

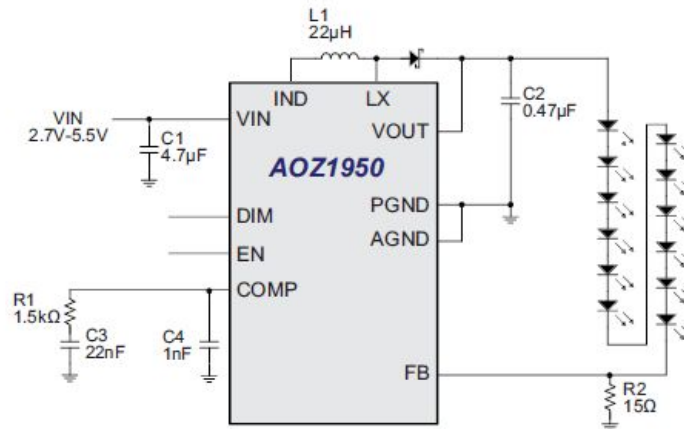
### Driver IC Lights Up to 12 White LEDs in Series

[Alpha & Omega Semiconductor \(AOS\)](#) has expanded its EZBoost family with the introduction of the company's first white LED backlight driver, the [AOZ1950](#). The AOZ1950 is optimized for backlighting of the latest portable devices using medium-sized LCD panels such as netbooks, portable media players, and portable navigation devices.

The AOZ1950 is a high-performance current-mode boost regulator that operates from an input range of 2.7 V to 5.5 V. Its integrated AOS Trench MOSFET boost switch allows the device to generate a regulated output voltage as high as 55 V with an input switch current of 750 mA. According to Alan Moore, marketing manager for AOS' Power IC products, the next closest, commercially available competitor among integrated boost regulators only produces an output of up to 44 V. For white LED driver applications requiring higher output voltages, customers are currently forced to use boost controllers together with external MOSFETs.

The high-voltage and low on-resistance boost switch allows the AOZ1950 to power up to 12 LEDs in series (see the figure.) In addition, the AOZ1950 integrates several system safety features. One feature that's considered unique to this driver is its "True Off" input protection switch, which disconnects the input supply to prevent input leakage current when the product is disabled. The IC also features protection against LED and output short circuits, plus output overvoltage protection, and cycle-by-cycle current limiting.

Available in a 10-pin 3-mm x 3-mm DFN package, the AOZ1950 is priced starting at \$1.20 in 1,000 piece quantities.



*Fig. Optimized for backlighting of portable devices containing medium-sized LCD panels, the AOZ1950 white LED backlight driver can drive up to 12 LEDs in series.*