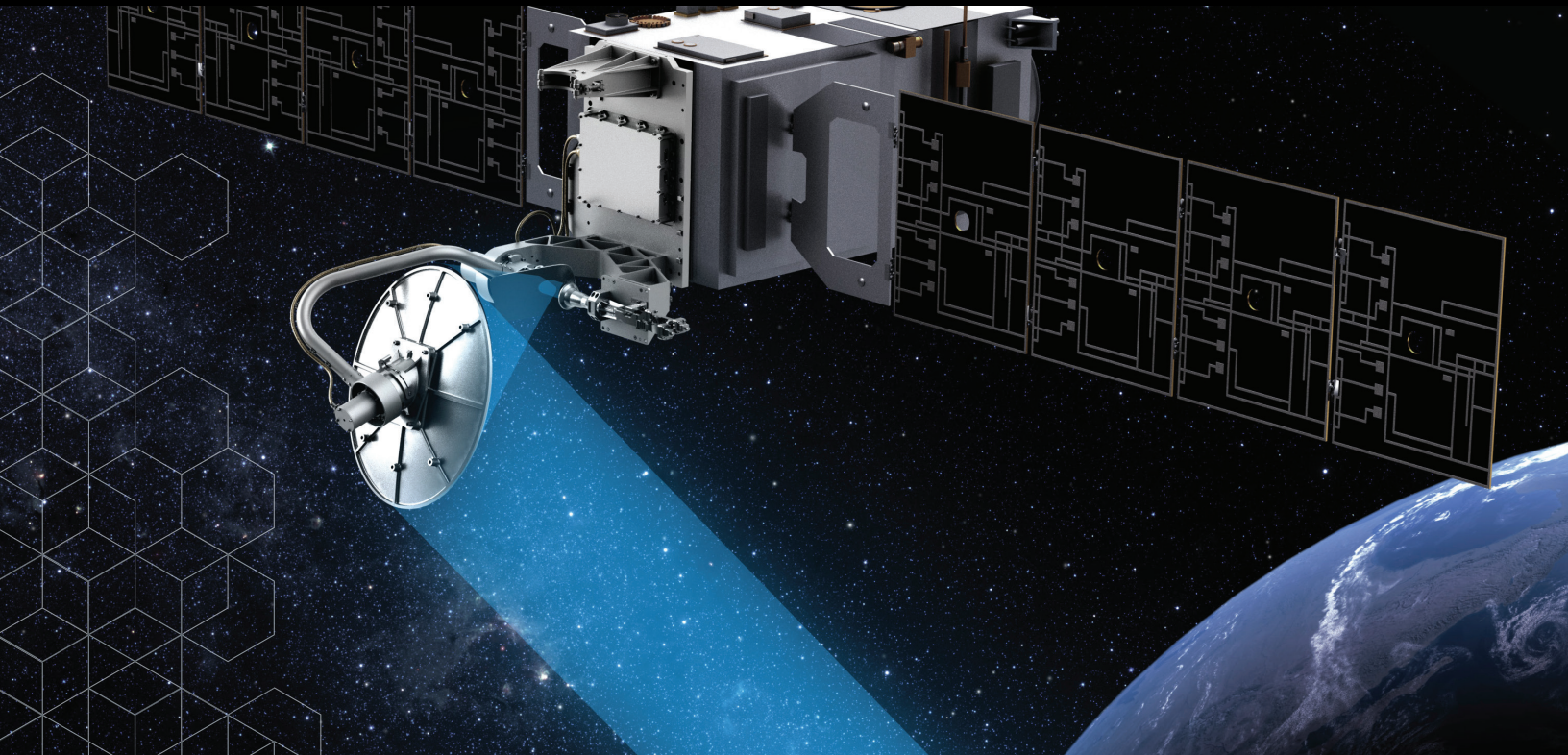


NewTEN

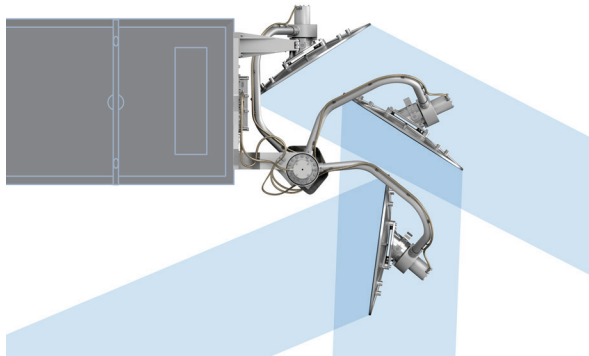
STEERABLE COMPACT ANTENNA

X-Q/V Band Capable

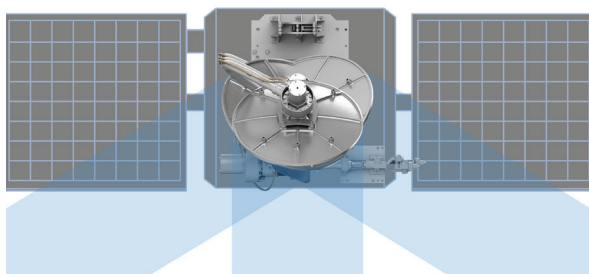
www.tendeg.com



Axis 1



Axis 2



Nominal Conical field of regard +/- 60 deg.

KEY INFORMATION

Integrated reflector, gimbal, and fixed-feed architecture for high-rate X, K, Ka, and Q/V-band communications on SWaP-C constrained spacecraft.

- **Constellation Grade Steerable Compact Antenna**
 - Designed for repeatable, high-volume production
 - Compact aperture for SWaP-C constrained spacecrafts
 - Highly modular design
 - Continuous duty cycle operations
 - Computes ϕ , θ coordinate transforms, enabling simple command interface
 - First flight planned for mid-2027
- **Compact, spacecraft-mounted architecture**
 - Supports X, K, Ku, Ka, Q/V bands
 - Two-axis reflector steering
 - Scalable reflector sizing from .35 m to 1 m diameter
 - Polarization capabilities: RHCP & LHCP
 - Suitable for LEO, MEO, GEO and Lunar Orbits

Patent Pending

TENDEG
INNOVATION DEPLOYED

Spacecraft-mounted feed design supports highly modular feed integration & robust thermal path for heat dissipation.

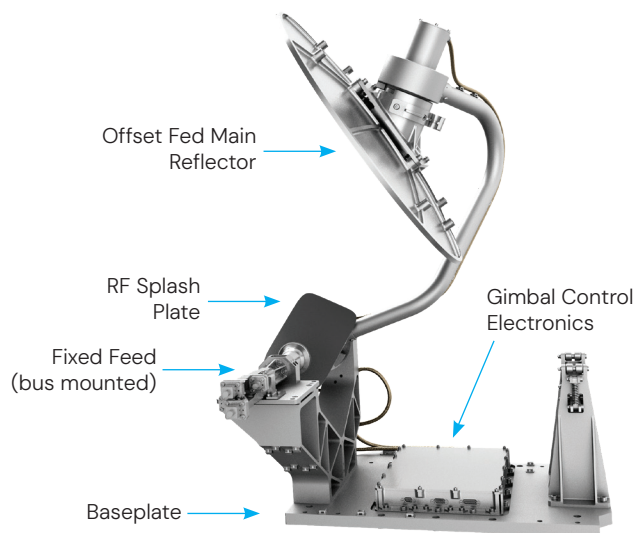
Performance Metrics

Metric	As Built
Pointing Capability	0.038° Per Actuator Axis (Includes backlash and gear tolerances)
Nominal Field of Regard*	±60° Conical (Extendable in Root Axis Direction)
Max Rate Per Axis	5 deg/s
Max Acceleration Per Axis	5 deg/s ²
Stowed Size*	56 x 45 x 43 cm
Projected Aperture Diameter	35 cm, scalable to 100 (cm)
Peak Gain	> 38 dB @ 30 GHz (35cm aperture) > 47 dB @ 30 GHz (1m aperture)
Cross-Pol Discrimination	> 20 dB, depending on feed selection
Mass*	< 13 kg
Gimbal Operating Power*	10–20W

*Assumes a projected aperture diameter of 35 cm. Volume and mass does not include low-noise amplifiers or power amplifiers. Gimbal operating power is a typical orbital average.

Minimal NRE & Moving Assemblies

The two-axis steerable reflector unit eliminates RF rotary joints and twistcaps.



Compact Stowed Form Factor

Geometry is optimized to enable missions with strict volume and deck-envelope constraints

