

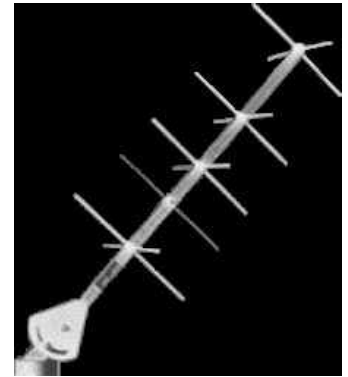
Harsh/Synergetics International

DATA SHEET

Model 18B Crossed Yagi Antenna

The Synergetics Model 18B is a high-gain, lightweight antenna designed to provide optimum performance for all fixed-location, timed Satellite Data Collection Platforms (DCPs). It is also well suited for other 400 MHz applications.

The basic 18B design consists of two quadrature-phased, five-element Yagi antennae, orthogonally mounted on a common aluminum boom. The driven elements are fed via a unique micro-strip matching circuit. The combination of a precision aluminum structure, driven by a photo-reproduced matching circuit, results in exceptionally uniform electrical and mechanical performance. The antenna is supplied with screw-in elements for ease of shipping, storage, and field installation.



SPECIFICATIONS

Electrical		
• Frequency	401.8 MHz	Nominal
• Bandwidth	2 MHz	Minimum
• Input Power	15 Watts	Maximum
• Input impedance	50 Ω	Nominal
• SWR	1.50	Maximum
• Axial Ratio	4 dB	Maximum
• Directivity	+14.0 dBic	Nominal
• Gain	+11.0 dBic	Minimum
• Polarization	Right-Hand Circular	
• ½ Power Beamwidth	47°	Nominal
• Connector	Type N Jack	
Environmental		
• Wind	100 knots	
• Ice and Snow	100 lbs/ft ²	
• Rain	5"/hour	
• Temperature	-65°C to +65°C	
• Relative Humidity	0 – 100%	
• Altitude	-1,000 to +15,000 feet MSL	
Mechanical		
• Mounting	2" standard pipe (2.50" od maximum)	
• Azimuth adjustment	360°	
• Elevation adjustment	0° to 90°	
• Weight	4.5 lbs. Including adjustable mount	
• Size (assembled)	10.5" H x 10.5" W x 43.3" L	
• Effective wind area	0.35 ft ²	
Ordering Information		
• Packaging	Boxed in heavy-duty cartons.	
• Shipping weight	7 lbs.	
• Shipping size	5.5" H x 5.5" W x 45" L	

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