

This popular antenna is available with four folded dipoles for high gain and broad bandwidth.

- **Broad Response** – 10 MHz bandwidth provides optimum performance in single or multi-frequency systems, on both transmit and receive.
- **Circular Pattern** – DB224 has four elements positioned evenly, every 90 degrees around the mast, for omni pattern.
- **Offset Pattern** – DB224E comes with four elements aligned collinearly on the same side of the mast for maximum directional gain.
- **Dual Version** – Two antennas on the same mast are fed and operated separately, providing 3 dB omni or 6 dB directional patterns.
- **Two-Piece Mast** – For ease of shipment and handling, the mast is made in two sections. A unique center splice assures proper alignment.
- **Lightning-Resistant** – The radiators operate at DC ground, and the aluminum mast with its pointed cap provides a low resistant discharge path to the tower or ground system.
- **For Air Shipment** – Model DB224X has a shortened mast, 124" (3150 mm).

**Ordering Information** – Use model number for correct frequency and specify termination if non-standard. Add E for offset pattern, S for dual omni or ES for dual offset pattern. DB365-OS Mounting Clamps are included. For side mounting order DB5001 Side Mount Kit. For Stabilizer Kit, order 12088 (four required). For shortened mast, order DB224X. Order jumper cable separately.



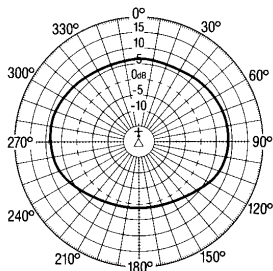
DB224



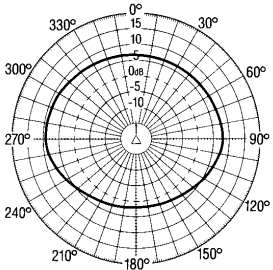
DB224E

**Side Mounting**

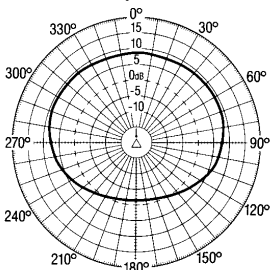
The patterns indicate the typical pattern shape of the antenna side mounted on a tower with an 18" to 24" (457.2 to 609.6 mm) face.



DB224 (omni) mounted on side of tower

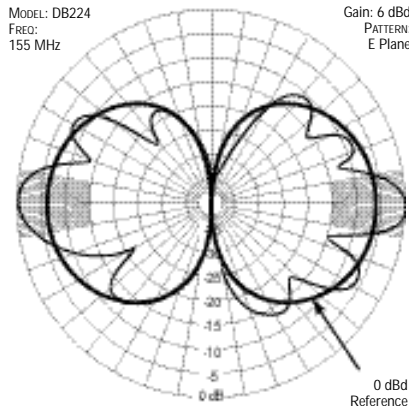


DB224E elements pointed toward the tower



DB224E elements pointed away from the tower

**DB224 Vertical Pattern**



**Electrical Data**

|   |   |
|---|---|
| Frequency Ranges* – MHz   | A = 150-160,<br>B = 155-165, C = 164-174, E = 138-150,<br>J = 276-285, JJ = 220-222 |
| Bandwidth (150-174 MHz) – MHz   | 10  |
| VSWR  | 1.5 to 1 or less  |
| Nominal impedance – ohms  | 50  |
| Gain (over half-wave dipole)  |   |
| Omni pattern – dBd  | 6.0   |
| Offset pattern – dBd  | 9.0   |
| Maximum power input – watts   | 500   |
| Vertical beamwidth (half power points)                                      | 16°   |
| Decoupling between antennas (split models) – dB                             | 35 minimum  |
| Lightning protection  | Direct ground   |
| Standard Termination: Captive Type N-Male attached to end of flexible lead. |   |

\*Special frequencies are available; contact factory for details.

**Mechanical Data**

|  |   |
|--|---|
| Mast – upper (aluminum) – in. (mm)   | 1.75 (44.45) OD with .062 to .125 (1.57 to 3.18) wall |
| Mast – lower (aluminum) – in. (mm)   | 2 (50.8) OD with .125 to .187 (3.18 to 4.75) wall     |
| Radiating elements (aluminum) – in. (mm)   | .5 (12.7) OD with .058 (1.47) wall                    |
| Maximum exposed area (flat plate equivalent) – ft <sup>2</sup> (m <sup>2</sup> ) | 3.15 (.292)   |
| Lateral thrust at 100 mph (161 km/hr) – lbf (N)                                  | 126 (560.5)   |
| Wind rating:*  | Top Mounted Side Mounted                              |
| Survival w/o ice – mph (km/hr)   | 80 (129) 100 (161)                                    |
| Survival with .5" (12.7mm) radial ice – mph (km/hr)                              | 55 (89) 70 (113)                                      |
| Overall length (150-174 MHz) – in. (mm)  | 255 (6477)  |
| Shipping length – in. (mm)   | 148 (3759)  |
| Net weight (w/clamps) – lbs. (kg)  | 32 (14.51)  |
| Shipping weight (w/clamps) – lbs. (kg)   | 48 (21.77)  |
| Mounting clamps (Galv. steel)  | DB365-OS  |

\*Calculation of wind survivability does not include damage due to flying debris.