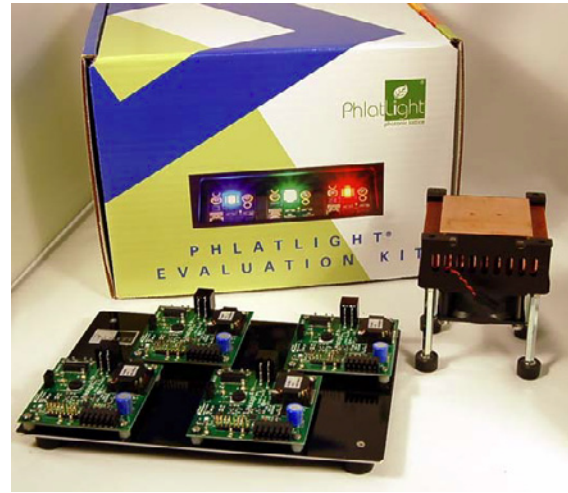


Big Chip LED™ Development Kit Brief

DK-414N Series



Overview

The DK-414N development kits for Big Chip products are comprehensive solutions designed specifically to allow for evaluation of products in minutes. The kits are a complete solution including high-current drivers optimized for each device and an efficient thermal management infrastructure to ensure the devices can be operated at their optimum point, whether it is for maximum brightness, maximum efficiency or somewhere inbetween.

This plug and play solution can easily be connected to standard laboratory equipment through standard connectors and allows system designers to save weeks in their development cycles.

Key Features

- DK-414N series kits are optimized for CBM-380-RGBW devices
- Capable of driving all colors simultaneously
- Driver board supply currents of 14A

Main Features

- Can be operated either in pulsed or continuous waveform (CW) modes
- Static current control via on board dial knob
- Pulse width modulation input supports pulsed mode operation with duty cycles ranging from 0% - 100%
- Optional dynamic current control by user-supplied external device
- Pulse frequencies greater than 40kHz supported
- Fast rise and fall times - less than 1 microsecond
- Fast current level switching - less than 5 microseconds
- Typical thermal resistance of 0.3°C/W from heat sink to ambient
- Grounded common anode configuration - no electrical isolation between multiple devices is required
- Driver circuitry based off of National LM3433 IC

Development Kit Contents

- 4 driver cards optimized for the device evaluated
- 1 high performance air-cooled heat sink
- Electrical wiring between driver and Big Chip devices
- Breakout cable for interface between LEDs, drivers and user supplied components
- Thermal interface materials and mounting hardware
- User manual including step-by-step instructions for set-up and operation of the kit

User equipment Required

- Standard 12V laboratory power supply
- Standard instrumentation - Volt meter, Oscilloscope
- Pulse generator for PWM dimming
- Optional dynamic current management solution

Note: Big Chip LED products are not included in the development kits and must be purchased separately.

Product Compatibility

Development Kit Part Number	Compatible Big Chip LEDs
DK-414N-4	CBM-380-RGBW

Ordering Information

Ordering Part Number	Product	Description
DK-414N-4	DK-414N Big Chip Development Kit, quadruple channel	Quadruple channel development kit, with 14A driver board, heat sink, cable assemblies and user manual

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