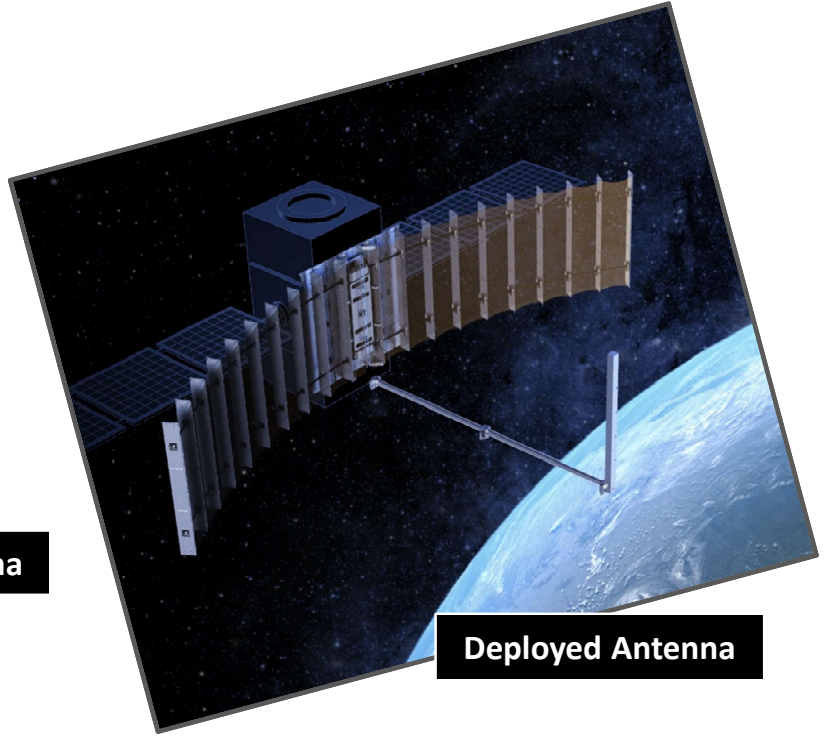


TENSAR

High Aspect Ratio Parabolic Cylindric Reflector



Stowed Antenna



Deployed Antenna

Key Features

- **Reached TRL-6 in 2024 at C-Band**
 - Baseline demonstration article effective aperture of 1.4m x 7m and deployable feed boom
 - Development unit demonstrated X-band surface repeatability
 - Measured 43 dB gain with a C-band feed
- **Scalable Tensegrity Frame**
 - Highly scalable: size (up to 20m) aspect ratio, and parabolic curvature
 - Surface can be flat, singly or doubly curved
 - Net shaping and structural stiffness allows surface precision up to Ka-Band
 - Reflecting surface can be gold wire mesh, a passive reflect array membrane, or folded rigid panels
- **Performance**
 - Supports VHF to Ka-bands
 - Designed for ESPA class bus
 - Demonstration article stows in 1.4 x 0.5 x 0.2 m volume
 - Deployed stiffness > 1 Hz first mode and < 25 kg mass
- **US Patent US 11,239,567 B2**

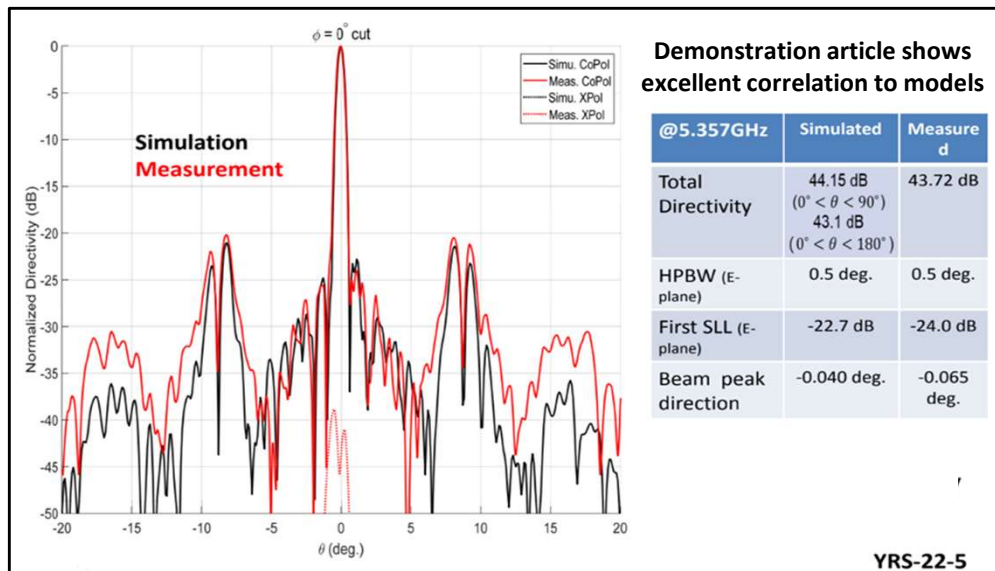
Tendeg LLC
1772 Prairie Way Unit A
Louisville, CO 80027
www.tendeg.com

TENDEG

Deployable Antennas and Precision Structures



Measurements vs Simulation Results



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

