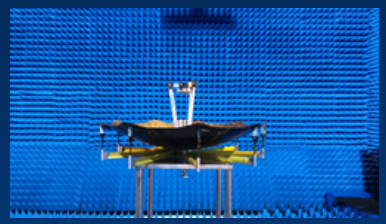
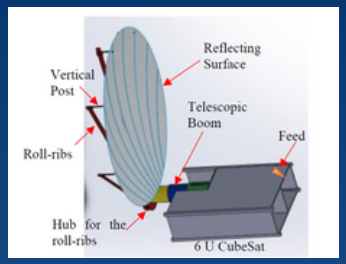
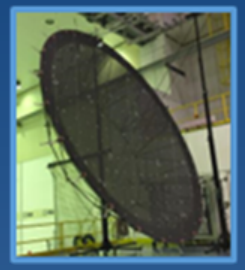
REVOLVE MILLIWAVE LABUM







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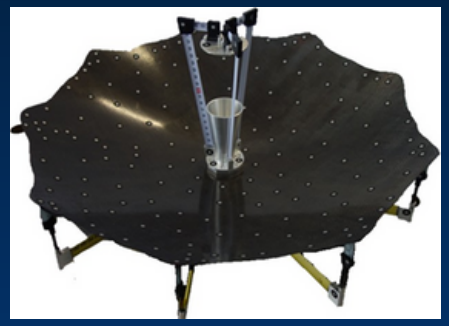
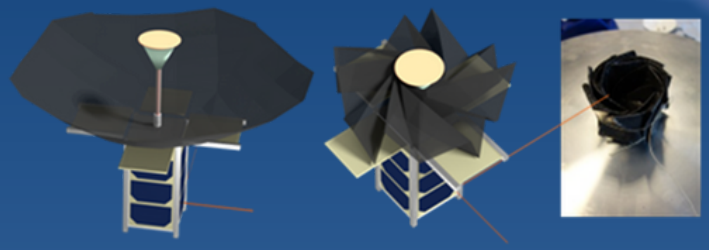
LARGE SPACE STRUCTURES



Unfolding the Future of Connectivity – our **deployable antenna for small satellites** delivers a reliable, flight-proven deployment concept with performance up to Ka-band.
Compact. Trusted. Ready for orbit.



DEPLOYABLE ANTENNAS FOR SMALL SATS

REVOLVE

Parameter	Specification
Structural Principle	FlexRS® shell, Origami-folded
Frequency Range	X- to Ka-band
Gain	41 dBi (@ 30 GHz)
Deployed Geometry	
Projected Diameter	0.5 m (customizable)
Focal Length	0,2 m
Surface Accuracy (RMS)	0.21 mm
Stowed Volume	1.5 Cube Units
Mass	
Stowed Reflector, Subreflector, Support Beams, Feed Horn	0.80 kg
Structural Stiffness	
In Stowed Configuration	>90 Hz
In Deployed Configuration	11 Hz

MILLIWAVE

Parameter	Specification
Structural Principle	Metal-coated FlexRS® shell-membrane, origami-folded
Frequency Range	W-band
Gain	51.67 dBi (@ 89 GHz)
Deployed Geometry	
Projected Diameter	0.5 m (customizable)
Focal Length	0.5 m
Clearance	0.025 m
Surface Accuracy (RMS)	0.13 mm
Stowed Volume	1.5 Cube Units
Mass	
Reflector, Boom	2.0 kg
Structural Stiffness	
In Stowed Configuration	> 90 Hz
In Deployed Configuration	1 Hz

Use Cases

- Earth observation instrumentation
- Telecommunication payloads
- Military Communications antennas
- Military reconnaissance and intelligence
- Several ESA and DLR R&D projects by LSS for RF even up to 200+ GHz

Key Benefits

- Drastically enhances performance and functionalities of small satellites
- Designed to be tested under any orientation, without additional structure to compensate the effects of gravity

Key Features

- Stowed volume: 1.5U (10cm x 10cm x 15cm) volume for CubeSat applications
- Origami folding design - OriFlex®
- FlexRS®-I RF shell-membrane surface
- 0.5 m deployed aperture
- Reflector deploys passively once HDRM is unlocked!