



# Two-Channel Automotive LED Buck Driver

## ASL241ySHN

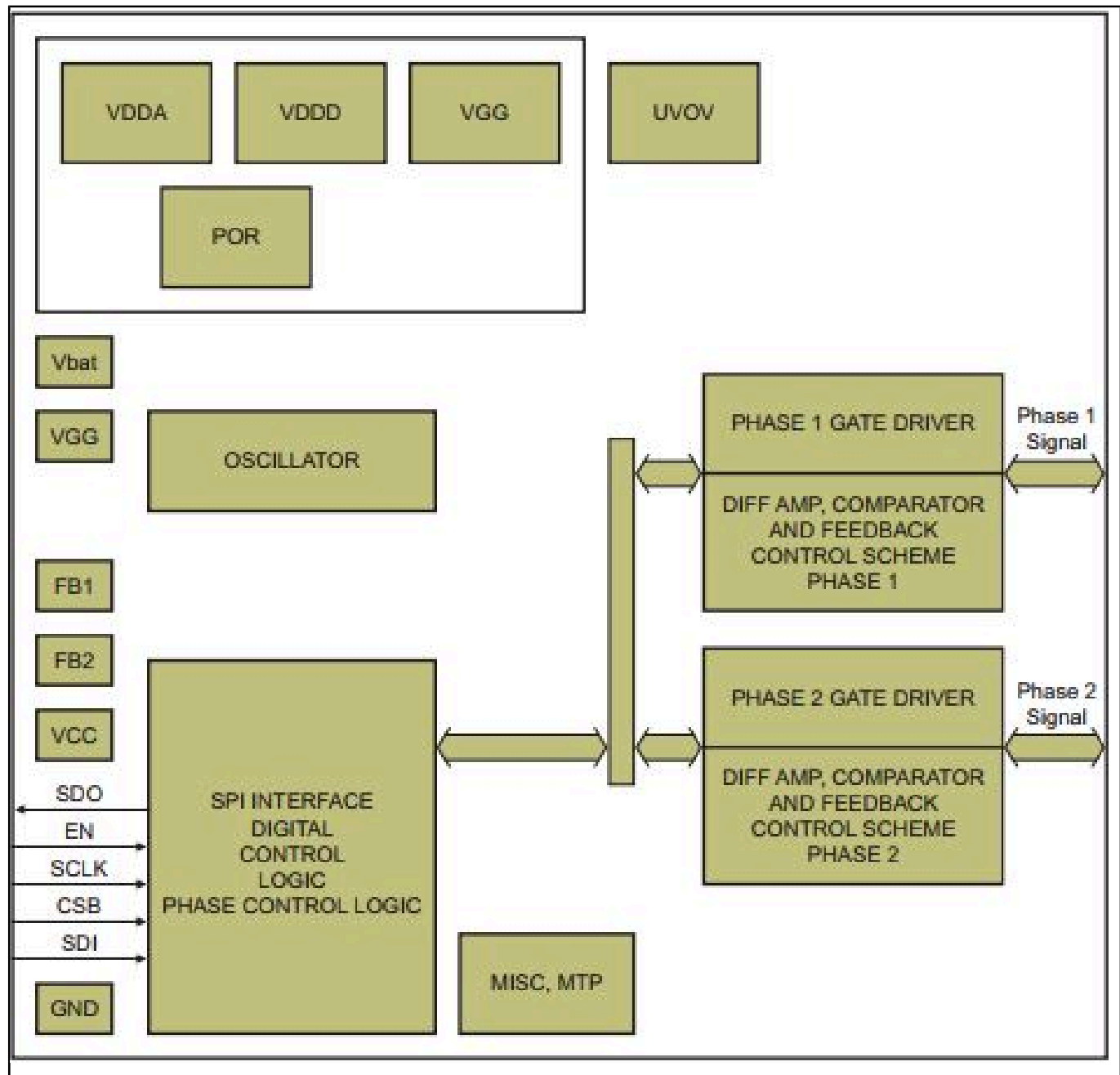
Last Updated: Dec 24, 2025

The ASL2416SHN is a two-channel buck mode LED driver IC delivering constant average DC current to LEDs independent of the input voltage. It provides an SPI interface for extensive control and diagnostics communication with an external microcontroller. It supports up to two output channels meaning that with one driver IC, 1 or 2 LED strings can be driven independently of each other. It provides a cost-effective design solution, specifically targeting automotive exterior lighting applications. Read more on the [\\$AUTOHREFLINK\[1510841700791722143939:C:ASL2416SHN Data sheet\]](#).

The ASL2417SHN is a two-channel buck mode LED driver IC with a Limp Home mode feature. It provides an SPI interface for extensive control and diagnostic communication with an external microcontroller and integrates a customer programmable Limp Home mode. The driver IC allows configurable operation during the Limp Home mode in case SPI communication with the microcontroller has failed. Once the loss of SPI communication is detected, the Limp Home mode gets activated. During Limp-home mode, the outputs of the IC are operating according to a pre-defined condition stored in a non-volatile memory (NVM) programmable by the customer at their end of line. Read more on the [\\$AUTOHREFLINK\[1510841923300734809133:C:ASL2417SHN Data sheet\]](#).

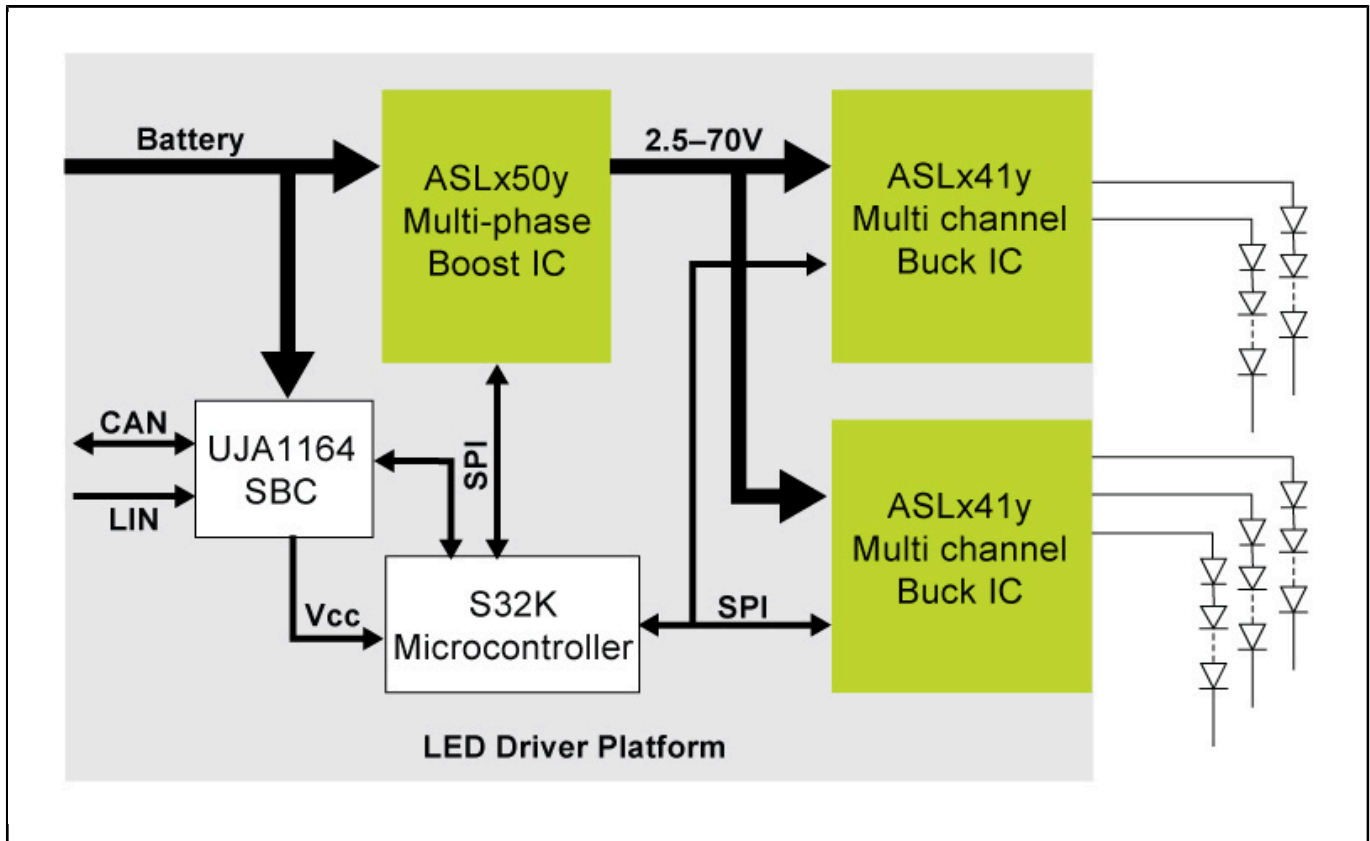


## Two-channel Automotive LED Buck Driver Block Diagram



## Led Lighting System Block Diagram Block Diagram





View additional information for [Two-Channel Automotive LED Buck Driver](#).

**Note:** The information on this document is subject to change without notice.

**www.nxp.com**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2025 NXP B.V.