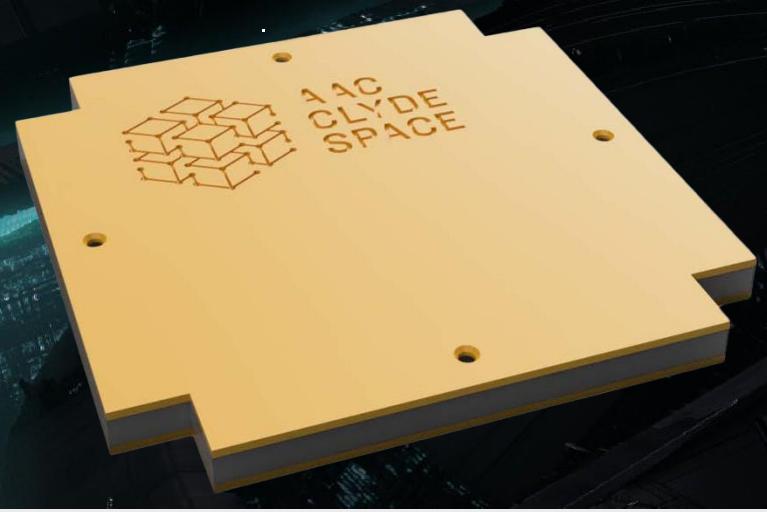


WIDE BAND, DUAL PORT, DUAL POLARIZATION S-BAND ANTENNA



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.


RELIABILITY

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

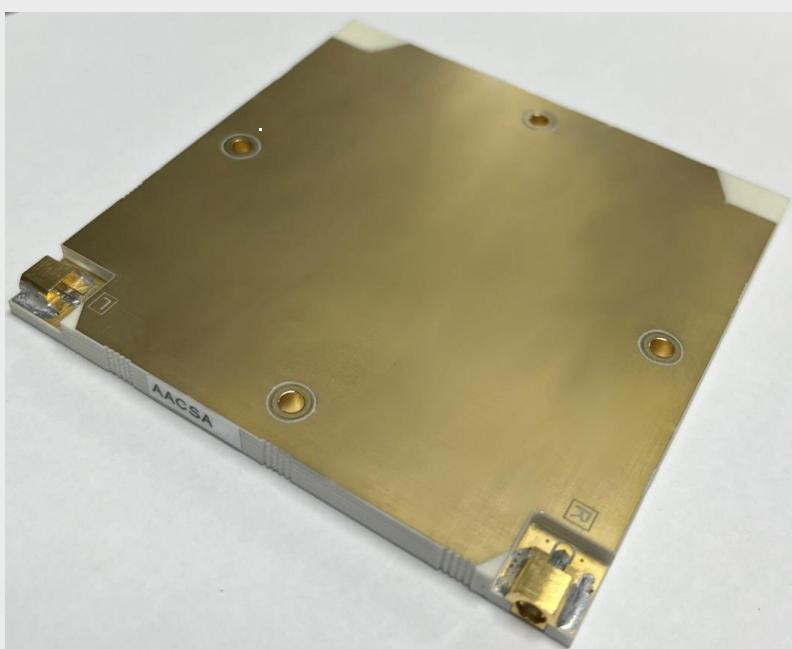
Side mounted SMP connectors avoid inconvenient intrusion into satellite internal volume.

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 |

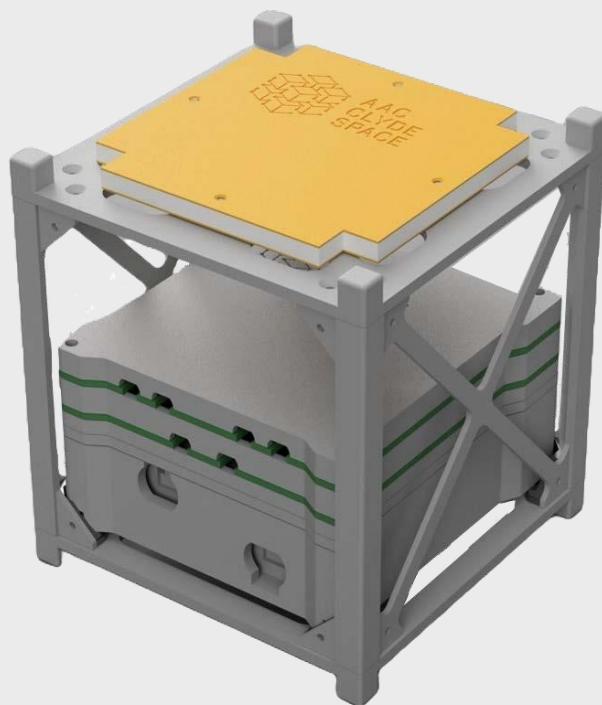


Quasar-WSANT Wideband patch Antenna



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



#SPACEISAWESOME

www.aac-clyde.space

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

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