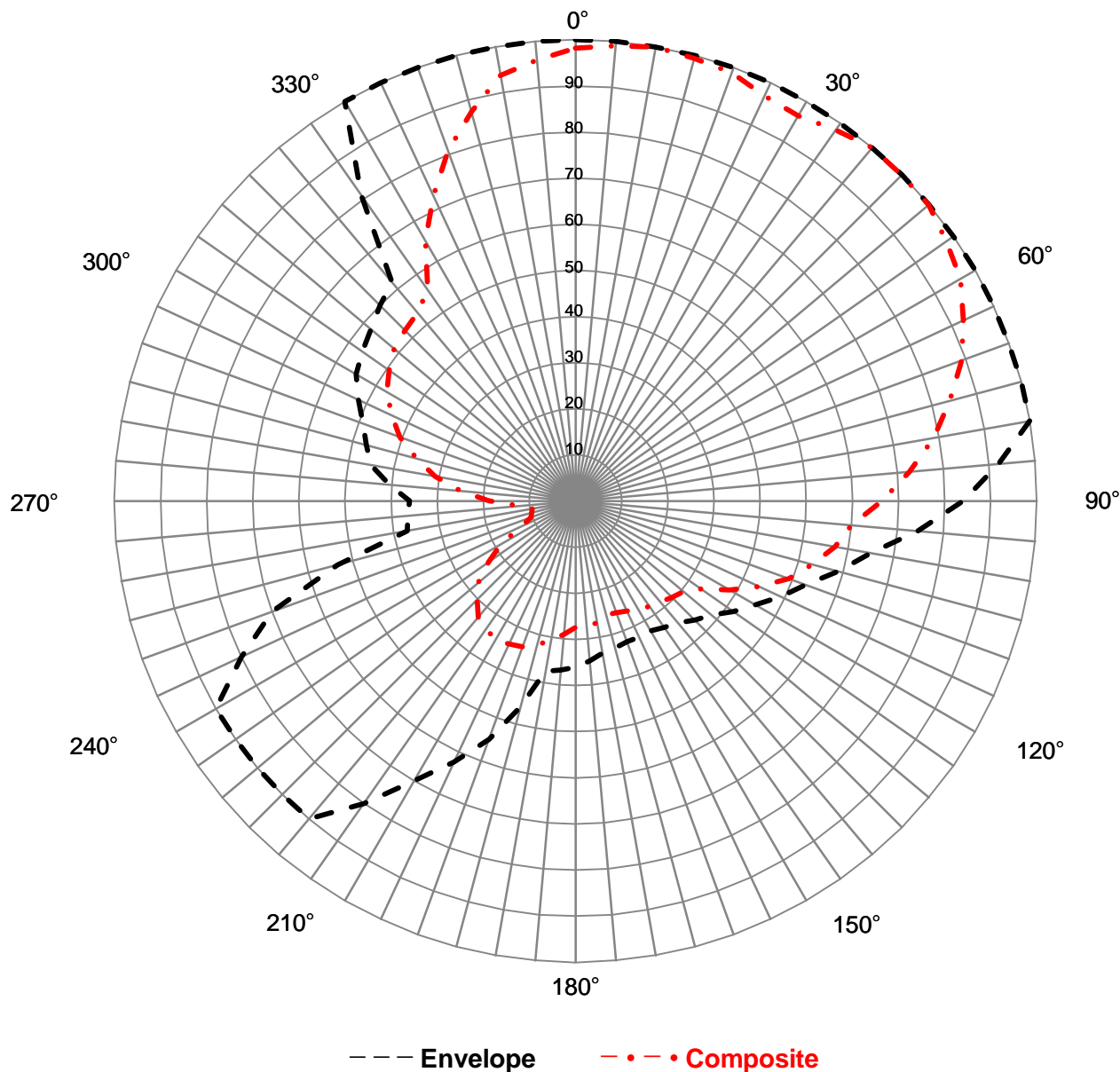




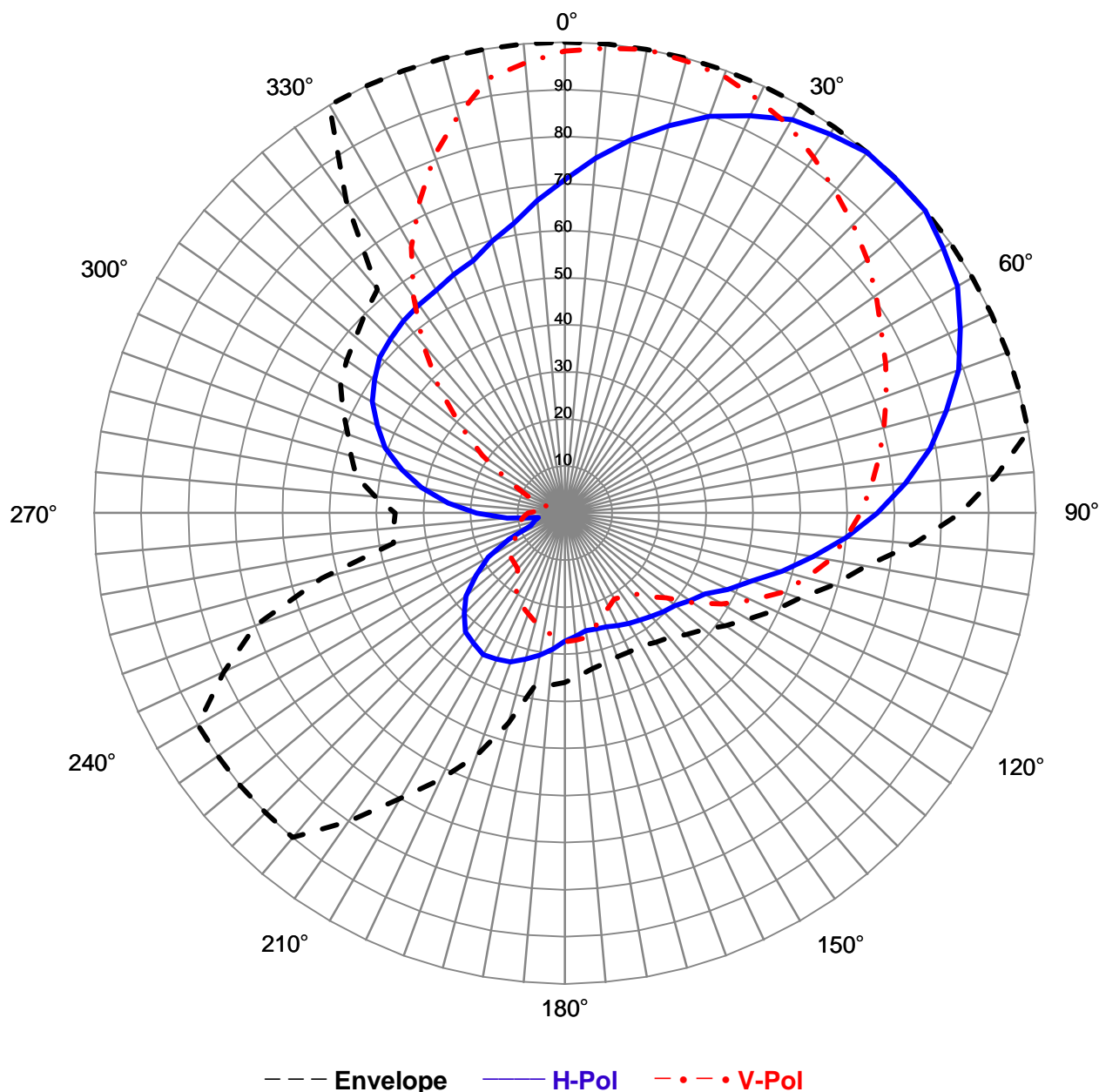
Relative Field Azimuth Plane Pattern



Pattern Type:	Composite	Type:	Directional Translator
Antenna Model:	PSIFML-1A-DA	Orientation:	24°
Polarization:	Circular	Number of Bays:	1
Gain:	.86 (-.65 dB)	Station:	W244BJ
ERP	.250 kW (-6.02 dBk)	Date:	1/27/2015



Relative Field Azimuth Plane Pattern



Pattern Type:	Relative Field	Tower:	Directional Translator
Antenna Model:	PSIFML-1A-DA	Orientation:	24°
Polarization:	Circular	Number of Bays:	1
Gain:	.86 (-.65 dB)	Reference:	W244BJ
ERP:	.250 kW (-6.02 dBk)	Date:	1/27/2015

Maximum Envelope Tabulation

Antenna: PSIFML-1A-DA

Hall Communications, Inc.

Station: W244BJ

Frequency: 96.7 MHz

Location: Frostproof, FL

Maximum ERP: .250 kW (-6.02 dBk)

Angle	Relative Field	ERP (kW)	ERP (dBk)
0	1.000	0.250	-6.02
10	1.000	0.250	-6.02
20	1.000	0.250	-6.02
30	1.000	0.250	-6.02
40	1.000	0.250	-6.02
50	1.000	0.250	-6.02
60	1.000	0.250	-6.02
70	1.000	0.250	-6.02
80	1.000	0.250	-6.02
90	0.840	0.176	-7.54
100	0.650	0.106	-9.76
110	0.530	0.070	-11.54
120	0.450	0.051	-12.96
130	0.385	0.037	-14.31
140	0.345	0.030	-15.26
150	0.325	0.026	-15.78
160	0.325	0.026	-15.78
170	0.335	0.028	-15.52
180	0.360	0.032	-14.89
190	0.375	0.035	-14.54
200	0.550	0.076	-11.21
210	0.700	0.123	-9.12
220	0.900	0.203	-6.94
230	0.900	0.203	-6.94
240	0.900	0.203	-6.94
250	0.700	0.123	-9.12
260	0.370	0.034	-14.66
270	0.360	0.032	-14.89
280	0.450	0.051	-12.96
290	0.490	0.060	-12.22
300	0.550	0.076	-11.21
310	0.580	0.084	-10.75
320	0.620	0.096	-10.17
330	1.000	0.250	-6.02
340	1.000	0.250	-6.02
350	1.000	0.250	-6.02

Composite Pattern Tabulation

Antenna: PSIFML-1A-DA

Hall Communications, Inc.

Station: W244BJ

Frequency: 96.7 MHz

Location: Frostproof, FL

Maximum ERP: .250 kW (-6.02 dBk)

Angle	Relative Field	ERP (kW)	ERP (dBk)
0	0.982	0.241	-6.18
10	1.000	0.250	-6.02
20	0.988	0.244	-6.12
30	0.965	0.233	-6.33
40	1.000	0.250	-6.02
50	0.999	0.250	-6.03
60	0.963	0.232	-6.34
70	0.891	0.198	-7.03
80	0.788	0.155	-8.08
90	0.664	0.110	-9.58
100	0.571	0.082	-10.88
110	0.492	0.060	-12.19
120	0.385	0.037	-14.30
130	0.305	0.023	-16.33
140	0.286	0.020	-16.89
150	0.270	0.018	-17.38
160	0.257	0.017	-17.82
170	0.269	0.018	-17.44
180	0.274	0.019	-17.28
190	0.307	0.024	-16.28
200	0.336	0.028	-15.49
210	0.348	0.030	-15.20
220	0.329	0.027	-15.69
230	0.275	0.019	-17.24
240	0.187	0.009	-20.57
250	0.102	0.003	-25.84
260	0.095	0.002	-26.47
270	0.188	0.009	-20.54
280	0.310	0.024	-16.20
290	0.406	0.041	-13.85
300	0.472	0.056	-12.53
310	0.514	0.066	-11.80
320	0.533	0.071	-11.48
330	0.652	0.106	-9.74
340	0.809	0.164	-7.86
350	0.938	0.220	-6.58

INSTRUCTION MANUAL

W244BJ

96.7 MHz

Frostproof, FL

Antenna Model: PSIFML-1A-DA

Uncrating

When uncrating the antenna system, open each crate carefully so that the crates may be used to return any merchandise that may have been damaged in shipping. Separate all parts and confirm that all items on the packing list have been received. If any parts are missing, notify PSI or its agent prior to assembling the antenna. If any parts are damaged through shipment or are missing, **promptly** notify the shipping carrier and PSI.

General Notes:

1. Review antenna elevation and plan the installation. The antenna brackets have been designed for tower leg mount only. Be aware of possible mounting conflicts such as other antennas, guy wires, tower leg flanges, conduits etc. and plan accordingly.
2. All bays are to be aligned to the same azimuth angle.
3. Use only the supplied hardware.
4. Exercise care when connecting the Type "N" connectors.
5. Check a bracket on the tower leg for proper fit.
6. Install one bay at a time.
7. Keep all transmission lines free from dirt and moisture. All Teflon insulators must be clean and dry.
8. The antenna does not require pressurization.
9. The antenna has been tuned at the factory and should not require field adjustment.
10. The antenna system should be tested before the erector leaves the premises to insure that the complete antenna system is functioning properly.

Installation Procedure

Step One

Assemble the vertical parasitic element to the antenna bay using the supplied 1/4-20 x 2-1/2 bolt as shown in drawing 1383-003. Next attach the horizontal parasitic element, 1383-004 to the antenna boom using the supplied #28 hose clamps as shown in drawings 1383-001 and -002.

Step Two

Hoist the assembled antenna bay and secure the bracket to the northeast tower leg at the 348 ft. elevation using the 1/2-13 x 6" bolts and back plate. Position the antenna 24° as shown in drawing 1383-002.

Step Three

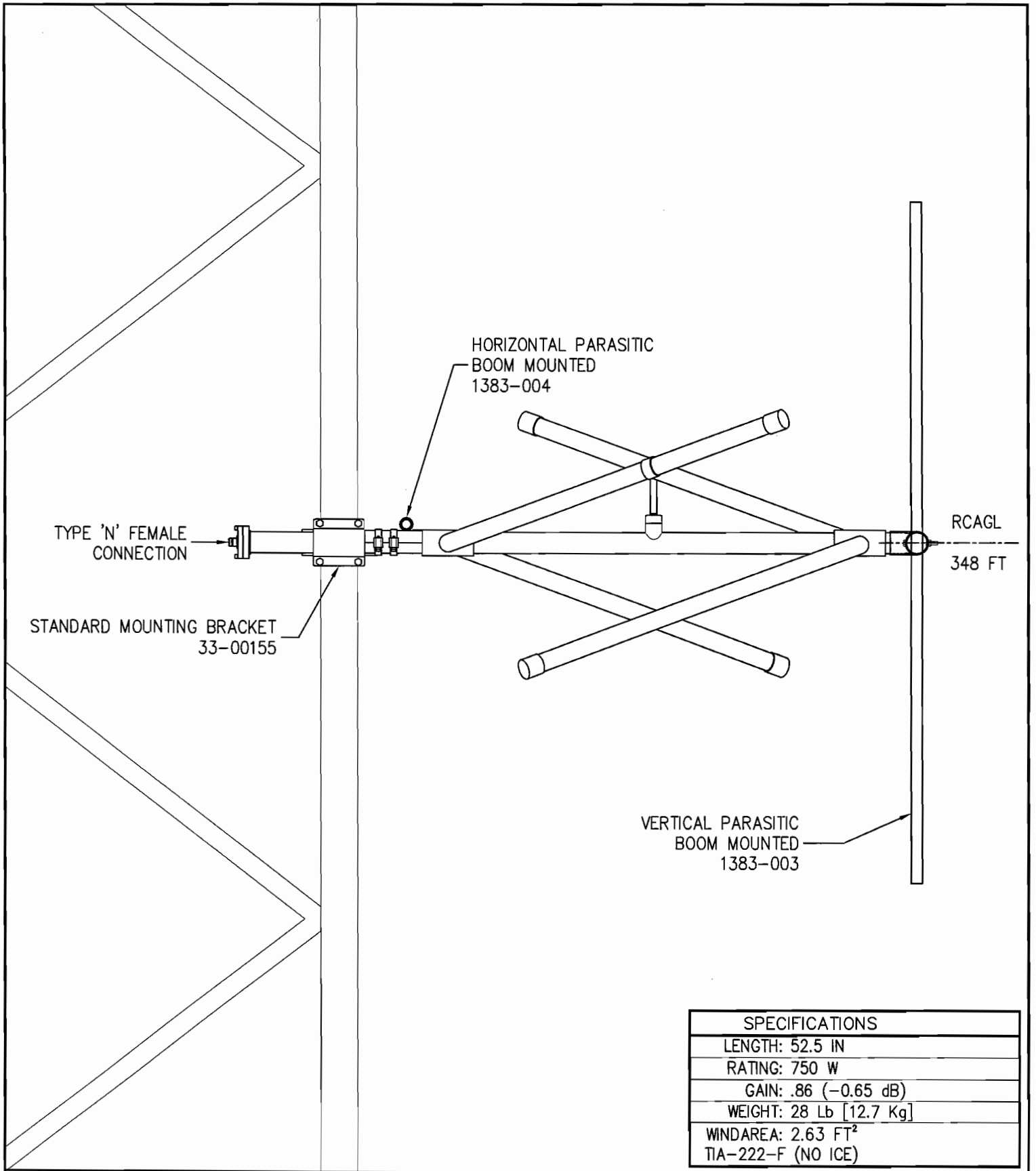
Check all bolted connections for tightness. Connect the main transmission line (not supplied) to the antenna input located at the end of the element boom. The antenna has a type "N" female input connector.

Drawing Index

<u>Drawing</u>	<u>Title</u>
1383-001	Antenna Elevation and Specifications
1383-002	Plan View and Orientation
1383-003	Parasitic, Vertical, Boom Mounted
1383-004	Parasitic, Horizontal, Boom Mounted
33-00155	Antenna Saddle Bracket
31-00046	Type "N" Joint Sealing Instructions

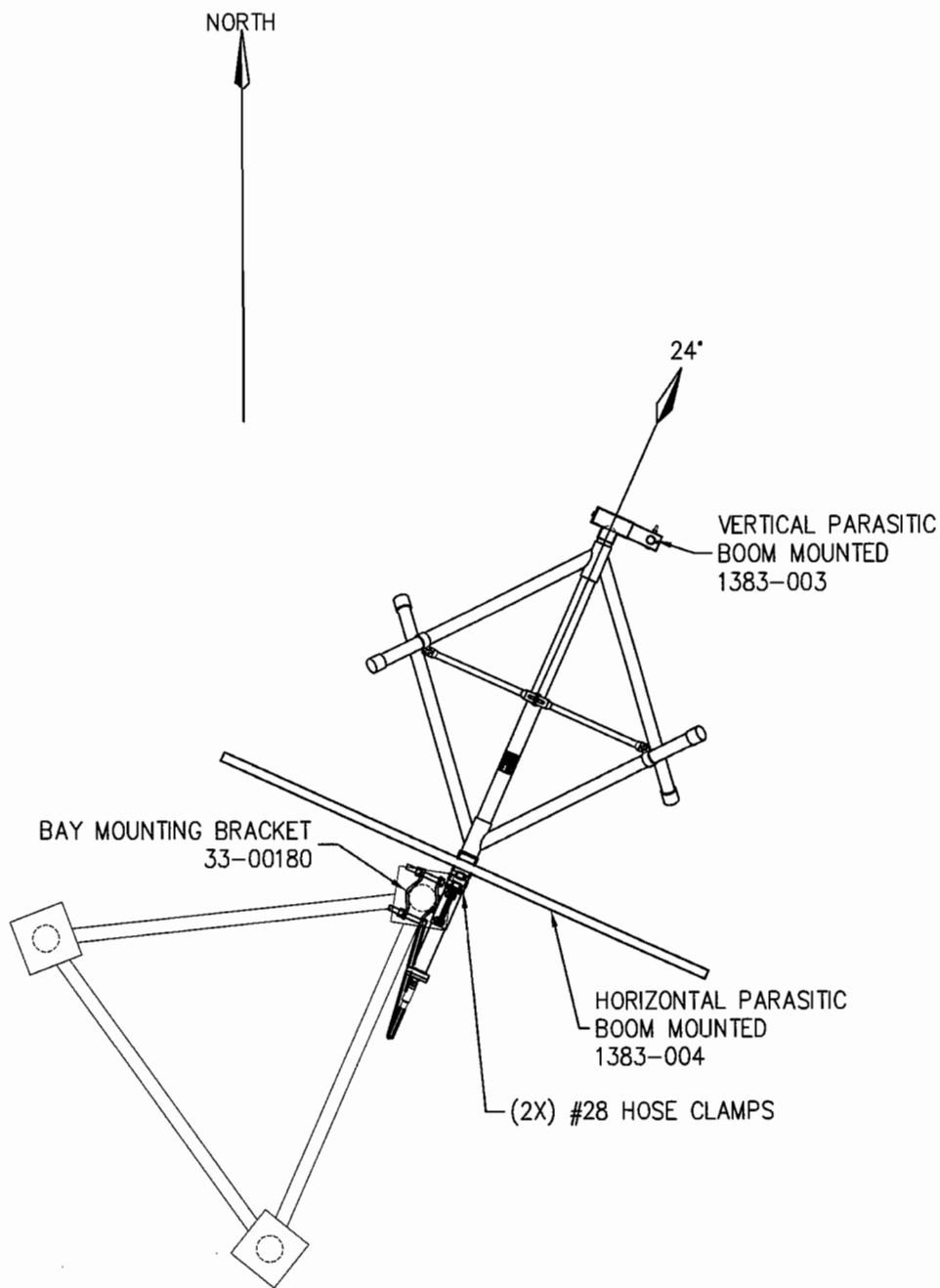
Antenna Specifications

Model	PSIFML-1A-DA
Description	1-bay low power directional FM broadcast antenna
Frequency	96.7 MHz
Polarization	Circular
Gain	.86 (-.65 dB)
Input	Type "N" female
Rating	750 W
Length	4.375 ft.
Weight	28 lbs.
Wind Area	2.63 Sq. Ft.

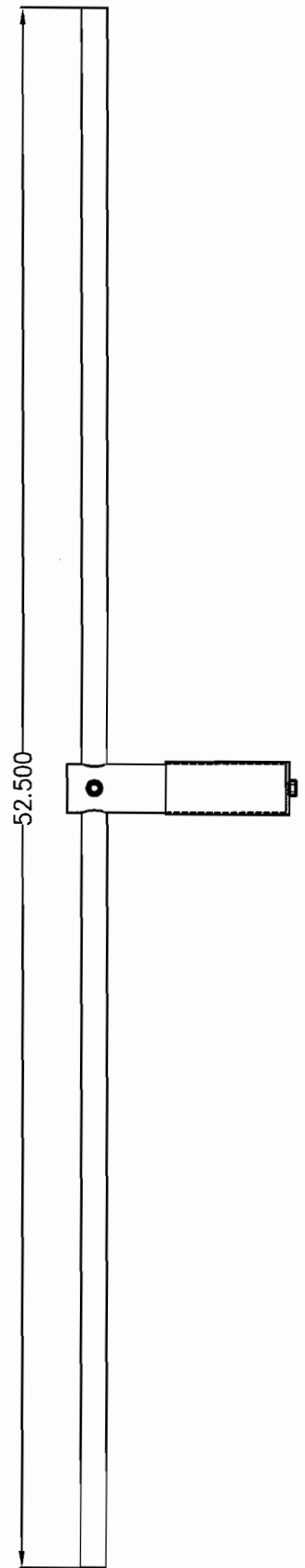
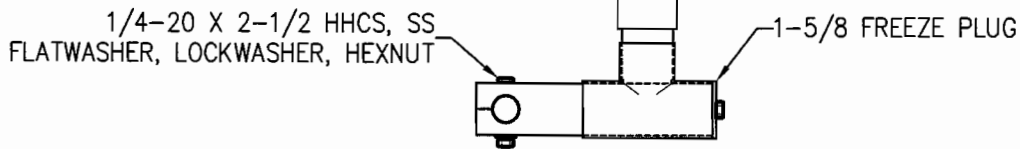


SPECIFICATIONS
LENGTH: 52.5 IN
RATING: 750 W
GAIN: .86 (-0.65 dB)
WEIGHT: 28 Lb [12.7 Kg]
WINDAREA: 2.63 FT ²
TIA-222-F (NO ICE)

REV.		MADE BY		CHECKED BY		DATE		CHANGE		SIZE		<h1>PROPAGATION SYSTEMS, INC.</h1> <p>Ebensburg, Pennsylvania USA 814-472-5540</p> <h2>ANTENNA ELEVATIONS AND SPECIFICATIONS</h2>	
This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permissions of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the forgoing agreement.		A		MODEL: PSIFML-1A-DA		DRAWN BY: B.K.SCHILLING		DATE: 1/12/15					
CHANNEL/FREQUENCY: 96.7 MHz		APPROVED BY:		DATE:		DRAWING NO.: 1383-001		REV.					
SCALE: 1:10													



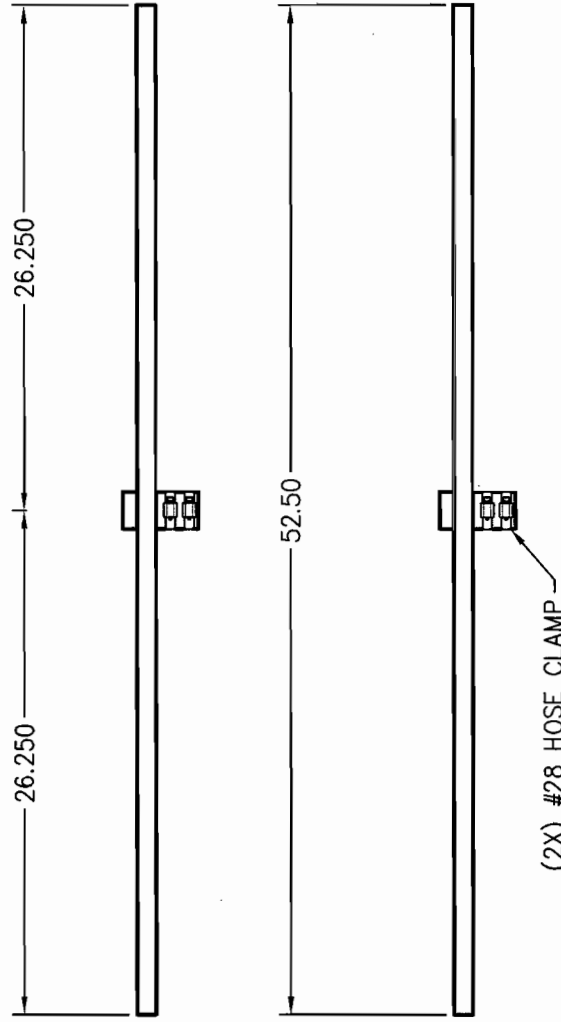
				PROPAGATION SYSTEMS, INC.			
				Ebensburg, Pennsylvania USA 814-472-5540			
REV.	MADE BY CHECKED BY	DATE	CHANGE	PLAN VIEW AND ORIENTATION			
This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any information for the making of drawings, prints or other reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permissions of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the forgoing agreement.				MODEL: PSIFML-1A-DA			
				DRAWN BY: B.K.SCHILLING			
				DATE: 1/12/15			
				APPROVED BY:			
CHANNEL/FREQUENCY: 96.7 MHz				DATE:			
SCALE: 1:20				DRAWING NO.: 1383-002			
				REV.			



NOTES:

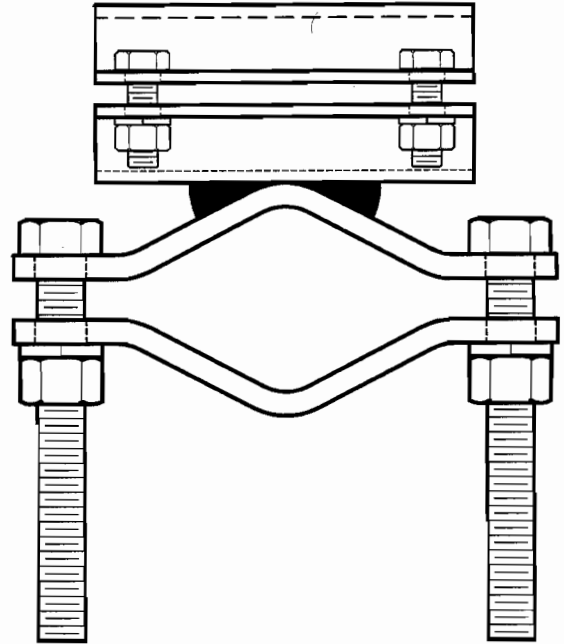
1. (1) REQUIRED
2. WEIGHT: 3.26 LB
3. WINDAREA: .33 FT²

<h1 style="margin: 0;">PROPAGATION SYSTEMS, INC.</h1> <p style="margin: 0;">Ebensburg, Pennsylvania USA 814-472-5540</p>			
REV.	MADE BY CHECKED BY	DATE	CHANGE
<p style="font-size: small;">This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any information for the making of drawings, prints or other reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permissions of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the forgoing agreement.</p>			<p style="text-align: center; font-size: large;">A</p>
<p style="margin: 0;">VERTICAL PARASITIC, BOOM MOUNTED</p>			
MODEL: PSIFML-1A-DA		DRAWN BY: B.K.SCHILLING	
CHANNEL/FREQUENCY: 96.7 MHz		DATE: 1/9/15	
SCALE:		DRAWING NO.: 1383-003	
			REV.

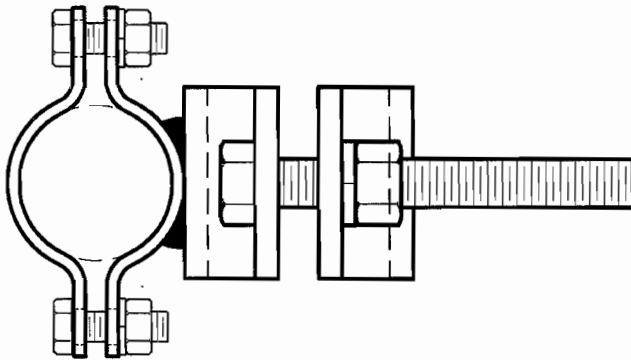


- NOTES:
1. (1) REQUIRED
 2. WEIGHT: 4.5 LB
 3. WIND AREA: .4 FT²
 4. HOT DIP GALVANIZED

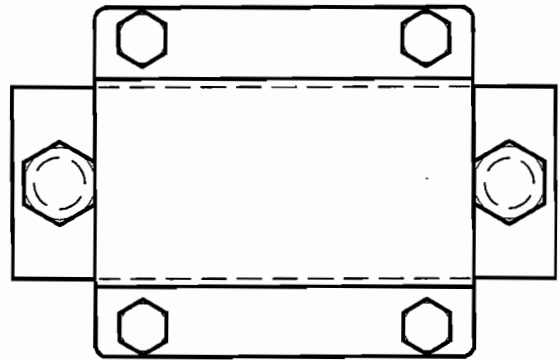
PROPAGATION SYSTEMS, INC. Ebensburg, Pennsylvania USA PARASITIC, HORIZONTAL, BOOM MOUNTED		MODEL: PSIFML-1A-DA		DRAWN BY: B.K.SCHILLING	DATE: 1/9/15
		MANUFACTURED BY: PSIFML-1A-DA		APPROVED BY:	DATE:
SCALE: 1:10		FREQUENCY: 96.7 MHZ		DRAWING NO.: 1383-004	
TOLERANCES UNLESS OTHERWISE NOTED FRACTIONS X/XX ± 1/16" DECIMALS .XX ± .01" DECIMALS .XXX ± .005" ANGLES ± 3'		SIZE A		REV.	
MATERIAL:		CHANGE		DATE	
This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any information for the making of drawings, prints or other reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permission of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the foregoing agreement.					



PLAN VIEW



SIDE VIEW



FRONT VIEW

NOTE:

1. FITS 1½" TO 4" DIAMETER ROUND MEMBERS
2. WEIGHT: 4.0 Lb
3. WINDAREA: .1 Sq. FT. (TIA-222-F)

REV.	MADE BY	CHECKED BY	DATE	CHANGE

This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any information for the making of drawings, prints or other reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permissions of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the forgoing agreement.

SIZE

A

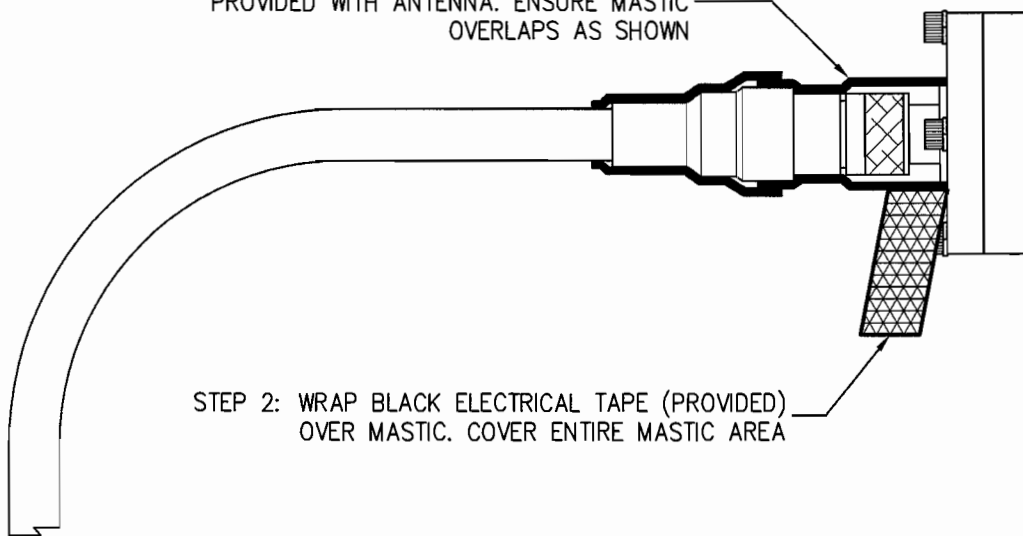
PROPAGATION SYSTEMS, INC.

Ebensburg, Pennsylvania USA 814-472-5540

SADDLE BRACKET

MODEL:	PSIFM	DRAWN BY:	D.G. Kellar	DATE:	11/01/05
CHANNEL/FREQUENCY:		APPROVED BY:		DATE:	
SCALE:	1:2	DRAWING NO.:	33-00155	REV.	

STEP 1: WRAP JOINT WITH MASTIC
PROVIDED WITH ANTENNA. ENSURE MASTIC
OVERLAPS AS SHOWN



STEP 2: WRAP BLACK ELECTRICAL TAPE (PROVIDED)
OVER MASTIC. COVER ENTIRE MASTIC AREA

				PROPAGATION SYSTEMS, INC.			
				Ebensburg, Pennsylvania USA 814-472-5540			
REV.	MADE BY CHECKED BY	DATE	CHANGE	TYPE N SEALING INSTRUCTIONS			
This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any information for the making of drawings, prints or other reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permissions of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the forgoing agreement.				MODEL:	DRAWN BY:	DATE:	
				CHANNEL/ FREQUENCY:	APPROVED BY:	DATE:	
				SCALE:	DRAWING NO.:	REV.	
				1:2		31-00046	