



Directional FM Antennas

When the requirement is to distribute undistorted, unimpaired signal in all directions, except a selected area, ERI's family of directional FM antennas provide the solution. ERI has designed, fabricated, and installed directional FM antenna for over 25 years. Utilizing ERI's 70 acre test range all directional antenna designs are verified with full scale measurements and meet the requirement of the Federal Communications Commission.

Of equal importance to the directional antenna's pattern is the antenna support structure. ERI is the only manufacturer that can provide both the antenna and its support structure. ERI's exclusive LAMBDA™ Optimized Mounting System and top mounted support poles allow for optimum antenna performance while ensuring a secure, unobstructed antenna aperture. ERI's expertise in every phase of directional antenna development affords a timely and economical response to customer requirements.

Directional ROTOTILLER® FM Antennas

The most popular and economical method of achieving a directional FM antenna utilizes ERI's ROTOTILLER® FM antenna, augmented with directors that provide the suppression required. The configuration of the antenna system is developed on the test range at full scale to ensure absolute reproduction of the required horizontal plane pattern.

These antennas have all of the benefits of the ERI ROTOTILLER® series FM antennas including an internally fed, fully pressurized system with superior fabrication characterized by totally welded feed connections, rugged brass material and TIG welding. The antenna's configuration and the large diameter of the radiating elements contribute to the excellent bandwidth of the antenna system, and also inhibits corona discharge and has a high immunity to weather induced VSWR.

This product approach provides a directional FM antenna that can meet most license requirements, at an affordable price, and is a compact and easy to install antenna system.

DA-1005 Directional FM Antennas

The ERI, DA-1005 series FM antenna is pole or LAMBDA™ mounted and designed to radiate power in a highly defined directionalized pattern. This dual polarized antenna is ideal for FM stations operating under a FCC construction permit which requires a directional antenna pursuant to Docket MM87-121.

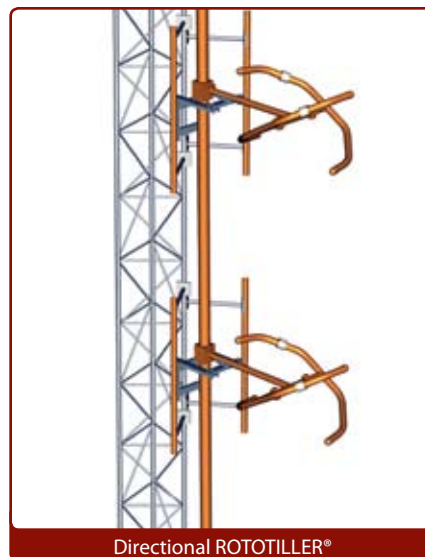
The DA-1005 antenna is comprised of vertical and horizontal dipole elements. Each element is constructed of 3-1/8" diameter, brass tubing with silver soldered connections. This combination of materials provides excellent strength, flexibility, and durability. The large diameter of each element affords superior structural integrity and contributes to the wide VSWR bandwidth of the antenna. The DA-1005's design vastly reduces the need of protection from radial ice accumulation. Radomes are available in extreme icing conditions. ERI's optional DA Lambda mounting is designed and fabricated to enhance the operational and structural characteristics of the DA-1005 antenna.

The DA-1005 antenna system, comprised of the DA-1005 antenna and ERI's DA Lambda support structure are developed on our 70 acre antenna pattern range. Pattern documentation is provided to meet pertinent requirements of the station's construction permit and FCC rules concerning directional antennas.

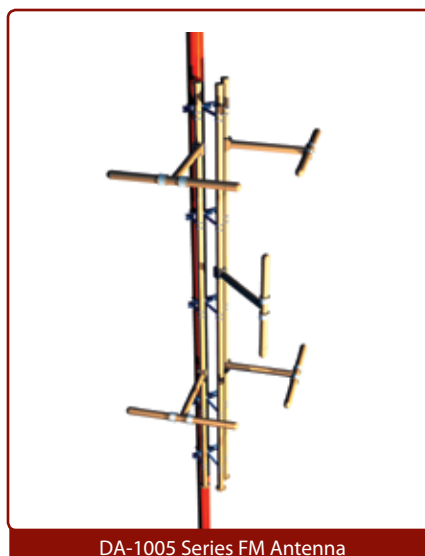
Each DA-1005 antenna system is customized to comply with the purchaser's specific requirements. Crucial information required to determine the DA-1005's broadcast characteristics are: maximum authorized ERP, true azimuth orientation, radiated power limitations including true orientation, transmission line type and length, and available transmitter output power. Structural design information is also required if the DA-1005 antenna is placed on another manufacturer's pole.

1080 Series Directional FM Antennas

For single and multiple station applications, the ERI 1080 Series FM Panel antenna can be configured as a directional FM antenna. This offers the directional FM station the benefits of high power handling, excellent axial pattern circularity, and the ability to have excellent horizontal plane pattern performance even when mounted on large tower faces.



Directional ROTOTILLER®



DA-1005 Series FM Antenna



QA-1 Series FM Antenna