HPS
High Performance Space Structure Systems GmbH

Data Sheet

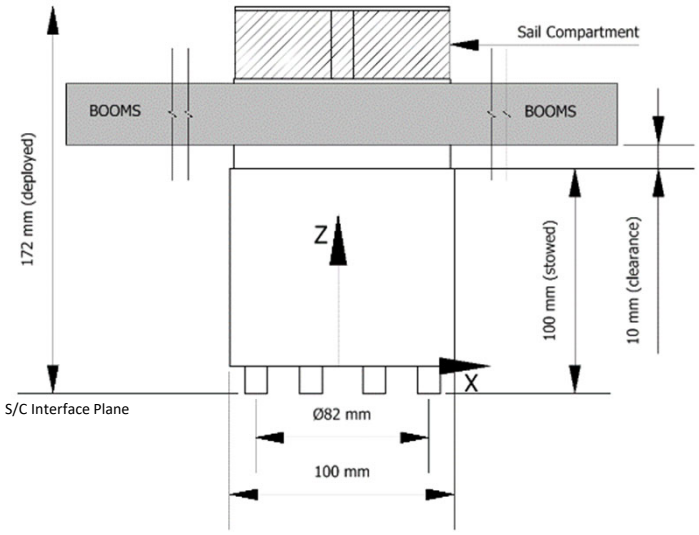
Deorbit Module ADEO-N 1.1

Application Area	
Recommended Spacecraft Mass	1 kg up to 250 kg
Orbit Height	200 km up to 900 km

ADEO-N deployed demonstration model with sail size 3.6 m²

Technical Data	
Technology Readiness Level	TRL 9
Export Regulations	ITAR-free
Module Mass (depending on sail size)	0.8 kg (± 10%)
Module Size (stowed)	10 cm x 10 cm x 10 cm
Sail Area (adaptable to customer needs)	2 m² up to 5 m²
Center of Gravity (rel. to ground plane)	0 mm x 0 mm x 38 mm (stowed) 0 mm x 0 mm x 83 mm (deployed)
Moment of Inertia [kg mm²] (rel. to CoG)	Ixx 105,932 Iyy 105,933 Izz 210,964
1st Eigenfrequency	242 Hz
Mechanical Interface	4 x M5 (at diam. 82 mm)
Deployment Principle	Spring-based
Activation System	Pyro Cutter
Electrical Interface (without connectors)	2 wires (0.9 mm each)
Electrical Power	12 V @ 1 A, 10 msec
Autonomous Functionality (deployment, when satellite out of operation)	As option, on request

Qualification Loads		
Quasistatic	Lat. ± 15 g	Ax. ± 15 g
Sine	5 Hz	1.875 g
	45 Hz	1.875 g
	50 Hz	3.750 g
	100 Hz	3.750 g
Random	20 Hz	0.026 g²/Hz
(14.1 gms)	50 Hz	0.160 g²/Hz
	800 Hz	0.160 g²/Hz
	2000 Hz	0.026 g²/Hz



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HPS GmbH Hofmannstr. 25-27 | 81379 Munich | Germany
Contact: +49 (0)89 4520 576-0 | ADEO@hps-gmbh.com | www.hps-gmbh.com

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