Features

- 8 current limiting high & low side drivers
- Input operation range V_{UX} 8V to 35V
- Two squib current modes (LCM and HCM) selectable via SPI commands
- Short circuit protection
- Simultaneously firing of 4 loops possible, or 8 loops at Ux < 25
- Firing limitation counter
- Squib channel diagnostics and monitoring
- Autarky voltage & squib supply voltage diagnostics
- Separate Low side and High side driver control
- Internal free running oscillator
- Test / select function for the drivers
- Serial interface (SPI synchronous communication) to µC (3.3V and 5V tolerant inputs)
- Power-On-Reset circuit

Applications

- Squib driver in a Restraint Diagnostic and control Module (RDM)

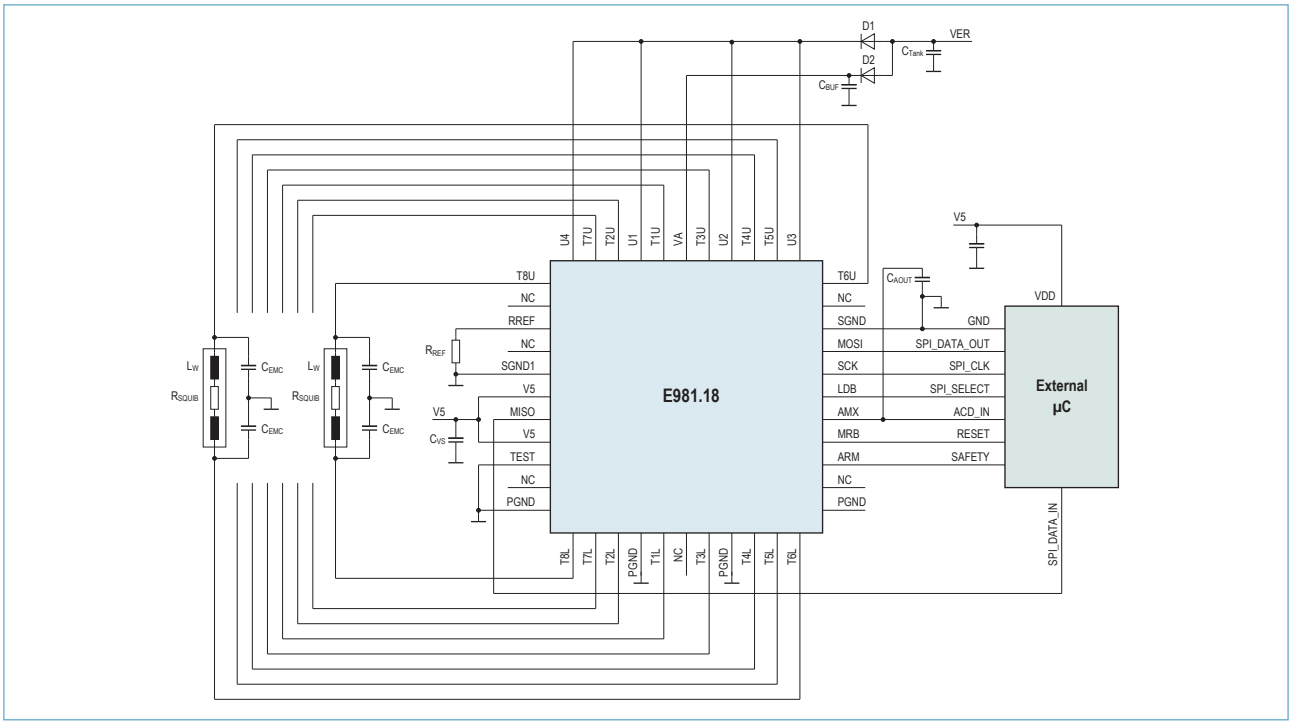
General Description

The Eight Channel Squib Driver ASSP E981.18 is designed specifically for automotive airbag applications. The IC provides individual control and diagnostics for 8 floating squibs. It has two sources of control, an arming sensor signal and a µC signal via the SPI bus. An active signal at the arming sensor input will activate all selected drivers, which have been enabled by the µC. During firing the squibs, the input voltage of the high side switch is limited to 25V for LCM and 35V in HCM by the system.

In order to limit the power dissipation of the driver stages, internal firing limitation counters (FTL) are implemented for each high side driver. Additionally an over voltage detection for all 8 LSD (VTxL) output voltages is provided to avoid a damage of the drivers in case of a short to battery during firing and during driver test in application.

Ordering Information

Product ID	Temp. Range	Package
E981.18	-40°C to +95°C	QFN44L7



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