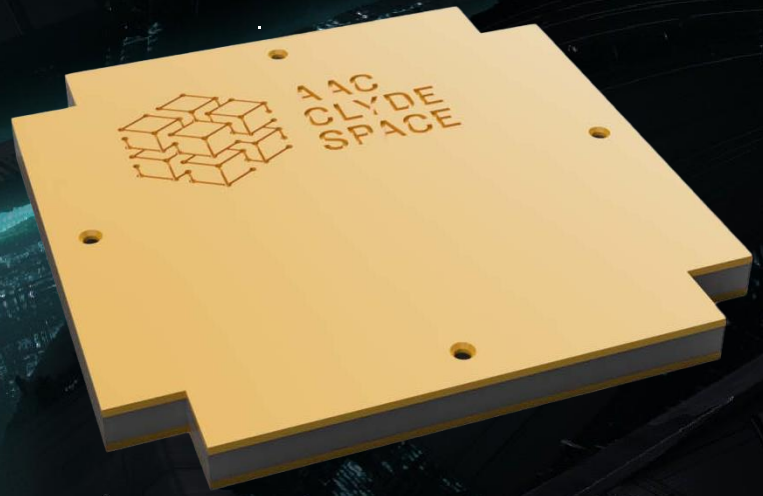


WIDE BAND, DUAL PORT, DUAL POLARIZATION S-BAND ANTENNA



The Quasar-WSANT is our next generation telecommand/telemetry/payload-data S-band antenna for SmallSats and CubeSats. The antenna is based on augmented patch antenna technology using materials with many years' flight heritage. The Quasar-WSANT is part of a family of co-developed satellite communication products that provide different options for TMTC and payload transmitter subsystem design.

Quasar-WSANT completes the commercial S-band communication solution with a compact wideband S-band patch antenna covering both ITU- receive and transmit bands on port selectable Left- or Right-Hand Circular polarizations.

Avoid systems integration challenges and costly project delays with our one-stop single-version antenna. This antenna spans the complete ITU-R band from 2025 – 2290 MHz and is capable of handling 5 W of transmit power at either polarization port. Its working configuration can be to separate Tx and Rx by polarization, or to connect to a single port via a diplexer for a single Tx and Rx polarization.

The compact, wideband antenna can remove the need for two separate antennas for up- and downlink paths without a diplexer; or with our additional diplexer it enables improved band-isolation on any single polarization (or port).



PERFORMANCE

Designed using flight proven heritage solutions incorporating our latest innovations. This market leading solution provides good gain and good axial ratio over a wide beam and over the complete ITU-R S-Band window at any port.



FLEXIBILITY

This market leading solution is not only able to handle the complete ITU-R S-Band at any port continuously but also allows selection of L- or RHCP polarization by port.

Side mounted SMP connectors avoid inconvenient intrusion into satellite internal volume.



RELIABILITY

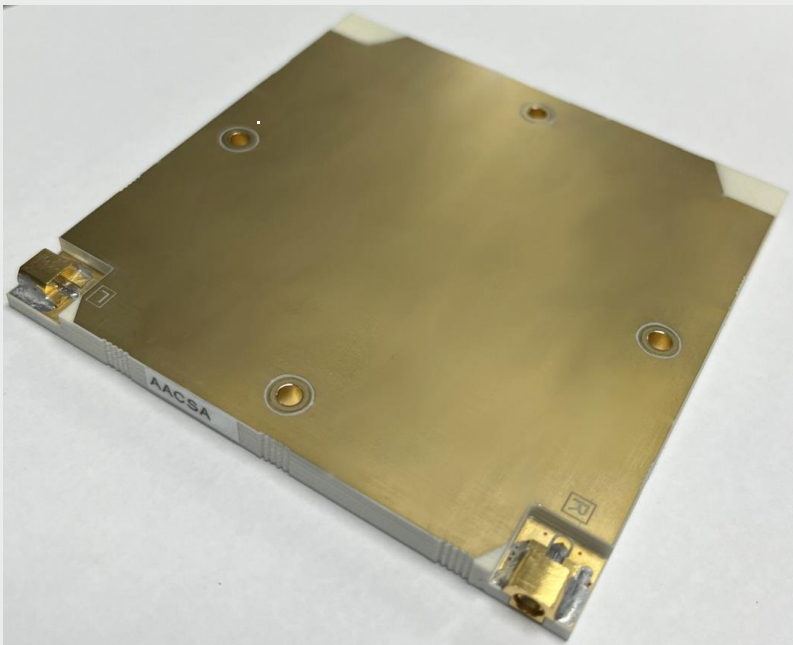
The antenna consists of a compact single grounded dielectric slab with side mounted SMP RF port connections.

TECHNICAL SPECIFICATIONS

General	
Temperature	-40°C to +100°C (operational) -40°C to +85°C (storage)
Mass	68.5 g
RF interfaces	50 Ω, 2x SMP-Female
Radiation tolerance	TBC
Design Life	5-6 years

Antenna RF characteristics		
Frequency band	2025 - 2290 MHz	
RF power	5 W max. at any port	
Half power beam width	60°	
Polarizations/ports	port R = RHCP port L = LHCP	
Return Loss	2025 – 2290 MHz	> 13 dB
Gain	2025 – 2290 MHz	> 5 dBic
Axial Ratio	2025 – 2290 MHz	< 3 dB
Port isolation	2110 – 2290 MHz	> 10dB

Mechanical Dimensions	
Length	83 mm
Width	83 mm
Height including connectors	5 mm

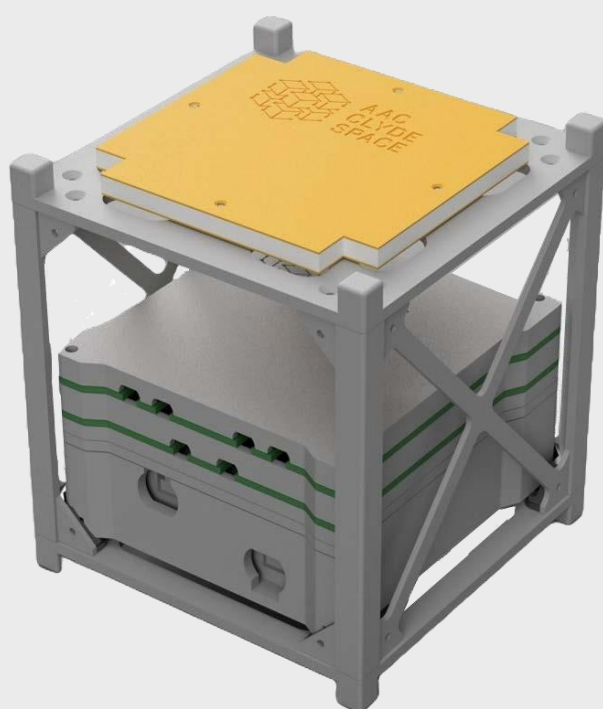


Quasar-WSANT Wideband patch Antenna

Designed for optimized communications. Avoid systems integration challenges and costly project delays with our one-stop solution.



To make an enquiry, request a quotation or learn about AAC Clyde Space's other products and services, please contact: **enquiries@aac-clyde.space**



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All information subject to change. Release date 24 April 2025.

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