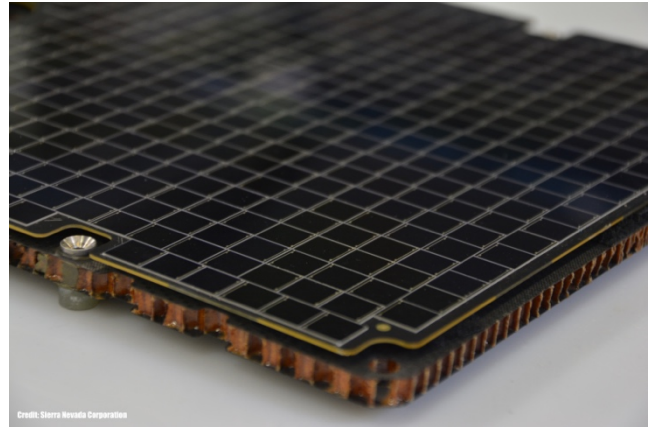




**FOR IMMEDIATE RELEASE**

## **Solar Junction Corporation and Sierra Nevada Corporation Launch Disruptive Space Solar Array Technology**

**SAN JOSE, CA (September 26, 2016)** – [Sierra Nevada Corporation](#) (SNC) and [Solar Junction Corporation](#) (Solar Junction) are launching a revolutionary new technology that will increase the efficiency of spacecraft solar array production and operation and lower the overall cost, providing a direct savings to customers. These advanced solar arrays are manufactured utilizing a patent-pending Surface Mount Technology (SMT) assembly method. This method allows each cell to be installed faster, closer together and more accurately than ever before. This advancement significantly increases the amount of power generated per area, while decreasing cost and delivery time. SNC has teamed with Solar Junction, an innovative semiconductor technology company based in San Jose, California, to develop this industry-first spacecraft solar array technology. Solar Junction's high-efficiency, multi-junction Surface Mount Cell with Coverglass (SMCC) enables automated, high-speed pick-and-place assembly of SNC-designed and manufactured solar arrays.



SNC's low-cost solar array Surface Mount Technology powered by Solar Junction's SMCC cells

"In the last decade, we've noticed a critical industry need for smaller, lower-mass, higher-efficiency spacecraft systems," said Matt Johnson, senior director of programs for SNC's Space Systems business area. "Partnered with Solar Junction, our team is now able to meet these market demands with a new, industry-first solar array technology solution. Our SMT arrays provide more power in a smaller package and at a lower cost, completely changing the way we power our spacecraft systems on-orbit."

### **Efficiency and Reliability**

The SMT approach allows SNC and Solar Junction to design, fabricate, inspect and test a complete solar array within a drastically reduced timeline. This technology produces a number of benefits that address overall system design and performance, resulting in significant savings at the spacecraft level.

In addition to the improved design, SNC has implemented a zero-touch labor process which vastly reduces room for human error and allows each interface to undergo a more rapid and precise quality test. Once on-orbit, the small cell size and increased number of strings per panel in the design makes the array more resilient to solar interference factors such as partial shadowing from the spacecraft body and debris.

"Solar Junction's patented cell technology enables us to simplify and automate the manufacturing processes for both the solar cell and solar array," said Ali Torabi, director of corporate development at Solar Junction. "Our SMCC cells exceed 31 percent Air Mass Zero efficiency while maintaining industry-standard reliability requirements and radiation performance. We look forward to supporting SNC as it integrates this disruptive technology on an entirely new class of spacecraft."



# Solar Junction

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## **Power System Heritage**

SNC has recently completed its first contract to integrate this advanced technology onto its solar arrays under the Air Force Research Laboratory's (AFRL) Satellite for High Accuracy Radar Calibration program. The 5U cubesat array was delivered within a few months after contract award and will result in a significant power output increase. This first-use of SNC's and Solar Junction's Surface Mount Technology will prove the efficiencies and benefits of this highly-scalable system.

SNC has developed and delivered several solar array systems, including 18 arrays for the [ORBCOMM Generation 2](#) constellation currently on-orbit. Eight deployable arrays were recently delivered to Southwest Research Institute for integration onto NASA's CYGNSS spacecraft, and two articulated arrays are being finalized for the AFRL's STPSat-5, which SNC is the prime contractor for.

## **About Solar Junction Corporation**

Solar Junction Corporation, based in San Jose, California, designs and manufactures innovative products for terrestrial power, space power, and optoelectronics applications. Founded in 2007, Solar Junction has achieved multiple world records for solar cell efficiency and has successfully extended its patented technology platform to develop next-generation power solutions for its aerospace customers.

For more information on Solar Junction visit [www.sj-solar.com](http://www.sj-solar.com) or email us at [info@sj-solar.com](mailto:info@sj-solar.com). Solar Junction Corporation, Solar Junction, and SMCC are trademarks of Solar Junction Corporation.

## **About Sierra Nevada Corporation**

Sierra Nevada Corporation (SNC) provides customer-focused technology solutions in the areas of aerospace, aviation, electronics and systems integration. SNC has been honored as one of "The World's Top 10 Most Innovative Companies in Space," and one of America's fastest growing companies. SNC's Space Systems business area based in Louisville, Colorado, designs and manufactures advanced spacecraft, space vehicles, rocket motors and spacecraft subsystems and components for the U.S. Government, commercial customers, as well as for the international market. SNC has more than 25 years of space heritage, participating in more than 450 successful space missions and delivering 4,000+ systems, subsystems and components around the world.

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