NEWS RELEASE

SkyWater and Applied Novel Devices Enable Breakthrough with New Class of Silicon Power MOSFET for High Efficiency Power Conversion

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- Offers near-zero reverse recovery losses, bringing an advantage to Si that is usually seen only in GaN technologies
- Reduces form factor for both standard products and multichip modules with a novel wafer scale packaging
- Enables higher frequency power conversion applications that can also shrink module form factors

BLOOMINGTON, Minn. & AUSTIN, Texas--(BUSINESS WIRE)-- **SkyWater Technology** (NASDAQ: SKYT) and Applied Novel Devices, Inc. (AND) today announced a major industry breakthrough with new transistor technology that offers significant benefits for fast switching power conversion applications. The power MOSFETs offer 2x lower output charge, near-zero reverse-recovery and ultra-low Qoss enabled by AND's proprietary channel engineering technology. In addition, these power MOSFETs offer superior specific on-resistance (< 5 mOhm-mm2 @ 30V BVDSS) at gate drive as low as 2.5V as well as low leakage currents and near-ideal sub-threshold slope made possible by AND's device architecture. These characteristics can substantially reduce parasitic losses incurred in power management systems. This will improve power management and conversion efficiency in numerous applications including data centers, automotive, electric motor drives, microinverters for renewable energy systems and many others in industrial and consumer markets.

In applications such as DC-DC power conversion, AND's technology offers unique advantages enabled by its novel device architecture. Near-zero reverse recovery and low output capacitances eliminate the need for integrated or standalone Schottky clamp diodes. These efficiency enhancing characteristics make the technology attractive for higher frequency voltage conversion applications not typically supported by conventional Si MOSFETs. The high

frequencies enabled by these power MOSFETs, in turn, drive reduction of passive component sizes to achieve small form factor power modules that support further system level efficiency gains.

AND will offer wafer scale and standard package products ranging from 15-80V for industrial and consumer applications. AND plans to expand the offering to span the 200-1000V range with a family of products produced at SkyWater for electric vehicle, renewable energy and various industrial applications. Additionally, through a technology licensing agreement, SkyWater will offer this power MOSFET technology process flow to foundry customers.

“AND has developed a unique technology that brings the benefits of GaN-like performance to mainstream Si MOSFETs,” said Leo Mathew, CEO and co-founder of AND. “SkyWater is an ideal partner to bring this industry breakthrough to realization in an IP-secure development and production environment.”

“During this global semiconductor shortage, we are excited to work with AND here in the U.S. to enable a new technology for power management applications which are used in all types of electronic devices,” said Steve Kosier, SkyWater chief technology officer. “This new class of Si power MOSFETs enhances efficiency and cuts power losses for fast power switching applications. We are pleased to have created a standard process flow for this highly differentiated technology that can be offered to all foundry customers on a wide-scale.”

Availability

AND is currently sampling the new power MOSFETs and in the process of ramping production at SkyWater. The devices in wafer scale packages will be tailored to specific form factors for existing boards and systems. The products are available from AND and the technology is available immediately as a foundry offering directly from SkyWater. For more information, please contact the companies via email at **contact@appliednoveldevices.com** and **swfoundry@skywatertechnology.com**.

About Applied Novel Devices

Applied Novel Devices (AND) is based in Austin, Texas. AND develops new semiconductor device architectures that address the next generation of applications using its novel process technologies for discrete and integrated power products. AND has developed the tools and technologies for thin-crystalline semiconductor devices and has targeted power MOSFETs for this technology.

About SkyWater Technology

SkyWater (NASDAQ: SKYT) is a U.S.-owned semiconductor manufacturer and a DOD-accredited Trusted supplier.

SkyWater's Technology as a ServiceSM model streamlines the path to production for customers with development services, volume production and advanced packaging solutions in its world-class U.S. facilities. This pioneering model enables innovators to co-create the next wave of technology with diverse categories including mixed-signal CMOS, read-out ICs, rad-hard, power discretes, MEMS, superconducting ICs, photonics, carbon nanotubes and interposers. SkyWater serves growing markets including aerospace & defense, automotive, biomedical, cloud & computing, consumer, industrial and IoT. For more information, visit: **www.skywatertechnology.com**.

Forward Looking Statements

This press release contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements that are based on the Company's current expectations or forecasts of future events, rather than past events and outcomes, and such statements are not guarantees of future performance. Forward-looking statements are subject to risks, uncertainties and assumptions, which may cause the Company's actual results, performance or achievements to be materially different from those expressed or implied by such forward-looking statements. Key factors that could cause the Company's actual results to be different than expected or anticipated include, but are not limited to factors discussed in the "Risk Factors" section of the prospectus the Company filed with the SEC on April 22, 2021, its quarterly report on Form 10-Q for the quarter ended October 3, 2021 and in other documents that the Company files with the SEC, which are available at **http://www.sec.gov**. The Company assumes no obligation to update any forward-looking statements, which speak only as of the date of this press release.

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