

Exposed Dipole Quasi-Omni Antenna

138 - 174 MHz / 9 or 12 dBd Gain



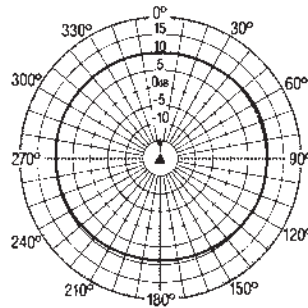
DB 228

30-512 MHz

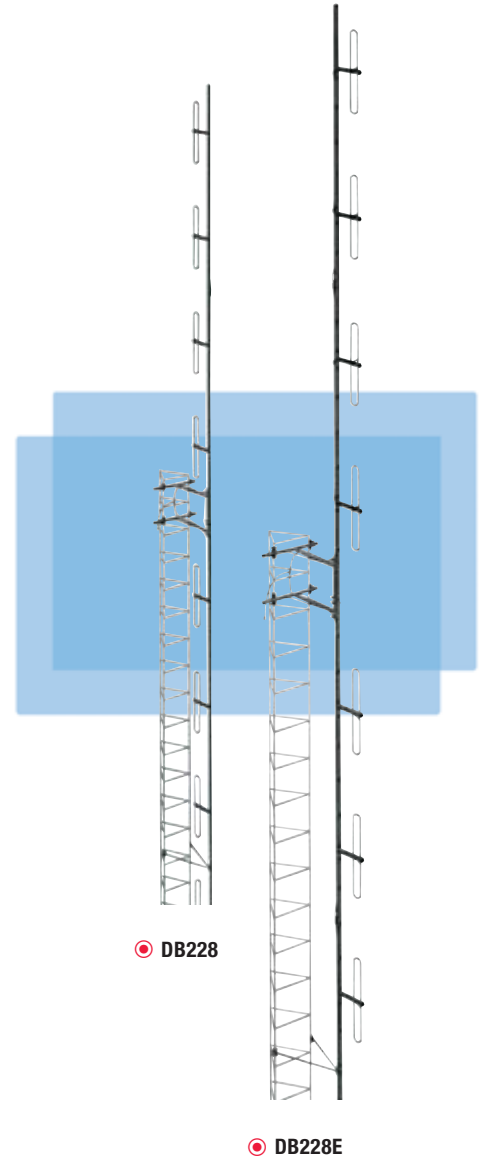
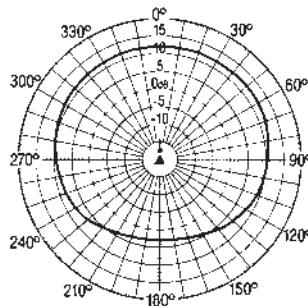
A high-gain, broadband antenna for 138-174 MHz, the 8-dipole DB228 combines two DB224E offset-pattern antennas to provide a 9 dBd gain omni or a 12 dBd gain offset horizontal pattern. Both DB224E antennas are mounted with the ends together, and the phasing harness is terminated at the center. A special bracket positions the antenna at a pre-determined distance from the tower.

- Flexible Mounting** — Normal mounting is half above and half below the top of a tower; however, the DB228 can be fully side mounted.
- Broad Bandwidth** — Can provide symmetrical patterns for both transmit and receive, and can be used in single or multi-frequency systems.
- Offset or Circular Patterns** — When all elements point toward the tower, a circular pattern is created; when all elements point away from the tower, an offset pattern occurs. The pattern can be changed in the field by rotating the mast 180°.
- 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.

DB228 Horizontal Circular Pattern



DB228 Horizontal Offset Pattern



ELECTRICAL DATA

Frequency Ranges* – MHz	A = 150-160, B = 155-165, C = 164-174, E = 138-150	
Bandwidth (150-174 MHz) – MHz	10	
VSWR	1.5 to 1 or less	
Nominal Impedance – Ohms	50	
Gain (over half-wave dipole) – dBd	Omni Pattern	Offset Pattern
	9	12
Maximum Power Input – Watts	500	
Vertical Beamwidth (half-power points)	8°	
Lightning Protection	Direct ground	
Standard Termination	Captive Type N-Male attached to end of a flexible lead.	

* Special frequencies are available; contact factory for details.

MECHANICAL DATA

Radiating Elements (aluminum) – in. (mm)	0.5 (12.7) OD with 0.058 (1.47) wall
Maximum Exposed Area (flat plate equivalent) – ft ² (m ²)	7.3 (0.68)
Lateral Thrust at 100 mph (km/hr) – lbf (N)	292 (1,298.8)
Wind Rating:*	
Survival without ice – mph (km/hr)	100 (161)
Survival with 0.5" (12.7 mm) Radial Ice – mph (km/hr)	74 (119)
Overall Length (150-174 MHz) – in. (mm)	488 (12,395)
Shipping Length – in. (mm)	148 (3,759)
Net Weight (w/clamps, brackets) – lbs. (kg)	72 (32.66)
Shipping Weight (w/clamps, brackets) – lbs. (kg)	142 (64.41)

Note: The mechanical specifications are degraded for the antenna covering the 120-150 MHz band.

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

ORDERING INFORMATION

Order DB228 for omni and DB228E for offset pattern. Use the correct letter for frequency, and specify termination if non-standard. Included are NSO18279-001 mounting bracket, one sway brace and adjustable clamps for 12" to 36" (304.8 to 914.4 mm) between tower legs. 12038 Sway Brace, needed when the entire antenna is side mounted, and Dipole Stabilizer Kit 12088 (8 required) are optional. Order jumper cable separately.