

Yagi Antenna

30 - 174 MHz & 220 - 222 MHz / 7 to 14 dBd Gain



DB230

30 - 512 MHz

A 3-element Yagi antenna, the DB230 gives 7 dBd maximum forward gain combined with good front-to-back ratio. Combining additional phased antennas provides gain options up to 14 dBd.

- Key Applications** — The DB230 is ideal for mobile systems that need gain in one sector, stations located along a coast or with geographical boundaries, point-to-point systems, and systems to reduce interference on the backside of the antenna.
- Rugged** — Antennas operate effectively in severe environments. Elements are made of 0.75" (19.05 mm) tubing and reinforced with 0.875" (22.23 mm) sockets at the boom. The size and thickness of the materials are increased for larger antennas; heavy duty clamps and orientation brackets are also supplied.
- Lightning Resistant** — Constructed of all metal with direct grounding makes the antenna almost immune to lightning.
- No Field Tuning** — Antenna is adjusted at the factory for minimum VSWR.



▲ DB230

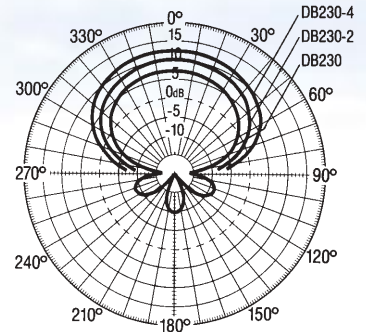
ORDERING INFORMATION

Specify exact frequency when ordering. Standard termination, clamps, phasing harnesses for arrays, and orientation brackets (for larger models) are included. Other size clamps are available. Order DB365W Clamp for mounting on a wooden pole. Order jumper cable separately, if desired.

Gain	Order	
7 dBd	1 ea.	DB230 Antenna
10 dBd	2 ea.	DB230 Antenna
	1 ea.	11680-3 Dual Harness
13 dBd	4 ea.	DB230 Antenna
	3 ea.	11680-3 Dual Harness

ELECTRICAL DATA

Frequency Ranges – MHz	A = 30-41, B = 41-46, C = 46-50, E = 72-76, J = 150-160, JJ = 220-222, K = 160-173, L = 173-174
VSWR Bandwidth	2 to 1 VSWR 3%, using center frequency of each band 1.5 to 1 VSWR 1%, using center frequency of each band
Nominal Impedance – ohms	50
Gain (over half-wave dipole) – dBd	7.0
Maximum Power Input – watts	500
Horizontal Beamwidth (half power points)	76°
Front-to-Back Ratio – dB	17
Lightning Protection	Direct ground
Standard Termination	Captive Type N-Male attached to end of flexible lead.



▲ DB230 Horizontal Radiation Pattern

MECHANICAL DATA

	35 MHz	50 MHz	74 MHz	160 MHz
Support Boom (aluminum) – in. (mm)	2 x 3 (50.8 x 76.2) with 0.125 (3.18) wall	2 x 3 (50.8 x 76.2) with 0.125 (3.18) wall	2 x 2 (50.8 x 50.8) with 0.125 (3.18) wall	1.5 x 2 (38.1 x 50.8) with 0.078 (1.98) wall
Elements (aluminum) – in. (mm)	0.750 (19.05) diameter	0.750 (19.05) diameter	0.750 (19.05) diameter	0.750 (19.05) diameter
Bracket	Half-Y type (018234-001), Gal. steel 2 (50.8) OD	Half-Y type (018234-001), Gal. steel 2 (50.8) OD	Half-T type (018188-001), Gal. steel 2 (50.8) OD	Aluminum angle Welded to boom
Wind Rating: *				
Survival without Ice – mph (km/hr)	110 (177)	over 125 (201)	over 125 (201)	over 125 (201)
Survival with 0.5" (12.7 mm) Radial Ice – mph (km/hr)	75 (121)	100 (161)	over 125 (201)	over 125 (201)
Lateral Thrust at 100 mph (161 km/hr) – lbf (N)	189 (840.6)	159 (707.2)	91 (404.8)	37 (164.6)
Height (vertical) – ft. (m)	13.6 (4.15)	9.7 (2.96)	6.6 (2.01)	3.0 (0.91)
Length (horizontal) – ft. (m)	10.5 (3.2)	8.0 (2.44)	6.5 (1.98)	3.4 (1.04)
Net Weight (w/clamps, brackets) – lbs. (kg)	57 (25.84)	52 (23.59)	27 (12.25)	11 (4.99)
Shipping Weight (w/clamps) – lbs. (kg)	90 (40.82)**	88 (39.92)	40 (18.14)	26 (11.79)
Mounting Clamps	Galvanized steel	Galvanized steel	Galvanized steel	Stainless steel

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

** Portion of mount shipped separately.