



ANTENNA EXPERTS

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Model # ADSY-1060-12

1030-1090 MHz

12 dBi. Gain

High Gain Yagi Directional Antenna for ADS-B Ground Station

DESIGN FEATURES: Antenna Experts ADS-B Yagi antenna design reflects innovative modern antenna construction. The unique design of the yagi antenna feed which works as matching device to keep the VSWR low resulting in increased efficiency of the yagi antenna. The mounting hardware supplied facilitates mounting on either vertical or horizontal members. The yagi antenna comes in pre-assembled condition with permanently welded/fixed elements in the support boom. The small surface area on the yagi antenna minimizes wind resistance and conserves tower loading capacity.

CONSTRUCTIONS: Radiating elements, supporting booms and adjoining metal castings of ADSY-1060-12 yagi antenna have been constructed in high quality 6063T6 aluminum alloys to prevent corrosion. The yagi antenna uses special feed which eliminates the use of folded dipole. The Yagi antenna is supplied with N termination fixed on the driven element. The feed point radiator is enclosed in a Nylon housing designed to protect against severe environmental conditions and minimize pattern distortion. This directional yagi antenna comes factory tuned and does not require any field adjustment. Antenna is supplied with Olive green color powder coating finish.

RADOME: The ADS-B Yagi antenna is completely protected within a high-tech ruggedized radome which is made of high strength fiber glass enclosure to ensure survivability in the worst environments conditions. The heavy duty fiber glass enclosure has excellent transparency for RF signals and enough strength to withstand more than specified wind loads. Cylindrical enclosure is used for low wind loading and for minimal effect of ice formation on the high power broad band antenna operation as well as providing an aesthetically pleasing appearance. The antenna is supplied with olive green MIL color finish. Other customized housing/radome color can also be supplied on request.

ELECTRICAL SPECIFICATIONS:

Frequency Range	1030 - 1090 MHz.
Gain - Typical	12 dBi. (10 dBd.)
Bandwidth	1030-1090MHz.
Polarization	Vertical or Horizontal
Input Impedance	50 Ohms.
Radiation Pattern	Directional
Horizontal Beam-width –Half Power Points.	55 Degrees Typical
Vertical Beam-width –Half Power Points.	45 Degrees Typical
Front to Back Ratio	24 dB. Typical
VSWR – Better Than	1.5:1
RF Power Handling Capacity	250 Watts.
Input Termination	N-Female

MECHANICAL SPECIFICATIONS:

Materials	6063T6 Aluminum Alloy
Mounting Hardware -Materials	Marine Grade Stainless Steel
Radome/Housing Materials	High Strength Fiberglass
Final Finish/Color	Olive Green or Customized
Gross Weight	3.0 Kgs.
Wind Rating	200 Km/Hr.
Overall Length	900 mm.
Shipping Length	1000 mm
Support Boom-Materials -Cross Section-Outer Diameter.	Aluminum - Round Tube -25.4mm
Elements-Materials-Cross Section-Outer Diameter.	Aluminum - Round Rod - 10.0mm
Maximum Mount Pipe Diameter	52mm (2 Inches)

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-)30 to +70 Degrees Celsius
Storage Temperature	(-)40 to +80 Degrees Celsius
Humidity	0 to 95% RH

Note: All information contained in the datasheet is subject to change without any prior notice.