

Features

- Integrated 16 bit microcontroller
- 32kByte OTP
- 128Byte customer usable non-volatile memory
- 1.25kByte RAM
- 16kByte SysROM containing standard LIN routines and boot loader
- 4 PWM generators with 48MHz and 16bit resolution
- 2 Timer with 16bit resolution
- ADC 12Bit / $f_s = 400\text{ksa/s}$
- JTAG debug interface usable as GPIO and/or analog input
- Hardware divider / multiplier
- LIN-Bus transceiver (V2.2a) with integrated slave node position detection (SNPD)
- LIN UART with automatic bit rate detection (accuracy < 0.15%)
- 3 high-precision current mode LED drivers with currents up to 40mA and fast slopes
- Full range voltage sense inputs
- Battery supply range 5V to 28V
- Full automotive qualification AEC-Q100
- Package SO8EP

General Description

The E521.36 is a one chip solution for RGB ambient light application. It provides an integrated 16-bit microcontroller with 32kByte memory, EEPROM, a LIN transceiver supporting LIN auto-addressing. The integrated current sources can be controlled by a 16bit PWM with a 48MHz clock. This enables PWM cycle frequencies up to 700Hz with full resolution. Each driver can be used to drive external loads with currents up to 40mA.

For power management and temperature compensation the device provides an integrated temperature sensor as well as an supply voltage sensing circuitry. Furthermore, with the ADC in the measurement system and the differential measurement of the forward voltage an effective compensation for ageing and temperature can be implemented.

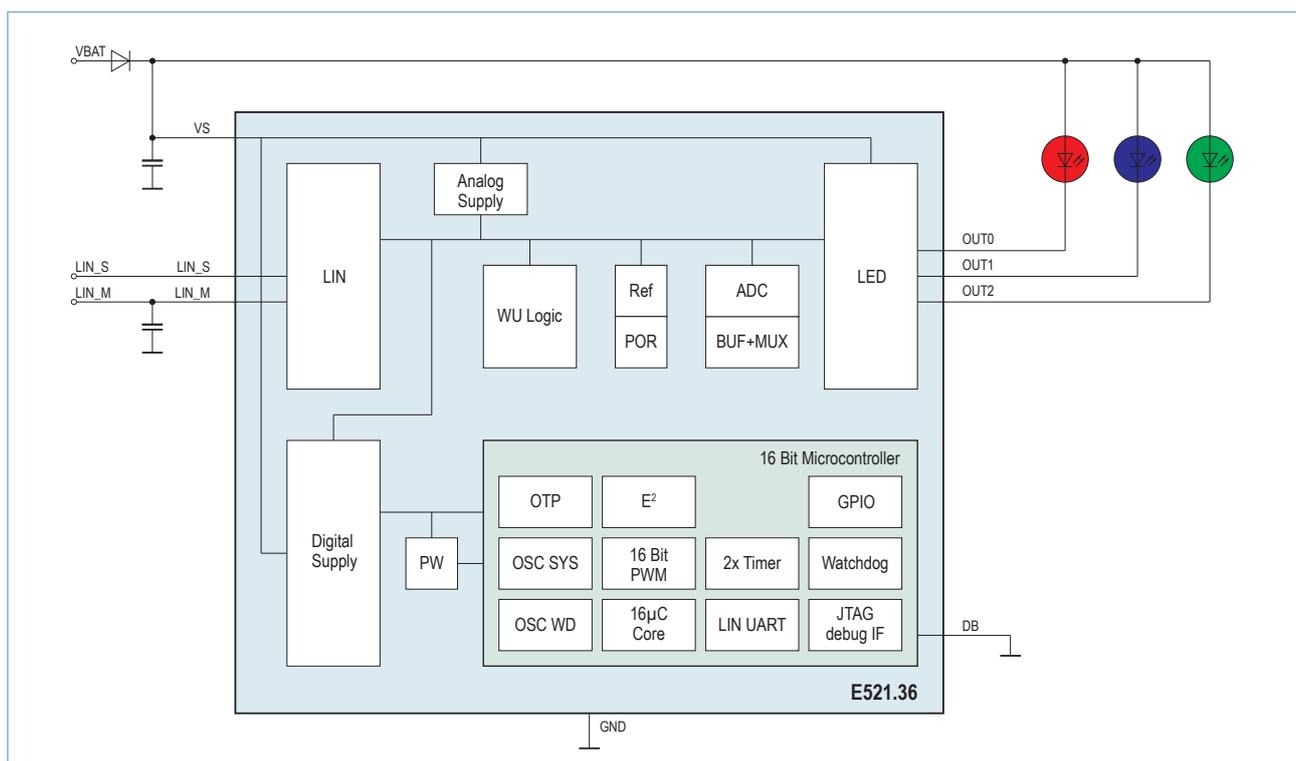
Ordering Information

Ordering-No.:	Temp Range	Package
E52136B80D	-40°C to +125°C	SO8EP

Applications

- Interior light modules

Typical Application Circuit



Elmos Semiconductor SE reserves the right to change the detail specifications as may be required to permit improvements in the design of its products.

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