VE2302 DEVELOPMENT KIT - FAN ASSEMBLY

January 5, 2025

Introduction:

Thank you for your interest in the Tria Versal AI Edge VE2302 Development Kit. The VE2302 Development Kit contains a fan and heatsink that requires assembly by the end user. This document is intended to show the end user how to appropriately assemble the fan and heatsink to the VE2302 Development Kit as well as how to install the mounting hole standoffs to support desktop utilization of the platform.

What's in the Box:

1) Fan
2) Heatsink
3) Thermal Gap Pad – 40mm x 40mm
4) Graphite Shim – 20mm x 20mm
5) M3 Pan Head Screw – 45mm - Quantity: 4
6) M3 Washers – Quantity: 8
7) M3 Unthreaded Standoff – 4mm – Quantity: 4
8) M3 Threaded Standoff – 5mm – Quantity: 4
9) M3 Threaded Standoff – 6mm – Quantity: 8
10) M3 Pan Head Screw – 6mm – Quantity: 4

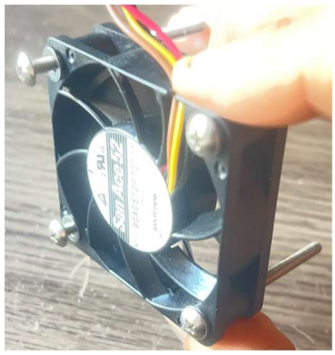
Tools Needed:

1) Small Phillips Head Screwdriver for driving Pan Head Screws

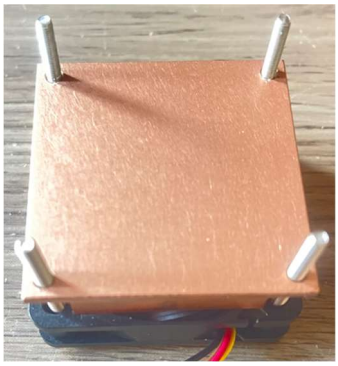
Assembly:

1) Place M3 Washers onto the M3 Pan Head Screws – 45mm.

2) Place M3 Pan Head Screws – 45mm (Quantity: 4) with M3 washers through each mounting hole on top of the fan.



3) Place the fan and screw combination upside down on workstation and install the heatsink on the M3 Pan Head Screw – 45mm (Quantity: 4) with fin side facing the fan and the flat side of the heatsink exposed.

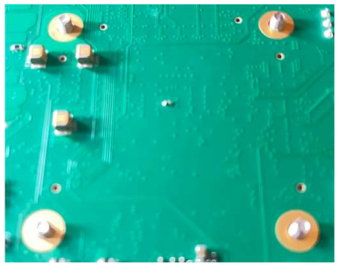


4) Place the M3 Unthreaded Standoff – 4mm (Quantity: 4) onto each of the exposed M3 Pan Head Screws so they seat against the flat side of the heatsink.

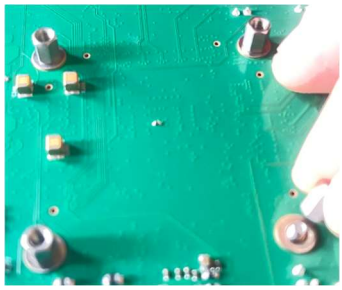
5) Place the Thermal Gap Pad – 40mm x 40mm onto the exposed flat side of the heatsink such that it sits between all 4 of the mounting holes / M3 Pan Head Screws. Approximate the location of the Graphite Shim (offset) and place onto the Thermal Gap Pad material. The Graphite Shim is utilized so that the Thermal Gap Pad does not bond to the case of the VE2302 device.

6) Place the VE2302 SOM onto the M3 Pan Head Screws taking care that the VE2302 device is aligned with the graphite shim. The VE2302 JX connectors should be visible to the end user. Thread each of the M3 Threaded Standoff – 5mm (Quantity: 4) onto the M3 Pan Head Screws so that the assembly will contain the VE2302 SOM secured in place with the heatsink and fan. The M3 Threaded Standoffs can be threaded to hand tight.

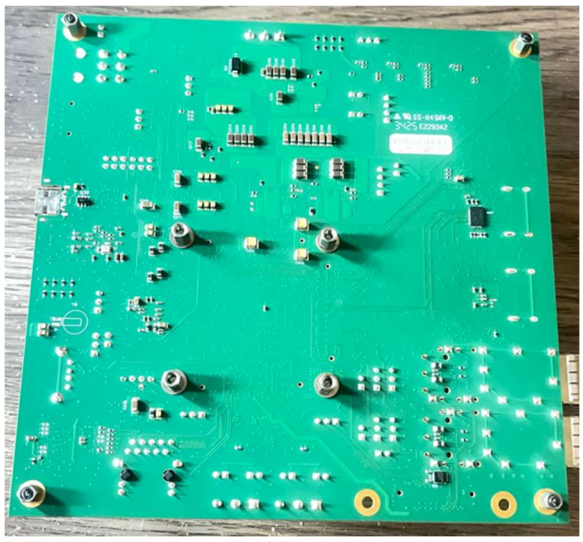
7) Carefully mount the VE2302 SOM fan / heatsink assembly to the VE2302 IOCC aligning all 3 JX connectors carefully. Do not apply pressure to the assembly/connectors without verifying the alignment. The M3 Pan Head Screws should help aid you in aligning the SOM onto the IOCC connectors. When aligned provide gentle pressure (with board in the air and not on table to avoid flexing the PCB) to mount the SOM assembly to the Carrier Card.



8) On the bottom side of the assembled VE2302 IOCC the end user will begin to secure the SOM assembly to the Carrier Card by turning the board over and installing the remaining M3 Washers onto the M3 Pan Head Screws on the bottom of the VE2302 IOCC. Then, you will thread M3 Threaded Standoff – 6mm (Quantity: 4) onto the M3 Pan Head Screws to complete the fan/heatsink assembly.



9) For desktop support, additional M3 Threaded Standoff – 6mm (Quantity: 4) are provided. Secure the M3 Threaded Standoff to the bottom of the VE2302 IOCC on the four corner mounting holes. The M3 Pan Head Screws – 6mm (Quantity: 4) will be installed through the top of the four corner mounting holes and attaching to the M3 Threaded Standoff – 6mm (Quantity: 4) on the bottom of the VE2302 IOCC.



10) To complete the installation, flip the board over so that it now sits on the installed standoffs. At this point you can plug in the fan connector to the fan header, J57, to finish the assembly.

Support:

For support, please review the discussions and post your questions in the VE2302 Development Kit Forum located here: http://avnet.me/ve2302-dk-forum

Alternatively, you can also reach out to your local Avnet Field Application Engineer (FAE) for support.

Revision History:

Date	Version	Revision
5-Jan-26	1.0	Initial Release