

To obtain more than 30W output power from the Ag5500 an appropriate level of thermal management must be used.

The Ag5500 has four mounting holes which can be used to connect the module to a heatsink, such as an Aavid Thermalloy heatsink 241204B91200G (as shown in Figure 1).

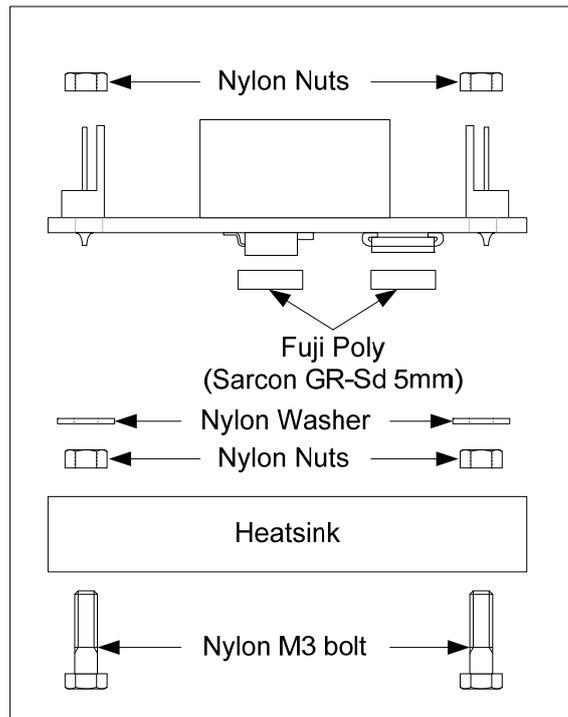


Figure 1: Assembly to heatsink

The Fuji Poly Sarcon GR-Sd 5mm pads (or equivalent) are fitted to D2, D4, Q6 and Q7, to draw heat away from the module and into the heatsink.

It is also important that an insulating film is attached to the heatsink below the input and output connectors. This is required to ensure the isolation barrier is maintained.

There are brackets available that can be used to mount the Aavid Thermalloy heatsink to the enclosure or PCB: -

E.g. Keystone Electronics Corp. - Cat. No. 633 or 615

<http://www.keyelco.com/products/specs/spec36.asp>

Using a similar method to that of attaching the Ag5500 to a heatsink, the module can be connected directly to the external wall of an enclosure. This has the added advantage of allowing the heat to be passed to the outside through the enclosure wall, see Figure 2.

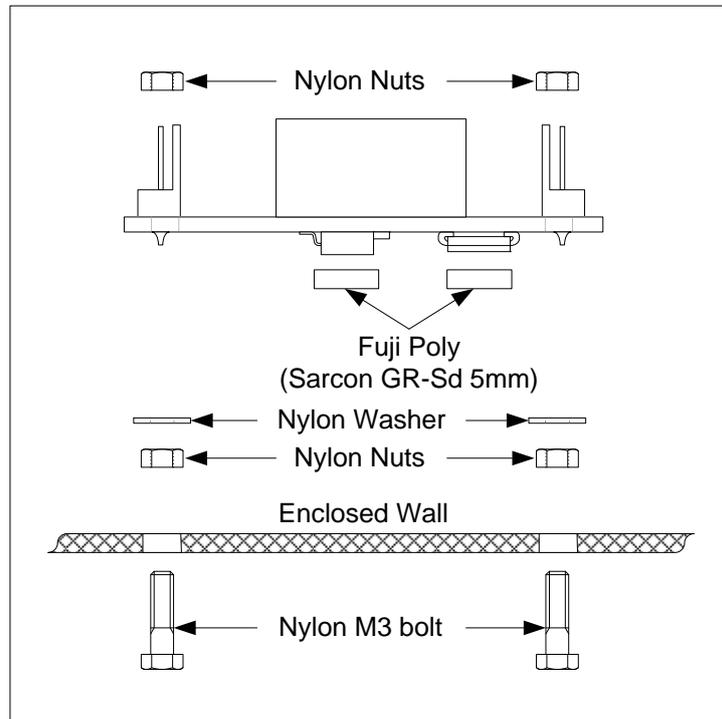


Figure 2: Assembly to enclosure wall

Once again it is important that an insulating film is attached to the enclosure wall below the input and output connectors. This is required to ensure the isolation barrier is maintained.

Another method of thermal management is to force air over the module. This helps to remove and distribute the heat, even within a sealed enclosure, see Figure 2.

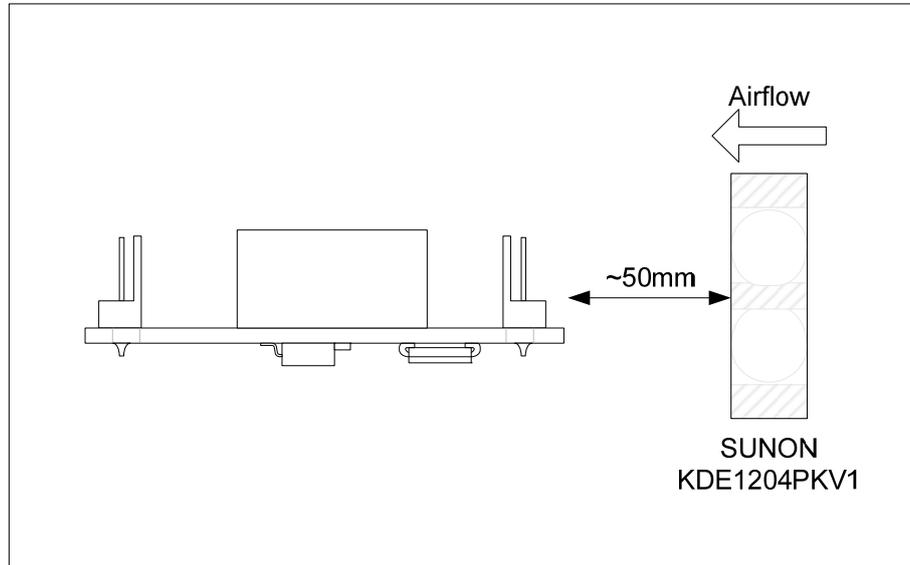


Figure 3: Forced air cooling

The example shown in Figure 3 uses a SUNON KDE1204PKV1 (40mm x 40mm x 20mm) fan, with airflow of ~2.46 m/s (~480 ft/min).

With this fan it is possible to run the Ag5500 at full output power (60W) in a sealed enclosure, providing the internal ambient does not exceed 70°C.