TLE 7718/7738

8 Loop Airbag Deployment ASSP CrosSave™

THE TLE 7718/38 is intended to be used in an Automotive Restrain control module. The device allows individual control of up to eight squib devices in CrosSave™ standard configuration. It provides also a communication solution with a Master µC device (MCU) via a 16-Bit full duplex 8 MHz SPI interface. The IC is equipped with the required hardware to avoid or enable deployment as well as provide a full list of diagnostic functions.

Applications

- Automotive Restraint Applications

Features

- Eight independent squib channels with high-side and low-side switch
- Eight independent programmable deployment firing timer
- Digital inputs allow independent safing logic to prevent/enable deployment
- All digital I/O pins are 3.3 V and 5 V compatible
- 16-Bit full duplex 8 MHz SPI
- Multiplexed analog output for signal monitoring

Embedded Protection Functions

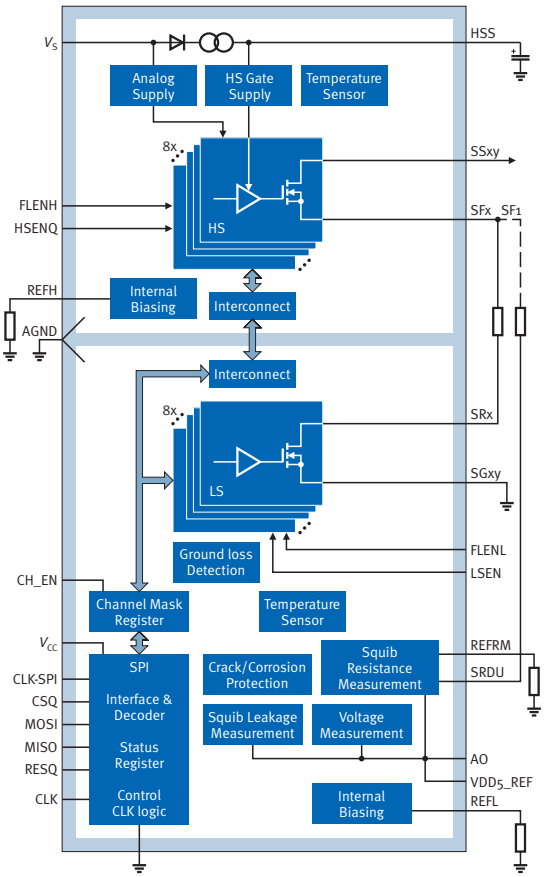
- 40 V capability of all device pins (except all Ground and Return pins)
- Thermal and short circuit protection for each switch
- Current limitation for each firing loop
- Average temperature measurement

Embedded Diagnostic Functions

- High accuracy squib resistance measurement
- Leakage detection to GND and Battery on feed and return pins
- Measurement of internal and external voltages
- Deployment Firing Timer check (DFT check)
- Switch Test of high-side and low-side driver
- High-side gate-driver supply test

Embedded Safing Functions

- Two different technologies in one package
- Hard coded firing current level
- Programmable (SPI) channel enable register
- Internal fault monitoring

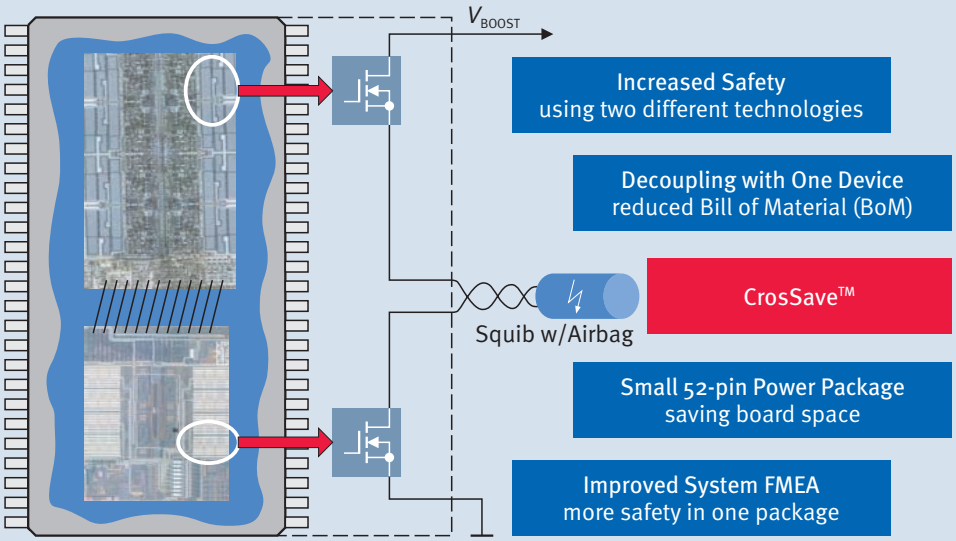


www.infineon.com/restraint-system-IC

Automotive Power

Never stop thinking

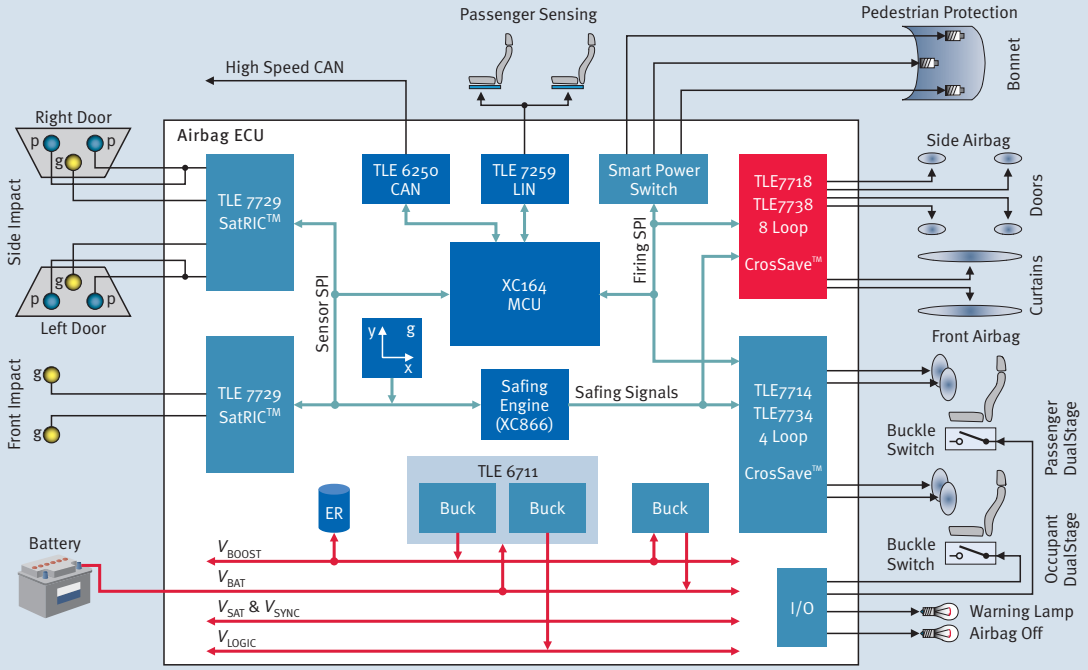
CrosSave™ – Safer with two Dies in one Package



Product Summary

Type	Sales Code	Description	Package
TLE 7718	Available upon request	8 Loop Firing IC (1.75 A @ 0.5 ms)	PG-DSO-52
TLE 7738	Available upon request	8 Loop Firing IC (1.2 A @ 2 ms)	PG-DSO-52

System Overview



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Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

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