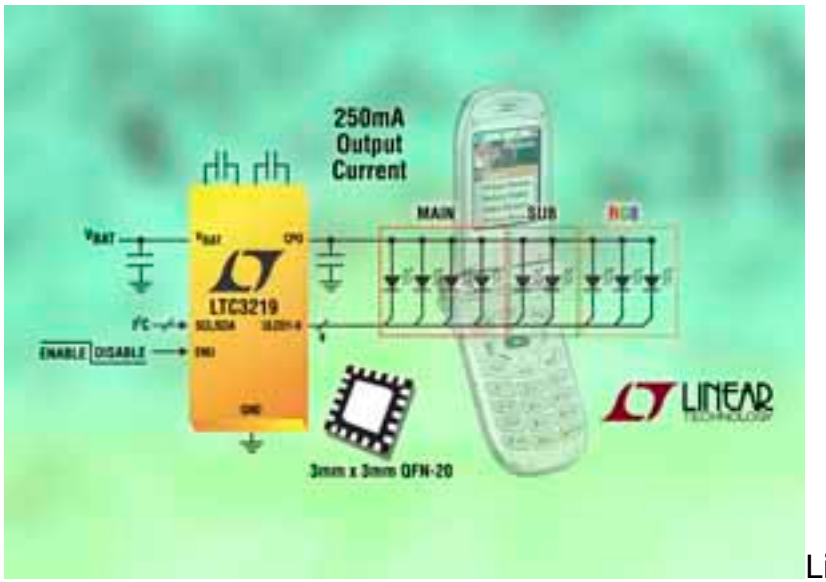
# 250 mA Universal Cell Phone LED Drives 9 LEDs With Low Noise




Linear Technology Corporation announces the LTC3219, an inductorless, low noise, high efficiency LED driver for cell phone displays and lighting. The IC provides nine individually configurable current sources for Main, Sub and RGB displays. Display currents are set via a precision internal current reference. The universal current sources can be digitally controlled with independent dimming, brightness, blinking, and gradation control, programmable via a simple two-wire $I^2C$ serial interface. The ICs 2.9V to 5.5V input voltage range has been optimized for single cell Li-Ion/Polymer battery applications. Efficiencies when driven from a Lithium battery (3.6V nominal) reach 91% with a quiescent current of only 400uA, maximizing battery run-time. Slew-rate limited switching reduces conducted and radiated noise (EMI). The device's multimode charge pump features low-noise constant-frequency operation, automatically optimizing efficiency based on the voltages across the LED current sources. The device powers up in 1x mode and automatically switches to boost mode (1.5x) when any enabled LED current source approaches dropout; a subsequent dropout switches the device into doubler (2x) mode. Internal circuitry prevents inrush current and excessive input noise during start-up and mode switching. In addition, the device has short circuit and thermal protection. It is available from stock in the low-profile (0.75 mm) 20-lead QFN (3 mm × 3 mm) package. The IC requires only five small capacitors for a tiny, complete LED power supply and current controller solution. Pricing starts at $1.80 each for 1,000-piece quantities.
Linear Technology Corporation
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Click here for more information:
http://www.linear.com/pc/productDetail.jsp?navId=H0,C1,C1003,C1094,C1767,P38516 [2]

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