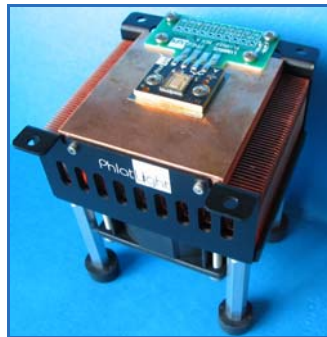


# PhlatLight® LED Development Kit Product Brief

## DK-136M Series and DK-125M Series

### Overview

The DK-136M and DK-125M development kits for PhlatLight 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 in-between. 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

- Compatibility with all CBT and PT series PhlatLight products
- DK-136M series kits are optimized for CBT-120 and PT-120 devices. DK-125M series kits are optimized for CBT-90 and PT-85 devices.
- Driver board supply currents of 36A with DK-136M series kits and 25A with DK-125M series kits.
- Available in a single channel or three channel versions



### 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 20% to 75%
- Optional dynamic current control by user-supplied external device. Interface allows drive currents ranging from 0 to Max  $I_f$ , controlled by 0-5V input voltage
- Frequencies up to 3kHz in pulsed mode
- Device and circuit parameters reading through test points, including:
  - Forward voltage,  $V_F$ .
  - Forward current,  $I_F$ .
  - Device temperature monitoring through thermistor.
- Typical thermal resistance of 0.3°C/W from heat sink to ambient
- Driver circuitry based off of Maxim MAX16818 IC

## Development Kit Contents

- 1 or 3 driver cards optimized for the device evaluated
- 1 or 3 air-cooled heat sinks.
- Electrical wiring between driver and PhlatLight devices
- 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 in CW mode.
- Optional dynamic current management solution

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

## Product Compatibility

Development Kit Part Number	Compatible PhlatLight LEDs
DK-125M-1, DK-125M-3	CBT-90 <sup>*</sup> , CST-90 <sup>*</sup> , CBT-120 <sup>†</sup> , PT-85 <sup>*</sup> , PT-120 <sup>†</sup>
DK-136M-1, DK-136M-3	CBT-90 <sup>†</sup> , CBT-120 <sup>*</sup> , PT-120 <sup>*</sup>

*Note \*:* Recommended product for optimal use

*Note †:* Product can be used, but not operated at optimal conditions

## Ordering Information

Ordering Part Number	Product	Description
DK-125M-1	DK-125M PhlatLight Development Kit, Single Channel	Single channel development kit, with 25A driver board, heat sink, cable assemblies and user manual
DK-125M-3	DK-125M PhlatLight Development Kit, Three Channels	Three channel development kit, with 25A driver board, heat sink, cable assemblies and user manual
DK-136M-1	DK-136M PhlatLight Development Kit, Single Channel	Single channel development kit, with 36A driver board, heat sink, cable assemblies and user manual
DK-136M-3	DK-136M PhlatLight Development Kit, Three Channels	Three channel development kit, with 36A driver board, heat sink, cable assemblies and user manual

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