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SST and UMC Announce Immediate Availability of 28nm SuperFlash® Gen 4 Automotive Grade 1 Platform

SST's innovative ESF4 delivers full auto grade 1 performance and reliability for automotive controllers on UMC's 28HPC+ process platform while using significantly fewer masking steps

SAN JOSE, Calif. and HSINCHU, Taiwan, Jan. 15, 2026 (GLOBE NEWSWIRE) -- As the automotive industry requirements for increasingly performant vehicle controllers relentlessly drives ahead, Silicon Storage Technology® (SST®), a subsidiary of Microchip Technology Inc., (**Nasdaq: MCHP**) and United Microelectronics Corporation (**NYSE: UMC: TWSE: 2303**)("UMC"), a leading global semiconductor foundry, announced today that they have completed full qualification and release to production of SST's embedded SuperFlash® Gen 4 (ESF4) with full automotive grade 1 (AG1) capability on UMC's 28HPC+ foundry process platform.

SST developed ESF4 in close partnership with UMC to deliver enhanced embedded non-volatile memory (eNVM) performance and demonstrated reliability for automotive controllers while simultaneously significantly reducing the number of additional masking steps versus other foundries' 28nm High-k/Metal-Gate Stack (HKMG) eFlash offerings, bringing customers cost advantages and greater manufacturing efficiency.

Customers currently manufacturing automotive controller products using foundry 40nm ESF3 AG1 platforms are encouraged to explore the UMC 28nm ESF4 AG1 platform as they look to scale to the next process node.

"As automotive requirements accelerate, developers need solutions that drive efficiency, speed up time to market and satisfy stringent industry standards. To meet these needs, UMC and SST have delivered a robust 28nm AG1 solution which is now ready for the production of customer designs," said Mark Reiten, Vice President of Microchip's licensing business unit. "UMC has been a valuable partner for SST and SuperFlash innovation, and the companies continue to jointly address the rapidly evolving market requirements and deliver technically and economically advanced offerings."

"As the automotive industry rapidly advances toward more connected, autonomous, and shared vehicles, the demand for highly reliable data storage and high-capacity data updates continues to grow. This has driven customer demand for scaling SuperFlash to the 28nm process," said Steven Hsu, Vice President of Technology Development at UMC. "Through our close collaboration with SST, we have successfully launched the ESF4 solution, which has been fully integrated into the widely adopted 28HPC+ platform. This enables our customers to leverage the extensive models and IP available in our portfolio to address key markets while simultaneously scaling to a more advanced process node."

Key SuperFlash performance and reliability metrics for UMC's 28HPC+ ESF4 AG1 platform include:

- Automotive Electronics Council (AEC) Q-100 Grade 1 qualified for temperatures of -40°C to +150°C (T_j)
- Read access time < 12.5ns
- 100K+ endurance cycles
- Data retention of > 10 years @ 125°C
- Only 1-bit ECC required
- Qualification of 32Mb macro at auto grade 1 conditions:
  - Zero bit failures (no ECC applied)
  - Peak yield reached 100%

Automotive controller shipment volumes continue to rapidly increase year after year, as the transportation industry demands innovative solutions for a widening variety of vehicle applications. Embedding a performant and highly reliable eNVM for code and data storage within the controller is essential to effectively serve this expanding market. SST's ESF4 solution on UMC's 28HPC+ AG1 platform is designed to support customers seeking a solution which may include supporting high-capacity controller firmware that requires over-the-air (OTA) update flexibility.

Pricing and Availability
Customers interested in SST's SuperFlash technology should access the **SST website** or contact a **regional SST sales executive** for details. Those interested in UMC's technology and offerings should visit the **UMC website**.

Resources
High-res images available through Flickr or editorial contact (feel free to publish):

- Application image:
  www.flickr.com/photos/microchiptechnology/54935279586/sizes/o/

About Microchip Technology:
Microchip Technology Inc. is a broadline supplier of semiconductors committed to making innovative design easier through total system solutions that address critical challenges at the intersection of emerging technologies and durable end markets. Its easy-to-use development tools and comprehensive product portfolio supports customers throughout the design process, from concept to completion. Headquartered in Chandler, Arizona, Microchip offers outstanding technical support and delivers solutions across the industrial, automotive, consumer, aerospace and defense, communications and computing markets. For more information, visit the Microchip website at **www.microchip.com**

About Silicon Storage Technology (SST):
Microchip Technology's SST subsidiary is a leading provider of embedded flash technology. SST develops, designs, licenses and markets a diversified range of proprietary and patented SuperFlash memory technology solutions for the consumer, industrial, automotive and Internet of Things (IoT) markets. SST was founded in 1989, went public in 1995 and was acquired by Microchip in April 2010. SST is now a wholly owned subsidiary of Microchip and is headquartered in San Jose, Calif. For more information, visit the SST website at **www.sst.com**.

About UMC:
UMC **(NYSE: UMC, TWSE: 2303)** is a leading global semiconductor foundry company. The company provides high-quality IC fabrication services, focusing on logic and various specialty technologies to serve all major sectors of the electronics industry. UMC's comprehensive IC processing technologies and manufacturing solutions include Logic/Mixed-Signal, embedded High-Voltage, embedded Non-Volatile-Memory, RFSOI, BCD etc. Most of UMC's 12-in and 8-in fabs with its core R&D are located in Taiwan, with additional ones throughout Asia. UMC has a total of 12 fabs in production with combined capacity of more than 400,000 wafers per month (12-in equivalent), and all of them are certified with IATF 16949 automotive quality standard. UMC is headquartered in Hsinchu, Taiwan, plus local offices in United States, Europe, China, Japan, Korea & Singapore, with a worldwide total of 20,000 employees. For more information, please visit: **www.umc.com**.

Note from UMC Concerning Forward-Looking Statements: Some of the statements in the foregoing announcement are forward-looking within the meaning of the U.S. Federal Securities laws, including statements about introduction of new services and technologies, future outsourcing, competition, wafer capacity, business relationships and market conditions. Investors are cautioned that actual events and results could differ materially from these statements as a result of a variety of factors, including conditions in the overall semiconductor market and economy; acceptance and demand for products from UMC; and technological and development risks. Further information regarding these and other risks is included in UMC's filings with the U.S. Securities and Exchange Commission. UMC does not undertake any obligation to update any forward-looking statement as a result of new information, future events or otherwise, except as required under applicable law.

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