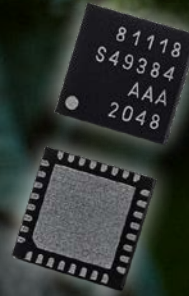


## MLX81118

## MULTI-CHANNEL LIN RGB LED DRIVER

## FOR AUTOMOTIVE AMBIENT LIGHTING



Chameleons are famous for their quick skin color-changing abilities. They change color in response to environmental changes. We therefore link these wonderful creatures to our LIN RGB products which enable changing ambient light according to the car driver's preference.

## MULTI-CHANNEL LIN RGB LED CONTROLLER ENABLES LIGHT ANIMATION CONTROLLED VIA LIN

Like the chameleon you can set the RGB LED to every possible color.

### MLX81118

The MLX81118 IC is a fully integrated low-end LIN slave for ambient light applications in automotive environments to drive via LIN bus RGB LEDs. It is suitable for bus systems according to LIN 2.x as well as SAE J2602. The MLX81118 offers 24 LED drivers enabling automotive light animation controlled via LIN. Additionally the MLX81118 support interdependent supply of the LED to reduce the power dissipation.

The combination of a physical layer LIN transceiver and a LIN protocol controller together with current-controlled outputs make it possible to develop in a short timeframe simple, but powerful and cost-efficient ambient light modules connected to LIN bus systems.

### KEY FEATURES

- ✓ 24 LED drivers with configurable current sources (up to 60 mA each)
- ✓ LIN protocol controller according to LIN 2.x and SAE J2602
- ✓ Single LIN Slave Node system
- ✓ Support for auto-addressing according to bus shunt method
- ✓ 16-bit MCU for extended LED control algorithm, color mixing and full diagnosis
  - Red/Green and Blue LED temperature compensation without additional external components
  - LEDs fully diagnosable (Short circuit, broken line, threshold monitor)
  - Storage of LED calibration data directly within LED driver
- ✓ Direct LED drive without additional external components
- ✓ 3 - 18 V supply voltage (40 V proof)
- ✓ Reduce LED power dissipation with an independent LED supply.
- ✓ Low standby current consumption of typ. 25  $\mu$ A (max 50  $\mu$ A) in sleep mode
- ✓ Automotive temperature range of -40  $^{\circ}$ C to 125  $^{\circ}$ C
- ✓ ASIL B classification
- ✓ AECQ-100 qualified
- ✓ QFN 5x5 RoHS package with wettable flanks, 32 pins

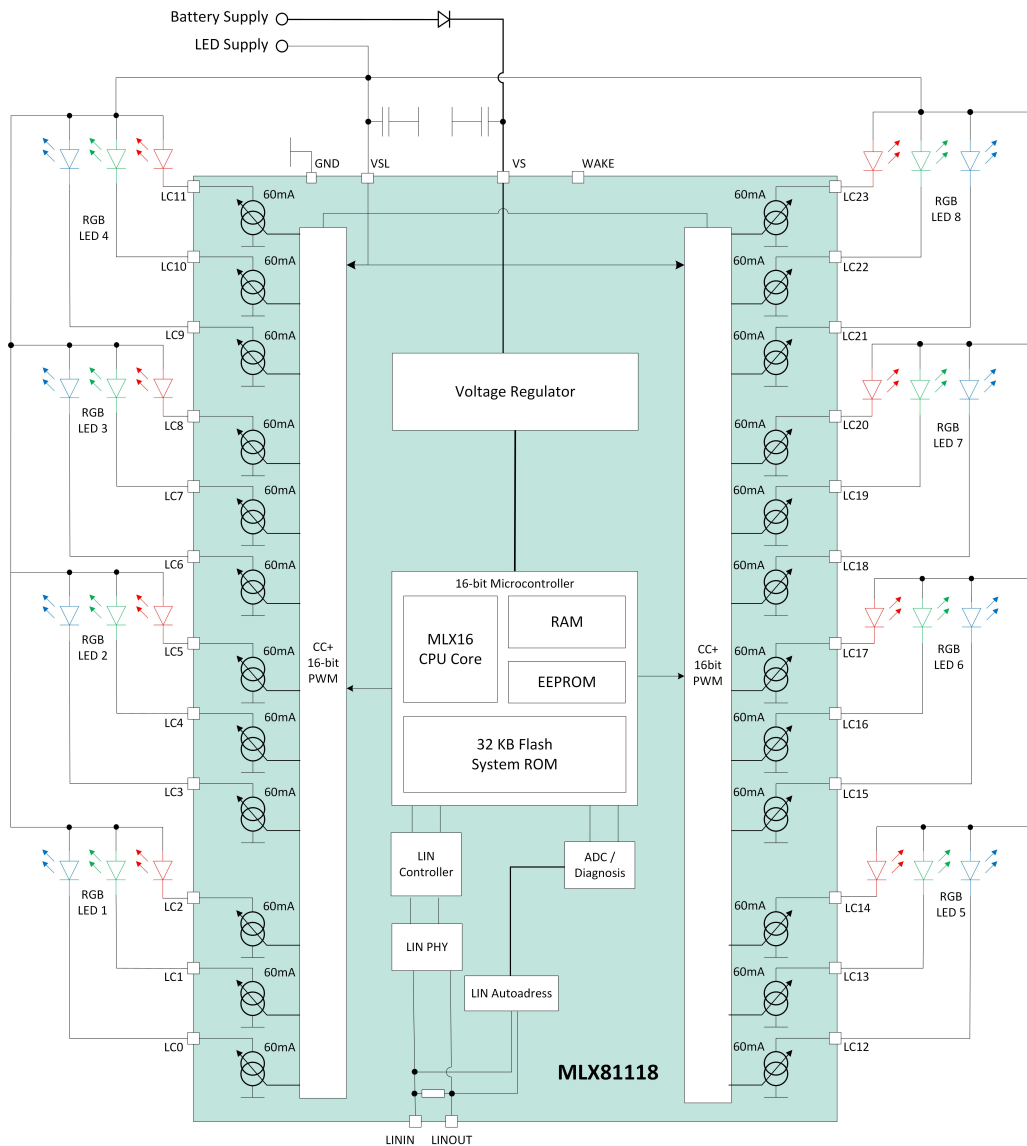


# KEY APPLICATIONS

- ✔ Ambient lighting
- ✔ Light animation controlled via LIN
- ✔ I2C sensor - interface
  
- ✔ Dashboard
- ✔ Door trim
- ✔ Charge control indication (EV)



# APPLICATION DIAGRAM



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