

## MODEL 2000X15 MODAL-POD™

## SIMPLIFIED CUBESAT TESTING

# STANDARDIZED CUBESAT VIBRATION TEST FIXTURE

- Supports the mounting of various size CubeSats (up to 3U) to the shaker in different orientations
- Includes lightweight magnesium mounting fixture, dummy payloads, mounting accessories, and a heavy-duty case
- Simplifies qualification testing of CubeSats to NASA testing or other standards

Modal-Pod™ Model 2000X15 is designed to simplify the mounting of 1U, 2U, and 3U CubeSats by providing a broader standard mounting fixture to meet the standardized sizing of these miniature satellites. With the common fixture base that is built to interface directly with The Modal Shop's Model 2500E shaker, the user can quickly mount CubeSats in horizontal or vertical configurations for critical qualification and acceptance vibration testing based on NASA or other standards.

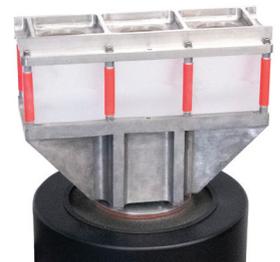
Installing and configuring the Modal-Pod to the 2500E shaker is easy using the included screws, threaded posts, and tools allowing the user to accommodate and properly mount different CubeSat sizes to the vibration shaker table.

## APPLICATIONS

- Design and development testing of sub-systems or complete CubeSats
- Test to NASA General Environmental Verification (GSFC-STD-7000A) and Launch Services Program Requirements (LSP-REQ-317.01)



3U Vertical



3U Horizontal

## SPECIFICATIONS

### Physical

Dimensions, Base in (mm)	14 x 5 x 5.4 (355 x 127 x 137)
Dimensions, 1U top plate in (mm)	5.5 x 5.3 x 1.4 (138 x 135 x 36)
Dimensions, 2U and 3U top plate in (mm)	14.2 x 5.3 x 1.4 (360 x 135 x 36)
Dimensions, Dummy Payload in (mm)	3.9 x 3.9 x 4.5 (10 x 10 x 11.35)
Weight, Base lb (kg)	9.25 (4.12)
Weight, 1U Top Plate lb (kg)	0.75 (0.34)
Weight, 3U Top Plate lb (kg)	1.94 (0.88)
Weight, Dummy Payload lb (kg)	3 (1.36)

### Components

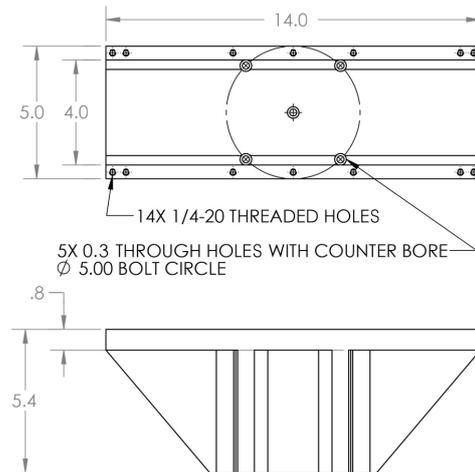
Base	Qty. 1	
1U Top Plate	Qty. 1	
3U Top Plate	Qty. 1	
Dummy Payload	Qty. 3	
Heavy Duty Transportation Case (H x W x D) in (mm)	10.2 x 24.6 x 20.6 (259 x 625 x 523)	
Threaded Posts, 8 each lengths in (mm)	Short Red	3.7 (94)
	Short Yellow	4.2 (107)
	Medium Red	6.4 (164)
	Medium Yellow	8.7 (220)
	Long Black	13.1 (333)
Wrench - 7/16"	Qty. 1	
Socket head cap screws 1/4-20 x 1"	Qty. 10	
Flat Washers - 1/2"	Qty. 10	
Socket head cap screws 1/4-20 x 5.5"	Qty. 5	
T- handle Hex Wrench - 3/16"	Qty. 1	
Set Screws, 1/4 - 20 x 1"	Qty. 10	
T- handle Hex Wrench - 1/8"	Qty. 1	

### Suggested Accessories

J352C33	Ground Isolated Accelerometer (100 mV/g)
2000X14	Head Expander for 2500E shaker

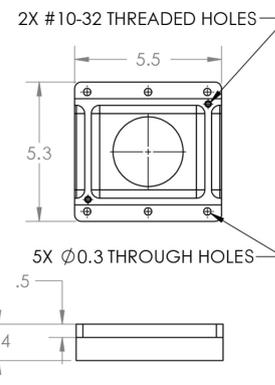
Front Left Photo Credit NASA Public Domain

Front Right Photo Courtesy of Cal Poly CubeSat Laboratory



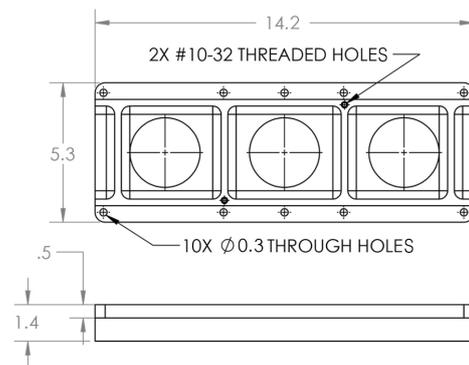
**Model 2000X15 - Base**

Dimensions in inches



**Model 2000X15 - 1U Top Plate**

Dimensions in inches



**Model 2000X15 - 3U Top Plate**

Dimensions in inches