

DATASHEET AND OPERATING GUIDE

WHS302 Heatsink

For Wxx Series Controllers



FEATURES AND BENEFITS

- Convenient and simple design

INCLUDED IN

- WEV300 Thermal Management Accessory Kit
- WEV301 Thermal Management Accessory Kit
- WEV302 Thermal Management Accessory Kit

GENERAL DESCRIPTION

The WHS302 is a high performance heatsink specifically designed to fit the Wxx style packages and is less than a half inch tall.

The heatsink will allow Wxx laser diode drivers and temperature controllers to operate at much higher power.

The fin configuration of the heatsink allows the unit to be mounted in almost any position without affecting heat dissipation. An optional fan (WXC303 or WXC304) may be installed on the heatsink for additional cooling.

USED WITH

- LDTCxx20 and LDTC2/2 Series Integrated Temperature and Laser Diode Controllers
- WHY5640 Temperature Controller & WHY5690 Evaluation Board
- WLD3343 Series Laser Diode Drivers & WLD3393 Evaluation Board
- WTC3243 Series Temperature Controllers & WTC3293 Evaluation Board
- WTCP5V5A Temperature Controller and WTCPEVAL Evaluation Board

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ORDERING INFORMATION

PART NO	DESCRIPTION
WHS302	Heatsink for use with Wxx Series controllers

SAFE OPERATING AREA

Some Wavelength modules require heatsinking when operated above a particular power level, and forced airflow over the heatsink may be required at greater powers. The on-line SOA tool will help you to understand when these conditions apply to your situation.



IT IS IMPERATIVE THAT YOU VERIFY THE UNIT WILL OPERATE WITHIN THE INTERNAL HEAT DISSIPATION SAFE OPERATING AREA (SOA).

OPERATING THE CONTROLLER OUTSIDE THE SOA MAY DAMAGE OR DESTROY THE MODULE AND/OR LOADS.

To determine if the module is suitable for your application, if it will be operating in the safe range, or if forced airflow is required, consult the instructions for calculating the Safe Operating Area on-line at:

Laser Diode Drivers:

www.teamwavelength.com/support/design-tools/soa-ld-calculator/

Temperature Controllers:

www.teamwavelength.com/support/design-tools/soa-tc-calculator/

If you have any questions about the Safe Operating Area calculator, call the factory for free and prompt technical assistance.

ASSEMBLY INSTRUCTIONS

Refer to **Figure 1**.

- Clean all mating surfaces on the electronics module and heatsink. It is important to remove particulates and foreign materials from the mating faces.
- Remove the protective plastic cover from both sides.
- Apply the adhesive side of the WTW002 Thermal Washer to the WHS302 Heatsink surface, aligning the thermal washer holes with the heatsink holes.
- Secure the WHS302 Heatsink and the WXC303/304 Fan (if used) to PDIP14 Package with two screws.

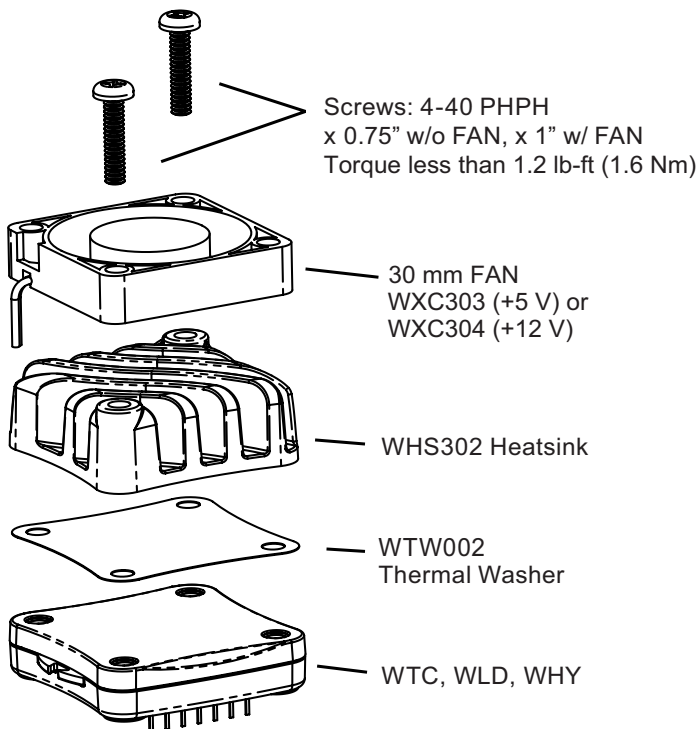


Figure 1. Exploded View of WEV Kit Assembly

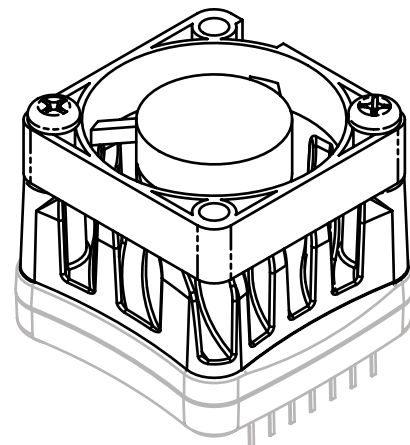
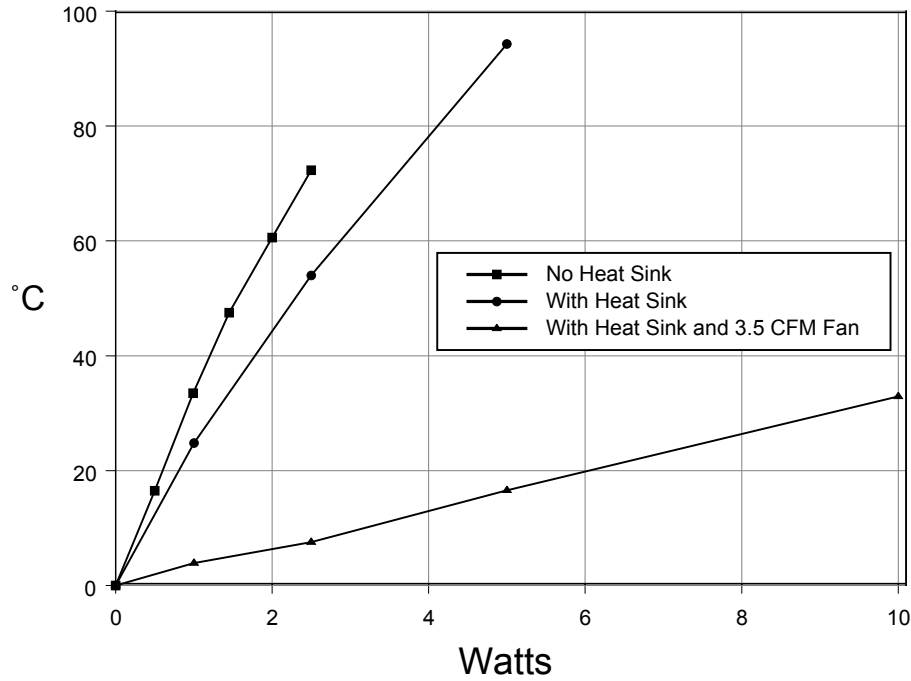


Figure 2. Composite Assembly

THERMAL PERFORMANCE

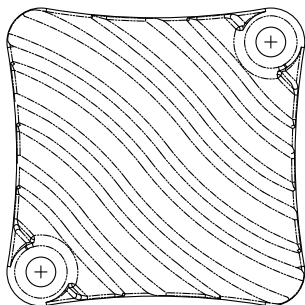
PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Heatspreader Temperature Rise	T _{AMBIENT} =25°C	28	30	33	°C / W
Heatspreader Temperature Rise	With WHS302 Heatsink, WTW002 Thermal Washer	18	21.5	25	°C / W
Heatspreader Temperature Rise	With WHS302 Heatsink, WTW002 Thermal Washer, and 3.5 CFM Fan	3.1	3.4	3.9	°C / W

Case Temperature Increase

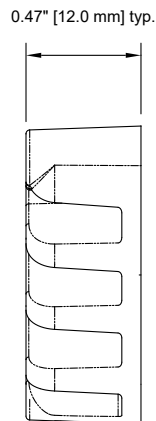


MECHANICAL SPECIFICATIONS

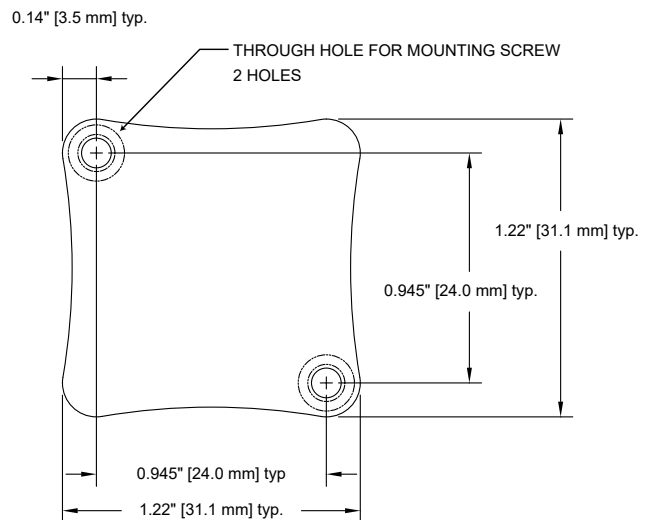
TOP VIEW



SIDE VIEW



BOTTOM VIEW



CERTIFICATION AND WARRANTY

CERTIFICATION

Wavelength Electronics, Inc. (Wavelength) certifies that this product met its published specifications at the time of shipment. Wavelength further certifies that its calibration measurements are traceable to the United States National Institute of Standards and Technology, to the extent allowed by that organization's calibration facilities, and to the calibration facilities of other International Standards Organization members.

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This Wavelength product is warranted against defects in materials and workmanship for a period of one (1) year from date of shipment. During the warranty period, Wavelength will, at its option, either repair or replace products which prove to be defective.

WARRANTY SERVICE

For warranty service or repair, this product must be returned to the factory. An RMA is required for products returned to Wavelength for warranty service. The Buyer shall prepay shipping charges to Wavelength and Wavelength shall pay shipping charges to return the product to the Buyer upon determination of defective materials or workmanship. However, the Buyer shall pay all shipping charges, duties, and taxes for products returned to Wavelength from another country.

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REVISION HISTORY

DOCUMENT NUMBER: WHS302-00400

REV.	DATE	CHANGE
C	October 2013	Extended Warranty
D	September 2018	Clarified through hole labels



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