NEWS RELEASE

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Starris: Optimax Space Systems and LLNL announce commercialization partnership for monolithic telescope technology to support tactically responsive space missions

Starris will manufacture the monolith optics and integrate the monolith telescope into its optical payloads

Ontario, N.Y. / Livermore, Calif. — Starris: Optimax Space Systems and Lawrence Livermore National Laboratory (LLNL) announce a commercialization partnership for LLNL's patented monolithic telescope technology — which accelerates rapid deployment of modular optical designs for high-resolution or high sensitivity space imagery.

Starris has collaborated over the last decade with LLNL's Space Program to develop the monolithic telescope technology and will manufacture — at scale and with customization options — the precision-fabricated optical lens that forms the image in the telescope. The collaboration with LLNL is now extended via a government-use license for commercializing the technology through LLNL's Innovation and Partnerships Office (IPO).

Optimax launched Starris in August 2024 to bring ideas to orbit in under one year, using a pre-engineered modular approach that combines optics, sensors, and electronics. Starris will be integrating the monoliths into its optical payloads.

Starris will be commercializing and scaling the LLNL monolith**ic** telescope technology particularly for space domain awareness — the detection, tracking, cataloging and identification of artificial objects, including satellites, spent rocket bodies, asteroids, or debris. The compact yet robust monolith enables tactically responsive space, with the ability to deliver on-orbit capabilities with speed and agility.

"Our ability to scale production of the LLNL payload solutions will enable the rapid deployment of small satellite constellations to support continuously evolving mission needs," said Kevin Kearney, Starris director and chief technology officer. "Optimax has been honored to work with LLNL in the development and refinement of the monolithic telescope technology, providing precision optics manufacturing and measurement expertise."

The monolithic optics are aligned at manufacture with straightforward interfaces, low moments of inertia, and high-thermal tolerance. Unlike traditional telescopes, the LLNL monolithic technology is "shelf stable," in that it is aligned during fabrication at Optimax and maintains its alignment and precision indefinitely. It also does not require handling in high cleanliness environments as the mirrors are encased inside the telescope.

Initially designed for intelligence and defense applications, the LLNL monolith**ic** telescopes have been proven in several space missions and were chosen to fly on the upcoming U.S. Space Force's Victus Haze mission in 2025, which is intended to test military capabilities to rapidly deploy satellites in response to threats in orbit.

Being a responsive space-payload technology, the LLNL monoliths can be easily integrated into space missions, according to Ben Bahney, LLNL space program leader.

"Our monolithic telescopes are a disruptive technology because they significantly reduce development time and cost while also providing outstanding performance, generating the best resolution possible for a given aperture size," Bahney said. "LLNL is proud to be licensing its patented monolithic telescope technology to our longtime manufacturing partner Optimax for their new Starris space systems. We are excited to work with Starris to transition this technology to industrial production, opening this technology up to meet new mission needs and new markets."

About Starris: Optimax Space Systems

Starris: Optimax Space lifts customer ideas into orbit via space-qualified optical payloads in less than a year, integrating optics, cameras, and instruments into pre-engineered platforms and modular design, reducing risk, money, and time. Starris is powered by three decades of space-qualified innovation and precision optics of parent-company Optimax, which has technology driving thousands of satellites presently in orbit, including commercial and NASA ventures. Starris optical payloads are tailored for aggressive design cycles and rapid deployment, supported by a robust testing and manufacturing ecosystem, enabling rapid prototyping to production, with radiation-tolerant design for temperature, vacuum, shock, and vibration. Starris.com

About LLNL

Lawrence Livermore National Laboratory, located in the San Francisco Bay Area, is a premier applied science laboratory that is part of the National Nuclear Security Administration within the Department of Energy. LLNL's mission is strengthening national security by developing and applying cutting-edge science, technology, and engineering that respond with vision, quality, integrity, and technical excellence to scientific issues of national importance. The Laboratory's science and engineering are being applied to achieve breakthroughs for counterterrorism and nonproliferation, defense and intelligence, energy and environmental security.

MEDIA CONTACTS:

High-resolution images are online at https://tinyurl.com/StarrisLLNL

For Starris:
Dresden Engle
Dresden@BellCollaborative.com
(585) 319-1812

For LLNL:
Stephen Wampler
Wampler1@llnl.gov
(925) 784-0166