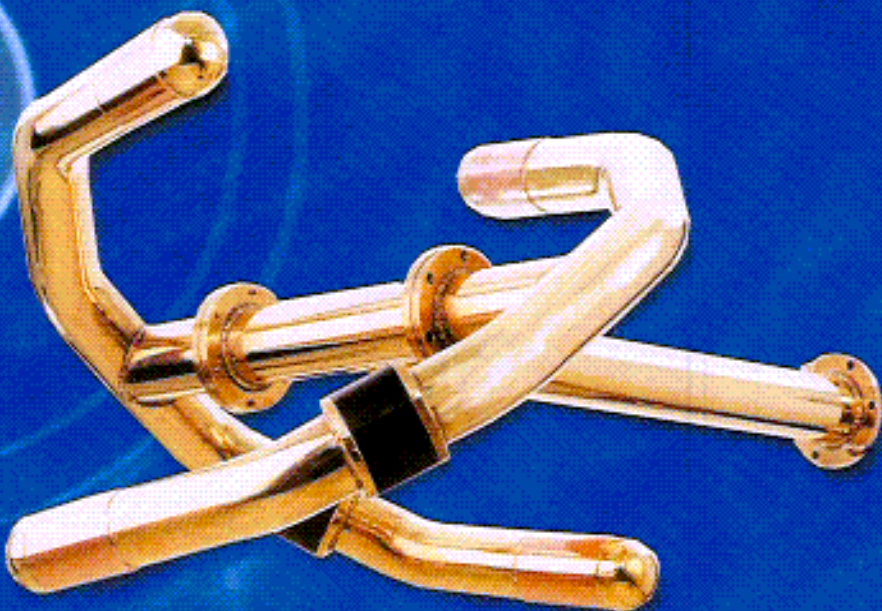


# FM BROADCAST ANTENNAS

## **FHR SERIES**



- Circularly Polarized
- Internal-Pressurized Feed
- Input Powers to 60 kW
- Copper and Marine Quality Brass Construction
- Excellent VSWR Bandwidth
- Extra Rugged TIG Welded Construction
- Factory Tuned
- Optional Fine Matcher Available
- 2 Year Limited Warranty
- Series Fed Element

The FHR Series is an omni directional, circularly polarized antenna which offers you exceptional quality at a competitive price.

Rugged copper and corrosion resistant brass construction ensure good conductivity and longevity in any environment as well as excellent VSWR bandwidth. Each bay is constructed of 3" diameter heavy wall brass and is fed from a 3" support boom. The elements are stacked in arrays of up to 12-bays for increased gain. For arrays requiring beam tilt and/or null fill, a center feed system is required. The FHR Series utilizes rigid 3-1/8" or 4-1/16" inter-bay transmission lines to connect each element. The entire antenna system including the feed is pressurized.

Each antenna is normally supplied with standard galvanized mounting brackets for round leg mounting on uniform cross section towers. Custom mounting brackets are also available.

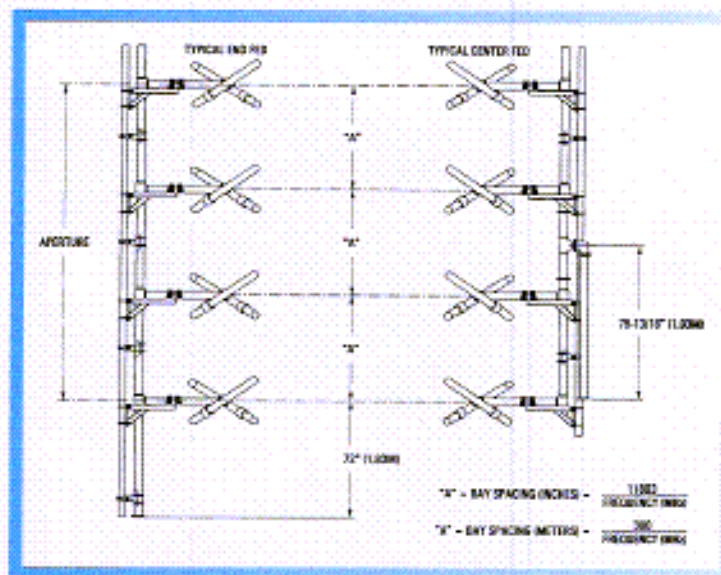
**PSI**  $\psi$

**PROPAGATION SYSTEMS, INC.**

# FHR SERIES

## General Specifications

Frequency Range	88-108 MHz
Polarization	Circular
Circularity	+/- 2 dB free space
VSWR	<1.1:1 (with field matching)
Impedance	50 ohms
Lightning Protection	DC Grounded



Bays	Power Gain	Gain dBd	Feed Style	Input Size	Power Rating	Calculated Length	Calculated Weight	Calculated Windload
1	.46	-3.37	End	3-1/8"	32 kW	~	115 lbs.	130 lbs.
2	1.0	0.0	End	3-1/8"	32 kW	10 ft.	225 lbs.	300 lbs.
2	1.0	0.0	Center	3-1/8"	39 kW	10 ft.	250 lbs.	320 lbs.
3	1.5	1.76	End	3-1/8"	32 kW	20 ft.	335 lbs.	465 lbs.
4	2.1	3.22	End	3-1/8"	32 kW	30 ft.	450 lbs.	630 lbs.
4	2.1	3.22	Center	3-1/8"	39 kW	30 ft.	475 lbs.	650 lbs.
4	2.1	3.22	Center	6-1/8"	60 kW	30 ft.	525 lbs.	750 lbs.
5	2.7	4.31	End	3-1/8"	32 kW	40 ft.	560 lbs.	800 lbs.
6	3.2	5.05	End	3-1/8"	32 kW	50 ft.	670 lbs.	970 lbs.
6	3.2	5.05	Center	3-1/8"	39 kW	50 ft.	695 lbs.	980 lbs.
6	3.2	5.05	Center	6-1/8"	60 kW	50 ft.	750 lbs.	1090 lbs.
7	3.8	5.80	End	3-1/8"	32 kW	60 ft.	780 lbs.	1130 lbs.
8	4.3	6.34	End	3-1/8"	32 kW	70 ft.	890 lbs.	1300 lbs.
8	4.3	6.34	Center	3-1/8"	39 kW	70 ft.	920 lbs.	1320 lbs.
8	4.3	6.34	Center	6-1/8"	60 kW	70 ft.	970 lbs.	1430 lbs.
10	5.6	7.48	Center	3-1/8"	39 kW	90 ft.	1140 lbs.	1650 lbs.
10	5.6	7.48	Center	6-1/8"	60 kW	90 ft.	1190 lbs.	1770 lbs.
12	6.7	8.26	Center	3-1/8"	39 kW	110 ft.	1360 lbs.	1980 lbs.
12	6.7	8.26	Center	6-1/8"	60 kW	110 ft.	1410 lbs.	2100 lbs.

\* Aperture, weight and windload are calculated at 98 MHz. \* Windload at 50/33 lb./sq. ft. (244/163 kg/sq.m).

\* As the result of an ongoing program of product improvement, PSI reserves the right to modify the indicated technical characteristics at any time without notice.

## PSI<sup>®</sup> PROPAGATION SYSTEMS, INC.

PSI builds high quality broadcast antennas at competitive prices. With over 100 years of collective experience in broadcast manufacturing, PSI offers the expertise of larger manufacturers — and the personal attention you'll only find at a smaller company.

We bring together people with expertise in mechanical, electrical,

electronic and civil engineering to do one thing: build the very best antenna products.

We're fully equipped for design, development, manufacture and testing of all our broadcast antennas. We use only the highest quality welding equipment and employ only the latest in testing methods.

So whether you need a simple FM antenna or a complex DTV array, PSI should be your first choice. Our uncompromising commitment to quality and service will ensure that your PSI antenna will work today, tomorrow — and for years to come.

- FM, VHF & UHF Antennas
- Diplexers/Combiners
- Filters
- Transmission Line
- Transmission Line Accessories

P.O. Box 113 • 719 Pensacola Road • Ebensburg, PA 15931 • 814-472-5540 • Fax 814-472-5676