

Model 6832 FM Antenna

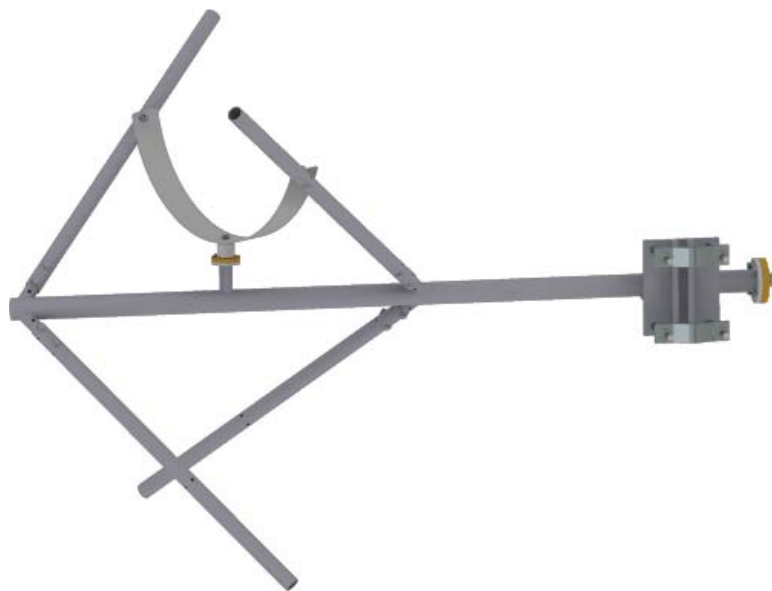
Elliptically polarized

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:

Bandwidth: 87.5 - 108 MHz

Polarization: Circular.

VSWR: 1.35 : 1 or better.

Azimuth pattern circularity: Horizontal component ± 1.5 dB on pole.

Input connection: 1 bay: 7/16 DIN
 2 bays: 7/8 EIA 50 Ω
 3-8 bays: 1-5/8" EIA, 50 Ω

Bay spacing: 98" (249 cm)

Mounts to fit: 1-1/2" OD to 3-1/2" OD (38-89 mm) outrigger pole (supplied by customer).

Electrical specifications:

No. of Bays	Gain		Power Rating	No. of Bays	Gain		Power Rating
	Power	dB			Power	dB	
1	0.45	-3.421	2.5	5	2.52	4.01	12.5
2	0.994	-0.027	5	6	3.02	4.806	15
3	1.51	1.797	7.5	8	4.04	6.068	15*
4	2.02	3.044	10				

* Higher-power arrays available. Contact factory for power divider requirements.

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.
 Gain is computed for 98 MHz and will vary across the band.

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Model 6832 size and weight:

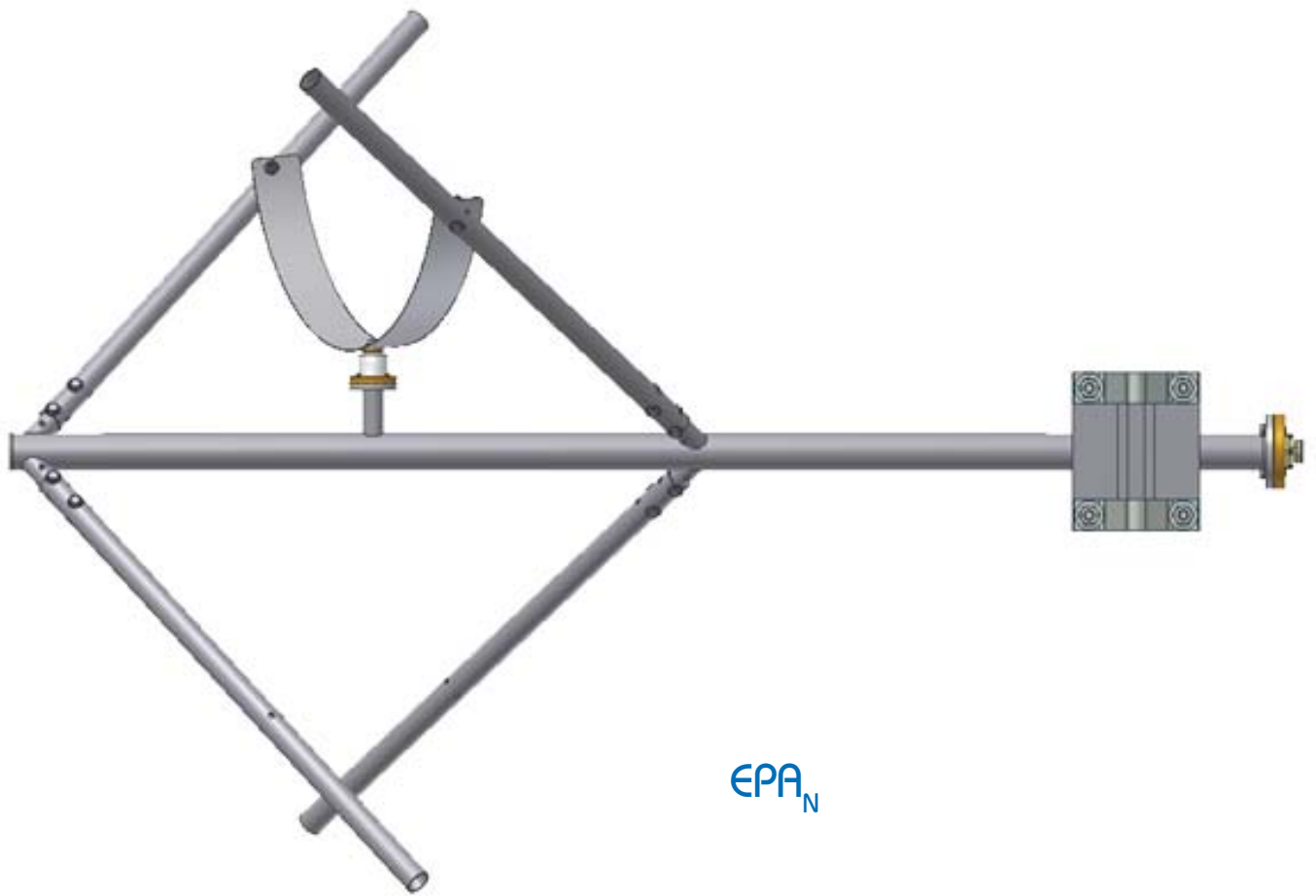
No. of Bays	Vertical Tower Space						Weight			
	Antenna Radiation Aperture		Pipe Length Required		Total Tower Space Recommended		Without ice	With 1/2" (1.2 cm) radial ice	With 1" (2.54 cm) radial ice	With 2" (5.1 cm) radial ice
	ft	m	ft	m	ft	m	lb	lb	lb	lb
1	4.1	1.25	10	3.05	20	6.1	59	84	120	165
2	8.2	2.5	18.5	5.6	28.2	8.6	121	187	286	417
3	16.3	5	26.4	8.05	36.4	11.1	169	278	448	678
4	24.5	7.5	34.5	10.5	44.5	13.6	224	368	591	895
5	32.7	10	42.7	13.01	52.7	16.06	278	479	800	1243
6	40.8	12.43	50.8	15.48	60.8	18.53	324	564	947	1474
8	57.2	17.43	67.2	20.48	77.2	23.53	448	808	1398	2217

Windload:

No. of Bays	TIA-222-G							
	Without ice		With 1/2" (1.2 cm) radial ice		With 1" (2.54 cm) radial ice		With 2" (5.1 cm) radial ice	
	EPA _N ft ² (m ²)	EPA _T ft ² (m ²)	EPA _N ft ² (m ²)	EPA _T ft ² (m ²)	EPA _N ft ² (m ²)	EPA _T ft ² (m ²)	EPA _N ft ² (m ²)	EPA _T ft ² (m ²)
1	2.4 (0.22)	1.2 (0.11)	3.3 (0.31)	1.7 (0.16)	4.1 (0.38)	2.2 (0.20)	5.0 (0.46)	2.9 (0.27)
2	6.5 (0.60)	4.1 (0.38)	10.3 (0.96)	7.0 (0.65)	13.8 (1.28)	10.0 (0.93)	17.4 (1.62)	13.1 (1.22)
3	10.5 (0.98)	6.9 (0.64)	18.1 (1.68)	13.3 (1.24)	25.4 (2.36)	19.7 (1.83)	32.7 (3.04)	26.3 (2.44)
4	13.9 (1.29)	9.1 (0.85)	24 (2.23)	17.5 (1.63)	33.6 (3.12)	26.1 (2.42)	43.3 (4.02)	34.9 (3.24)
5	19.2 (1.78)	13.2 (1.23)	35.2 (3.27)	27.1 (2.52)	50.7 (4.71)	41.3 (3.84)	66.2 (6.15)	55.6 (5.17)
6	22.9 (2.13)	15.7 (1.46)	42.0 (3.90)	32.2 (2.99)	60.4 (56.1)	49.1 (4.56)	78.9 (7.33)	66.3 (6.16)

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 the center line of the top bay and below the center line of the bottom bay, to protect from pattern interference by other antennas.
- Windload and weight tabulations include the bay, interbay feedline, input connection, and power dividers.
- Antenna areas and weights calculated in accordance with TIA-222-G. See figures, next page.
- 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.



Notes:

6. Orientations illustrate wind directions to calculate EPA_N & EPA_T in accordance with TIA-222-G.
7. Actual orientation of load with respect to tower will depend upon mounting configuration.

