TV ANTENNA SPECIFICATIONS JSL-4/7-V-SCTO

CUSTOMER:	WHFL-CA, Goldsboro, NC
ANTENNA DESCRIPTION:	Side-mounted, Prostar VHF Slot Antenna, Circular polarization to produce a True Omni Pattern
ANTENNA TYPE:	JSL-4-V-SCTO
CHANNEL:	Ch 7

ELECTRICAL SPECIFICATIONS

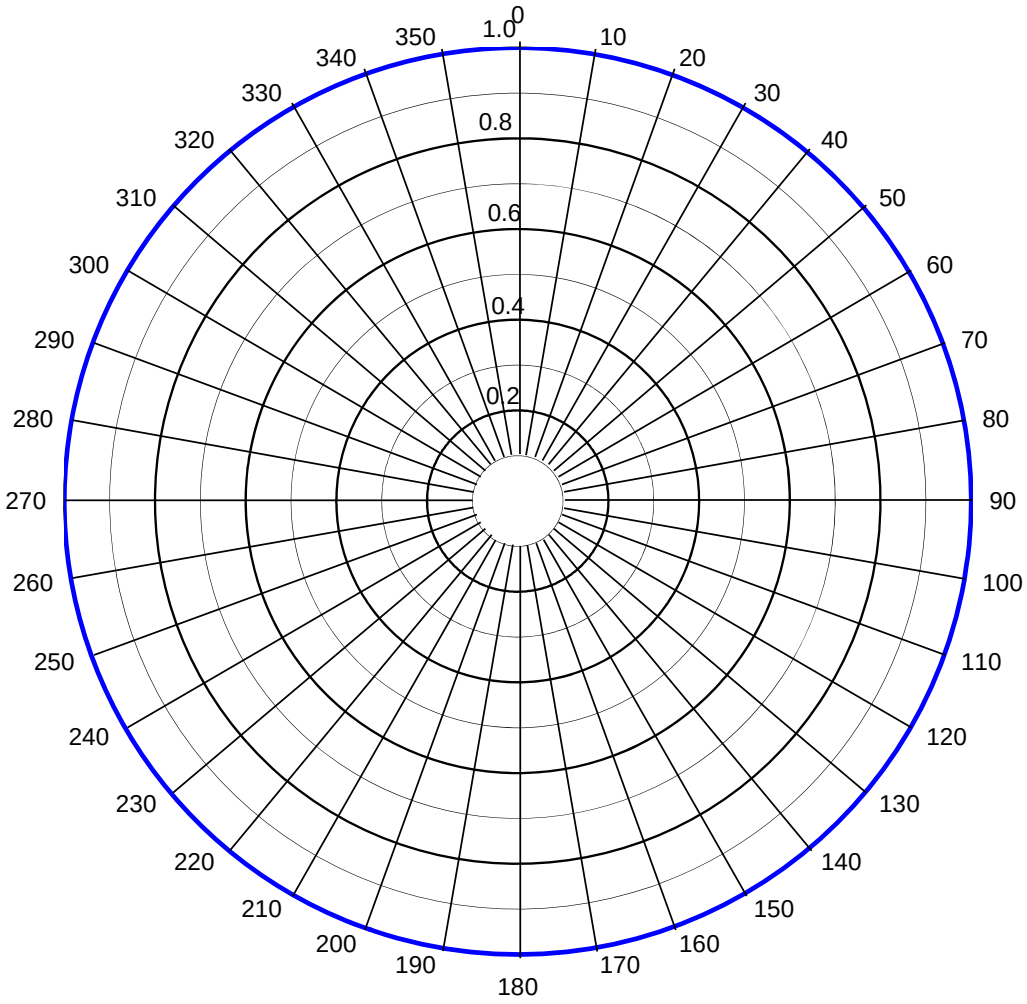
Polarization:	Circular
Azimuth Pattern:	True Omni
Average Power Gain:	2.0 x / 3.01 dBd (RMS), per polarization plane
Array data:	4 bays
Electrical beam tilt:	0°
Null fill:	0% first null
Antenna VSWR:	1.10:1 over channel
Input power rating	2 kW
Antenna input impedance:	50 ohm

MECHANICAL SPECIFICATIONS

Overall height of antenna, est:	See drawing
Antenna net weight, est:	See drawing
EPA, est:	See drawing
Antenna input connector size:	1-5/8” EIA Flange

***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.

Azimuth Pattern

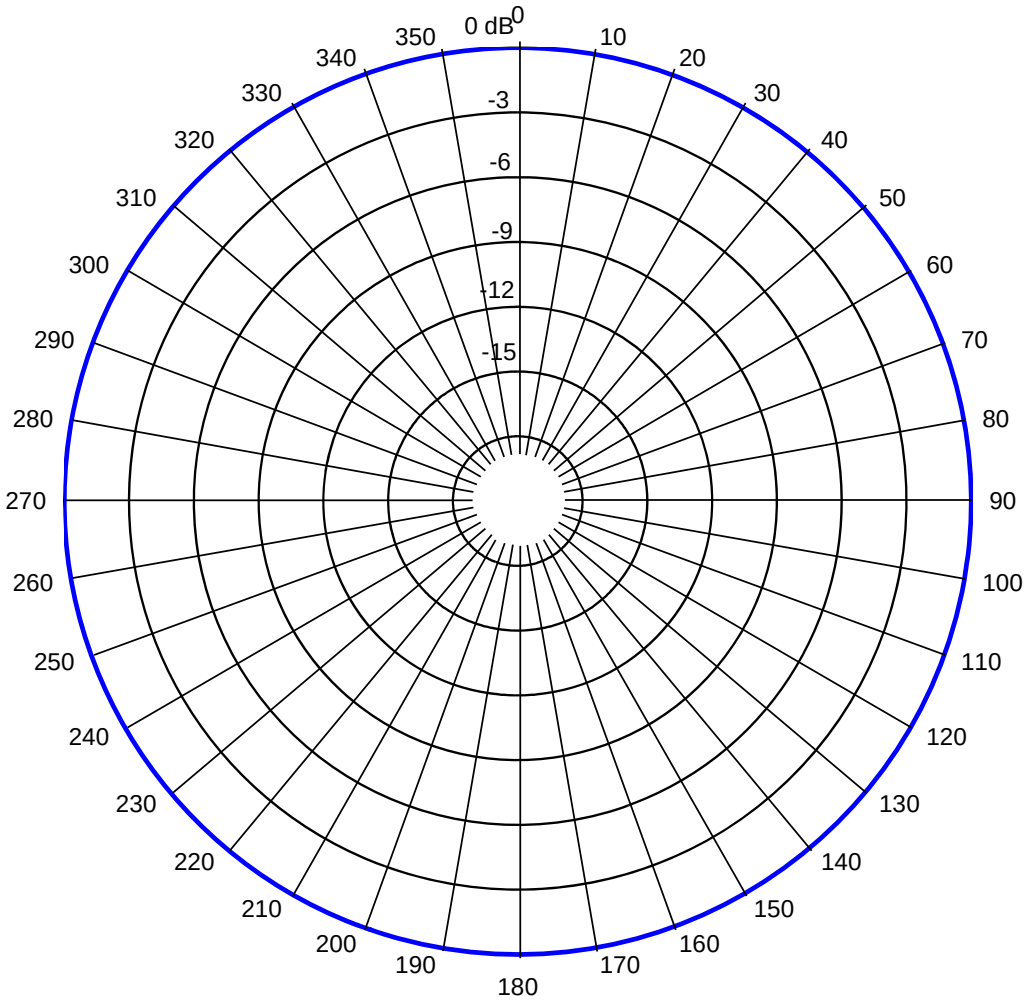


Values in Relative Field

Station: WHFL-CA
Site: Goldsboro, NC
Frequency: 174-180 MHz (Ch 7)

Model: JSL-4/7-V-SCTO
Description: Prostar VHF Slot Antenna
Notes: Omni-directional, Circularly Polarized

Azimuth Pattern



Values in dB

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Azimuth Pattern Tabulation

AZIMUTH	REL V	AZIMUTH	REL V
0	1.00	180	1.00
5	1.00	185	1.00
10	1.00	190	1.00
15	1.00	195	1.00
20	1.00	200	1.00
25	1.00	205	1.00
30	1.00	210	1.00
35	1.00	215	1.00
40	1.00	220	1.00
45	1.00	225	1.00
50	1.00	230	1.00
55	1.00	235	1.00
60	1.00	240	1.00
65	1.00	245	1.00
70	1.00	250	1.00
75	1.00	255	1.00
80	1.00	260	1.00
85	1.00	265	1.00
90	1.00	270	1.00
95	1.00	275	1.00
100	1.00	280	1.00
105	1.00	285	1.00
110	1.00	290	1.00
115	1.00	295	1.00
120	1.00	300	1.00
125	1.00	305	1.00
130	1.00	310	1.00
135	1.00	315	1.00
140	1.00	320	1.00
145	1.00	325	1.00
150	1.00	330	1.00
155	1.00	335	1.00
160	1.00	340	1.00
165	1.00	345	1.00
170	1.00	350	1.00
175	1.00	355	1.00

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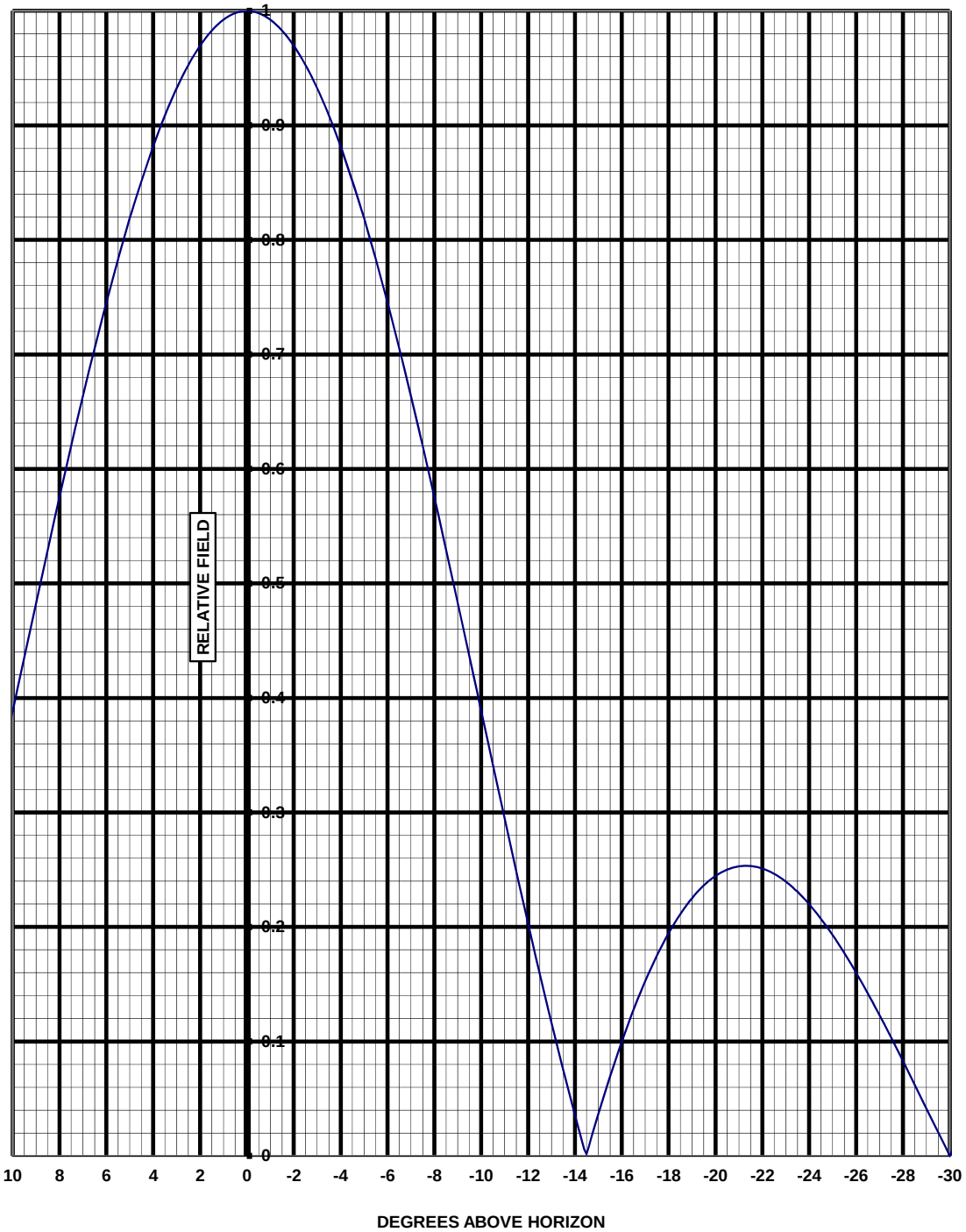
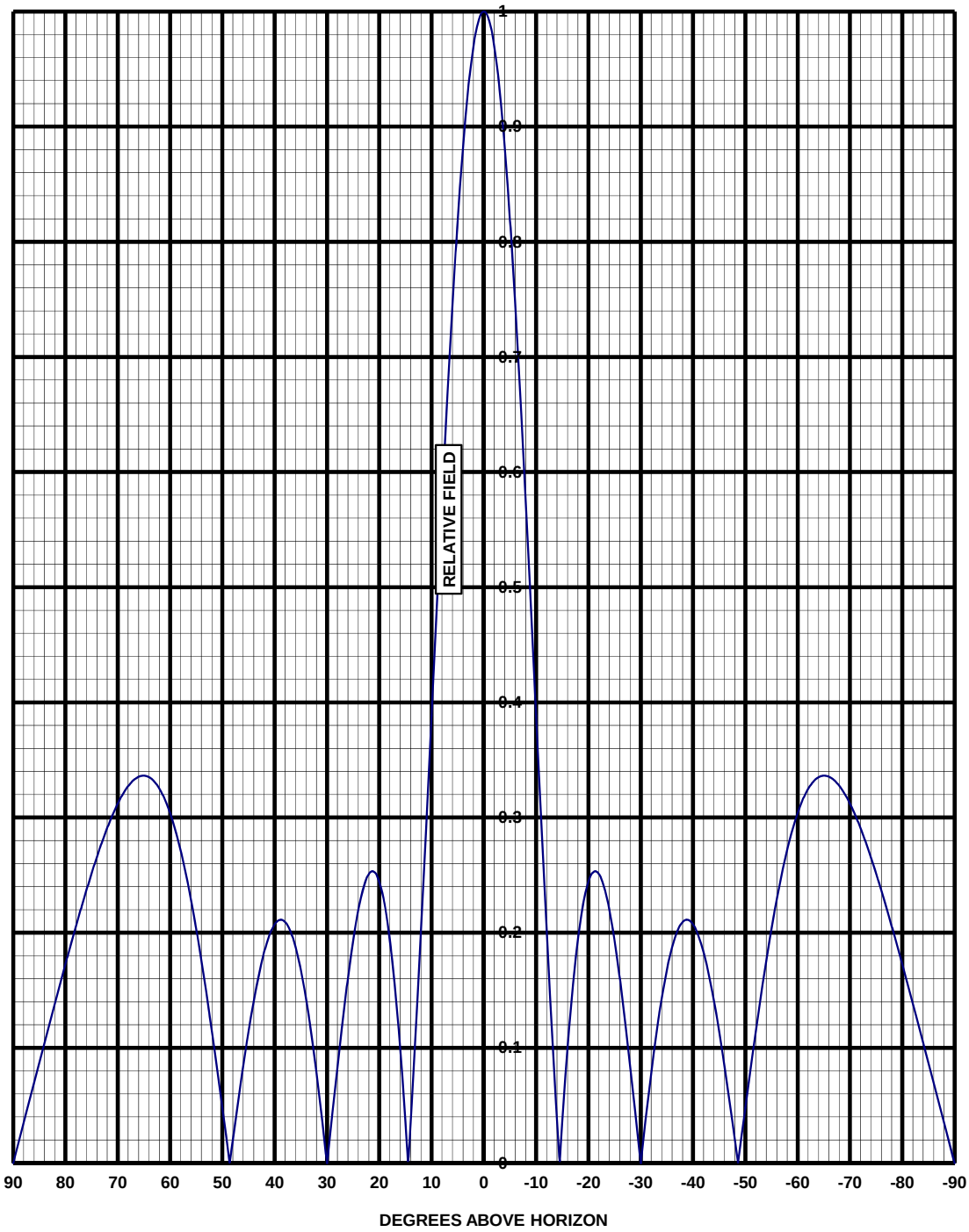
ELEVATION PATTERN



Station: WHFL-CA
Site: Goldsboro, NC
Frequency: 174-180 MHz (Ch 7)

Model: JSL-4/7-V-SCTO
Description: Prostar VHF 4 Bay Slot Antenna
Notes: 0° Beam Tilt, 0% Null Filled

COMPUTED ELEVATION PATTERN



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ELEVATION PATTERN
TABULATION

RELATIVE FIELD VS
ELEVATION ANGLE

ELEVATION ANGLE	RELATIVE FIELD	ELEVATION ANGLE	RELATIVE FIELD	ELEVATION ANGLE	RELATIVE FIELD
10	0.39	-26	0.16	-61	0.32
9	0.48	-27	0.12	-62	0.32
8	0.58	-28	0.08	-63	0.33
7	0.66	-29	0.04	-64	0.34
6	0.75	-30	0.00	-65	0.34
5	0.82	-31	0.04	-66	0.34
4	0.88	-32	0.08	-67	0.33
3	0.93	-33	0.11	-68	0.33
2	0.97	-34	0.14	-69	0.32
1	0.99	-35	0.17	-70	0.31
0	1.00	-36	0.19	-71	0.30
-1	0.99	-37	0.20	-72	0.29
-2	0.97	-38	0.21	-73	0.28
-3	0.93	-39	0.21	-74	0.27
-4	0.88	-40	0.21	-75	0.25
-5	0.82	-41	0.20	-76	0.24
-6	0.75	-42	0.18	-77	0.22
-7	0.66	-43	0.16	-78	0.21
-8	0.58	-44	0.14	-79	0.19
-9	0.48	-45	0.11	-80	0.17
-10	0.39	-46	0.08	-81	0.16
-11	0.29	-47	0.05	-82	0.14
-12	0.20	-48	0.02	-83	0.12
-13	0.12	-49	0.01	-84	0.10
-14	0.04	-50	0.05	-85	0.09
-15	0.04	-51	0.08	-86	0.07
-16	0.10	-52	0.11	-87	0.05
-17	0.15	-53	0.15	-88	0.03
-18	0.19	-54	0.18	-89	0.02
-19	0.23	-55	0.20	-90	0.00
-20	0.24	-56	0.23		
-21	0.25	-57	0.25		
-22	0.25	-58	0.27		
-23	0.24	-59	0.29		
-24	0.22	-60	0.30		
-25	0.19				

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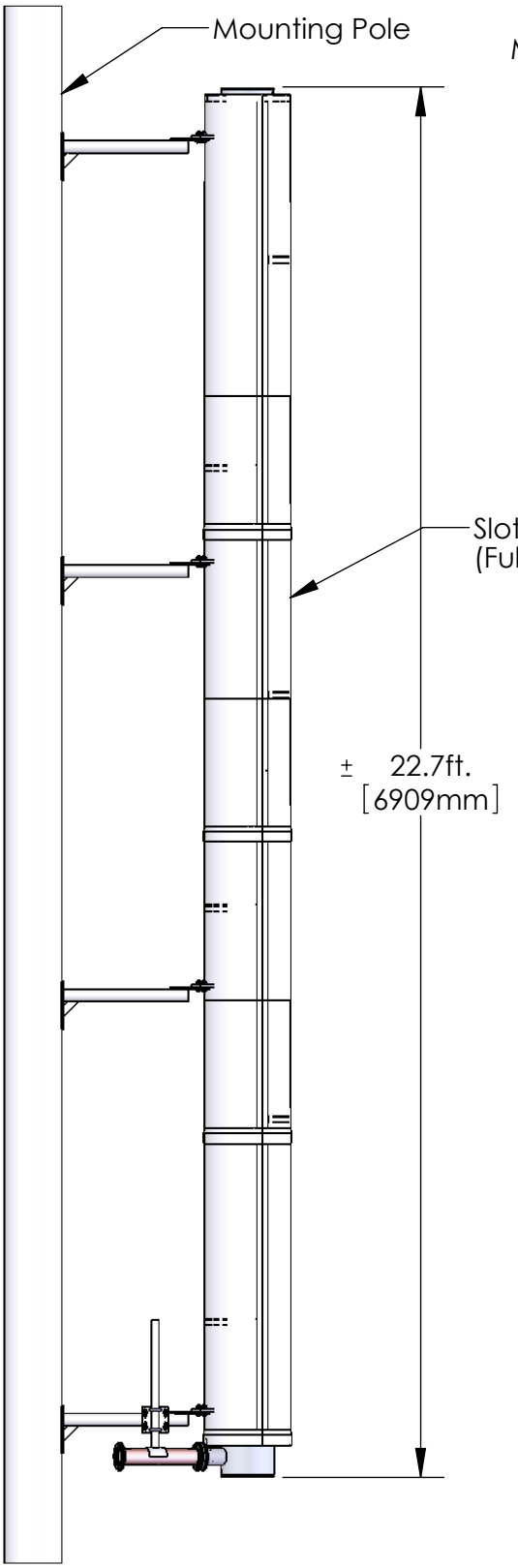

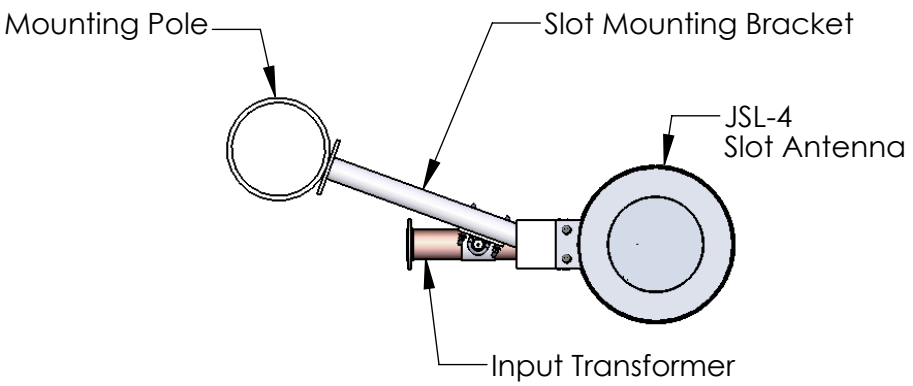

TOP VIEW

MECHANICAL LOADING DATA

	Weight, Wt.		Effective Projected Area, EPA	
	no ice	1.26" ice	no ice	1.26" ice
ANTENNA SYSTEM	**482 lbs. (219 kg)**	**1105 lbs. (500 kg)**	**21 sq. ft. (1.9 sq. m)**	**39 sq. ft. (3.6 sq. m)**

NOTES & ASSUMPTIONS

CODE REFERENCE:		TIA-222-G	
Structure Class:		II	
Structure Type: 2		Tubular pole structures, latticed structures with other than triangular, square or rectangular cross sections, strength design of appurtenances.	
Exposure Class:		C	
Topographic Category:		1	
Ice Conditions:	@ 33' (10m) AGL	no ice	0.5" (13mm)
	@ 330' (100m) AGL	no ice	1.26" (32mm)
System Includes:		Radomed Slot Antenna and Standard Mounts.	

NOTES

Ice thickness at an assumed elevation of 330' (100m) is 1.26" (32mm).
Data does not include Mounting Pole.

PRELIMINARY DRAWINGS AND CALCULATIONS

	NAME	DATE
DRAWN BY	SML	04 Oct 2017
LAST REVISED		

MECHANICAL LOADING DATA SHEET

JSL-4-SCTO-V
Ch. 7

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

JAMPRO ANTENNAS, INC.

COMMENTS:

SIZE	DWG. NO.	REV.
A	JSL-4.7-SCTO-V	A