

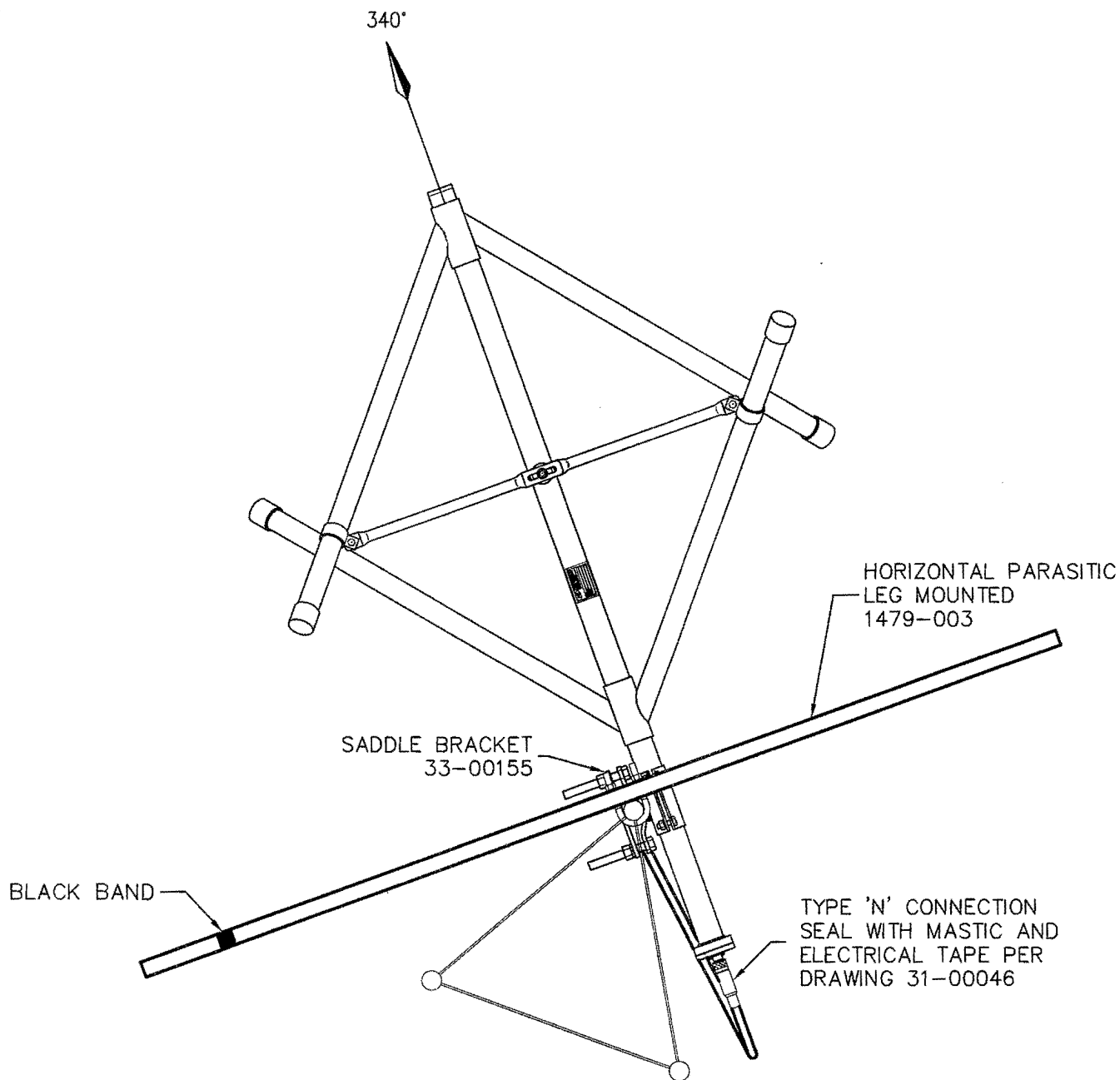
SPECIFICATIONS	
RATING:	750 W
GAIN:	0.59 (-2.29 dB)
WEIGHT:	24.6 Lb [11.16 Kg]
WINDAREA:	2.7 FT <sup>2</sup>
TIA-222-F (NO ICE)	

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 foregoing agreement.

SIZE  
A

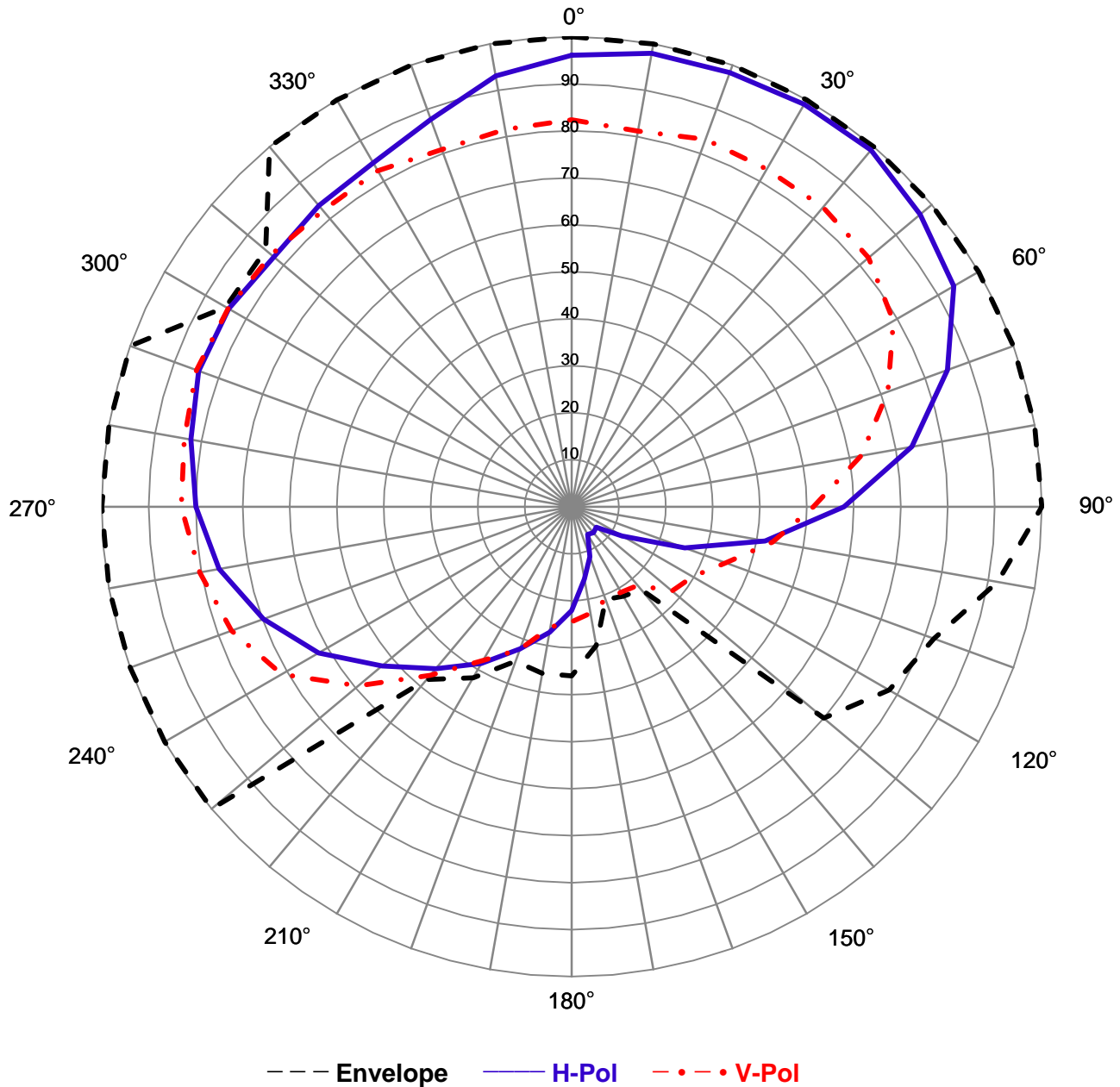
PROPAGATION SYSTEMS, INC.			
Ebensburg, Pennsylvania USA 814-472-5540			
ANTENNA ELEVATION AND SPECIFICATIONS			
MODEL:	PSIFML-1A-DA	DRAWN BY:	B.K.SCHILLING
CHANNEL/ FREQUENCY:	101.3 MHz	APPROVED BY:	
SCALE:	1:10	DRAWING NO.:	1479-001
			DATE: 7/10/15
			REV.:



				<b>PROPAGATION SYSTEMS, INC.</b>			
				Ebensburg, Pennsylvania USA 814-472-5540			
				ANTENNA PLAN VIEW AND ORIENTATION			
REV.	MADE BY	CHECKED BY	DATE	CHANGE	MODEL:	DRAWN BY:	DATE:
					PSIFML-1A-DA	B.K.SCHILLING	7/10/15
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.					CHANNEL/FREQUENCY:	APPROVED BY:	DATE:
					101.3 MHz		
					SCALE:	DRAWING NO.:	REV.
A					1:10	1479-002	



## Relative Field Azimuth Plane Pattern



Pattern Type:	<b>Relative Field</b>	Type:	<b>Directional Translator</b>
Antenna Model:	<b>PSIFML-1A-DA</b>	Orientation:	<b>340°</b>
Polarization:	<b>Circular</b>	Number of Bays:	<b>1</b>
Gain:	<b>.59 (-2.29 dB)</b>	Location:	<b>Harrisonburg, VA</b>
Call Letters:	<b>W267BA</b>	Date:	<b>8/12/2015</b>

## Measured Relative Field Tabulation

Antenna: PSIFML-1A-DA  
Tidewater Communications, LLC  
Station: W267BA  
Frequency: 101.3 MHz  
Location: Harrisonburg, VA

Horizontal Polarization

Angle	Relative Field	Power Gain	Gain (dB)
0	0.961	0.545	-2.64
10	0.980	0.567	-2.47
20	0.983	0.570	-2.44
30	0.989	0.577	-2.39
40	0.991	0.579	-2.37
50	0.968	0.553	-2.57
60	0.939	0.520	-2.84
70	0.851	0.427	-3.69
80	0.735	0.319	-4.97
90	0.579	0.198	-7.04
100	0.418	0.103	-9.87
110	0.256	0.039	-14.13
120	0.124	0.009	-20.42
130	0.068	0.003	-25.64
140	0.072	0.003	-25.14
150	0.068	0.003	-25.64
160	0.113	0.008	-21.23
170	0.156	0.014	-18.43
180	0.221	0.029	-15.40
190	0.271	0.043	-13.63
200	0.322	0.061	-12.13
210	0.385	0.087	-10.58
220	0.450	0.119	-9.23
230	0.527	0.164	-7.86
240	0.622	0.228	-6.42
250	0.698	0.287	-5.41
260	0.762	0.343	-4.65
270	0.800	0.378	-4.23
280	0.823	0.400	-3.98
290	0.845	0.421	-3.75
300	0.843	0.419	-3.77
310	0.827	0.404	-3.94
320	0.837	0.413	-3.84
330	0.845	0.421	-3.75
340	0.877	0.454	-3.43
350	0.931	0.511	-2.91

Vertical Polarization

Angle	Relative Field	Power Gain	Gain (dB)
0	0.824	0.400	-3.98
10	0.812	0.389	-4.10
20	0.832	0.408	-3.89
30	0.830	0.406	-3.91
40	0.832	0.408	-3.89
50	0.825	0.401	-3.97
60	0.790	0.368	-4.34
70	0.716	0.302	-5.20
80	0.625	0.231	-6.37
90	0.514	0.156	-8.07
100	0.434	0.111	-9.55
110	0.349	0.072	-11.43
120	0.297	0.052	-12.82
130	0.279	0.046	-13.38
140	0.218	0.028	-15.51
150	0.210	0.026	-15.83
160	0.210	0.026	-15.84
170	0.230	0.031	-15.06
180	0.245	0.035	-14.51
190	0.260	0.040	-13.99
200	0.323	0.062	-12.10
210	0.378	0.084	-10.75
220	0.469	0.130	-8.88
230	0.593	0.207	-6.83
240	0.712	0.299	-5.24
250	0.771	0.350	-4.56
260	0.803	0.381	-4.19
270	0.831	0.407	-3.90
280	0.837	0.413	-3.84
290	0.850	0.426	-3.70
300	0.844	0.420	-3.77
310	0.835	0.411	-3.86
320	0.823	0.399	-3.99
330	0.826	0.402	-3.96
340	0.809	0.386	-4.14
350	0.816	0.392	-4.06

## ERP Tabulation

Antenna: PSIFML-1A-DA  
Tidewater Communications, LLC  
Station: W267BA  
Frequency: 101.3 MHz  
Location: Harrisonburg, VA  
Maximum ERP: .10 kW (-10.0 dBk)

Horizontal Polarization

Angle	Relative Field	ERP (kW)	ERP (dBk)
0	0.961	0.092	-10.35
10	0.980	0.096	-10.18
20	0.983	0.097	-10.15
30	0.989	0.098	-10.10
40	0.991	0.098	-10.08
50	0.968	0.094	-10.28
60	0.939	0.088	-10.55
70	0.851	0.072	-11.40
80	0.735	0.054	-12.67
90	0.579	0.034	-14.75
100	0.418	0.017	-17.58
110	0.256	0.007	-21.84
120	0.124	0.002	-28.13
130	0.068	0.000	-33.35
140	0.072	0.001	-32.85
150	0.068	0.000	-33.35
160	0.113	0.001	-28.94
170	0.156	0.002	-26.14
180	0.221	0.005	-23.11
190	0.271	0.007	-21.34
200	0.322	0.010	-19.84
210	0.385	0.015	-18.29
220	0.450	0.020	-16.94
230	0.527	0.028	-15.56
240	0.622	0.039	-14.12
250	0.698	0.049	-13.12
260	0.762	0.058	-12.36
270	0.800	0.064	-11.94
280	0.823	0.068	-11.69
290	0.845	0.071	-11.46
300	0.843	0.071	-11.48
310	0.827	0.068	-11.65
320	0.837	0.070	-11.55
330	0.845	0.071	-11.46
340	0.877	0.077	-11.14
350	0.931	0.087	-10.62

Vertical Polarization

Angle	Relative Field	ERP (kW)	ERP (dBk)
0	0.824	0.068	-11.69
10	0.812	0.066	-11.81
20	0.832	0.069	-11.60
30	0.830	0.069	-11.62
40	0.832	0.069	-11.60
50	0.825	0.068	-11.67
60	0.790	0.062	-12.05
70	0.716	0.051	-12.90
80	0.625	0.039	-14.08
90	0.514	0.026	-15.78
100	0.434	0.019	-17.26
110	0.349	0.012	-19.14
120	0.297	0.009	-20.53
130	0.279	0.008	-21.09
140	0.218	0.005	-23.22
150	0.210	0.004	-23.54
160	0.210	0.004	-23.55
170	0.230	0.005	-22.76
180	0.245	0.006	-22.22
190	0.260	0.007	-21.70
200	0.323	0.010	-19.81
210	0.378	0.014	-18.46
220	0.469	0.022	-16.58
230	0.593	0.035	-14.54
240	0.712	0.051	-12.95
250	0.771	0.059	-12.26
260	0.803	0.065	-11.90
270	0.831	0.069	-11.61
280	0.837	0.070	-11.55
290	0.850	0.072	-11.41
300	0.844	0.071	-11.47
310	0.835	0.070	-11.57
320	0.823	0.068	-11.69
330	0.826	0.068	-11.66
340	0.809	0.065	-11.84
350	0.816	0.067	-11.77

## Maximum Envelope Tabulation

Antenna: PSIFML-1A-DA

Tidewater Communications, LLC

Station: W267BA

Frequency: 101.3 MHz

Location: Harrisonburg, VA

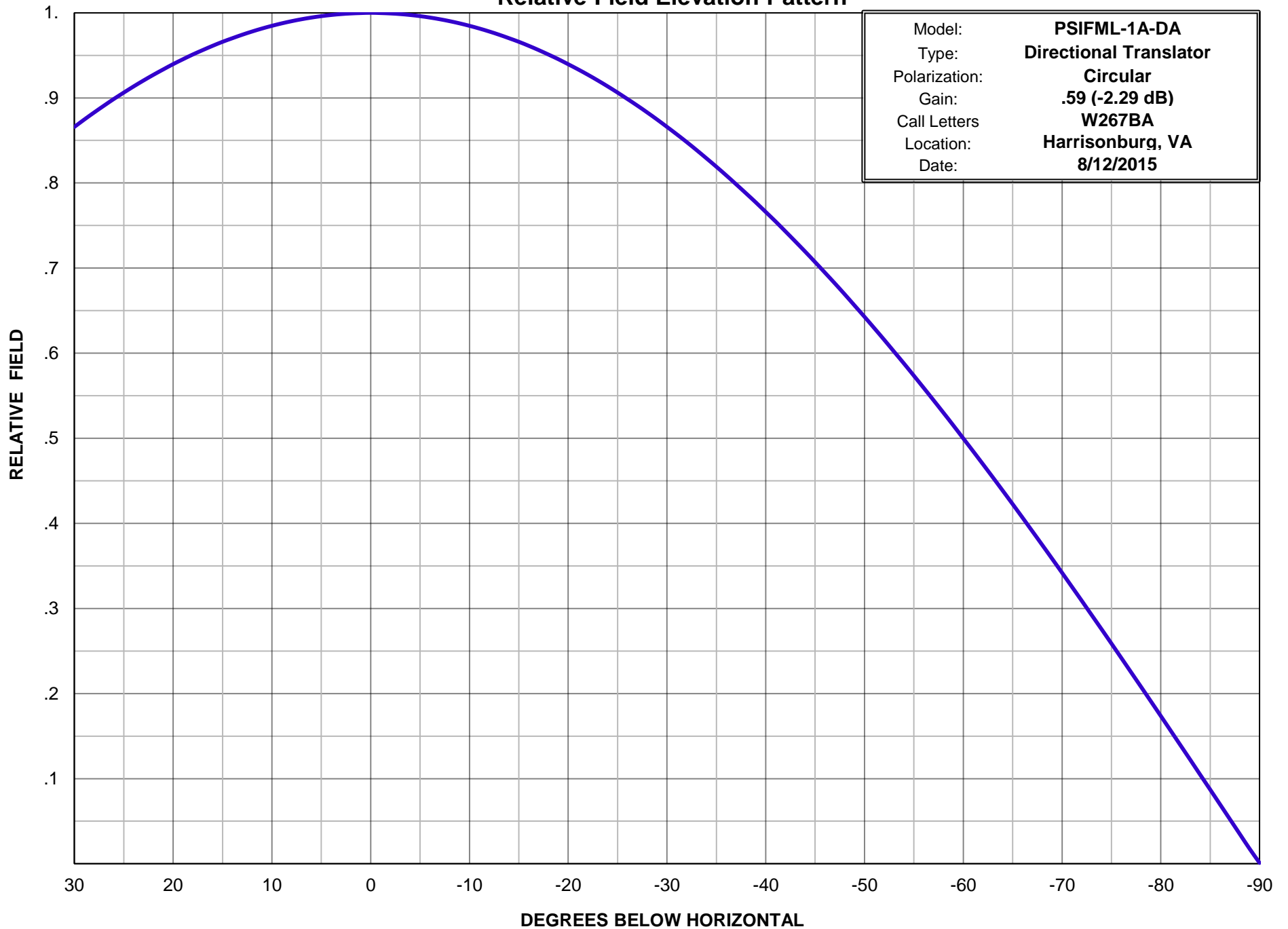
Maximum ERP: .10 kW (-10.0 dBk)

Angle	Relative Field	ERP (kW)	ERP (dBk)
0	1.000	0.100	-10.00
10	1.000	0.100	-10.00
20	1.000	0.100	-10.00
30	1.000	0.100	-10.00
40	1.000	0.100	-10.00
50	1.000	0.100	-10.00
60	1.000	0.100	-10.00
70	1.000	0.100	-10.00
80	1.000	0.100	-10.00
90	1.000	0.100	-10.00
100	0.920	0.085	-10.72
110	0.820	0.067	-11.72
120	0.780	0.061	-12.16
130	0.700	0.049	-13.10
140	0.230	0.005	-22.77
150	0.220	0.005	-23.15
160	0.210	0.004	-23.56
170	0.300	0.009	-20.46
180	0.360	0.013	-18.87
190	0.360	0.013	-18.87
200	0.350	0.012	-19.12
210	0.420	0.018	-17.54
220	0.480	0.023	-16.38
230	1.000	0.100	-10.00
240	1.000	0.100	-10.00
250	1.000	0.100	-10.00
260	1.000	0.100	-10.00
270	1.000	0.100	-10.00
280	1.000	0.100	-10.00
290	1.000	0.100	-10.00
300	0.850	0.072	-11.41
310	0.850	0.072	-11.41
320	1.000	0.100	-10.00
330	1.000	0.100	-10.00
340	1.000	0.100	-10.00
350	1.000	0.100	-10.00



Propagation Systems, Inc.

### Relative Field Elevation Pattern





# Propagation Systems Inc.

Elevation Pattern Tabulation

Antenna: PSIFML-1A-DA

W267BA Harrisonburg, VA

Angle	Field	dB	Angle	Field	dB	Angle	Field	dB
-90.0	0.001	-60.000	-50.0	0.643	-3.839	-10.0	0.985	-0.134
-89.0	0.017	-35.177	-49.0	0.656	-3.663	-9.0	0.988	-0.109
-88.0	0.035	-29.156	-48.0	0.669	-3.490	-8.0	0.990	-0.086
-87.0	0.052	-25.634	-47.0	0.682	-3.325	-7.0	0.992	-0.066
-86.0	0.070	-23.136	-46.0	0.695	-3.166	-6.0	0.994	-0.049
-85.0	0.087	-21.198	-45.0	0.707	-3.012	-5.0	0.996	-0.034
-84.0	0.104	-19.626	-44.0	0.719	-2.862	-4.0	0.997	-0.022
-83.0	0.122	-18.286	-43.0	0.731	-2.719	-3.0	0.998	-0.013
-82.0	0.139	-17.134	-42.0	0.743	-2.580	-2.0	0.999	-0.007
-81.0	0.156	-16.117	-41.0	0.755	-2.445	-1.0	1.000	-0.003
-80.0	0.174	-15.207	-40.0	0.766	-2.316	0.0	1.000	0.000
-79.0	0.191	-14.390	-39.0	0.777	-2.190	1.0	1.000	-0.003
-78.0	0.208	-13.644	-38.0	0.788	-2.071	2.0	0.999	-0.007
-77.0	0.225	-12.962	-37.0	0.798	-1.955	3.0	0.998	-0.013
-76.0	0.242	-12.330	-36.0	0.809	-1.842	4.0	0.997	-0.022
-75.0	0.259	-11.741	-35.0	0.819	-1.733	5.0	0.996	-0.034
-74.0	0.276	-11.194	-34.0	0.829	-1.630	6.0	0.994	-0.049
-73.0	0.292	-10.684	-33.0	0.839	-1.529	7.0	0.992	-0.066
-72.0	0.309	-10.203	-32.0	0.848	-1.432	8.0	0.990	-0.086
-71.0	0.325	-9.750	-31.0	0.857	-1.339	9.0	0.988	-0.109
-70.0	0.342	-9.320	-30.0	0.866	-1.251	10.0	0.985	-0.134
-69.0	0.358	-8.914	-29.0	0.875	-1.164	11.0	0.982	-0.162
-68.0	0.375	-8.530	-28.0	0.883	-1.082	12.0	0.978	-0.193
-67.0	0.391	-8.165	-27.0	0.891	-1.003	13.0	0.974	-0.227
-66.0	0.407	-7.815	-26.0	0.899	-0.928	14.0	0.970	-0.263
-65.0	0.423	-7.482	-25.0	0.906	-0.855	15.0	0.966	-0.301
-64.0	0.438	-7.164	-24.0	0.913	-0.786	16.0	0.961	-0.344
-63.0	0.454	-6.860	-23.0	0.920	-0.720	17.0	0.956	-0.389
-62.0	0.469	-6.569	-22.0	0.927	-0.657	18.0	0.951	-0.436
-61.0	0.485	-6.291	-21.0	0.933	-0.598	19.0	0.945	-0.487
-60.0	0.500	-6.023	-20.0	0.940	-0.542	20.0	0.940	-0.540
-59.0	0.515	-5.764	-19.0	0.945	-0.487	21.0	0.933	-0.598
-58.0	0.530	-5.517	-18.0	0.951	-0.437	22.0	0.927	-0.657
-57.0	0.545	-5.279	-17.0	0.956	-0.389	23.0	0.920	-0.720
-56.0	0.559	-5.050	-16.0	0.961	-0.344	24.0	0.913	-0.786
-55.0	0.573	-4.830	-15.0	0.966	-0.301	25.0	0.906	-0.855
-54.0	0.588	-4.616	-14.0	0.970	-0.263	26.0	0.899	-0.927
-53.0	0.602	-4.413	-13.0	0.974	-0.227	27.0	0.891	-1.003
-52.0	0.616	-4.214	-12.0	0.978	-0.193	28.0	0.883	-1.082
-51.0	0.629	-4.024	-11.0	0.982	-0.162	29.0	0.875	-1.164