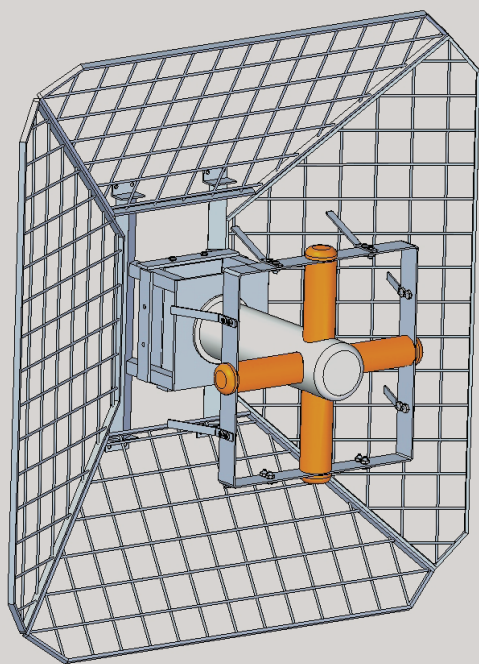




Specifications:

- Ideal for multi-station operation
- Full 20 MHz bandwidth
- High power handling
- Very low VSWR
- Single or dual EIA inputs
- Designed for -10dB IBOC signals
- Minimal windloading
- Superb azimuth circularity and elevation pattern control to ensure uniform coverage
- Custom azimuth patterns available
- Superior antenna isolation
- Ideal for space combining analog and IBOC signals

>40dB ISOLATION

Contact the Factory for more information on Electrical and Mechanical Specs and Azimuth and Elevation Images.

The HDCBR (Cavity Backed Radiator) antenna offers ideal characteristics to FM stations desiring the advantages of combined station operation or to stations requiring special directional coverage. The antenna is designed for digital, analog, or both types of service.

HDCBR consists of a crossed dipole radiator fed in phase quadrature and mounted within a square cavity. Rotating RF energy is produced when the cavity is excited by the dipole elements. Cavity size is principally determined by beamwidth requirements. A beamwidth of 90 degrees is required for a 4-around array and 120 degrees is required for a 3-around array.

The cavity used in the Dielectric circularly polarized FM antenna is a welded steel galvanized grid. The cavity grid is supported from a center mounting plate, which also serves as a mounting for the dipole assembly and for attachment of the unit to the supporting structure. The use of grid cavities and aerodynamic design significantly reduces weight and windload requirements of the supporting structure. This often represents substantial savings in support structure cost compared with other panel style antenna designs.

For omnidirectional operation, the shape of the standard azimuth pattern will vary from omni by less than ± 2.0 dB for optimized tower configurations. Stations employing directional arrays will find one of the several patterns available to be ideally suited to their specific needs.

The HDCBR antenna is designed for high power operation enabling station flexibility in transmission system design. Our conservative power rating ensures adequate design headroom for long term reliability. The Dielectric HDCBR antenna can be configured with one or two input ports. This feature allows the top and bottom portions of a typical antenna to be fed by two independent transmission lines.

Multi-station FM operation where two or more stations share the same antenna has increased in popularity due to the inherent cost savings which can be realized. Multi-station operation can be achieved only with the wide bandwidth characteristics the Dielectric CBR antenna offers. These characteristics are achieved through the use of a broadband radiating element in conjunction with high power hybrid junctions.