



The HDFDM antenna offers ideal characteristics to FM stations desiring the advantages of top mounting and combined station operation and is designed for digital, analog, or both types of service. The Dielectric HDFDM radiator consists of a patented truncated helix dipole radiator fed in phase and mounted three around on a structural pole mast. The vertical stubs on each element cancel the effect of the vertical pole support structure and help shape the element patterns for a near perfect omnidirectional azimuth pattern. Each layer of dipole is specifically tuned and patterns are optimized in conjunction with the supporting pole. For omnidirectional operation, the shape of the HDFDM's azimuth pattern will vary from omni by as little as +/-1.5 dB for top mount configurations putting it a step ahead of panel type antennas. The unique design of the HDFDM antenna offers precise control of the elevation pattern, which is critical in mobile receiver reception.

### Specifications:

- Very low aerodynamic area
- Ideal for candelabra
- High power ratings
- In dual mode, IBOC injected by high level combining or common amplification
- Galvanized steel, brass, and copper construction for excellent reliability
- Low downward radiation
- Near perfect omni-directional pattern performance
- 10 MHz bandwidth
- Designed for -10 dB IBOC signals

### Electrical Specifications

Antenna Type	Power Gain	dB	Power Rating kW
HDFDM-5A	2.2	3.42	70
HDFDM-7A	3	4.77	70

### Mechanical Specifications

Antenna Type	# of Bays	Weight (lbs)	Windload lbs (kg)	Projected Area ft <sub>2</sub> (m <sub>2</sub> )
HDFDM-5A	5	6,200 (2812)	3,000 (1,360)	60 (5.57)
HDFDM-7A	7	11,400 (5171)	4,150 (1,882)	83 (7.71)