



PCA9958 24-Bit 63 mA Current LED Driver with SPI

PCA9958HN

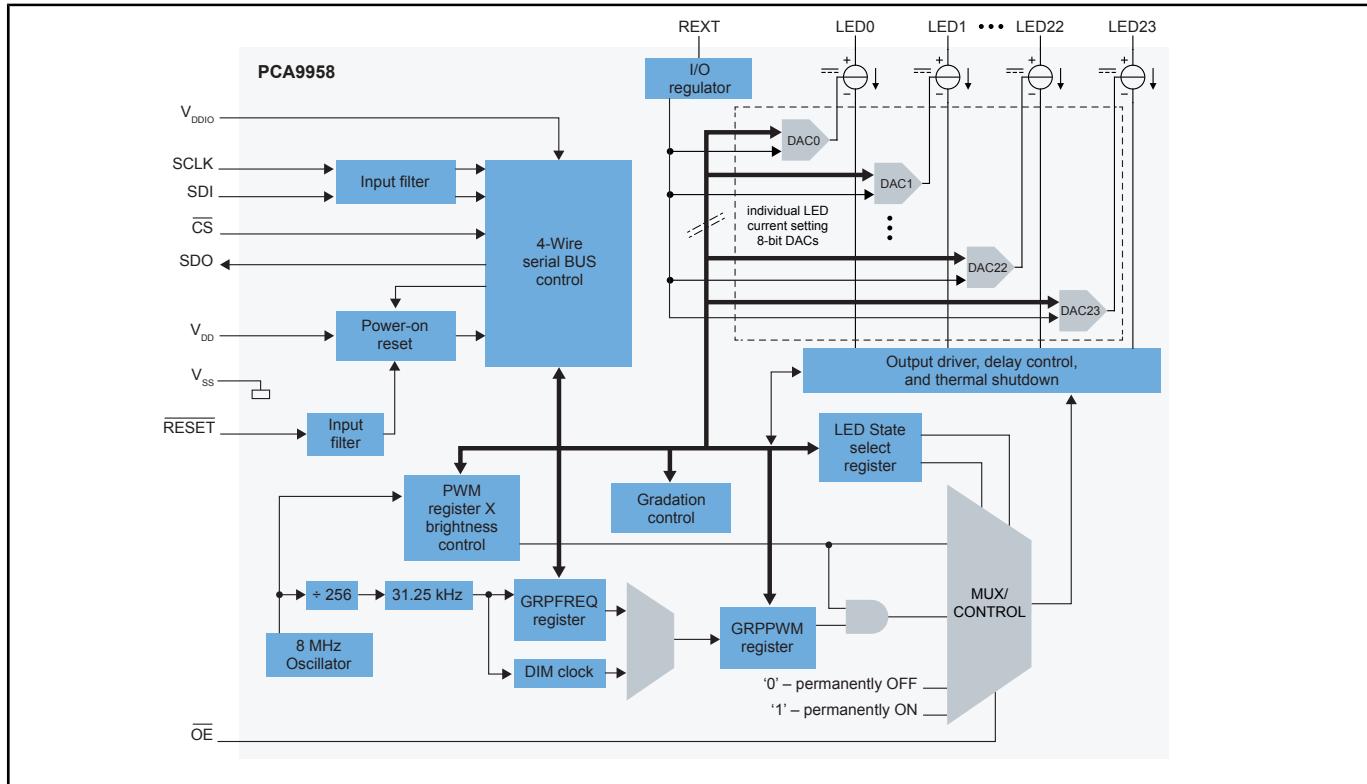
Last Updated: Dec 23, 2025

The PCA9958 is a 24-channel SPI serial bus 63 mA LED driver with a supply voltage range of 2.7 V to 5.5 V. This device is optimized for dimming and blinking RGBA LEDs.

Each LED has its own 8-bit resolution fixed frequency operating at 31.25 kHz with an adjustable duty cycle 0% - 100% for brightness control. Additional PWM controller has a fixed frequency of 122 Hz and adjustable frequency of 15 Hz duty cycle from 0% - 99.6% for dimming and blinking control.

Output peak current is adjustable with an 8-bit linear DAC from 250 μ A to 63.75 mA. The PCA9958 has open and short detection circuitry and thermal shutdown protection. This device has a 4-wire SPI bandwidth of 10 MHz to communicate with the local micro.

PCA9958 Block Diagram



[View additional information for PCA9958 24-Bit 63 mA Current LED Driver with SPI.](#)

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.