

DSS awarded contract by Ball Aerospace to provide the solar array for NASA's IXPE Program. Santa Barbara, California, March 12, 2019 - Deployable Space Systems, Inc. (DSS), a leading supplier of innovative flexible blanket and rigid panel solar array systems, and deployable structures, announced today that it has been awarded a contract by Ball ...

The DCUBED Rigid-Deployable Solar Array is designed for satellite applications. It combines both body-mounted and deployable solar arrays. It allows for the best use of available spacecraft surface area for power generation while expanding beyond that once in orbit. DCUBED's rigid-deployable solar array is a turn-key product, which also ...

Redwire's Roll-Out Solar Arrays to Enable Lunar Power Infrastructure for Astrobotic VSAT Program. March 1, 2023; ... Solar Arrays and Deployable Structures; Research and Manufacturing in Microgravity; RF ...

The Integrated Solar Array and Reflectarray Antenna (ISARA) is a new deployable antenna designed to fit into a standard CubeSat bus. It does not occupy payload volume, provides spacecraft prime power and imposes only a modest impact on overall mass. Measured data indicates that the 3 panel configuration achieves 33.5 dB gain at 26 GHz. Measured radiation ...

The EXA DMSA/1 (Deployable Multifunction Solar Array for 1U) is the upgraded version of the venerable DSA 1/A, it is our entry level product of a family of deployable solar arrays based on artificial muscles for cubesats in the range ...

Alloy (SMA) technology for reliable solar array (SA) deployable mechanisms. The ALBus CubeSat deploys four SAs in addition to the body-mounted arrays on each side of the CubeSat. A goal of the mission is to utilize the SMAs being developed at the NASA Glenn Research Center to deploy these SAs. The use of

Universally featuring 30.7% efficient Spectrolab XTJ-Prime solar cells, PHOTON solar panels are constructed using a cost-effective combination of FR4 substrates, either alone or combined with a specially developed lightweight ...

The adopted solar array system is introduced firstly, including system configuration, deployable mast and solar arrays with several mechanisms. Then dynamic equation of the solar array system is established by the Jourdain velocity variation principle and a method for dynamics with topology changes is introduced.

DMSA: Deployable Multifunction Solar Array with embedded antennas, magnetorquers and sensors .  
SUMMARY . The EXA DMSA/1 (Deployable Multifunction Solar Array for 1U) is the upgraded version of the latest DSA 1/A, it is our entry level product of a family of deployable solar arrays based on artificial

muscles for

To develop small satellite boom and array concepts, NASA and DLR began a joint project in 2016 to develop advanced deployable structural systems for small satellites. The project focuses on deployable booms and deployment mechanisms for small satellite applications such as solar arrays, solar sails, drag sails and instrument booms.

FIG. 10 is a close-up, perspective view illustrating a folded solar panel array positioned adjacent to the first side of a nano-satellite, root hinge assembly, spring mechanisms, a portion of the frame that has a pair of tabs and a pair of slots that allow the frame to be slidably mounted to the first side of the nano-satellite, and the tabs of the frame aligned with pairs of notches in the ...

The EXA DMSA 3U/A (Deployable Multifunction Solar Array for 3U) is one of our 3U size products of a family of deployable solar arrays based on artificial muscles for CubeSats in the range of 1U to 6U.

Traditional solar array technology can be expensive, heavy, and complex to operate. So when Boeing, NASA's prime contractor for space station operations, started searching for a solution to update the power generation of the International Space Station (ISS), they turned to Redwire's compact, modular, and scalable iROSA technology.

In the 1980s, China began to develop deployable solar arrays. At present, the number of successfully run on-orbit solar arrays has exceeded 500. According to the product's structural features, China's deployable solar arrays are mainly divided into rigid, semi-rigid, and flexible solar arrays.

Deployable Rigid Solar Array Features  
o Turn-key bolt-on solar array  
o Solar power modules and panels produced in days or weeks, not months  
o Solar power modules use SMT, high efficiency GaAs micro-cells  
o Significant flexibility and scaling of panel sizes, shapes, electrical lay-out (sectioning and stringing), and bus voltages ...

The deployable static solar array HDRS has been successfully used on several missions, first launched upon the DMC-CFESAT spacecraft in 2007 for a U.S. customer (Figure 1), and later used on DMC-UK2 and EXACTVIEW-1 launched in 2009 and 2012, respectively.

Web: <https://solar-system.co.za>

