

CMX Mechanical Parts

MiniPOD Heat Sinks

Rev. 23-Jan-2014

This notes describes the MiniPOD Heat Sink. This heat sink is about 38.1 mm by 28 mm in size and mounts on the lower skirt of the MiniPOD electro-optical module.

- There are 2 drawings that show the MiniPOD Heat Sinks:

m21_minipod_heat_sink_blank.pdf

m22_minipod_heat_sink_hole.pdf

in the following directory on the web.

<http://www.pa.msu.edu/hep/atlas/l1calo/cmx/hardware/>

[drawings/heat_sinks/](http://www.pa.msu.edu/hep/atlas/l1calo/cmx/hardware/drawings/heat_sinks/)

- The first drawing shows the "blank" piece of heat sink material from which each MiniPOD heat sink is made. These 28.0 mm long blanks can be cut from the bars of extruded stock material. This extruded bar stock is used at its supplied width of about 1.5" = 38.1 mm.
- The second drawing shows the fancy hole that needs to be cut in the center of the blank. This fancy holes allows the heat sink to fit down over the MiniPOD where it will be attached with thermo-epoxy to the lower skirt area of the MiniPOD's metal case.

In this drawing I have made an estimate at the required dimensions of this fancy hole to provide a nice tight fit to the MiniPOD case. It is very likely that some adjustment of these dimensions will be required to achieve a good fit.

- For the CMX project we need 55 of these MiniPOD Heat Sink.

- Please make just one of these MiniPOD heat sinks to begin with and let me test and verify it before producing the rest of them.

- As long as the center of the fancy hole is within about 10 mills of the center of the blank piece that will be fine.

- The account number for this work is: RC 101366

- Items supplied at this time:
 - A hand made approximate example of a MiniPOD heat sink.

 - Two 6 foot bars of stock heat sink extrusion.

 - A MiniPOD electro-optical device. Please do not remove either gray rubber optical cover or the white plastic electrical cover from this module.

- Please let me know if you have any questions about machining these parts. I'm happy to come to the M-Shop and go through the drawings.

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Thank you for making these MiniPOD heat sinks, Dan