FOR IMMEDIATE RELEASE
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SenseICs Awarded $150K NASA Contract to Develop a Multi-Frequency AMCW LiDAR Imager for Next-Gen Planetary Exploration

COLUMBUS, OH – *SenseICs Corporation*, a semiconductor design company that elevates microelectronics performance for OEMs, VARs, and government labs through advanced integrated circuit IP and full turnkey solutions, today announced that it has been awarded a $150,000 contract from NASA.

The award will fund the development of a radiation-hardened, amplitude-modulated continuous wave (AMCW) Light Detection and Ranging (LiDAR) application-specific integrated circuit (ASIC) featuring dual-frequency modulation, high signal-to-noise ratio (SNR) sensing, and low-power operation. This next-generation LiDAR technology is designed to deliver high-precision 3D depth mapping to facilitate autonomous navigation on the lunar surface and beyond enabling deep space explorations.

The contract was awarded under NASA's Small Business Innovation Research (SBIR) Phase I 2025 solicitation, specifically in response to the agency's call for *Autonomous Capabilities for Lunar Surface Mobility Systems*. NASA's Extravehicular Activity and Human Surface Mobility (EHP) Program, part of the Artemis initiative, is developing technologies that enable astronauts to operate safely and effectively on and around the Moon. The agency seeks innovative sensing systems that allow surface vehicles to operate autonomously, particularly in the harsh conditions of the lunar south pole, while reducing reliance on ground control and increasing mission efficiency. SenseICs' AMCW LiDAR system addresses these needs by enabling hazard detection, terrain mapping, and navigation, essential to both crewed and robotic lunar exploration.

"This project builds upon our advanced infrared imaging pixel technology originally developed for the Army Research Lab for Degraded Visual Environment (DVE)," said Dr. Ramy Tantawy, CEO and Co-Founder. *"That effort produced the SP-18240 high dynamic range (HDR) readout integrated circuit (ROIC), designed for robust performance in extreme environments. Under this new NASA award, we're leveraging that proven architecture to create an AMCW LiDAR 2D Imager optimized for precision mapping and autonomy on the Moon."*

Dr. Tantawy emphasized the importance of collaboration with NASA: *"We're thrilled to work alongside NASA to deliver a LiDAR system tailored to the Artemis program's requirements,"* he said. *"By aligning with NASA's priorities for power efficiency, radiation tolerance, and high-resolution sensing, we're not only helping enable safe, autonomous mobility on the lunar surface but we are building a platform for future deeper space navigation missions."*

President and Co-Founder Dr. Shane Smith highlighted broader applications and local economic impact: *"While this system is designed for space, its capabilities, like HDR imaging, low power consumption, and resilience in extreme conditions, make it ideal for terrestrial markets as well,"* said Smith. *"From autonomous vehicles and industrial automation to precision agriculture, this technology can redefine how machines perceive and navigate the world. Just as important, this contract supports the growing microelectronics sector in Central Ohio, fueling regional innovation and positioning Columbus to be a hub for advanced sensor technology."*

Powered by a team of experts in custom IC and electronic system design, SenseICs combines patented innovations with strategic partnerships across government and academia. The company has pioneered chip solutions such as it's AMCW LiDAR ASIC and continues to drive advancements in high-performance sensing for space and terrestrial applications.

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About SenseICs:

SenseICs is a small business committed to designing and developing advanced microelectronics. To meet the needs of our customers in the defense, energy, automotive, and medical industries, we combine decades of engineering expertise with a forward-thinking mindset to provide proven solutions for advanced imaging, communications, trusted microelectronics, and high radiation environments. SenseICs was founded in 2017 and is currently based in Columbus, Ohio. For more information, please visit https://senseics.com/

About NASA:

The National Aeronautics and Space Administration is an independent agency of the U.S. federal government responsible for the civil space program, aeronautics research, and space research. Established in 1958, it succeeded the National Advisory Committee for Aeronautics to give the U.S. space development effort a distinct civilian orientation, emphasizing peaceful applications in space science. It has since led most of America's space exploration programs, including Project Mercury, Project Gemini, the 1968–1972 Apollo Moon landing missions, the Skylab space station, and the Space Shuttle. Currently, NASA supports the International Space Station and the Commercial Crew Program and oversees the development of the Orion spacecraft and the Space Launch System for the lunar Artemis program.