3 HEAT SINKING RECOMMENDATIONS

The Color Tuning Module requires an external heat sink in order to ensure proper operating temperature of the LEDs. The CTM has a conductive aluminum case and an efficient thermal path to the LED array. These features promote efficient thermal management and allow for a simple heat sink design in most applications.

Examples of heat sinking methods are cast or extruded heat sinks. Both carbon and stainless steel are much less efficient at transferring heat than aluminum and therefore are not recommended as heat sink materials. The heat sink mounting surface should be flat and smooth. Metal-to-metal contact surfaces will result in best performance; anodized or unfinished mounting surfaces are recommended. Mounting the CTM on a painted aluminum surface will reduce the performance of the heat sink material.

3.1 Compatible Heat Sinks

The following tables list heat sinks models that have compatible form factors and thermal resistance characteristics for use with the CTM. The thermal resistances assume an approximate ambient temperature of 25°C. The heat sinks listed here are suggestions only.

MechaTronix (round)

Part Number	Dia. (mm)	Height (mm)	Thermal Resistance (°C/W)
LSB9950	99	50	1.3 – 1.5
LSB9980	99	80	1.2 – 1.4
Nano 7080	70	80	1.8
Micro 8630	86	30	1.8
Micro 8650	86	50	1.5
Micro 8680	86	80	1.2

IMPORTANT: These heat sinks are qualified in "free air". If the CTM is installed in an insulated can fixture (IC Can), the module may exceed the recommended operating temperature. The heat sink must be evaluated and temperature tested in the fixture at applicable ambient temperatures for the desired application.
Additional product information at www.led-heatsink.com

Aavid Thermalloy Heat Sink Extrusions (square/rectangular)

Part Number	Width (mm)	Length	Height (mm)	Thermal Resistance (°C/W)
67590	88	88	31	1.5 – 1.7
61085	136	85	33	1.4 – 1.6

Additional product information at www.aavid.com