

UART over CAN RGB LIGHTING

Highly dynamic lighting animations

Melexis offers a range of smart, multi-channel RGB LED drivers featuring high-speed communication. These fully integrated solutions enable vibrant, high-speed light animations for automotive applications.



Key features

- ✓ Extended LED control algorithm, color mixing and full diagnosis
- ✓ Red/Green and Blue LED temperature compensation
- ✓ Color mixing accuracy of < 1% delta UV
- ✓ Storage of LED calibration data directly within LED driver
- ✓ Programmable calibrated current sources for LED control
- ✓ Direct and multiplex LED drive
- ✓ LEDs fully diagnosable
- ✓ High-speed differential bus system
- ✓ ASIL B compliant
- ✓ Compact QFN packages



Highlights

	Control	#Drivers	Extra
MLX81116	MCU	12	• codre-free variant
MLX81117	MCU	16	• independant LED supply
MLX81143	MCU	21	
MLX80142	State machine	6	• pinout supporting single layer



MeLiBu[®]
by Melexis

= UART protocol over CAN-FD PHY

CAN^{FD}

lin
LOCAL INTERCONNECT NETWORK

- High speed (up to 4 Mbit/s)
- EMC/ESD robustness
- Automotive proven PHY
- Enables light animation

- Simple protocol
- RGB lighting optimized
- Easy to integrate
- Enables low BOM

Real-time update of 3500 RGB LEDs without delay

Applications

www.melexis.com/MeLiBu

