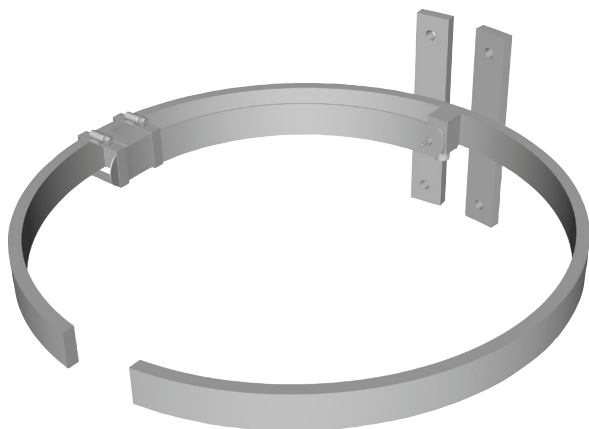


FM Educational Series

Low Power Horizontally Polarized FM Antenna



Educational FM antennas are specifically designed for optimum performance in low power applications. Each FM model utilizes horizontally polarized ring radiators to assure an omnidirectional pattern in the horizontal plane.

The FM-11A features a single ring element, the FM-22A uses two rings, the FM-33A employs three rings, and the FM-44A features four rings. In multi-ring antennas the vertical spacing between the rings is one wavelength. (Approximately 10')

The FM antennas are designed for mounting on a pipe or pole with an outside diameter of 2 to 2-1/2 inches. (Two "U" bolts are provided with each antenna element.) Mounting poles, mounting brackets and transmission line are available at additional cost.

Characteristics

Product Line:	FM Educational
Product Series:	FM Series
Frequency Range:	88 - 108 MHz, Single frequency
Polarization:	Horizontal
Azimuth:	±3 dB when pole mounted
VSWR at Input:	1.5:1 or less ± 1.2 MHz typical

Electrical and Mechanical Specifications

Type Number	Power Gain	dB Gain	Input	Input Power Rating	Antenna Weight		Antenna C _a A _a	
				kW	lbm	kg	ft ²	m ²
FM-11A	0.80	-0.97	Female 50 Ohm Type N	0.5	7.5	3.40	2.1	0.20
FM-22A	1.80	2.55	Female 50 Ohm Type N	0.8	16.5	7.48	4.68	0.43
FM-33A	2.75	4.39	Female 50 Ohm Type N	0.8	27.5	12.47	7.84	0.73
FM-44A	3.72	5.70	Female 50 Ohm Type N	0.8	36.0	16.33	10.28	0.96

Mechanical Notes:

- (1) Antenna weight and wind load are approximate values for a typical structure assuming no top load. Final design loads will vary for specific projects and should be verified by an ERI representative.
- (2) Wind loads are calculated in accordance with the ANSI/TIA/EIA 222-F standard. Weight and effective wind area (CaAc) includes antenna, inner transmission feed and typical support mast and mounting brackets with no ice.

Ordering Information

Type Number Definition

a - b A

a Model: FM

b Number of Bays: 11 = 1, 22 = 2, 33 = 3, 44 = 4

Example: FM-11A

Description: ERI Model FM Educational FM Antenna, one bay

Mounting Notes

Price includes mounting brackets and attachment hardware for up to 2 to 2-1/2 inch in diameter pipe or pole.

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