

2 Channel White LED Driver with Internal-switch Buck Regulator

Features

- 4.5 V to 26 V Input Supply Voltage Range
- Step-down Regulator
 - . Voltage Mode Control
 - . Adjustable Switching Frequency
 - . Over Current Protection and Soft Start
- Dimming Control
 - . Wide PDIM Input Frequency: 100 Hz to 20 kHz
 - . Direct PWM Dimming Control
- Two Channel Current Source Drivers
 - . 3% Current Matching Between Channels
 - . Head Room Control to Maximize Efficiency
- 5 V LDO
- Protections
 - . Output Overvoltage Protection
 - . LED Open Circuit Protection
 - . Thermal Shut Down Protection

Applications

- Notebook LED Backlighting
- LCD Monitor LED Backlighting

Description

The SM21BLA is a high-efficiency white LED driver with internal-switch voltage mode step-down regulator. It drives two channels of LED array with 3% current regulation accuracy between channels. The step-down DC-DC converter provides the regulated supply voltage for LED driving. The SM21BLA features the headroom control which detects the lowest channel voltage and uses it to set the output voltage for higher efficiency. The switching frequency is programmable using an external resistor. The LDO provides the logic voltage for the system. The device is optimized for thin-film transistor (TFT) liquid crystal display (LCD) applications.

Device Information

Part	Package	Size
SM21BLA	20 QFN	4 mm x 4 mm

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