

# SMALL SATELLITE TESTING SERVICES

## NOVA Testing

SDL's Nanosat Operation Verification and Assessment (NOVA) test facility is designed specifically for end-to-end testing of spacecraft, sub-systems, and components up to 25 kg.

### ADCS

**[\$9,000]**

Functional test of torque coils, magnetometer, inertia measurement unit, and sun sensor as stand-alone subsystems or an integrated spacecraft. Assume that custom fixturing and harnessing is built by customer with SDL-provided interfacing input and/or documents.

### Star Tracker

**[\$3,500]**

Independent verification of attitude lock for star trackers using a simulated star field, including static attitudes or simulated slew maneuvers. Customers provide the star tracker optical parameters and the communication interface.

### Comm

**[\$6,000]**

Functional testing and cabled, or over-the-air, uplink/downlink verification of any UHF-band or S-band flight radio. Cadet-U, Cadet-PLUS, and Innoflight SCR-100 supported by default. Customer to supply other radio-specific USRP algorithms.

### Mass

**[\$3,000]**

High accuracy center of gravity and moments of inertia measurement in three axes, along with a mass measurement accurate within two grams. Pricing is for a stowed configuration of a payload, up to 12U, and is compatible with P-POD, CSD, and NanoRacks deployers.

**Power** **[\$6,000]**

Independent verification of electrical power system performance and efficiency. Includes solar array characterization, battery charge / discharge testing, and functional test of Electrical Power System (EPS) controller. Customer to provide interface protocol and harnessing.

**GPS** **[Add-on]**

Independent verification of position solution for GPS receivers using indoor GPS reradiator for fixed local position, or a GPS simulator for fixed or orbital positions. *This is available for use independently or as part of another test.*

## Environmental Testing

**TVAC** **[\$4,000]**

Nanosat thermal vacuum testing includes 24 hours of unpowered thermal cycle testing. Powered testing can be accomplished with additional setup time and fabricating GSE cables to pass through hermetic bulkhead connectors.

**Vibe** **[\$6,000]**

Testing on the SDL shake table to validate survivability at GEVS or other mission-specific levels. Includes random and sine sweeps in all three axes.

**Full System Characterization & Test** **[Request a quote]**

*These are notional prices for SDL small satellite testing services. Contact us for a quote at [nova@sdl.usu.edu](mailto:nova@sdl.usu.edu).*

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