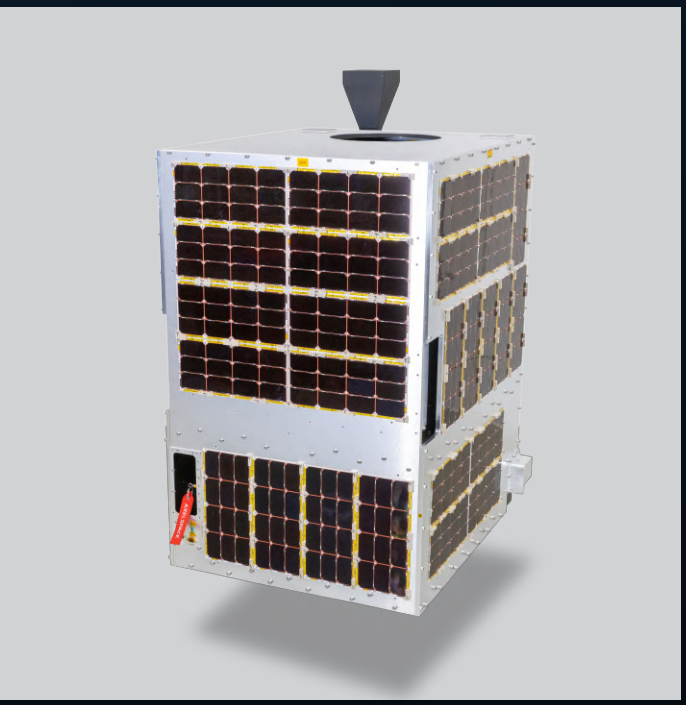
GRUS-3

Seven Microsatellites Enabling High-Frequency, Wide-Area Earth Observation



Owner: Axelspace Corporation
Size: W 960 mm × D 780 mm × H 1,260 mm
Weight: Approximately 150 kg
Orbit: Sun-synchronous orbit, Altitude 585 km
Launch Date and Time:
July 7, 2026 at 07:12 (UTC)
Launch Vehicle: Falcon 9 (SpaceX)
Launch Integrator: Exolaunch
Current Status: Initial Operation

GRUS-3 is a next-generation small Earth observation microsatellite equipped with an optical sensor. Axelspace is developing and operating seven GRUS-3 satellites to enable high-frequency, wide-area Earth observation.

Each GRUS-3 satellite provides a spatial resolution (ground sampling distance) of 2.2 meters, a swath width of 28.3 km, and a maximum imaging length of 1,356 km. Together, the seven satellites can image up to 2.3 million km² per day and revisit the same location once per day for areas above 25° north and south latitude.

Since 2019, Axelspace has delivered Earth observation data through its AxelGlobe business, utilizing a proprietary GRUS-1 microsatellite constellation. The seven GRUS-3 satellites, the successors to GRUS-1, expand this constellation and further enhance AxelGlobe's data capabilities.

Expanding the Use of Earth Observation Data

In addition to the six spectral bands available on GRUS-1—Panchromatic, Blue, Green, Red, Red Edge, and Near Infrared—GRUS-3 adds a new Coastal Blue band. By combining these spectral bands, GRUS-3 can capture the Earth's surface in natural color, monitor vegetation health, and observe underwater topography and coastal ecosystems in shallow coastal waters.

The Coastal Blue band enables the monitoring of the distribution and condition of seagrass beds in shallow waters, opening up new environmental applications for Earth observation data, including the measurement of blue carbon, an area of growing global interest.

By combining GRUS-3's improved revisit frequency and imaging performance with advanced attitude control technology for tasked imaging of designated areas, Axelspace will meet the growing demand for Earth observation data across a wide range of applications, including precision agriculture, forest monitoring, mapping, environmental management, and national security.

Corporate Outline

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