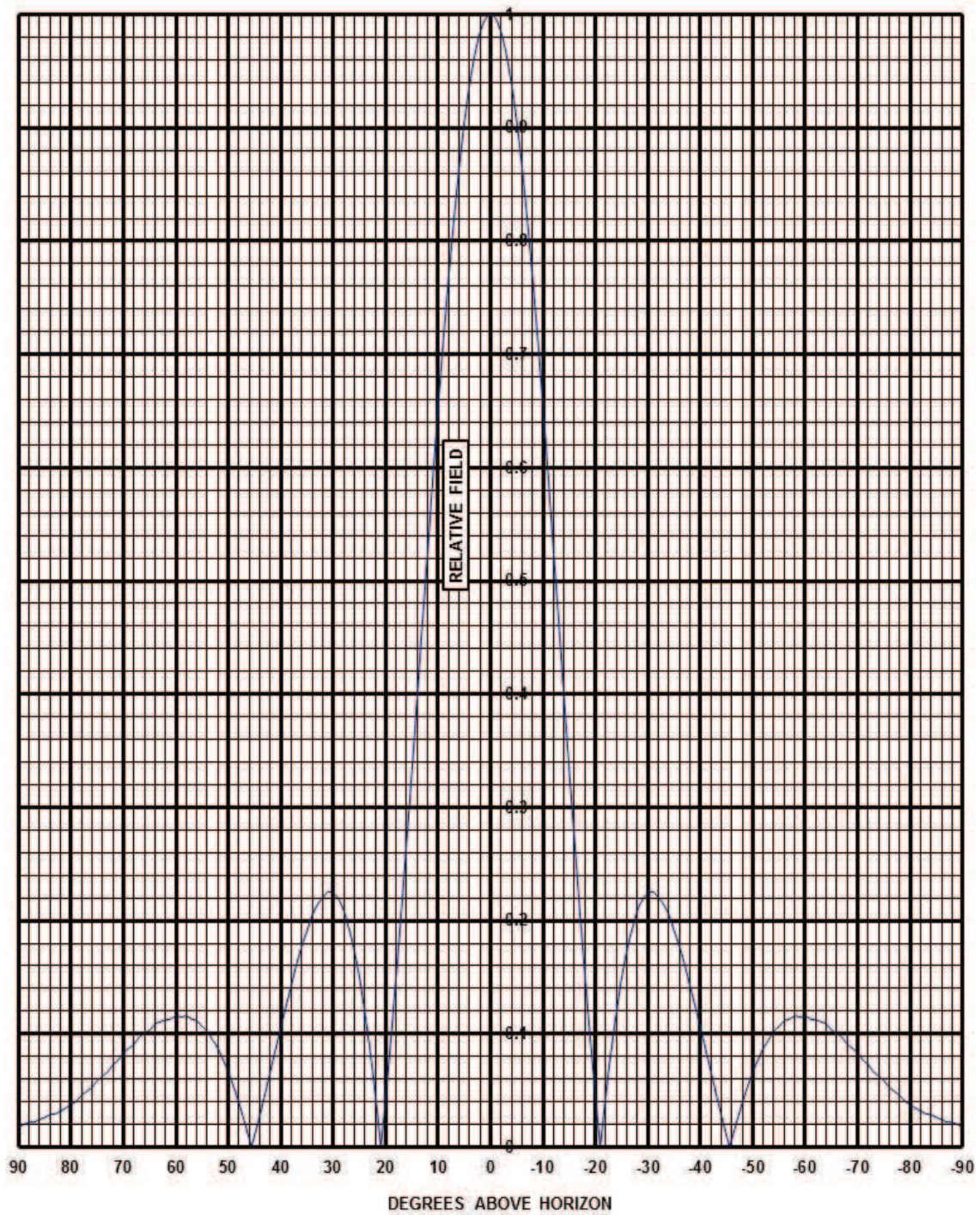
### **ELECTRICAL SPECIFICATIONS**

Power gain:	2.1x / 3.22 dBd
Array Configuration:	4 Bays
Electrical beam tilt:	-0°
Null fill:	0 (Optional to 15%)
Antenna VSWR:	$\leq 1.15:1$
Power Rating:	15 kW
Antenna input impedance:	50 ohm

### **MECHANICAL SPECIFICATIONS**

Overall height of antenna, est:	see mechanical drawings
Antenna net weight, est:	see mechanical drawings
Effective projected area (EPA), est:	see mechanical drawings
Antenna input connector size, EIA:	3-1/8"

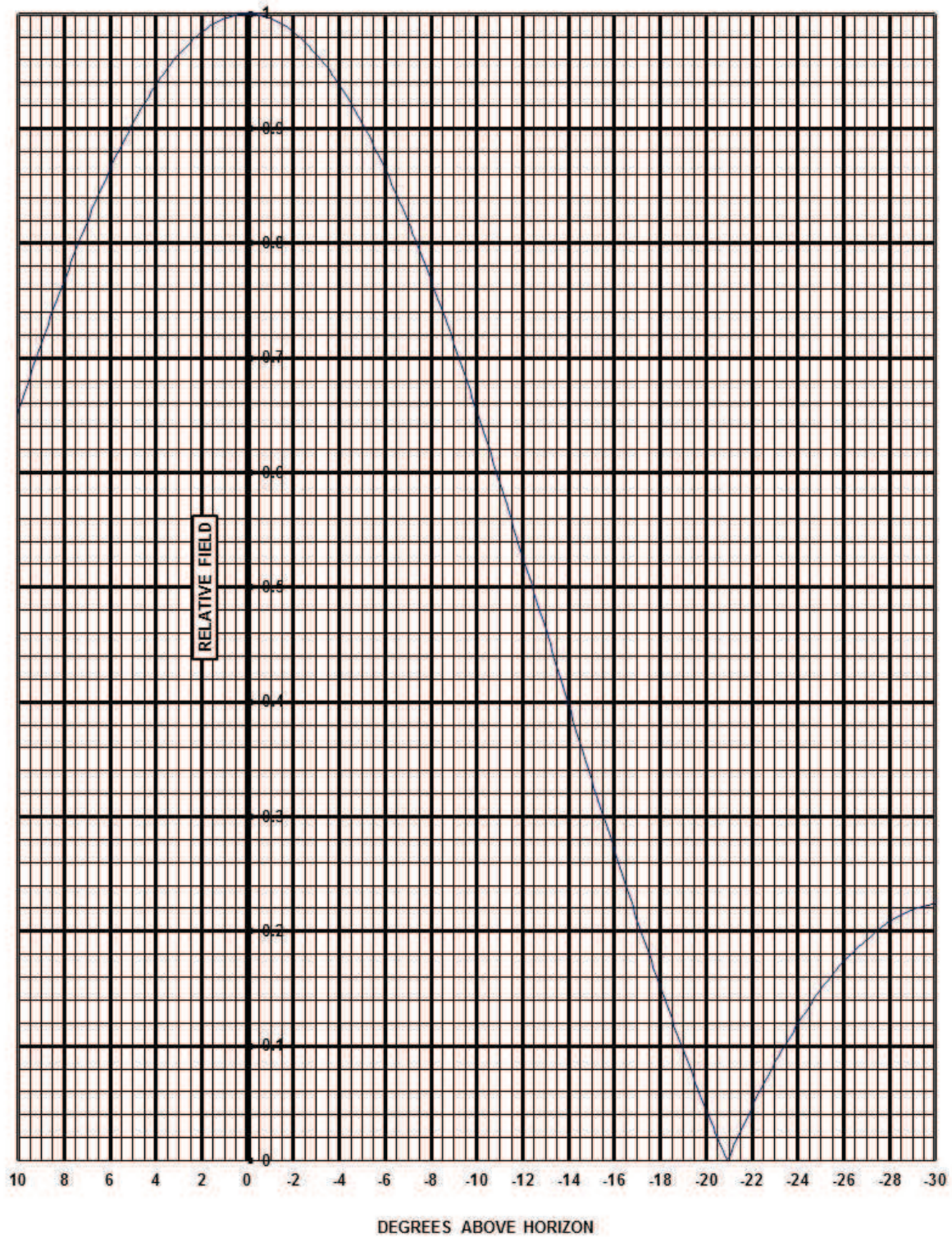
**NOTE:** THESE SPECIFICATIONS ARE PREDICTIONS BASED ON AVAILABLE DATA. THE ACTUAL PERFORMANCE MAY DIFFER FROM THESE DUE TO THE ELECTRICAL, MECHANICAL AND MEASURED LIMITATIONS AT YOUR FREQUENCIES.



Bays: 4  
Channels: 3-4 (60-72 MHz)

Model: JSWB-4 RFR.7  
Description: FM Panel Antenna  
**-0° Beam Tilt, 0% Null Fill**





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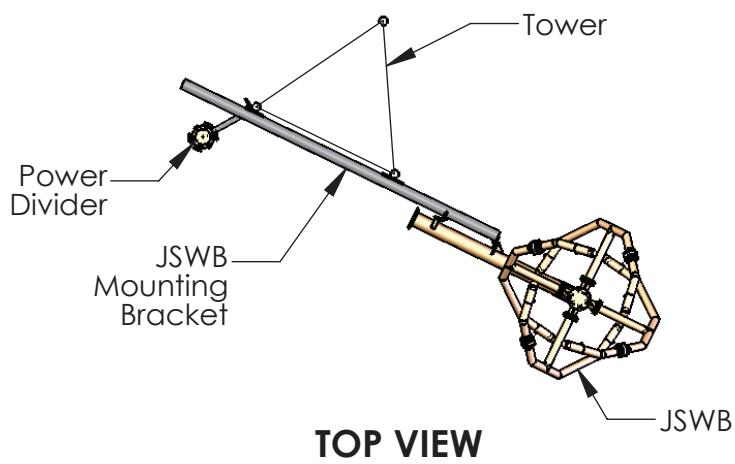
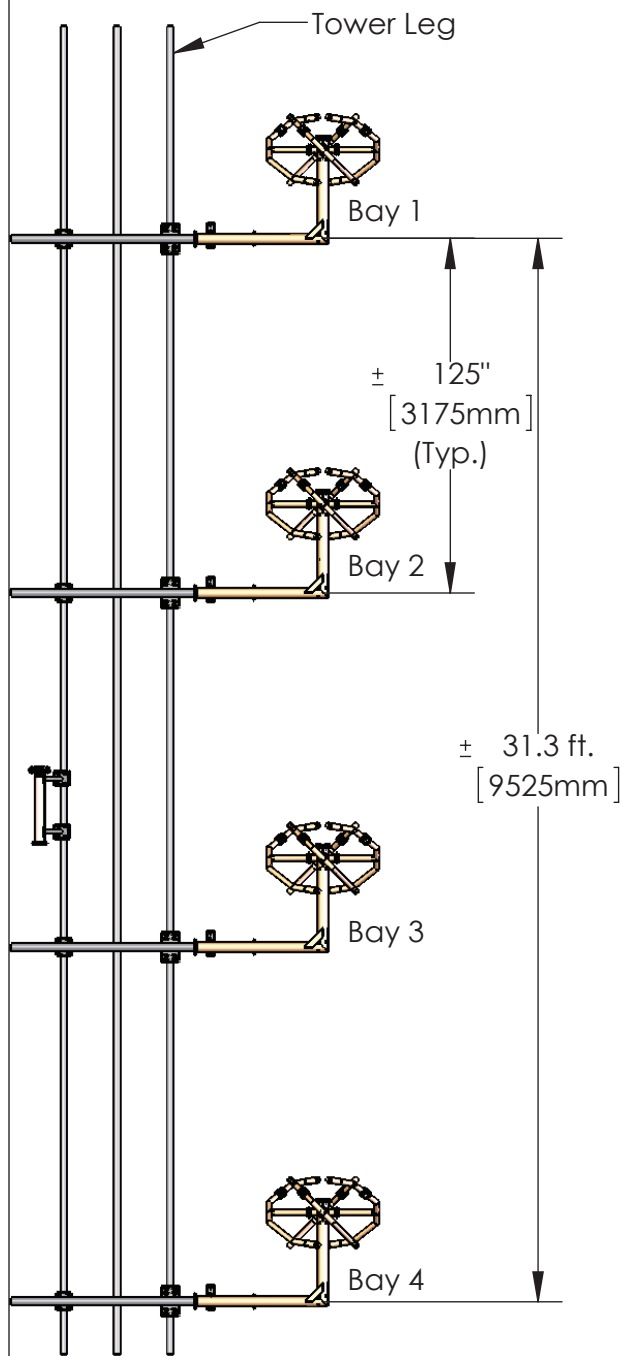
## Elevation Pattern Tabulation

### RELATIVE FIELD VS ELEVATION ANGLE

<u>ELEVATION</u> <u>ANGLE</u>	<u>RELATIVE</u> <u>FIELD</u>	<u>ELEVATION</u> <u>ANGLE</u>	<u>RELATIVE</u> <u>FIELD</u>	<u>ELEVATION</u> <u>ANGLE</u>	<u>RELATIVE</u> <u>FIELD</u>
10	0.654	-26	0.173	-61	0.113
9	0.713	-27	0.192	-62	0.112
8	0.768	-28	0.209	-63	0.111
7	0.819	-29	0.219	-64	0.109
6	0.865	-30	0.224	-65	0.103
5	0.905	-31	0.225	-66	0.100
4	0.938	-32	0.220	-67	0.097
3	0.965	-33	0.214	-68	0.091
2	0.984	-34	0.205	-69	0.087
1	0.996	-35	0.191	-70	0.083
0	1.000	-36	0.177	-71	0.077
-1	0.996	-37	0.162	-72	0.073
-2	0.984	-38	0.143	-73	0.066
-3	0.965	-39	0.125	-74	0.063
-4	0.938	-40	0.106	-75	0.059
-5	0.905	-41	0.086	-76	0.053
-6	0.865	-42	0.067	-77	0.049
-7	0.819	-43	0.047	-78	0.046
-8	0.768	-44	0.028	-79	0.041
-9	0.713	-45	0.010	-80	0.038
-10	0.654	-46	0.007	-81	0.035
-11	0.592	-47	0.024	-82	0.032
-12	0.526	-48	0.039	-83	0.029
-13	0.464	-49	0.053	-84	0.029
-14	0.397	-50	0.066	-85	0.026
-15	0.332	-51	0.077	-86	0.024
-16	0.271	-52	0.087	-87	0.022
-17	0.209	-53	0.095	-88	0.022
-18	0.152	-54	0.102	-89	0.020
-19	0.096	-55	0.106	-90	0.018
-20	0.044	-56	0.111		
-21	0.003	-57	0.113		
-22	0.047	-58	0.116		
-23	0.086	-59	0.115		
-24	0.119	-60	0.116		
-25	0.150				

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## MECHANICAL LOADING DATA

	Weight, Wt.		Effective Projected Area, EPA	
	no ice	1.26" ice	no ice	1.26" ice
ANTENNA SYSTEM	<b>830 lbs. (376 kg)</b>	<b>1884 lbs. (855 kg)</b>	<b>31 sq. ft. (2.9 sq. m)</b>	<b>67 sq. ft. (6.2 sq. m)</b>

## NOTES & ASSUMPTIONS

CODE REFERENCE:	TIA-222-G	
Structure Class:	II	
Structure Type: 1	Latticed structures with triangular, square or rectangular cross sections including appurtenances.	
Exposure Class:	C	
Topographic Category:	1	
Ice Conditions:	Basic Radial Ice Thickness @ 33' (10m) AGL	0.5" (13mm)
	Design Radial Ice Thickness @ 330' (100m) AGL	1.26" (32mm)
System Includes:	Antennas with Radomed Dipoles, Vertical Mounting Pipe, and Feed System including Co-axial Cables.	

## NOTES

Ice thickness at an assumed elevation of 330' (100m) is 1.26" (32mm).

## PRELIMINARY DRAWINGS AND CALCULATIONS

### PROPRIETARY AND CONFIDENTIAL:

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JAMPRO ANTENNAS, INC., 6340 SKY CREEK DRIVE, SACRAMENTO, CA 95828

NAME	DATE
DRAWN BY	10 Jul 2018
LAST REVISED	



## MECHANICAL LOADING DATA SHEET

JSWB-4  
Ch's. 3 & 4  
RFR0.7

COMMENTS:

SIZE	DWG. NO.	REV.
A	JSWB-4 (Ch. 3 & 4) (RFR0.7)	A7