

## Model 6832 FM Antenna

Circularly Polarized

Broadband

Up to 2.5 kW Rating per Bay

### Features:

- Broadband Without Retuning
- Non-Pressurized Connectors
- Easy to Install - Minimum Maintenance
- Easily Disassembled for Shipment by Small-Package Carrier



### Performance Specifications:

Band Width: 87.5 - 108 MHz

Polarization: Right circular.

VSWR: 1.5 : 1 or better.

Azimuth Pattern Circularity: Horizontal component  $\pm 1.5$  dB on pole.

Input Connection: 2 to 3 bays: 7/8" EIA  
 4 to 6 bays: 1-5/8" EIA  
 7+ bays: 3-1/8" EIA

Bay spacing: 77" (195.6 cm)

No. of Bays	Gain		Power Rating	No. of Bays	Gain		Power Rating
	Power	dB	kW		Power	dB	kW
2	0.85	-0.73	5.0	6	2.4	3.81	15
3	1.23	0.89	7.5	7	2.79	4.46	17.5
4	1.62	2.10	10.0	8	3.19	5.03	20.0
5	2.01	3.03	12.5	10	4.02	6.04	22.5

### Electrical Specifications:

#### Notes:

1. Our gain figures are calculated by factoring the directivity to allow for losses in the radiating system. Due to this conservative approach, you are assured of radiating maximum ERP by using Shively's published gain figures.  
 Gain is provided for one polarization and is equal in circularly polarized antennas for both horizontal and vertical components.

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## Model 6832 Size and Weight:

No. of Bays	Vertical Tower Space						Weight			
	Antenna Radiation Aperture		Pipe Length Required		Total Tower Space Recommended		Without ice		With 1/2" (1.2 cm) radial ice	
	ft	m	ft	m	ft	m	lb	N	lb	N
2	6.4	2.0	16.4	5.0	36.4	11.1	106	472	162	720
3	12.8	3.9	22.8	7.0	42.8	13.0	150	667	245	1089
4	19.3	5.9	29.3	8.9	49.3	15.0	194	863	332	1476
5*	25.7	7.8	35.7	10.9	55.7	17.0	242	1076	427	1899
6	32.1	9.8	42.1	12.8	62.1	18.9	289	1285	521	2317
7*	38.5	11.7	48.5	14.8	68.5	20.9	348	1547	653	2904
8	44.9	13.7	54.9	16.7	74.9	22.8	420	1868	795	3536
10*	57.8	17.6	67.8	20.7	87.8	26.8	544	2419	1076	4786

## Windload:

No. of Bays	Revision 'C'				Revision 'F'			
	Without ice		With 1/2" (1.2 cm) radial ice		Without ice		With 1/2" (1.2 cm) radial ice	
	lb	N	lb	N	(ft <sup>2</sup> )	m <sup>2</sup>	(ft <sup>2</sup> )	m <sup>2</sup>
2	187	834	328	1463	6.7	0.6	12	1.1
3	258	1151	464	2069	11	1.0	20	1.8
4	332	1481	600	2676	16	1.5	28	2.6
5*	405	1806	736	3283	21	1.9	38	3.5
6	478	2132	872	3889	27	2.5	48	4.4
7*	551	2457	1008	4496	35	3.2	63	5.8
8	623	2779	1144	5102	43	3.9	76	7.0
10*	769	3430	1416	6315	60	5.5	109	10.1

## Notes:

- Antenna radiation aperture is the distance from the center of the top bay to the center of the bottom bay. Five ft (1.5 meters) of pipe is required above the top of the top bay and below the bottom of the bottom bay. Total tower space recommended allows ten ft (3 m) of clear tower space above and below the pipe to protect from pattern interference by other antennas.
- Windload and weight tabulations include the bay, interbay feedline, input connection, and power dividers.
- Antenna windloads are calculated for 112 mph (180 kph), using 50 psf (2400 N/m<sup>2</sup>) for flats and 33 psf (1600 N/m<sup>2</sup>) for rounds, per EIA standard RS-222-C and CSA standard S37-94. The surface area is calculated per EIA standard RS-222-F (C<sub>g</sub>A<sub>c</sub>).
- Ask for technical assistance at Shively if you are planning to mount antennas on AM towers or install them at altitudes over 3,000 ft (915 m) above mean sea level.