

MLX81106/08/12

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.

## SINGLE CHIP RGB LED CONTROL

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

### MLX81106/08/12

MLX81106/08/12 is a fully integrated LIN Slave IC for driving LIN RGB LEDs as well as other low end LIN slave applications in an automotive environment. It is suitable for bus systems according to LIN 2.x as well as SAE J2602. The combination of physical layer LIN transceiver and LIN protocol controller and microcontroller in combination with easy to use IO configurations makes it possible to develop in a short timeframe low BOM, but very powerful LIN RGB nodes.

### KEY FEATURES

- ✓ Application Controller
  - Internal RC-Oscillator
  - 16-bit MCU with Flash memory, RAM and 384B EEPROM with ECC
  - Co-processor for MUL and DIV operations
  - MLX81106: 24k Flash, 1k RAM
  - MLX81108: 32k Flash, 1k RAM
  - MLX81112: 32k Flash, 16k ROM, 2k RAM
- ✓ LIN Protocol Controller according to LIN 2.x and SAE J2602
  - Baud rate up to 19.2 kBaud
  - Frame processing
  - Low interrupt load to the application
- ✓ LIN Transceiver according to LIN 2.x and SAE J2602
  - Support for Autoconfig according to bus shunt method

## ✓ IO Configuration

- 4 programmable constant current (35mA)/high voltage capable IOs
- 16-bit current modulation outputs
- Interrupt capable Inputs
- 10-bit ADC with integrated pre-divider connected to all IOs
- Internal battery and reference voltage monitor
- LED color compensation as well as aging compensation

## ✓ Other Features

- Automotive temperature range of  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$
- MLX81106/8 – SOIC8 thermally enhanced package



## EASY APPLICATION CONFIGURATION

