CubeSat Dispenser
-飛龍 Hiryu-

ORBITAL
ENGINEERING INC.

1. Dispenser Descriptions and Overview

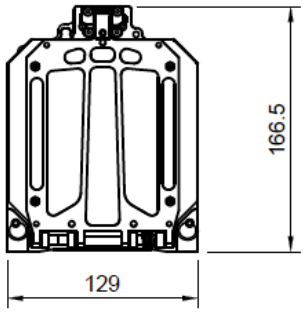
ORBITAL ENGINEERING offers two lines of dispensers which is 3U, W6U. 3U sizes dispenserhad launched by H3 rocket at Feb-17 2024.These dispensers are simple which reduces cost by maintaining part commonality. Constructed of carbon fiber and aluminum, our dispensers provide launch cost savings to rockets by minimizing dispenser mass. In addition to offering low empty mass, our dispensers also offer customizable deploy velocities.These dispensers fully enclose the hosted CubeSat. The dispenser door is actuated via a non-explosive release mechanism (Simple Pin Puller) ; when initiated, the release mechanism opens a door, which locks in place when fully open to allow the CubeSat to be safely ejected into orbit. Volute springs and a push plate impose a force on the back of the CubeSat, which is then guided along smooth, rails until it fully exits the dispenser. A door switch indicates that the door has successfully opened, and provides a telemetry signal to Rocket to indicate successful deployment.

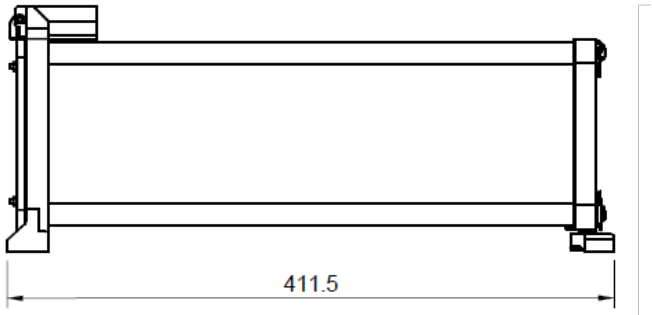
2. Dispenser Data Parameters

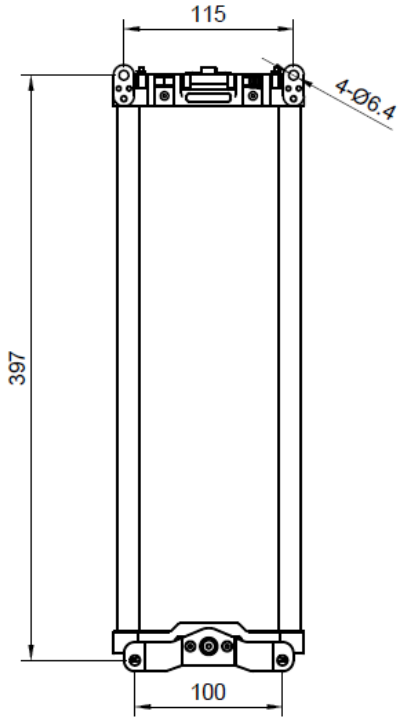
Parameter Description		Hiryu-3	Hiryu-6	Notes
Part Number		DISP3U-1001AB	DISPW6U-1001AB	
System Mass		1.2kg	2.0kg	Include non-explosive release mechanism Does not include harnessing
Maximum Payload Mass		7kg	15kg	Maximum payload mass accommodation
External	Max Width [X Axis]	129.0mm	273.3mm	Static Envelope
	Max Height [Y Axis]	166.5mm	166.5mm	
	Max Length [Z Axis]	411.5mm	435mm	
Flight Heritage		Feb-17 2024	Q1 2025*	*Planned Launch Dates

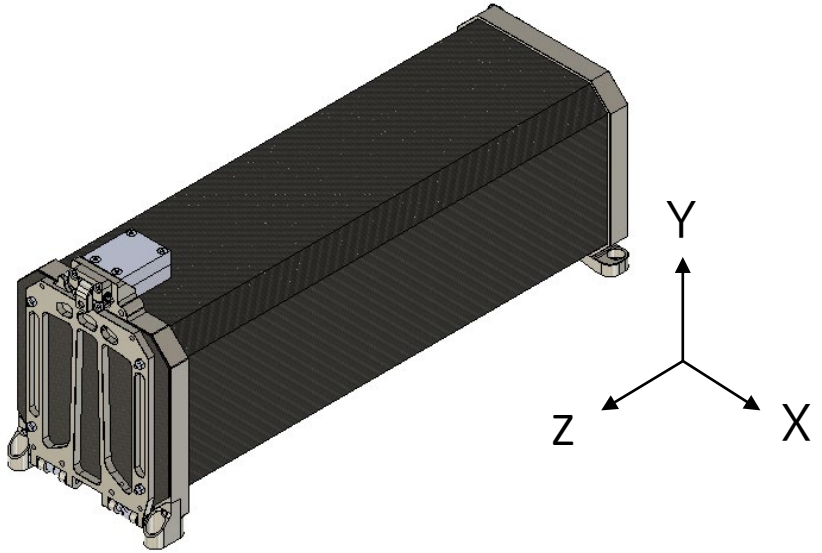
3-1. Mechanical Interface <Hiryu-3>

All Dimensions are in mm.









3-2. Mechanical Interface <Hiryu-6>

All Dimensions are in mm.