2NDSpace

DROP

TRL 9

Deployable Solar Panels

DEPLOYABLE CUBESAT SOLAR PANELS

2NDSpace body mounted solar panels derive from a decade of experience of the team in the design of space systems and successful nan
osatellites missions. All 2NDSspace products are conceived to offer excellence combined with customization-as-a-standard approach and reduced lead time.
CORE body mounted panels are TRL9 solution with flight heritage offering high versatility with multiple additional options such as magnetorquer, **RBF** and **umbilical interfaces** and custom cut outs. Innovative designs include **ZERO-residual dipole layout** and improved thermal dissipation system.



- UTJ >30% efficiency solar cells
- Configurable deployment layout
- Custom interfaces and umbilical connection
- ZERO-Residual dipole design
- Stabilized thermal dissipation architecture
- RBF and embedded magnetorquer
- Dual redundant deployment system
- Qualified for LEO and GEO

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PRODUCT **PORTFOLIO**

	DROP-03	DROP-12	DROP-16	DROP-03X	DROP-12X	DROP-16X	DROP-03XL
Cells n°	12	32	40	12 - 18	48	60	18 - 24
N° of deployable Elements	1	1	1	2	2	2	3
Peak PWR [W]	15,00	39,00	49.,00	22,00	60,00	74,00	22,00
Panel Voc [V]	15,6	20,8	26,00	15,6	20,8	26,00	15,6
Peak PWR Voltage [V]	14,58	19,44	24,30	14,58	19,44	24,30	14,58
Peak Current [A]	0,50-1,00	1,0-2,00	1,0-2,00	0,50-1,50	3,00	3,00	0,50-2,00
Protection Loss [mW]	<0,15	<0,15	<0,15	<0,3	<0,3	<0,3	<0,15
Deployment Angle [°]	90-135	90-135	90-135	90-135	90-135	90-135	90-135
Back-string Option	Yes	Yes	Yes	Yes	Yes	Yes	Yes

QUALIFICATION AND **ACCEPTANCE TEST**

	Functional/AIT	Electrical Test/Flash	Vibration test	Mechanical Shock	TVAC Test
Qualification Test	✓	✓	NASA GEVS: GSFC-STD-7000A ESA ECSS-E-ST-10-03C	NASA GEVS: GSFC-STD-7000A ESA ECSS-E-ST-10-03C	NASA GEVS: GSFC-STD-7000A ESA ECSS-E-ST-10-03C
Acceptance Test	✓	✓			

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FLIGHT HERITAGE

- **Customizable Deployment Angle** – Adaptable to mission-specific requirements for optimal power generation.
- **Configurable Panel Layout at Sun-Pointing** – Adjustable configuration to maximize energy capture based on user satellite orientation.
- **Backstring** Option for Safety – Additional safety mechanism to ensure secure panel deployment.
- **Dual Redundancy** in Deployment System – Enhanced reliability with backup mechanisms to prevent deployment failures.
- Deployment Feedback System – Real-time monitoring and confirmation of successful panel deployment.
- Standard Configuration with up to **3 Wings** – Scalable design with the possibility of adding extra deployable elements for higher power output.



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