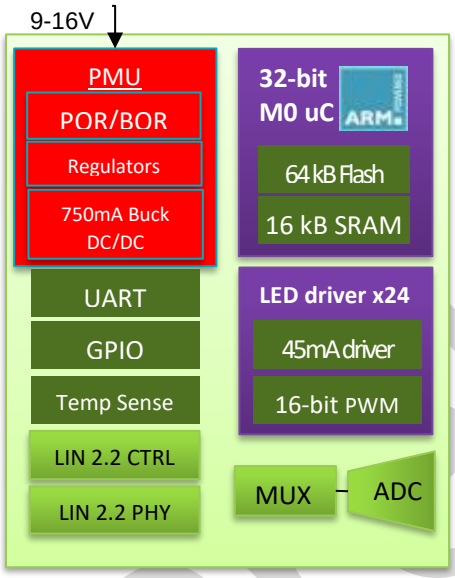
RuGBy G2 Features

- 24x LED drivers
- ARM M0 32-Bit MCU
- 64kB Flash / 16kB SRAM
- Integrated Buck converter and regulators
- Optimized for Automotive applications
- 24x 45mA configurable LED drivers
- 24x 16-bit PWM controllers
- 9 GPIOs
- 10-bit ADC
- UART Interface
- Dual LIN 2.2 J2602 interface



Recommended Applications

- Automotive interior lighting
- Consumer lighting products

iND83206 - "RuGBy G2"
24-way RGB(W) LED Driver IC with integrated Buck

Device Description

RuGBy G2 is an automotive LED lighting IC that combines a highly integrated 32-bit general purpose ARM Cortex M0 microcontroller together with everything necessary to implement an interior lighting system. The IC includes a flexible power management system, 24x 5V programmable-current, open-drain IOs with PWM, plus specific monitoring features and external interfaces. RuGBy G2 is designed to be connected directly to the automotive supply and can withstand 45V load dump from the car battery.

The iND83206 contains 64kB of Flash and 16kB of SRAM integrated on die.

The integrated power management unit implements a step-down buck converter and two associated capless regulators for on-chip regulation. The buck can supply sufficient current to allow the chip to power 8x RGB LEDs or 6x RGBW LEDs at up to 45mA current drive per LED diode with a maximum supported current load of 600mA. An integrated temperature sensor ensures the chip does not exceed its specifications.

RuGBy G2 contains up to 5 GPIOs , plus the 24x 5V open-drain IO used for driving the LEDs. There are two LIN version 2.2 slave transceivers and controllers, a half-duplex UART and an integrated 10-bit ADC for monitoring purposes. GPIOs are multiplexed with UART and other interface capabilities.

RuGBy G2 is packaged in a low cost, 6x6mm 48-pin QFN package and is suitable for applications from -40C to +85C.

Ordering Information

Device Name	Platform	Temp Range	Package	Pins
iND83206 RuGBy G2	Automotive	-40C to +85C	6x6 mm QFN	48 Pins @ 0.4 mm Pitch