

BEAMSAT<sup>®</sup>

V-BAND ADE ANTENNA

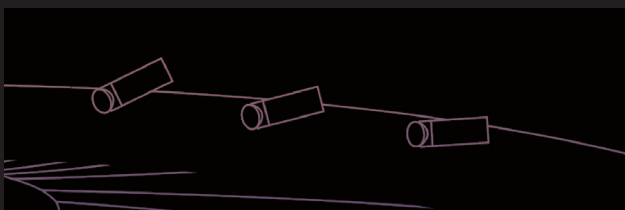


A COST-EFFECTIVE HIGH-GAIN ANTENNA (HGA)  
DEVELOPED IN COLLABORATION WITH  
THE EUROPEAN SPACE AGENCY (ESA)

OVERVIEW

The antenna is an ADE type double reflector antenna operating in the 59.3-71 GHz frequency range. The antenna is able to transmit and receive contemporarily since it is provided with both RHCP & LHCP.

The gain ranges between 30 and 32.5 dB. The antenna fabrication process involves both CNC and L-PBF manufacturing techniques giving the antenna a mass of about 82 g and a high compactness (occupied volume < 0.5 U).



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"Cost-Effective High-Gain CubeSat Antennas"  
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# MAIN PARAMETERS

MASS	83g
FREQUENCY RANGE	59.3 - 71 GHz
GAIN	from 30dB (@59.3 GHz) to 32.4 dB (@71 GHz)
INPUT MATCHING	< -20 dB (all bandwidth)
PORT INSULATION	< -20 dB (all bandwidth)
POLARISATION	RHCP & LHCP
AXIAL RATIO	<1.2 DB (all bandwidth)
VOLUME (BOUNDING BOX)	79.50 mm X 79.50 mm X 43.39 mm
MECHANICAL/RF INTERFACE TX	2 X WR15

