



## Cypress Unveils the World's Most Advanced Flash Memory Solutions for Developers of Safety-Critical Applications in Automotive and Industrial

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*Semper™ Flash Family Combines Superior Performance with Industry-leading Functional Safety and Reliability*

SAN JOSE, Calif.--(BUSINESS WIRE)--May 30, 2018-- Cypress Semiconductor Corp. (Nasdaq: CY), the embedded solutions leader, today announced its Semper™ NOR Flash memory family that delivers the industry's best combination of safety and reliability for automotive and industrial applications. The Semper Flash family is the first memory that is architected and designed to meet the automotive industry's ISO 26262 functional safety standard for building fail-safe embedded automotive systems. The family is automotive-qualified, ASIL-B functional safety compliant, and provides superior endurance and data retention at the extreme temperatures common in automotive and industrial applications. More information on the Semper Flash family is available at <http://www.cypress.com/semper-flash>.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20180530005542/en/>



"Safety and reliability are paramount concerns for autonomous driving and industrial applications," said Rainer Hoehler, Vice President of the Flash Business Unit at Cypress. "We designed the new Semper Flash family specifically to achieve functional safety compliance to protect against system failures. The Semper family also provides the industry's best combination of superior read bandwidth, instant-on support, high-endurance, and long retention for reliable long-term performance in harsh operating environments."

Cypress' EnduraFlex™ architecture simplifies system design by enabling a Semper Flash device to be divided into multiple partitions, independently optimized for high endurance or long retention. For frequent data writes, a partition can be configured to deliver up to 1.28 million program-erase cycles for 512Mb density parts and 2.56 million cycles for 1Gb parts. For code and configuration storage, a partition can be configured to retain data for 25 years.

Pictured is Cypress' Semper NOR Flash memory family that delivers the industry's best combination of safety and reliability for automotive and industrial applications. (Graphic: Business Wire)

The Semper Flash family includes AEC-Q100 automotive-qualified devices with an extended temperature range of

-40°C to +125°C, supports 1.8-V and 3.0-V operating ranges, and is available in densities of 512Mb through 4Gb. The devices are offered with Quad Serial Peripheral Interface (SPI), Octal SPI and HyperBus™ interfaces. The Octal and HyperBus interface devices are compliant with the JEDEC eXpanded SPI (xSPI) standard for high-speed x8 serial NOR Flash and offer read bandwidth of 400 MBps.

"NXP has successfully supported fast expanding memory requirements by pairing our MCUs and SoCs with Cypress' HyperBus memories," said Ray Cornyn, Vice President and General Manager of Vehicle Dynamic Solutions at NXP. "The next-generation Semper NOR Flash family with HyperBus from Cypress provides a strong roadmap for continuing that success as it looks to support future market needs both for safety and robustness."

### Availability

Cypress' 512Mb Semper Flash devices are sampling to lead customers now, with qualified samples available in the fourth quarter of 2018. Volume production of the devices with 24-ball BGA, 16-pin SOIC and 8-contact WSON packages is expected in the first quarter of 2019.

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## About Cypress

Cypress is the leader in advanced embedded solutions for the world's most innovative automotive, industrial, smart home appliances, consumer electronics and medical products. Cypress' microcontrollers, analog ICs, wireless and USB-based connectivity solutions and reliable, high-performance memories help engineers design differentiated products and get them to market first. Cypress is committed to providing customers with the best support and development resources on the planet enabling them to disrupt markets by creating new product categories in record time. To learn more, go to [www.cypress.com](http://www.cypress.com).

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