



L98GD8E

Flexible 8-channel MOSFET pre-driver for 48 V automotive systems



Fully configurable pre-driver designed to meet ISO21780, featuring advanced diagnostics and robust 48 V load driving for reliable automotive applications

Designed for 48 V automotive powernet applications, the pre-driver delivers reliable performance in demanding environments while supporting flexible control of independent high-side and low-side outputs, H-bridge motor applications, and pick-and-hold operation for small valves.

A high-speed SPI with daisy-chain capability simplifies system configuration and reduces MCU resource usage, while advanced diagnostics and adaptive overcurrent protection enhance monitoring, safety, and robustness.

Its flexible architecture helps customers improve efficiency and achieve safer, more effective load and MOSFET control.

KEY FEATURES

- AEC-Q100 qualified
- Absolute maximum rating up to 75 V for 48 V battery applications
- Operating supply voltage from 4.5 to 5.5 V
- All output controlled through parallel PWM inputs

MAIN BENEFITS

Comprehensive output diagnostics help detect faults early and improve system safety

- Current limiting protects the H-bridge during fault conditions, enhancing robustness

KEY APPLICATIONS

- Body control modules
- Engine management systems
- Air conditioning systems

A fully integrated ecosystem simplifies evaluation and speeds up development

A ready-to-use developer ecosystem includes the L98GD8E MOSFET pre-driver mounted on its evaluation board together with a user-friendly software package, enabling a simple and seamless development experience. The software package includes a graphical user interface for configuring and controlling the L98GD8E evaluation board via the SPC56M automotive microcontroller on the SPC56M-DIS Discovery+ board.

MULTIPLE BENEFITS FOR DESIGNERS AND ENGINEERS

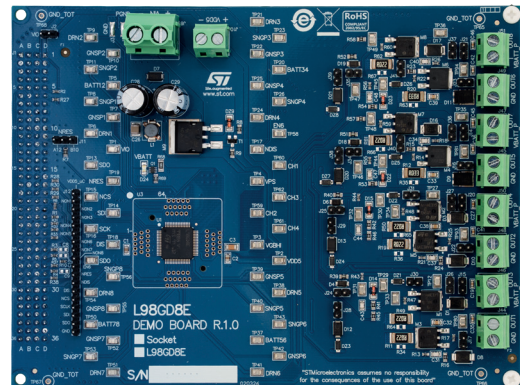
L98GD8E flexible 8-channel MOSFET pre-driver

Available in a compact 64-pin TQFP package with exposed pad, the L98GD8E enables efficient PCB integration and thermal performance in space-constrained automotive designs.



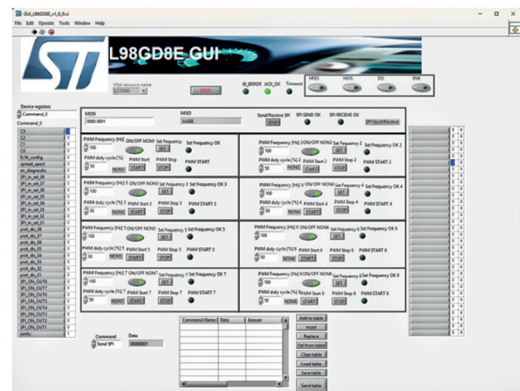
EVL-L98GD8E evaluation board

Designed for quick setup, the ready-to-use L98GD8E evaluation board enables easy testing of device functions and protection features across a range of applications.



STSW-L98GD8E software package

This user-friendly software package includes an intuitive GUI and control firmware for initializing and controlling the L98GD8E board, enabling SPI parameter changes, parallel PWM input management, and output monitoring. It also enables simple configuration and control via the SPC56M-DIS Discovery+ board.



Product	Package	Channels	Rating	Operating battery voltage (V)	Operating supply voltage (V)	Temperature range (°C)	Ready-to-use evaluation boards
L98GD8E	TQFP64 (with exposed pad down)	8 (configurable high/low sides)	Automotive	3.8 to 70	4.5 to 5.5	-40 to 150	EVL-L98GD8E



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