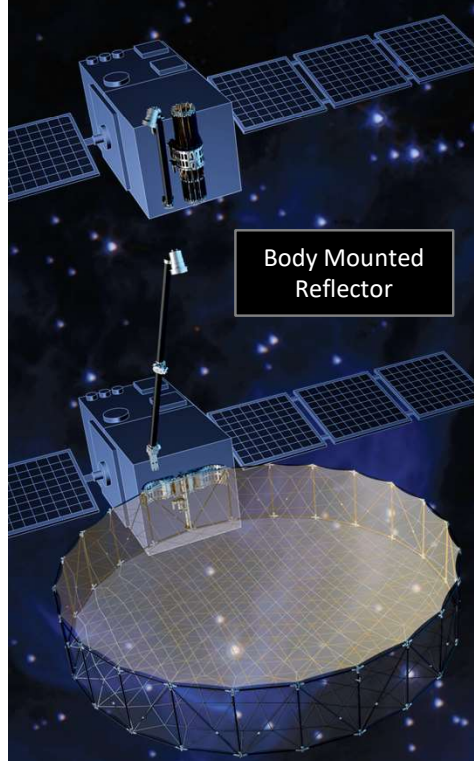


# Perimeter Truss Reflector

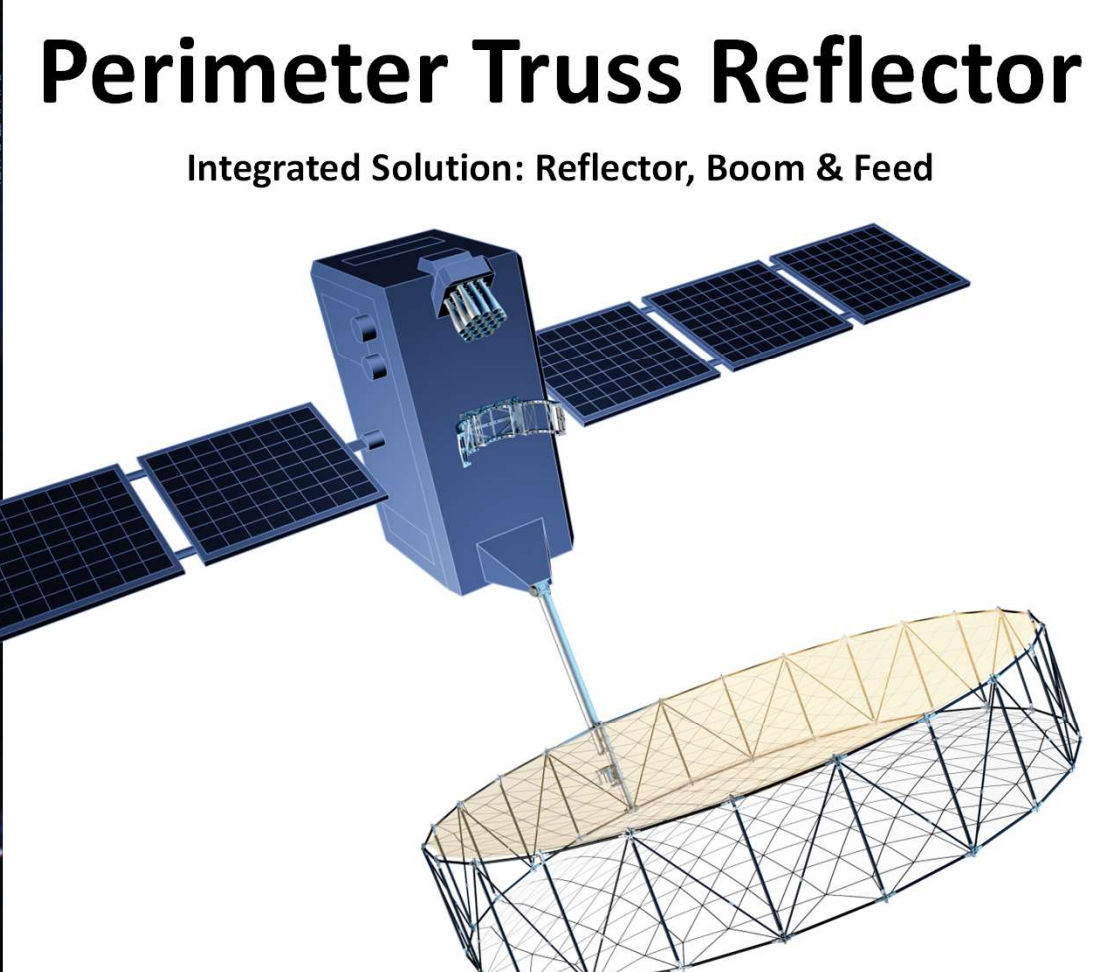
Integrated Solution: Reflector, Boom & Feed



Boom Mounted Reflector



Body Mounted Reflector



## Key Features

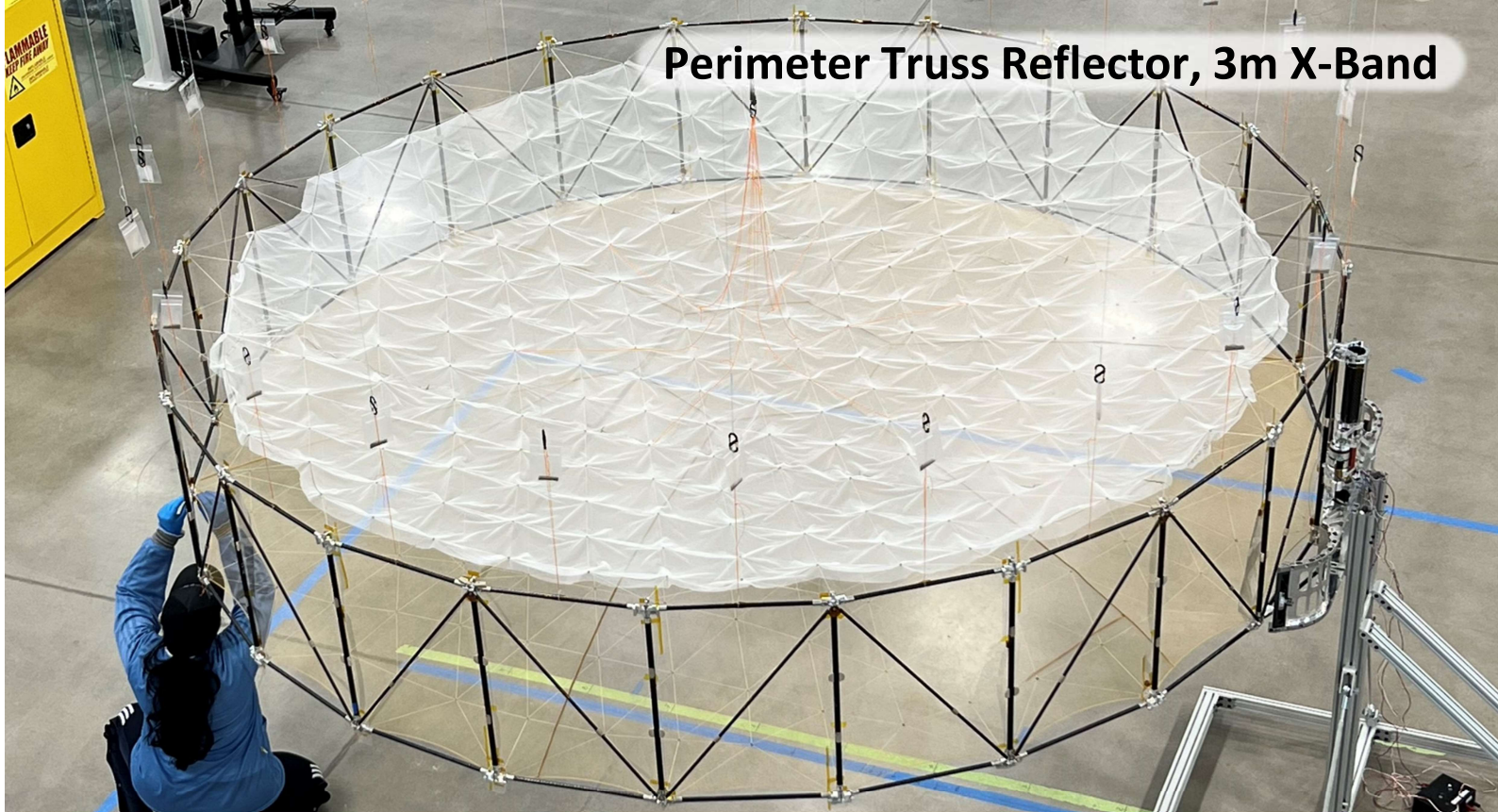
- **3m reflector reached TRL 6 in 2023, anticipated TRL-9 by 2025**
  - TRL-9 feed systems can be procured and integrated by Tendeg
  - Deployable boom demonstrated to 0.005 deg repeatability
  - Deployment controller reached TRL-9 in 2023
- **Flight Programs**
  - **Multiple flight contracts awarded** with Tendeg integrated booms and feeds.
  - Flight programs support C, X and Ka bands at 3m diameters and above
- **Performance**
  - Apertures from 2-20m, options for offset and center fed
  - Deployed first structural mode up to 3Hz (for a 3m aperture)
  - Motorized deployment with mechanized lockout (reflector & booms)
  - Qualified to GEVS and rideshare environmental loads
- **Applications up to Ka-band**
  - RF Communications
  - Active radar (weather, SAR)
  - Radiometer (ocean surface winds)
  - LEO, MEO, GEO and CIS-Lunar orbits

Tendeg LLC  
1772 Prairie Way Unit A  
Louisville, CO 80027  
[www.tendeg.com](http://www.tendeg.com)

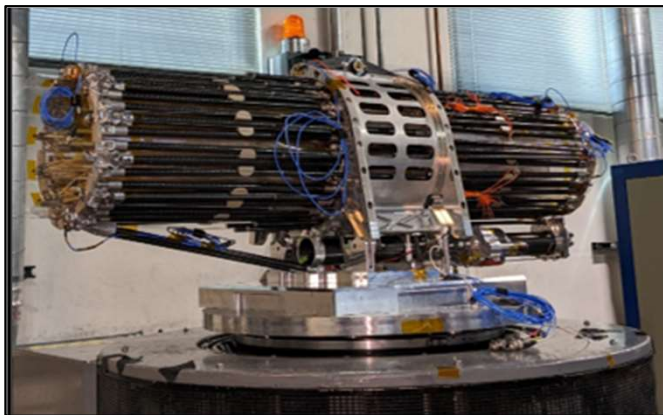
**TENDEG**

Deployable Antennas and Precision Structures

# Perimeter Truss Reflector, 3m X-Band

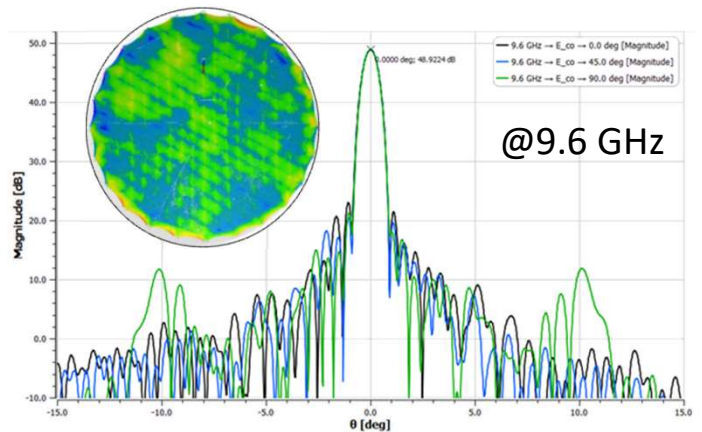


## Completed TRL-6 Env. Test Campaign



TRL-6 hardware subjected to qualification-level vibration & thermal testing, and over 30 full deployment cycles with no measurable performance degradation

## Surface Scan and RF Performance



TRL-6 hardware shows excellent performance repeatability and stability

Tendeg is a hardware delivery company focused on advanced deployable antennas and precision structures. The group specializes in large deployable reflectors (UHF to Q/V Bands with Diameters from 0.5 to 20m) with integrated RF feeds, deployable helicals and log periodic antennas, gimballed platforms with control electronics, precision hinges, booms, trusses and other advanced spaceflight architectures. Tendeg has deployed over a dozen large antennas in space and has delivered more than twenty integrated antenna systems in the first eight months of 2024. Tendeg is employee owned, has a team of 120 staff members and is based in Louisville, Colorado

# TENDEG

Deployable Antennas and Precision Structures

Revision Aug 2024