Programmable LED drivers enhance smart device lighting

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STMicroelectronics’ LED1202 12-channel low quiescent current LED driver offers 5V output driving capability to enhance lighting in smart home devices and wearables.

Each channel is able to provide up to 20 mA with a headroom voltage of only 350 mV (typical). The LED1202 drives four RGB LEDs at up to 20mA per channel with a supply range from 2.6V to 5V.

It can store eight programmable patterns and sequences in the internal registers for automatic sequencing without MCU intervention and saves power by working separately from the main controller. Color consistency is achieved via low-current channel matching.

The device offers 8-bit analog and 12-bit digital dimming control and can control LED arrays by connecting up to eight drivers.

An I²C interface works up to 400 kHz, and eight I²C addresses are possible using only two configuration pins (A0/A1).

Safety features include open-LED detection, over-temperature protection, and a fault-flag pin.

The LED1202JR is available in 1.71×2.16mm WLCSP-20 flip-chip for $0.90, and the LED1202QTR in 3×3mm VFQFPN-20 for $1.15 (1000 pieces).

LED1202 product page
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