Next Generation High Fidelity Flight Data Acquisition System (HIDAQ)

- Flight-qualified 24-bit, 100,000 samples per second data acquisition unit (HIDAQ) prototype for flight dynamic environment and response assessments.

- Environments / Responses include:
  - Ignition overpressure
  - Lift-off acoustics
  - Aeroacoustics
  - Re-entry acoustics
  - Global structure / Component accelerations
  - Propulsion system pressures

- Will be value added to multiple flight programs over multiple centers:
  - Launch Vehicles
  - Flight/Space Payloads
  - Propulsion System testing

Chassis

HIDAQ Unit
28 lbs, 11" x 10" x 7"

Boards

Structural Analysis

Thermal Analysis

Future Development

Partnership of High Fidelity Data Acquisition Capabilities with High Rate Telemetry and Mobile Ground Receiver Technologies

- PULSAR -> X-band Telemetry
- GATR -> High Rate Ground Receiver

Testing