

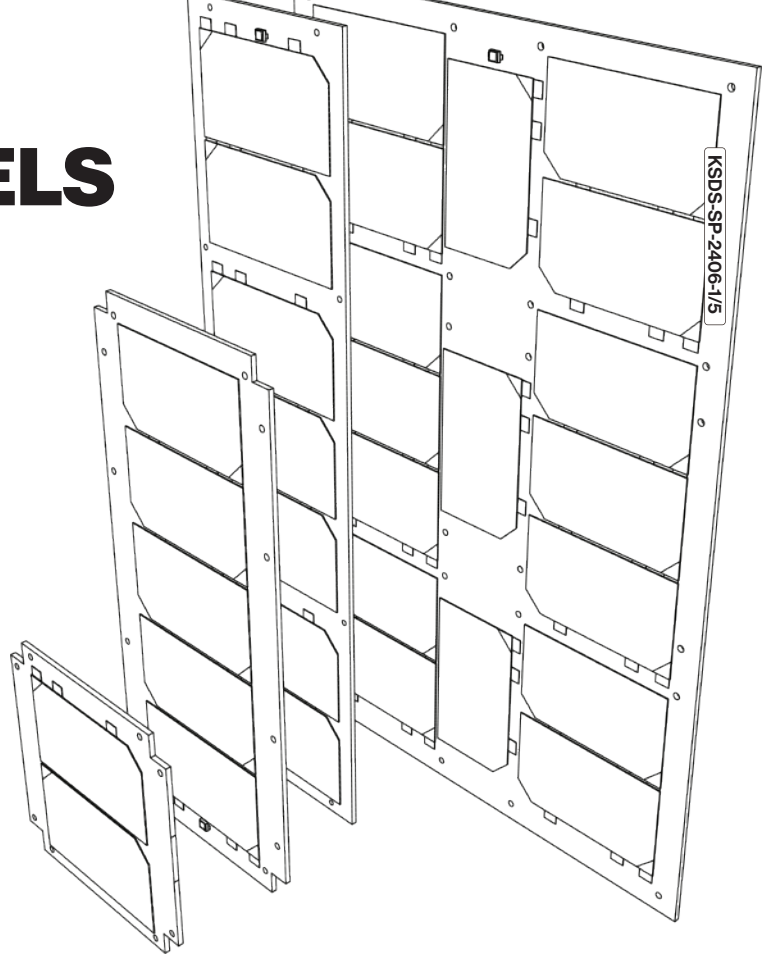
KSSP SOLAR PANELS

DATASHEET

As a standard, we can provide set of solar panels for any CubeSat form factor according to CDS (CubeSat Design Specification) Rev. 14. Solar panels can be provided with temperature sensors, coarse sun sensors, magnetometers, Magnetorquers, RBF system upon request. Our solar panels utilizes nGaP/GaAs/Ge triple junction solar cells with maximum efficiency of 32% with 26.5 cm² effective cell area. Customization can be provided to meet other requirements.

Solar cell features

- Efficiency: Standard 29.5%, up to 32%
- Triple Junction Solar Cells InGaP/GaAs/Ge
- Polarity N on P
- External By-pass diode for reverse bias protection
- High radiation resistance
- Size: 69.1 mm x 39.7 mm, 26.5 cm²
- Cell mass 81-89 mg/cm²
- Thickness 150 μm ± 20 μm



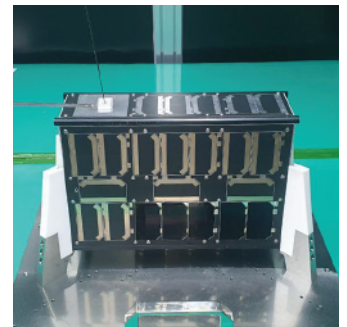
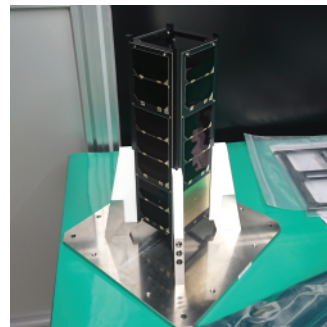
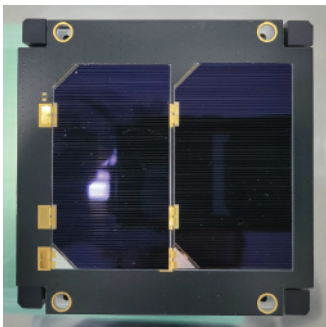
Specifications

Power efficiency at EOL	Standard 29.5%, Max 32 %
Cell type	InGaP/GaAs/Ge
Available size	1U, 2U, 3U, 6U other sizes available upon request
Sensors	Sun sensor, magnetometer, temperature sensor available upon request
Configuration	Multiple panels can be connected in series or parallel
PCB	FR4-Tg170 1.6 mm or 2.0 mm (Aluminium PCB available upon request)
Operating temperature	-40 ~ +105 °C
Interfaces / supply voltage	I ² C / 3.3 V
Radiation tolerance	minimum 2 years in LEO

Parameters

Panel size / value

Parameters	Panel size / value
Max power generated	1U 2 W
	2U 5 W
	3U 7 W
	6U 16 W
VOC / Vmpp	1U 5.2 V / 4.6 V
	2U 13 V / 11.5 V
	3U 19.2 V / 16.1 V
	6U 15.6 V / 13 V
Peak current	1U 430 mA
	2U 430 mA
	3U 430 mA
	6U 1220 mA
Dimensions	1U 98.2 mm x 98.2 mm
	2U 226 mm x 99.7 mm
	3U 324.9 mm x 82.5 mm
	6U 324.0 mm x 208.8 mm

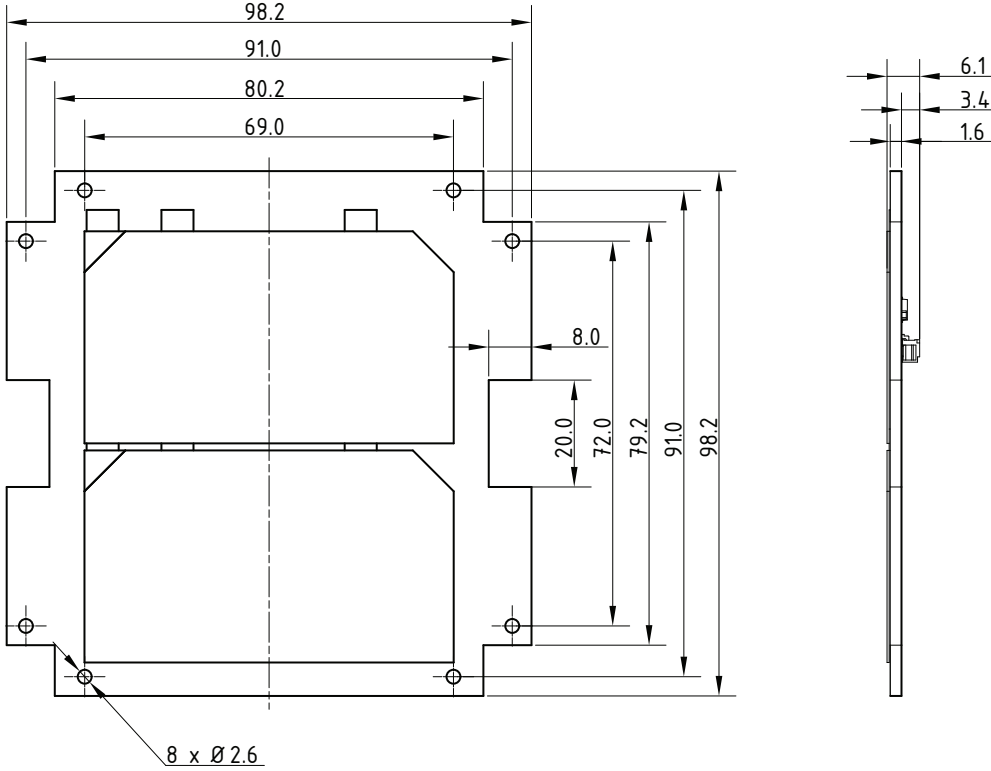


KSSP 1U SOLAR PANELS

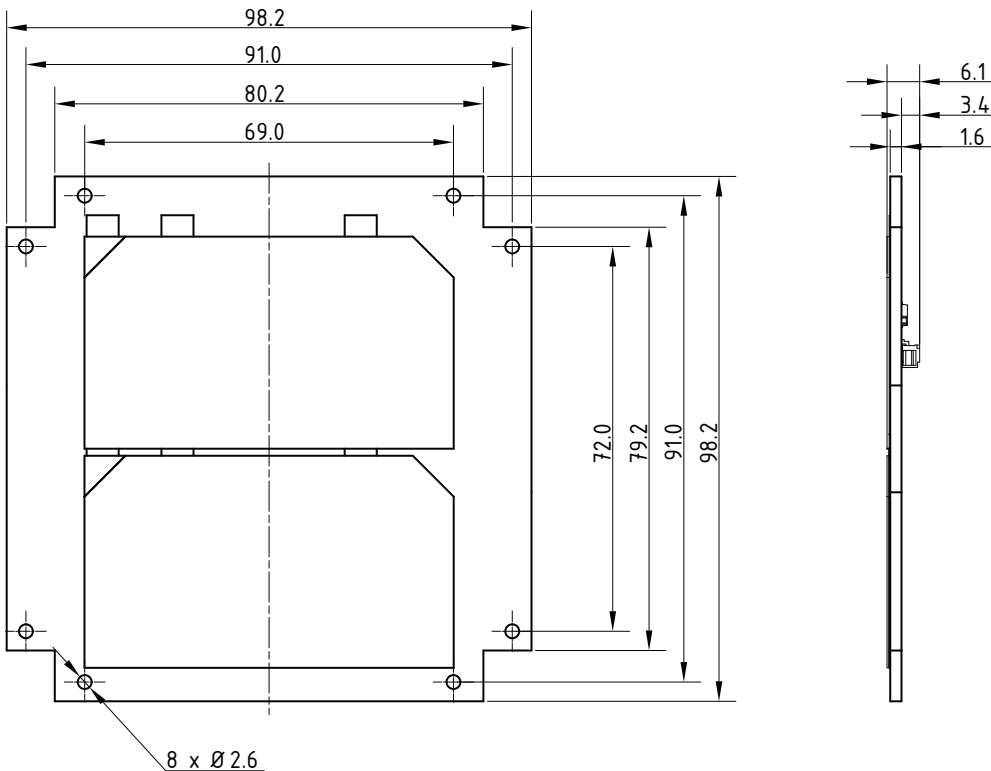
DATASHEET

KSDS-EP5-2406-2/5

1U solar panel Z side (with cut-out for kill switch)



1U solar panel Z side



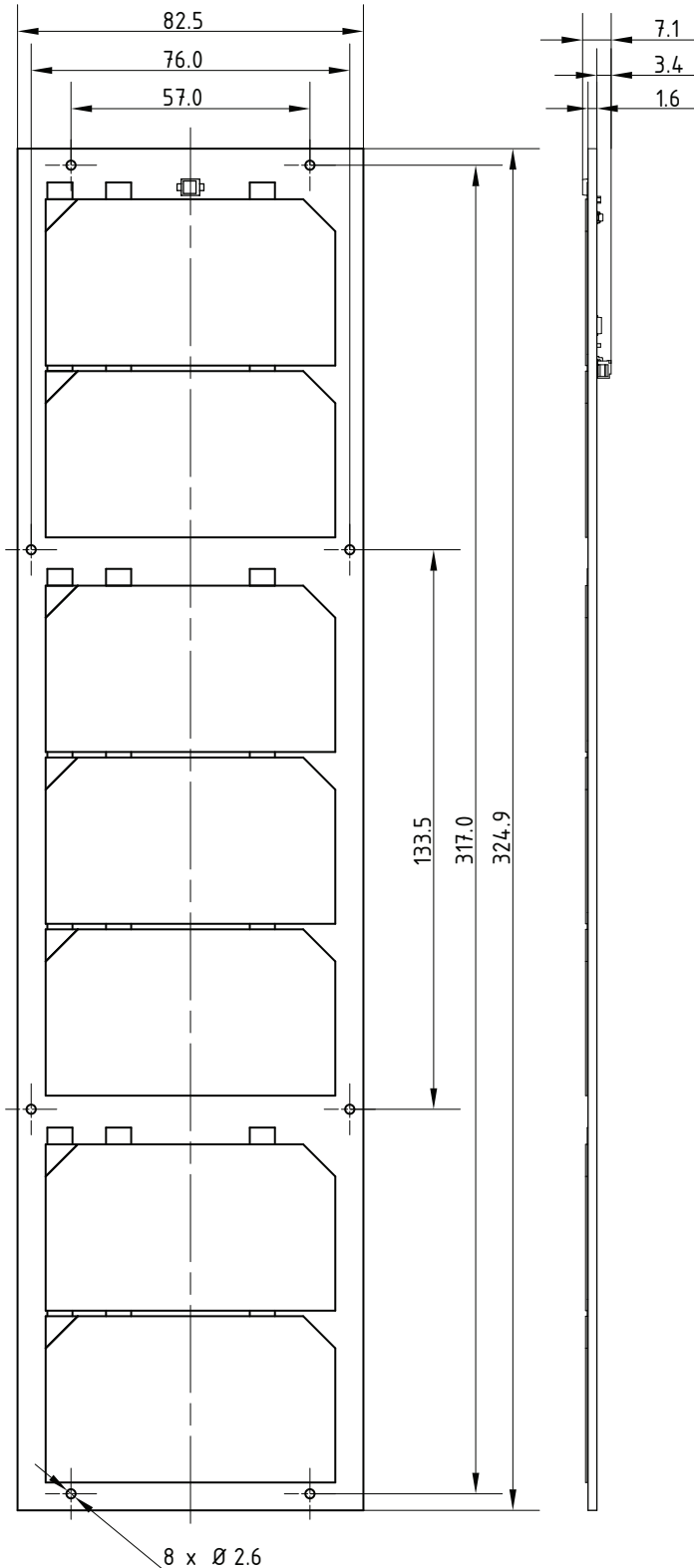
*Units: Metric mm

KSSP 3U SOLAR PANEL

DATASHEET

KSDS-EPS-2406-3/5

3U solar panel (for 3U structure)



*Units: Metric mm

Telephone: +8231-756-9998
Email: sales@kairo.space
Website: www.kairo.space

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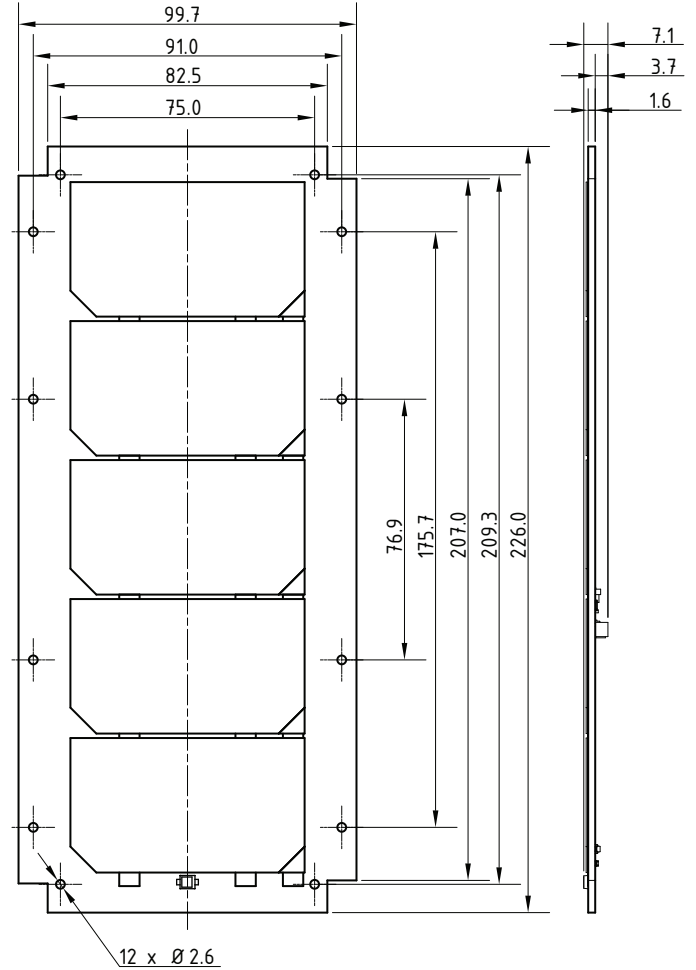
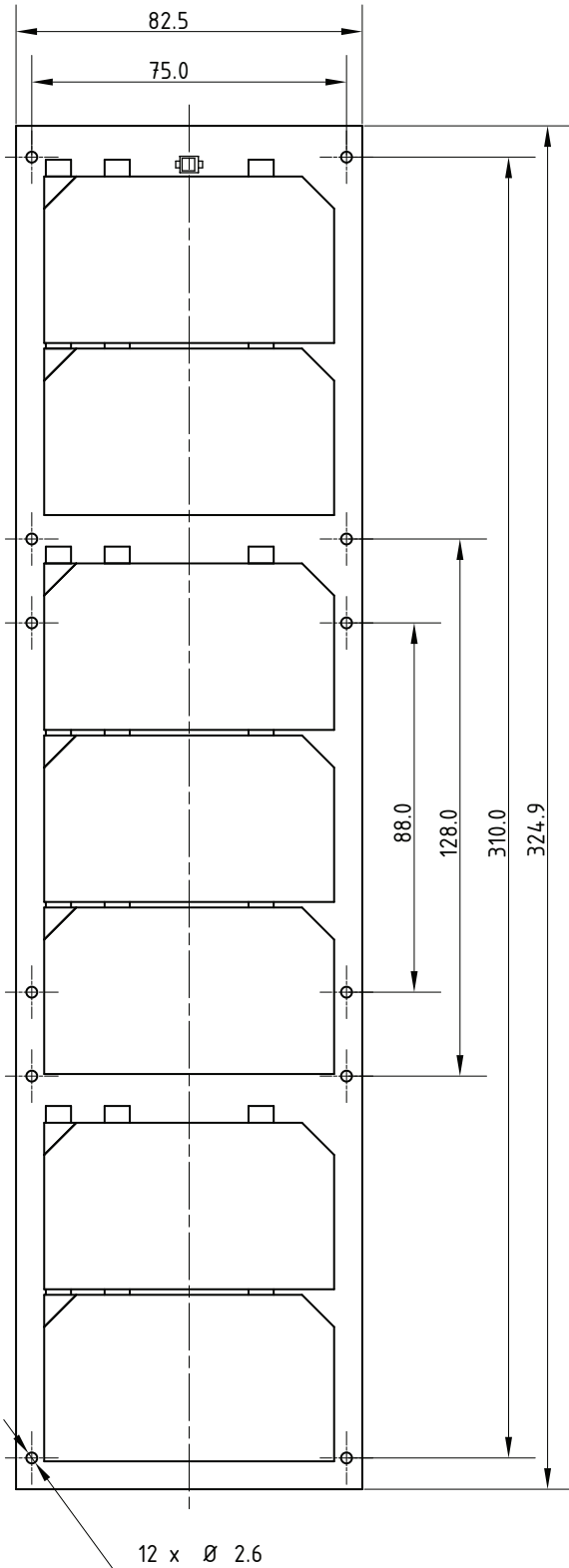
KSSP 3U, 2U SOLAR PANELS

DATASHEET

KSDS-EPS-2406-4/5

3U solar panel (for 6U structure)

2U solar panel Z side



*Units: Metric mm

