# National Offers Complete White LED Driver System for Portable Devices With Displays and Keypads

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National Semiconductor Corporation today introduced a complete, low noise white LED driver system for wireless handsets and other portable devices that use a display and keypad.

The LM3570 provides three constant current sources for output up to 80mA total drive current, powering up to three white LEDs on the main display and a large number of LEDs for sub-displays. With its high-efficiency 3/2 boost function, the LM3570 extends battery life and reduces system battery requirements due to greater efficiency. Applications for the LM3570 include portable devices using white or blue LEDs with display or keypad backlight or frontlight, and one-cell Lithium-Ion battery-operated equipment including personal digital assistants (PDAs), handheld PCs and cellular phones.

Key Features:

-- 2.7V to 5.5V input voltage
-- Regulated Output Voltage (VOUT = 4.35V)
-- Regulated IDx with ±0.3% matching between constant current outputs
-- High efficiency 3/2 boost function
-- Drives one, two or three white LEDs with no bias resistor losses
-- Drives auxiliary keypad LEDs in voltage mode
-- Up to 80mA total output current
-- Active-high enable

-- Active-high Pulse Width Modulated control pin for independent control of current sources
-- Very small solution size
-- 1µA(max) shutdown current
-- 500 kHz switching frequency (typical)
-- Linear regulation generates predictable noise spectrum
-- Wide operating temperature: -40° C to 85° C

Packaging, Pricing and Availability

National's LM3570 is available now in a non-pullback 14-pin LLP® package and costs $1.40 in 1,000-unit quantities.