

Assembly Instructions

Created by Arik Landsman, last modified on Jul 28, 2023, viewed 39 times

There are two methods for assembly:

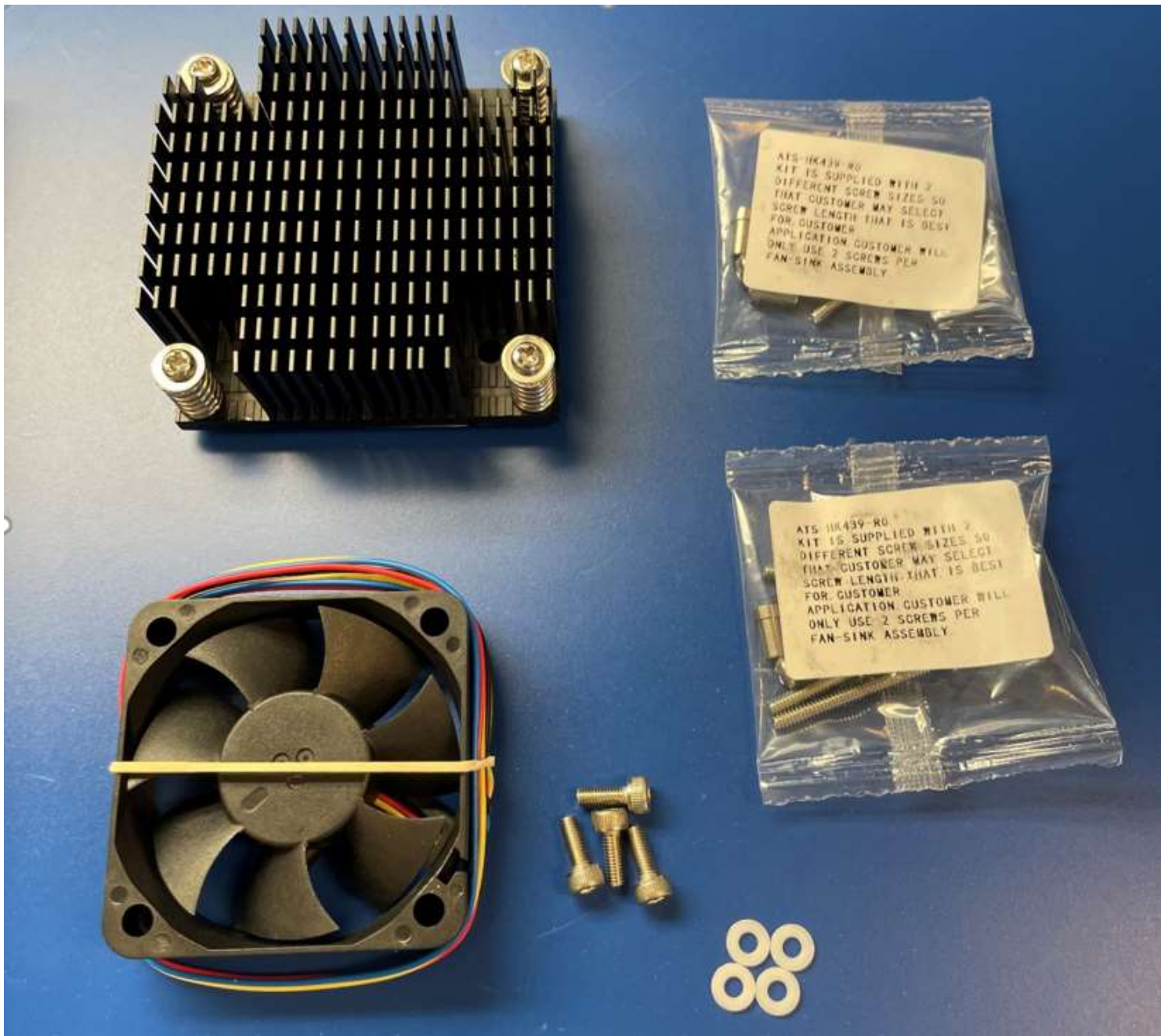
1. using PEM nuts on the PCB
2. using the native assembly method from the heatsink oem (Advanced Thermal Solutions, ATS)

The procedure on this page focuses on method #2. Method #2 is currently the preferred method for fanSink installation.

Assembly Steps

A. Required hardware:

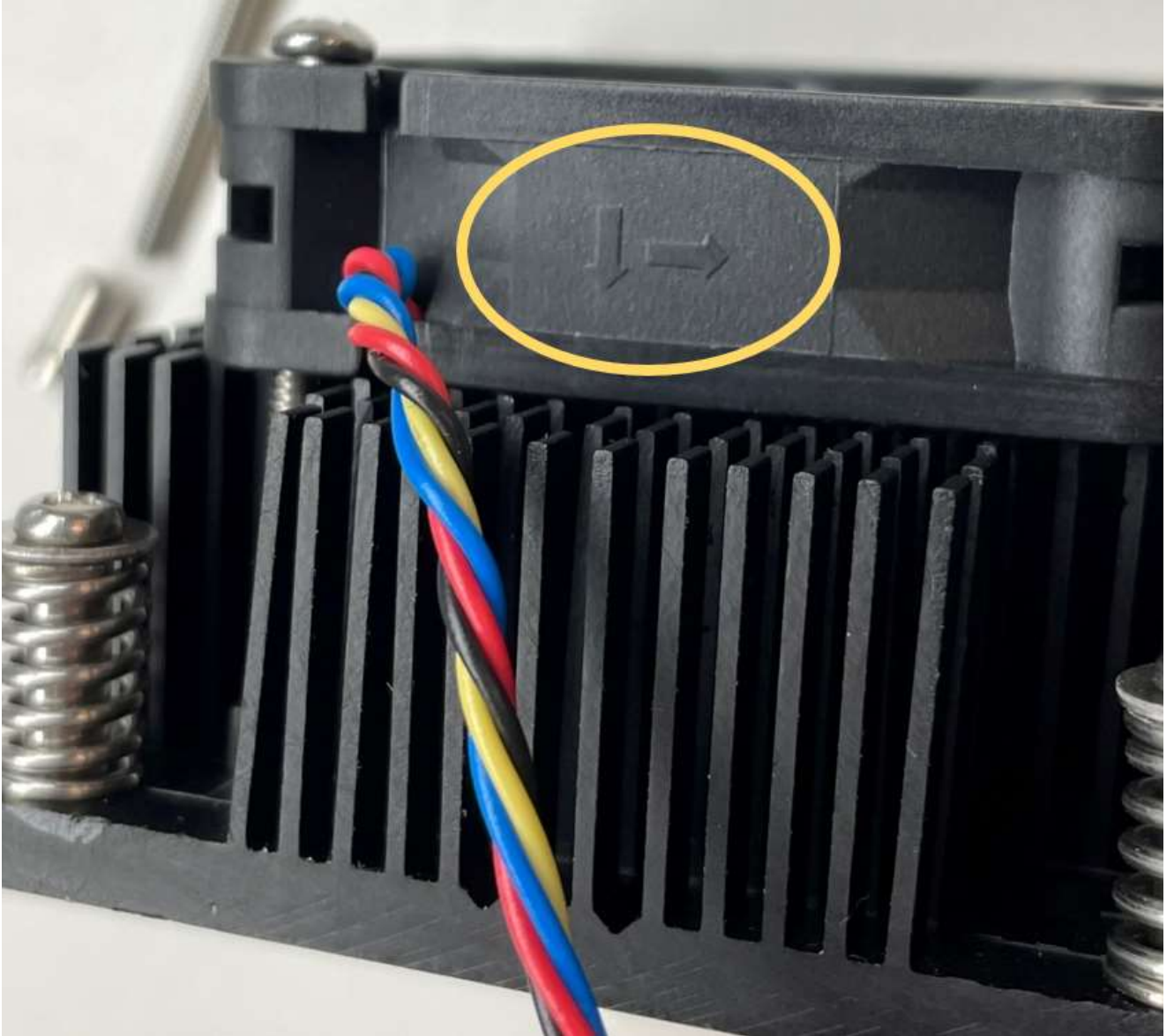
- ATS heatsink kit (includes mounting hardware for fan): **ATS-61600W-C2-R0** by ATS
- 50mm fan, either 15mm or 20mm, 12VDC. A good choice is **AUC0512DB** by Delta
- 4x nylon washers, #4 or similar diameter
- 4x M3.0, 6-8mm Philips screws. 6mm long are common and work well.



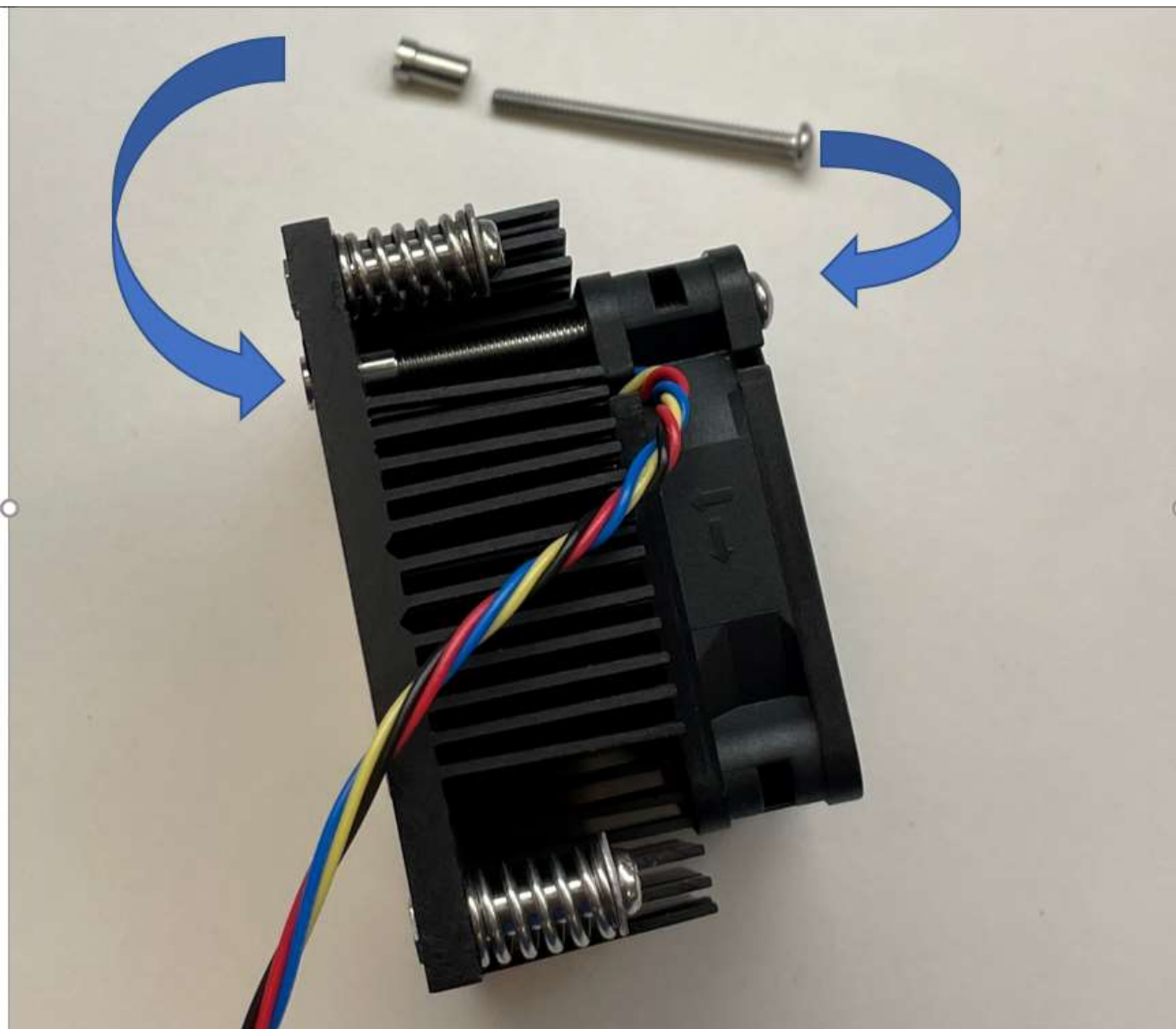
B. Fan assembly:

1. Remove 2x barrel nuts and 2x philips screws from the **two** plastic bags that are kitted from ATS. Use the two longer screws to install the fan. The shorter screws are not needed for this installation

- a. make sure the fan is at the correct orientation, with the arrow indicating air flow directions pointing down towards the heatsink:

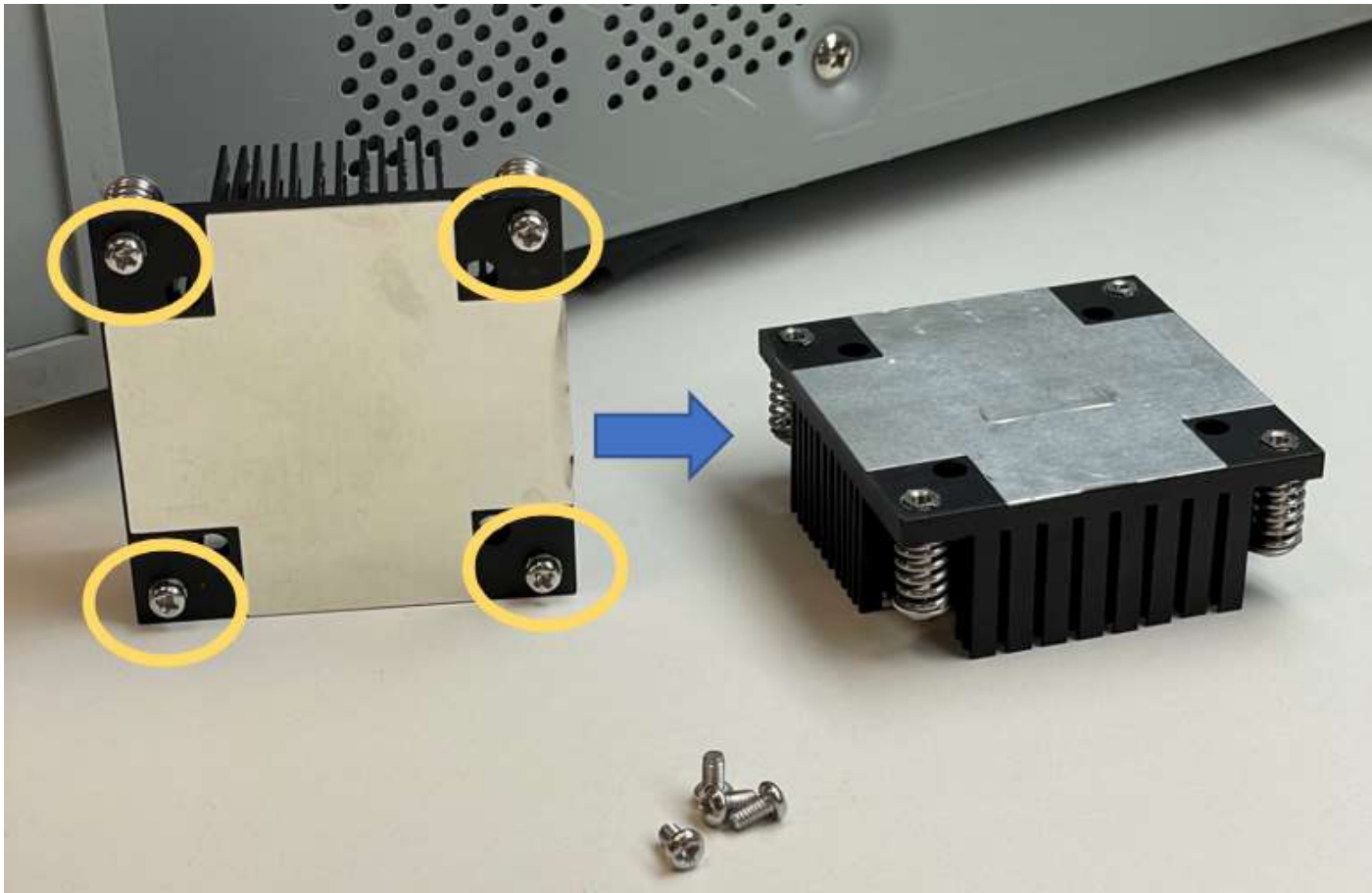


1. Attach the fan to the heatsink on all four corners using the 4x barrel nuts and 4x screws as shown below. Use a flat screwdriver for barrel nuts and a Philips screwdriver for the screws. *Do not overtighten:*
- a. **Required torque: 15 oz-in (0.9375 lb-in)**



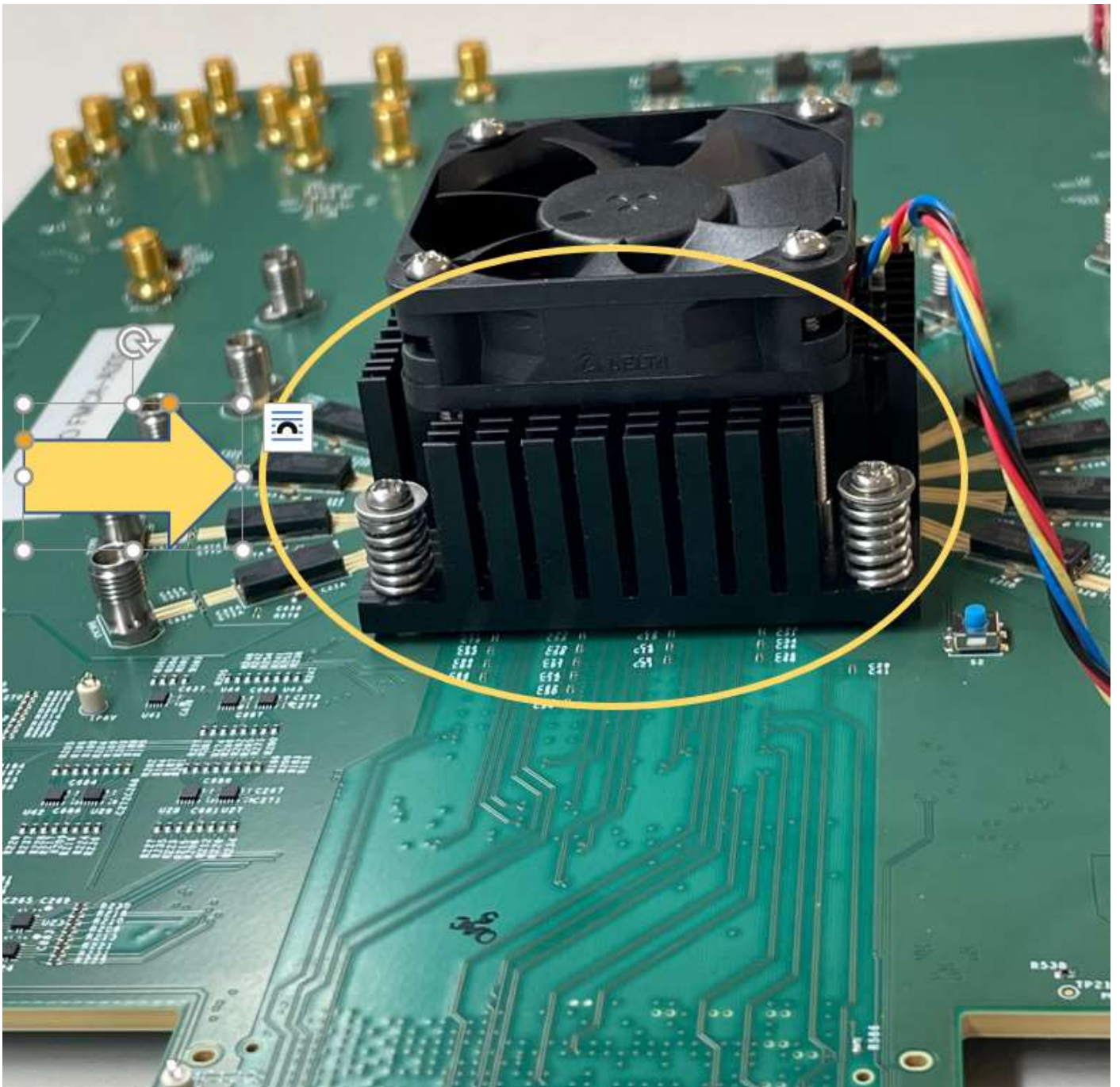
C. FanSink installation onto the FMCA:

1. Remove the 4x philips screws attached to the bottom of the heatsink body:

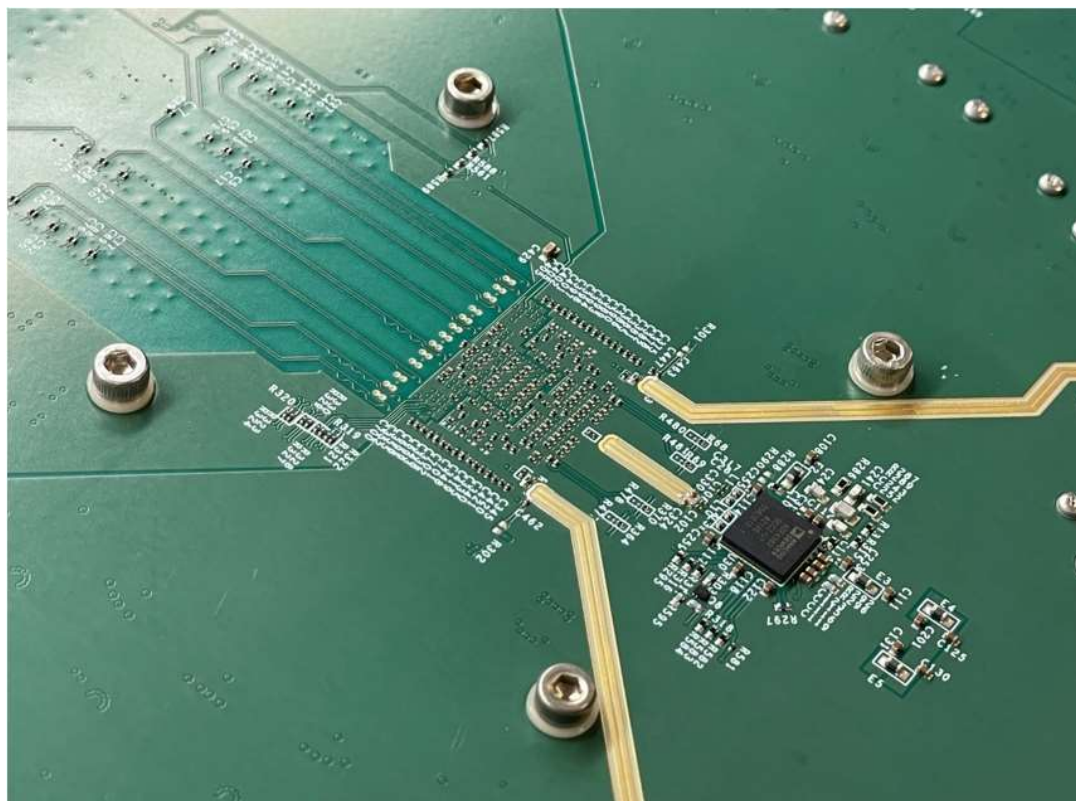


1. Install the fanSink onto the top of the DUT. Feed each of the 4x **M3.0, 6mm screws** through one **M3 nylon washer** and the bottom of the board, to mate with the heatsink at the top. **Follow the torque spec below.**

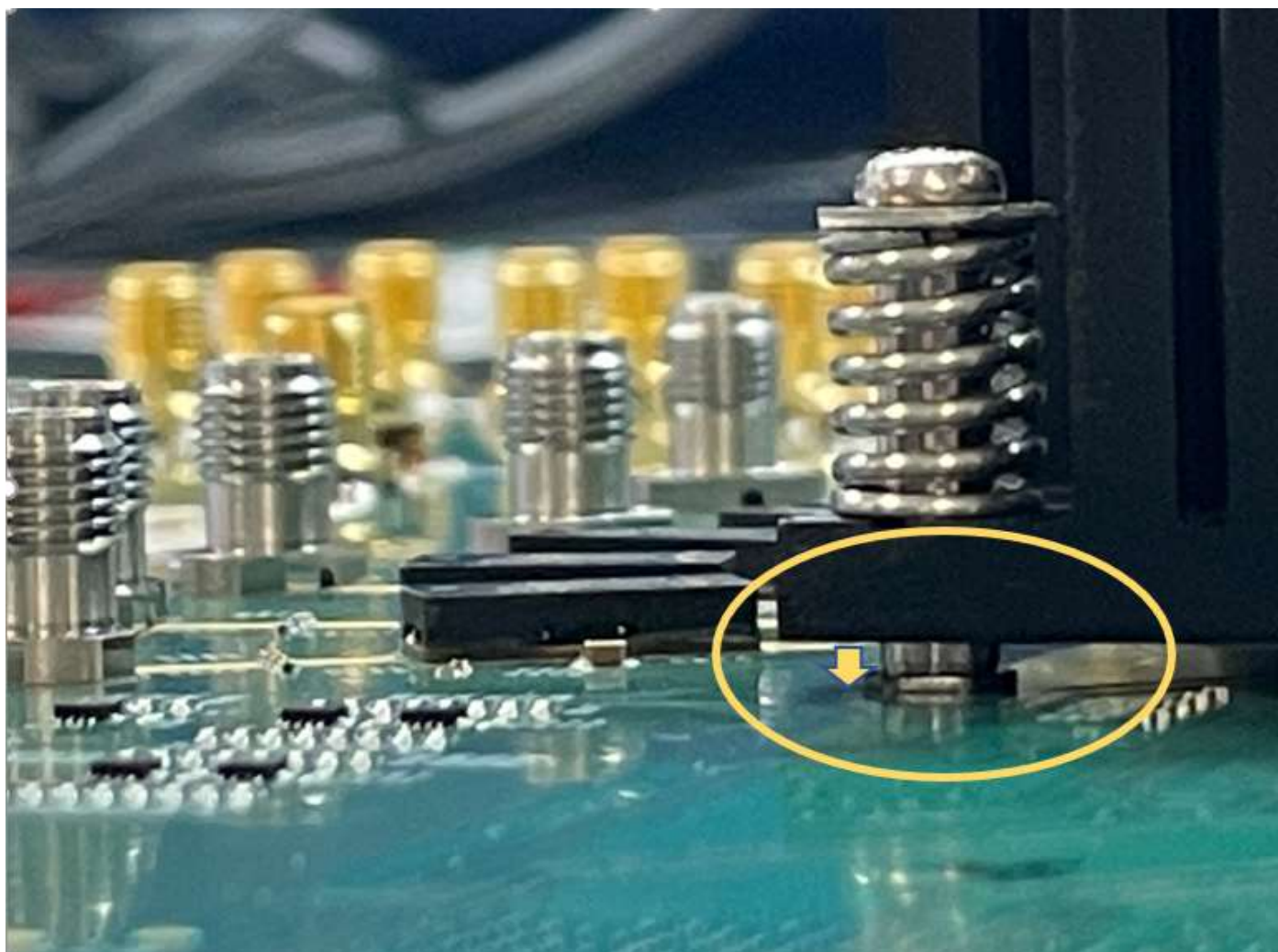
Note: be sure the heatsink fins are in the correct orientation as shown below (facing their flat side toward the FMC connector):



1. Bottom side view, showing 4x M3.0 screws and nylon washers. In this example an Allen screws were used, but a Philips head screws are the recommended alternative:
- a. **Recommended Torque: 25 oz-in (1.56 lb-in). Do not overtighten as it may damage the board.**



1. Close up of the board's Top side, showing the spring-loaded barrel nut that gets pulled toward to PCB as the screw is tightened, eventually contacting the PCB's surface after the screws are tightened to their target torque spec:



No labels