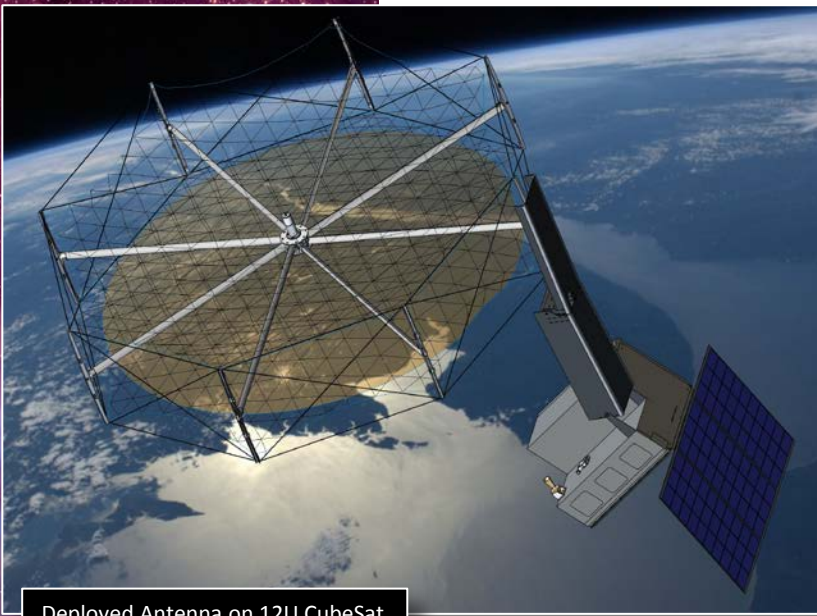


KaTENna

Deployable High Gain Antenna For Small Satellites

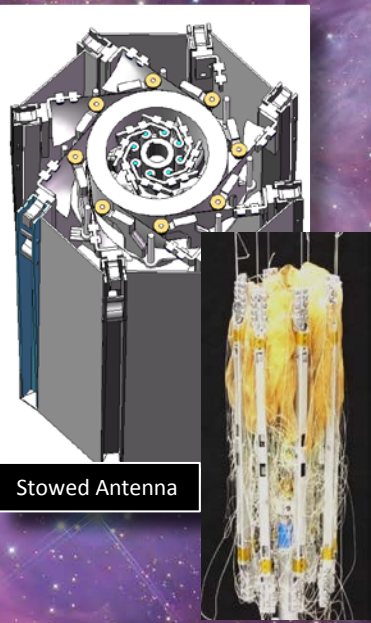
- 3U Form Factor
- >49 dBi Antenna Gain
- Offset Fed
- Multiple Horn Option



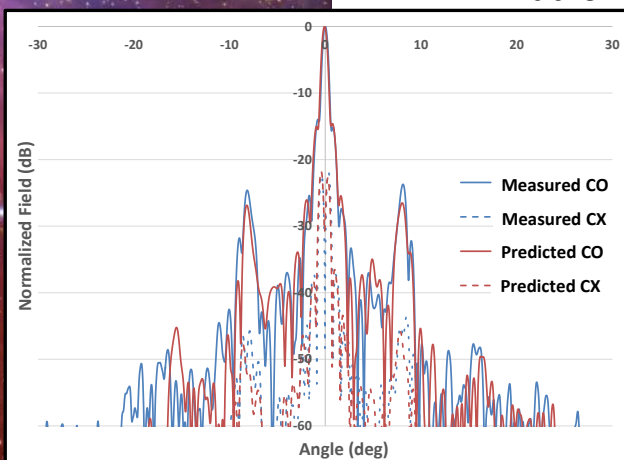
Deployed Antenna on 12U CubeSat

Key Features

- Effective aperture = 1m (Baseline design)
- **Measured** 49.2 dBi gain at 36 GHz
- Mass = 2.5 kg (reflector, boom and feed)
- Packaged volume = 3U (10x10x30cm)
- Offset fed, $f/D = 0.75$
- Multiple feed options
- Scalable to 5m apertures
 - Can be center fed
- Applications
 - RF Communications
 - Active radar (weather, SAR)
 - Radiometer (ocean surface winds)



Stowed Antenna

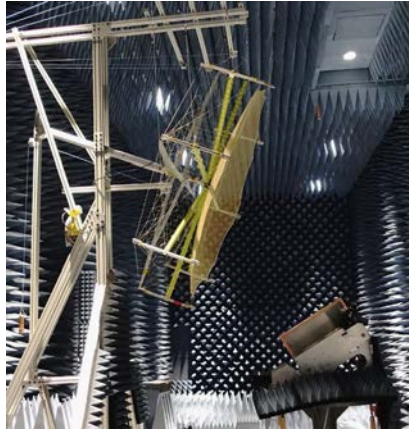


- Completed RF Testing at NASA JPL near field chamber
- Repeatable deployments
- Predicted RF performance
- Patent pending

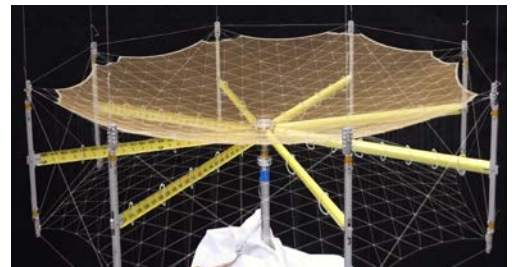
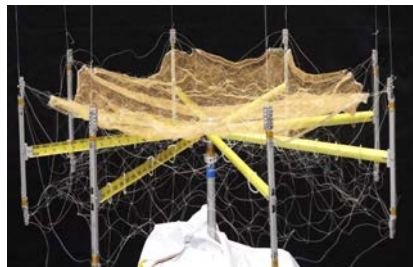
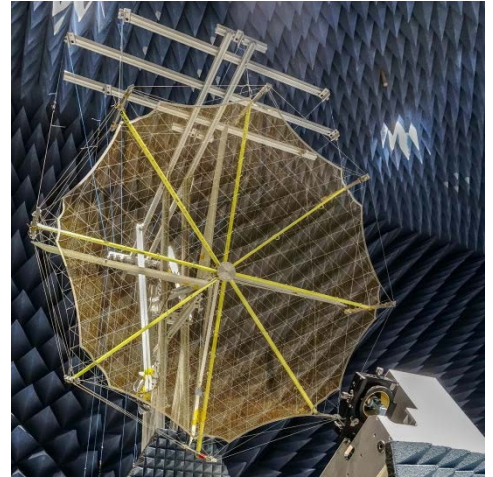
TENDEG

Performance Specifications

Metric	Units	Specification
Stowed Size	cm ³	10 x 10 x 30 (3U)
Deployed Aperture	cm	100
Gain (@ 36GHz)	dB	49.2 (measured , includes horn)
HPBW	degrees	0.6
Sidelobe Level	dB	-28 dB
XPD	dB	-23 dB
RMS Surface Accuracy	mm	<0.28
Mass	kg	2.5
Thermal	°C	-20 to 85



Near field testing



Antenna Deployment Sequence

About Tendeg

Tendeg LLC provides antennas, precision deployable structures, and mechanical engineering design and analysis services for space missions. The company was founded in 2015 by a group of space industry veterans with an average of 22 years experience in designing and building space flight hardware. Tendeg has offices near Denver, Aspen, and Los Angeles.

Tendeg LLC
1772 Prairie Way Unit A
Louisville, CO 80027
303-929-4466
www.tendeg.com

TENDEG

ANTENNAS & PRECISION DEPLOYABLES FOR SPACE