

NEWSPACE MARKET · COMPANY PROFILE



Deployable Space Systems (DSS) — now Redwire

United States · rdw.com

5

PRODUCTS

5

SERVICES

1

WITH DATASHEETS

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as of 20 August 2026

A large, faint, dark blue circular graphic is positioned in the lower right quadrant of the page. It consists of a central circle surrounded by two concentric arcs, resembling a stylized eye or a target.

Deployable Space Systems (DSS) — now Redwire

Deployable Space Systems (DSS) was a leading developer of lightweight, roll-stowable deployable structures for spacecraft, best known as the originator of the Roll-Out Solar Array (ROSA) technology. DSS was acquired by Redwire Space (now Redwire, ticker: RDW), and its deployable structures capability now forms a core pillar of Redwire's space infrastructure product line. ROSA is a blanket-type photovoltaic array that rolls up for compact stowage and deploys in orbit without hinges or rigid panels. It has demonstrated flight heritage on the ISS (iROSA upgrade — six arrays increasing total station power from ~160 kW to ~215 kW), the DART asteroid deflection mission, and is in development for the Lunar Gateway Power and Propulsion Element (PPE). Redwire has expanded the portfolio with ELSA (Extensible Low-Profile Solar Array for constellation smallsats), the Open Lattice Mast Boom (OLM) for deployable antenna and instrument booms, Q-Rad deployable radiators, and FACT concentrating solar arrays. Redwire is headquartered in Jacksonville, FL, USA, and operates facilities across the United States and Europe, serving civil, commercial, and national security space programs.

This profile is generated from the live NewSpace Market catalogue. Specifications are as published by the manufacturer; every product links to a page where a request for quotation reaches the company directly.

SERVICES

Services

Digital Engineering Enterprise

Redwire offers a Digital Engineering Enterprise including secure digital engineering labs for all-domain modeling and simulation, digital twin development, hardware-in-the-loop testing, hybrid archite

Digitally Engineered Mission Systems & Integration (DEMSI)

Redwire's DEMSI agent-based digital engineering environment combines best-in-class commercial systems and domain engineering tools for high-fidelity simulation, enabling digital mission planning and a

SpaceMD In-Space Pharmaceutical Research and Manufacturing

SpaceMD leverages microgravity using its PIL-BOX technology to grow seed crystals in space for subsequent sale or licensing to companies for drug reformulation or new therapeutic development.

SpaceMD Scientific and Commercial Roadmap Development

SpaceMD offers services to shape scientific and commercial roadmaps by identifying promising drug candidates and supporting the development of an orbital research and manufacturing pipeline.

SpaceMD Therapeutic Concept Development and Opportunity Establishment

SpaceMD works with biotech partners to develop new therapeutic concepts and establish opportunities to apply SpaceMD technologies to pharmaceutical research on the ISS and emerging commercial platform

Product catalogue



DEPLOYABLE SPACE SYSTEMS (DSS) – NOW REDWIRE
ELSA

ELSA (Extensible Low-Profile Solar Array) is an innovative power solution designed to minimize solar array stowed volume and mass, offering 50% more power by volume than traditional solar arrays.

PAYLOAD SIZE (STOWED)	Configurable per mission requirements
POWER (BOL)	500W to 5kW
SOLAR CELL TECHNOLOGY	Cell Agnostic: ELSA can support III-V and Silicon technologies
STOWED FIRST MODE	>40Hz standard
DEPLOYED FIRST MODE	>.25Hz standard
OPERATIONAL TEMP RANGE	125°C to -125°C standard (custom ranges can be supported)
SPECIFIC POWER	>100 W/kg

price on request



DEPLOYABLE SPACE SYSTEMS (DSS) – NOW REDWIRE
Phantom

Phantom is an ESPA-class satellite platform designed for VLEO missions, offering a budget-friendly and aerodynamic design for various intelligence, Earth science, and communication missions.

SIZE (STOWED)	1.8 m x 1.3 m x 1.3 m
PAYLOAD SIZE	40 cm x 40 cm x 60 cm (launcher-dependent)
PAYLOAD MASS	50 kg
TOTAL SPACECRAFT WEIGHT	Below 300 kg
POWER AVAILABLE	>25 W OAP (EOL)
PROPULSION	Electric
ORBITAL ALTITUDE	Below 300 km

price on request



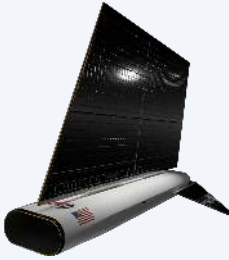
DEPLOYABLE SPACE SYSTEMS (DSS) – NOW REDWIRE

ROSA Roll-Out Solar Array (Redwire / DSS)

Blanket-type roll-stow solar array from Redwire (DSS heritage) — flight proven on ISS iROSA (boosted power by 30%), DART, and in development for Lunar Gateway PPE.

Array type	Roll-stowable blanket photovoltaic
Flight heritage	ISS iROSA (6 wings), DART mission
ISS power increase	~30% (160 kW → ~215 kW total station power)
In development	Lunar Gateway Power & Propulsion Element (PPE), 2 wings
Stow configuration	Compact cylindrical cannister
Key advantage	No hinges, latches, or rigid panels – blanket deployment
Manufacturer	Redwire (formerly Deployable Space Systems / DSS)

price on request



DEPLOYABLE SPACE SYSTEMS (DSS) – NOW REDWIRE

SabreSat

SabreSat is a highly flexible VLEO (Very Low Earth Orbit) satellite platform designed for persistent, high-resolution imagery or resilient communications, built for performance, en

SIZE (STOWED)	Modular
PAYLOAD SIZE	100 cm x 80 cm x 40 cm
PAYLOAD MASS	~200 kg
TOTAL SPACECRAFT WEIGHT	~400 kg
POWER AVAILABLE	Orbit & Configuration dependent, up to 5,000 W OAP (EOL)
PROPULSION	Electric or air-breathing (optional)
ORBITAL ALTITUDE	> 150 km

price on request



DEPLOYABLE SPACE SYSTEMS (DSS) – NOW REDWIRE

Zeus Modular Payload Adapter

Zeus is a modular payload adapter built in the United States for multi-manifest, rideshare, and constellation programs, adaptable to various spacecraft sizes and interfaces.

SIZE (STOWED)	1575 mm interface to PAF
LAYOUT OPTIONS	Option 1: Four (QTY-4) 24 inch circular ports Option 2: Six (QTY-6) 15 inch circular ports
TOTAL SPACECRAFT MASS	Supports up to 1500 kg space vehicles depending on the manifest
MISSION APPLICATIONS	Satellite constellation programs Rideshare programs Multi-manifest programs

price on request

[datasheet](#)

Contact Deployable Space Systems (DSS) — now Redwire

Open the company profile on NewSpace Market to see full specifications and datasheets, and to send a request for quotation that reaches the manufacturer directly.

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