



GPOD

The **GAUSS CubeSat Deployer "GPOD"** was developed by GAUSS to provide a flexible deploying option for the most famous type of small satellites – the CubeSat.

The system is designed to be installed onboard a rocket or a satellite, and it is the preferred deploying mechanism for launching satellites in a GAUSS UniSat mission.

Description

The GPOD is available in 1U, 2U, 3U, 3U+ and customized versions. The triple unit (3U) GPOD may be used both for dedicated 3U CubeSat launches and shared CubeSat launches consisting of a combination of smaller-sized CubeSats. Example combinations are:

- 3 x 1U
- 2 x 1.5 U
- 1U + 2U
- 3U or 3U+



Main features

- Accessible Panels: all the side panels of the GPOD deployer allow the access to the integrated CubeSat. This means that the entire area between the guide rails over the entire CubeSat length may be freely accessed. The door of the GPOD is equipped as well with a round open area to access the top of the satellite. In case of a 3U CubeSat in a UniSat Platform-Satellite mission, this top access zone may be used to power the CubeSat until the integration of the UniSat satellite inside the rocket;
- The GPOD inner additional envelope is 11.5 [mm], which allows the CubeSats to extend in lateral directions up to 10 [mm] compared to the 6.5 [mm] of common CubeSat interface standard;
- The GPOD deployer does not need any power source to stay closed;
- The opening system, Frangibolt® from TiNi Aerospace, is a space-qualified, redundant and non-explosive actuator;
- The TLM System relies on redundant deployment status switches.

Flight heritage

The GPOD flew successfully on UniSat-5 and UniSat-6 in two different Dnepr LV missions.



Technical data

Mass [kg]	1.9
Nominal Payload Mass [kg]	4
Maximum Payload Mass [kg]	5.2
Outside envelope 3U [mm]	430 x 132 x 129
Inner Envelope 3U (*) [mm]	100 x 100 x 340.5
Ejection velocity (**) (+Z axis) [m/s]	1.11 ÷ 1.25
Ejection max angle error (+Z axis) [deg]	2.25
Opening system	Frangibolt®
Telemetry Switches	2 x SPDT

(*) Extra 36 [mm] envelope on Z-Axis for structure protrusions is available according to the 3U+ standard.

(**) With nominal Payload Mass.

