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## Cypress Introduces the Industry's Most Advanced Automotive Touchscreen Controller

*New TrueTouch® Family Delivers Intuitive Control Features and Leading System-level Integration for Next-generation Infotainment Systems*

LAS VEGAS--(BUSINESS WIRE)-- CONSUMER ELECTRONICS SHOW - Cypress Semiconductor Corp. (NASDAQ: CY), the leader in advanced embedded systems solutions, today introduced a new automotive capacitive touchscreen controller family that delivers the market's most advanced feature set for next-generation infotainment systems. Cypress designed the TrueTouch® CYAT817 touchscreen controller family specifically to meet rigorous automotive quality standards. The family offers an advanced hover capability that can detect a finger up to 35 mm above the screen and a force touch capability that provides accurate measurement of the pressure applied by multiple independent fingers. The family's integrated acoustic and haptic feedback control provides faster response times for a better user experience compared to systems where the processing of a touch and pressure applied are not measured on-chip.

This press release features multimedia. View the full release here:  
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Pictured is Cypress Semiconductor's new TrueTouch automotive capacitive touchscreen controller that delivers the market's most advanced feature set for next-generation infotainment systems. (Graphic: Business Wire)

"Car makers' requirements for the infotainment user interface are significantly different from those of consumer electronics touchscreens, but up until now, touchscreen solutions have been developed primarily for the consumer market and only qualified later to meet automotive requirements," said Dr. Jing Mu, Senior Director of Automotive HMI Marketing at Cypress. "Cypress designed the TrueTouch CYAT817 family from the start with a focus on providing automotive-grade quality and enabling the ultimate user experience for in-vehicle applications. This integrated solution demonstrates our market leadership with best-in-class response times, unmatched features in a single device and lower system costs compared to multi-chip implementations."

Cypress is demonstrating the TrueTouch CYAT817 touchscreen controller and its complete embedded systems solution portfolio at CES in South Hall 2 of the Las Vegas Convention Center in meeting room MP25365.

The Automotive TrueTouch CYAT817 controller family implements its Hover and Force Touch features while meeting stringent automotive electromagnetic interference (EMI) and electromagnetic compatibility (EMC) requirements. With a power-efficient 32-bit Arm® Cortex®-M processor and optimized analog front-end, each controller can replace the mechanical on/off button of an infotainment system with a capacitive touch sensor, enabling sleek, modern interior designs. The controllers deliver faster response times by integrating decision and control processing on-chip for acoustic and haptic feedback so that systems are no longer required to transmit data on a touch input via Controller Area Network (CAN) or a Low-Voltage Differential Signaling (LVDS) backchannel for distributed implementations to be processed in the head-unit.

The CYAT817 controllers can support two standard host interfaces such as I<sup>2</sup>C and SPI, along with a CAN interface for either higher system integration or to implement redundancy for safety relevant applications per ISO 26262. The controllers protect against hacking with a cryptographic engine that securely encrypts communication with the head-unit, preventing

unauthorized access of touch data containing sensitive user information that could allow reverse engineering of PINs or passwords.

Cypress AutoArmor™ meets car manufacturers' most challenging EMC requirements for chip-level emissions (IEC 61967), conducted (IEC 62132) and radiated (ISO 11452) immunity, as well as for system-level (CISPR 25) specifications. AutoArmor uses automatic frequency hopping to prevent false touches caused by EMI from other electronic systems, and it uses TX frequency spreading to reduce electromagnetic emissions by up to 30%. Additional Automotive TrueTouch information is available at [www.cypress.com/automotivetouch](http://www.cypress.com/automotivetouch).

### **Availability**

The Automotive TrueTouch CYAT817 controllers are currently sampling, with AEC-Q100 fully automotive-qualified products expected in the second quarter of 2018. The controllers are available in automotive-friendly 128-pin and 100-pin TQFP packages.

### **About TrueTouch**

Cypress' TrueTouch technology provides leading noise immunity, SNR, waterproofing, accuracy and linearity, along with fast refresh rates and low power consumption. The flexible TrueTouch solution allows customers to rapidly develop leading-edge solutions without having to buy turnkey modules. They have a choice of using touch sensors (glass or film) and LCDs from preferred partners, and can develop innovative mechanical designs ranging from flat to curved surfaces of varying thickness. The patented capacitive sensing technology of TrueTouch devices offers robust noise immunity that enables flawless operation in noisy RF and LCD environments.

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### **About Cypress**

Cypress is the leader in advanced embedded system 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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Cypress PR  
Samer Bahou, 408-232-4552  
[samer.bahou@cypress.com](mailto:samer.bahou@cypress.com)

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