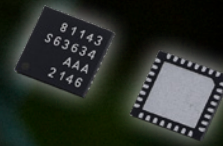


MLX81143

MULTI-CHANNEL (RGB)-LED DRIVER

**HIGH-SPEED
ANIMATED 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.

SMART MULTI-CHANNEL (RGB)-LED DRIVER ENABLES HIGH-SPEED LIGHT ANIMATIONS

The MLX81143 is a fully integrated smart automotive LED driver. With the high-speed robust communication MeLiBu® between multiple LED drivers, it enable highly animated light applications. All necessary components needed for LED driving as well as communication are integrated. It allows to develop powerful and cost-optimized animated light systems. For applications requiring RGB-LEDs, the embedded intelligence enable a very high accuracy of the needed color mixing. ASIL B grade applications are supported as well thanks to the MeLiBu® communication system.

KEY FEATURES

- ✓ MCU for extended LED control algorithm, color mixing and full diagnosis
- ✓ Red/Green and Blue LED temperature compensation without additional external components
- ✓ Color mixing accuracy of < 1% delta UV
- ✓ 16-bit color/intensity control
- ✓ Storage of individual LED calibration data
- ✓ Low side programmable calibrated current sources for LED control
- ✓ Direct LED drive without additional external components
- ✓ LEDs fully diagnosable (Short circuit, broken line, threshold monitor)
- ✓ Real-time update of > 800 RGB LEDs without delay
- ✓ MeLiBu® compatible communication interface
- ✓ 5.5 - 28 V supply voltage (40 V proof)
- ✓ Advanced power management for LEDs
- ✓ ASIL B classification
- ✓ QFN32 5x5 package, 32 pins
- ✓ 21 LED drivers

KEY APPLICATIONS

- ✓ Highly animated light modules
- ✓ Advanced driver communication by light
 - Voice command signal confirmation
 - Safety warning applications
 - Advanced navigation support
 - Blindspot warning
- ✓ Animated Rear Light and DRL

MeLiBu®
by Melexis

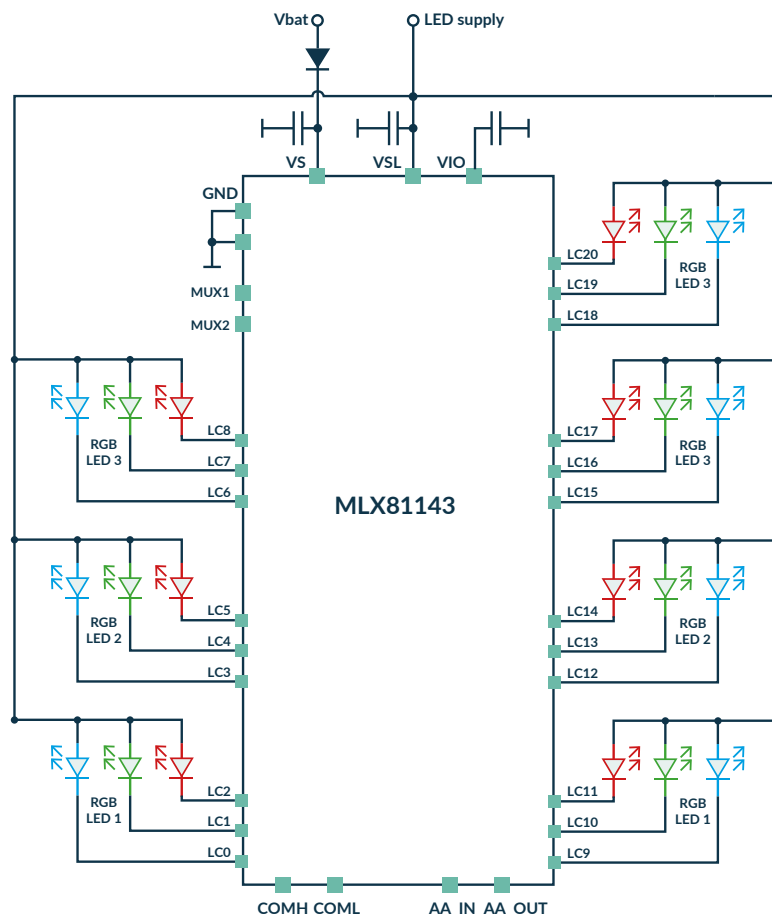
APPLICATION VISUAL



The MLX81143 enables (RGB-)LED dynamic contours and safety warning to communicate through smart lighting.

BLOCK DIAGRAM

MLX81143 - typical application for direct driver of 7 RGB LEDs



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