

Exposed Dipole Quasi-Omni Antenna

450 - 470 MHz / 9 dBd Gain



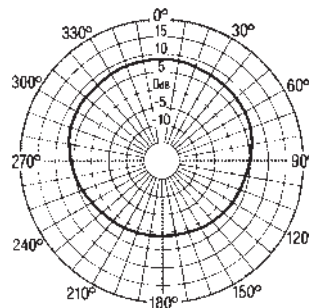
DB411-B

30-512 MHz

The DB411-B uses a 4-stack collinear array of folded dipole elements to provide high gain and constant performance over a broad offset horizontal pattern. Mounts to the top or side of a tower or structure.

- **Extremely Rugged** — Resists winds to 125 mph (201 km/hr).
- **Broad Response** — With 14 to 24 MHz bandwidth, this antenna is suitable for duplex operation.
- **Moisture Resistant** — VAPOR BLOC® cable harness provides weather protection and assures inphase signal distribution to all elements.
- **Key Applications** — Ideal for mobile systems requiring additional gain over a sector or along a coast or area with geographical boundaries.
- **Sturdy Construction** — Mast and elements are made of high strength aluminum alloys.
- **Lightning Resistant** — Radiators operate at DC ground, and the aluminum mast, with its pointed top, provides a low resistance discharge path to the tower or ground system.

Top Mounting
Horizontal Radiation Pattern of DB411-B



ORDERING INFORMATION

DB365-OS Clamps are included. Order DB5012 Side Mount Kit if needed. Additional sized clamps can be special ordered.

SIDE MOUNTING

Typical pattern shape of the antenna side mounted on a tower with an 18" (457.2 mm) face. The patterns for 12" (304.8 mm) and 24" (609.6 mm) towers will be similar.

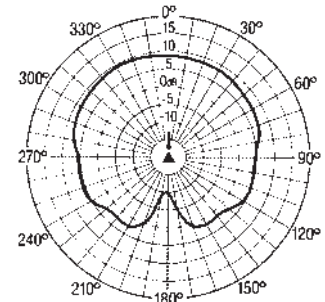
ELECTRICAL DATA

Frequency Ranges – MHz	450-470
Bandwidth	Same as above
VSWR	1.5 to 1 or less
Nominal Impedance – Ohms	50
Gain (over half-wave dipole) – dBd	9
Rated Power Input – Watts	250
Vertical Beamwidth (half-power)	14°
Lightning Protection	Direct ground
Standard Termination	Captive Type N-Male attached to end of flexible lead.

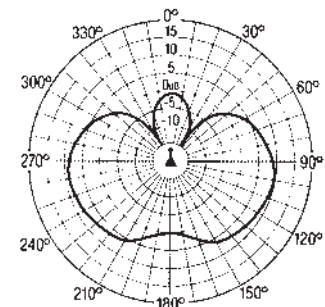
MECHANICAL DATA

Mast (aluminum) – in. (mm)	1.75 (44.45) OD with 0.062 (1.575) to 0.125 (3.175) wall
Radiating Elements (aluminum) – in. (mm)	0.375 (9.525) OD with 0.058 (1.473) wall
Maximum Exposed Area (flat plate equivalent) – ft ² (m ²)	1.5 (.139)
Wind Rating*:	
Survival w/o Ice – mph (km/hr)	100 (161)
Survival with 0.5" (12.7 mm) Radial Ice – mph (km/hr)	90 (145)
Lateral Thrust at 100 mph (161 km/hr) – lbf (N)	60 (266.9)
Bending Moment at Top Clamp at 100 mph (161 km/hr) – ft. lbs. (kg m)	170 (23.53)
Overall Length (450-470 MHz) – ft. (m)	9.42 (2.87)
Net Weight (w/clamps) – lbs. (kg)	25 (11.34)
Shipping Weight (w/clamps) – lbs. (kg)	27 (12.25)
Mounting Clamps (Galv. steel)	DB365-OS

* Antenna mounted at top of tower. Rating is substantially increased when antenna is side mounted with appropriate mounting kit. Calculation of wind survivability does not include damage due to flying debris.



● DB411-B elements pointed away from tower



● DB411-B elements pointed toward tower