

New Product Announcement

Mouser Delivers Freescale MC33816 Automotive Gate Drivers

March 7, 2014 – [Mouser Electronics](http://www.mouser.com), Inc. is now shipping the [Freescale](http://www.freescale.com) MC33816 12-channel programmable smart gate driver for automotive engine control systems. This highly sophisticated gate driver consists of five external MOSFET high side pre-drivers, and seven external MOSFET low side pre-drivers.

The [Freescale MC33816 Programmable Gate Driver](http://www.freescale.com) available from Mouser Electronics provides a programmable solution for precision injector and solenoid control applications. Five high side pre-drivers drive five logic level N-channel MOSFETs with four individually programmable slew rates. There are also six low side pre-drivers for logic level N-channel MOSFETs that also have programmable slew rates. An integrated bootstrap circuit for each high side pre-driver requires only an external capacitor. Internal charge pump circuitry for each high side pre-driver is also available to provide gate drive if the bootstrap circuit is unavailable. In addition, any high side pre-driver can also be used as a low-side pre-driver.

The MC33816 contains four embedded CPUs that control all internal functions of the device, including managing the internal programmable crossbar switch that manages the driver configurations. An SPI interface provides access to the internal configuration including current and voltage thresholds for the drivers, as well as internal diagnostics and trace management.

The device also contains its own dual voltage regulators with overvoltage and undervoltage monitoring and protection. Internal diagnostics include programmable voltage monitoring and fault detection for each driver as well as a built-in self-test (BIST).

The Freescale MC33816 targets [automotive](#) engine injectors, and electrical valve control for high temperature [industrial applications](#).

To learn more, visit <http://www.mouser.com/freescale-mc33816-gate-drivers/>

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About Mouser Electronics

Mouser Electronics, a subsidiary of TTI, Inc., is part of Warren Buffett's Berkshire Hathaway family of companies. Mouser is an award-winning, authorized semiconductor and electronic component distributor, focused on the rapid introduction of new products and technologies to electronic design engineers and buyers. Mouser.com features more than 4 million products online from more than 500 manufacturers. Mouser publishes multiple catalogs per year providing designers with up-to-date data on the components now available for the next generation of electronic devices. Mouser ships globally to over 400,000 customers in 170 countries from its 492,000 sq. ft. state-of-the-art facility south of Dallas, Texas. For more information, visit <http://www.mouser.com>.

About Freescale Semiconductor

Freescale Semiconductor (NYSE:FSL) is a global leader in embedded processing solutions, providing industry leading products that are advancing the automotive, consumer, industrial and networking markets. From microprocessors and microcontrollers to sensors, analog integrated circuits and connectivity – their technologies are the foundation for the innovations that make the world greener, safer, healthier and more connected. Some of Freescale's key applications and end-markets include automotive safety, hybrid and all-electric vehicles, next generation wireless infrastructure, smart energy management, portable medical devices, consumer appliances and smart mobile devices. The company is based in Austin, Texas, and has design, research and development, manufacturing and sales operations around the world.

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