



**AAC
CLYDE
SPACE**

Solar Panels

PHOTON

Main Features

- SSUWWSODWUP
- DEODWUSOSOPWSW
- FDODEOWDUUSODWUP
- KWKWDOPPUDP
- EWUDWWK\$DFUD\$DSW\$FUOD
- SFWUODE\$P\$DDU\$FOOD\$WDDU
- DWKOWODPFKDP
- WDEOUWW
- USUWDSUO
- EWODEO
- UDFDEW\$K\$UWD

AAC Clyde Space have spent decades perfecting the balance between quality, heritage, and cost. Our solar panel solutions are some of the most flown in history with an unparalleled track record in orbit. The Photon range is the result of this heritage, combining decades of aggregated on-orbit flight time and the latest in mechanical design techniques.

Maximum Power Generation

The AAC Clyde Space Photon Solar Panels are designed and qualified for maximum power generation and ease of platform integration. The side solar panels are designed to fit at the side plates of our CubeSat structures. The purpose of these panels is to provide maximum power generation from any side of the satellite. In order to provide additional capacity to the CubeSat it is possible to add deployable solar panels to the spacecraft. These are deployed along the long edge of the spacecraft and can be single, double or even triple deployable depending on customer power requirements.

Materials

Primarily using Spectrolab XTJ-Prime solar cells we have experience working with AZUR and SolAero alternatives. All Photon Solar Panels are constructed with from Aluminum coupled with PCB inserts and proprietary hold down release mechanisms, leveraging decades of in-orbit heritage.

The panels are constructed from low out-gassing materials, and are staked and head-locked for flight. Designed to NASA GEVS standards, each Photon product comes packaged in protective container, suitable for storage before final integration.

Technical Specifications

General

Expected life	5 years at 450km orbit
Cell Type	Spectrolab XTJ Prime (others available on request)
Cell Protection	4 mil Anti-reflective coated coverglass. Available in Body, single, double and triple deployed configurations
Power generation	Up to 9.25W per 3U populated face
Operating temperature	-40/+80 standard – wider testing available

Testing

Standard Acceptance Testing Includes:

Thermal Cycling
Illumination Testing
Deployment Testing
Sensor check
Visual inspection and weighing

Optional Testing

GEVs Vibration
TVAC
Others depending on product

For more information, please contact:

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