Rev. 1.0

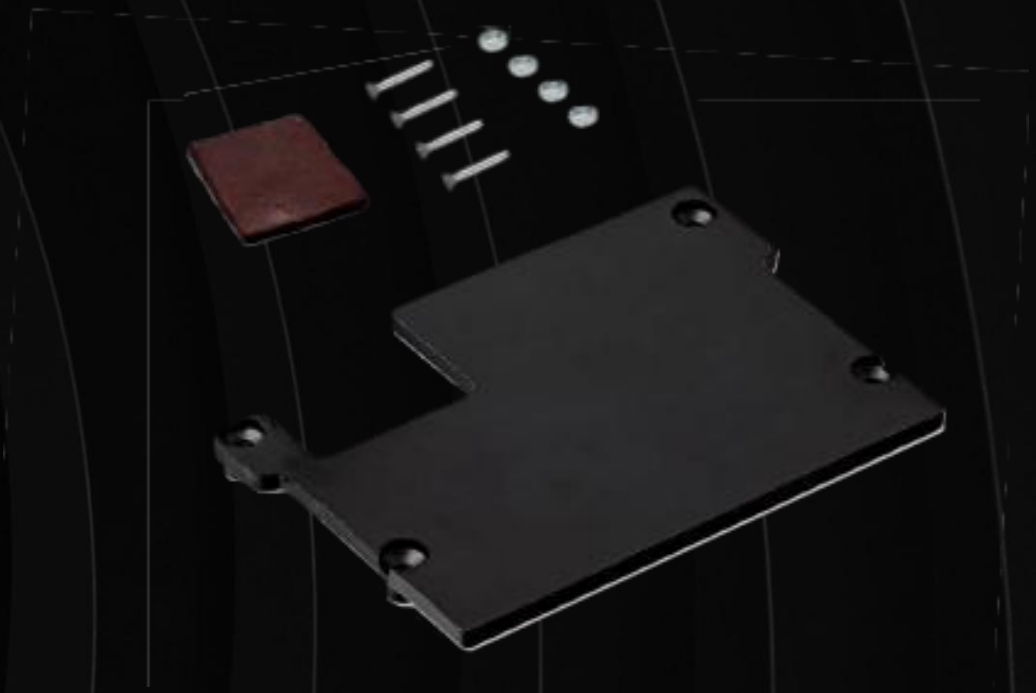
VARISCITE LTD.

# VAR-SOM-MX6 HEAT PLATE KIT

Variscite PN:

VHP-MX6-Q/D-IT: for Quad/Dual IT grade

VHP-MX6: for all other

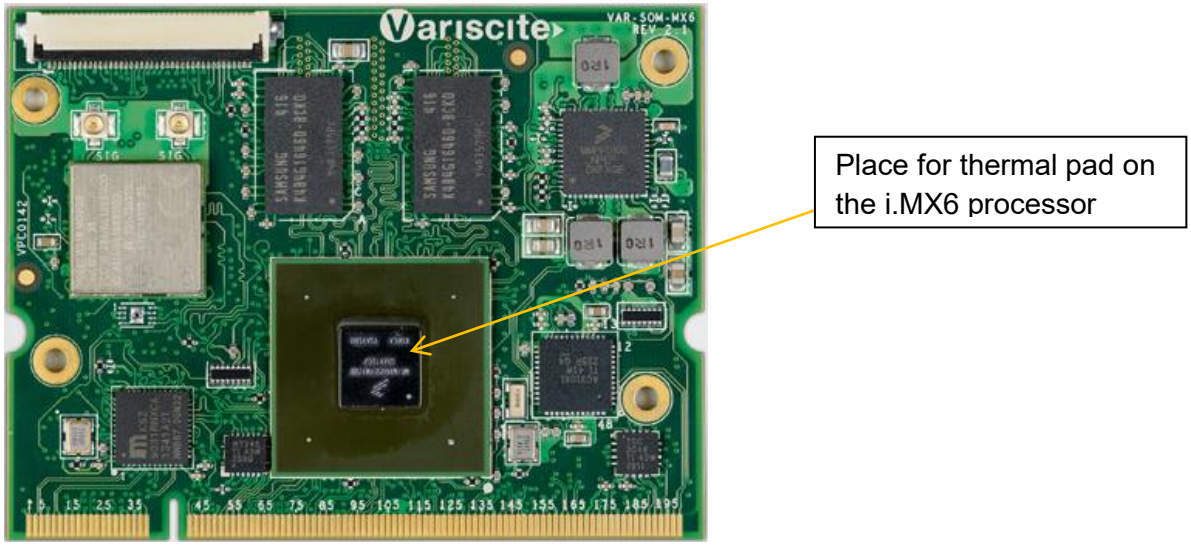


# 1. Heat plate kit content

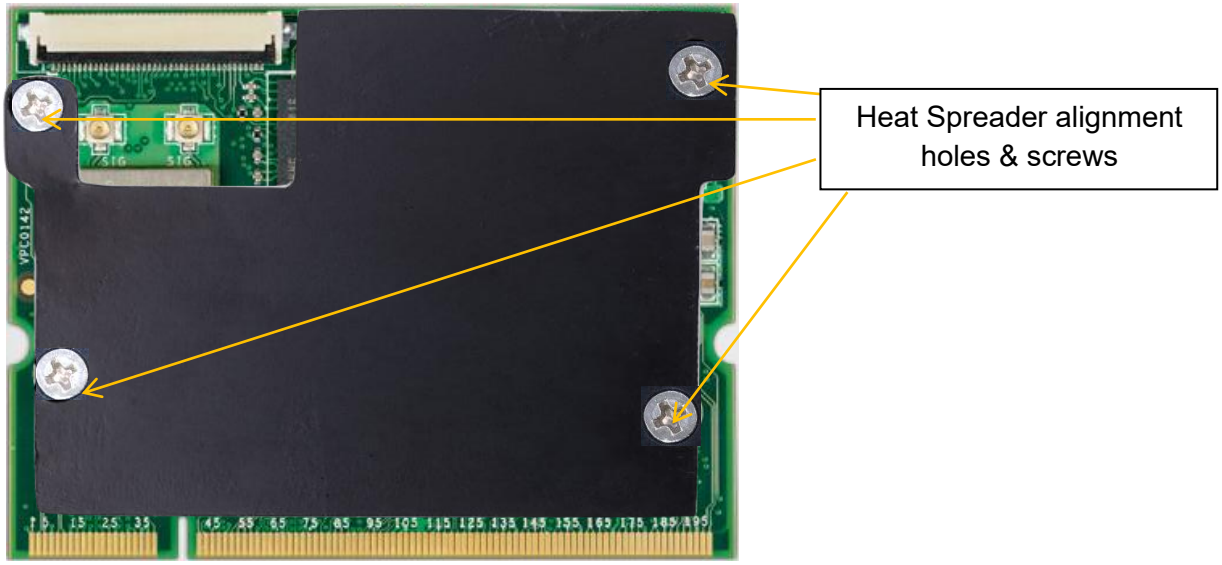
- 1 x heat plate
- 1 x thermal pad (note: different size between VHP-MX6 and VHP-MX6-Q/D-IT)
- 4 x M2/6mm screws
- 4 x M2/D439 nuts

# 2. Heat plate assembly

2.1 Attach the thermal pad on top of the i.MX6 processor in the VAR-SOM-MX6. Make sure that the two plastic covers, on both sides of thermal pads are removed before attaching the pad (**Please see note under section 2.4 for thermal paste option**).



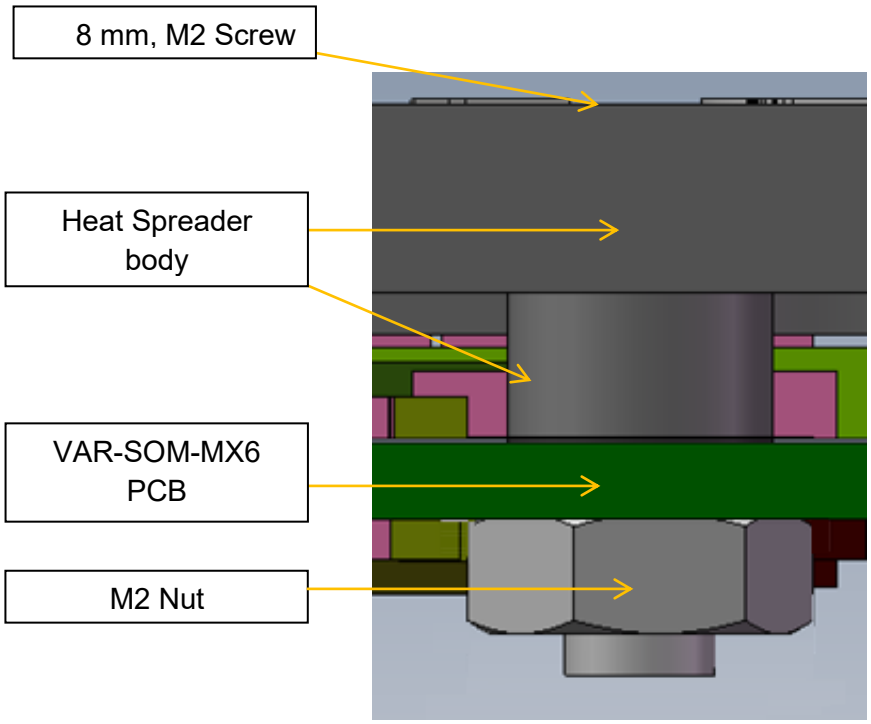

2.2 Assemble the heat spreader on top side of the VAR-SOM-MX6. Use the mechanical holes in order to align the heat spreader to VAR-SOM-MX6 PCB.



2.3 Insert the M2 screws from the heat spreader top direction.

2.4 Tight the head spreader to the VAR-SOM-MX6 using the supplied nuts. Recommended torque for tightening the screws and nuts is ~1in-lb (~0.113N-m).

**NOTE: due to tolerances of the related components (heat plate, thermal pad, PCB, i.MX6 processor) there might be some small gap between the heat plate's stands to the PCB itself. It is highly recommended before tightening all 4 nuts/screws to push the heat plate on top of the thermal pad so it will be squeezed on the processor. Only afterwards tighten the top two screws/nuts, than the bottom ones close to the SO-DIMM connector while paying attention when tightening the last screw/nut that there is no extra pressure on the PCB that might cause it to deform. It is better not to tighten the fourth screw/nut all the way if you see extra pressure is created on the PCB and use Loctite or similar glue to lock the screws/nuts. Another alternative is to use a thermal paste (grease) instead of thermal pad which will bridge the gap between the processor and the heat plate in different tolerances of the related components. The thermal paste should have similar thermal conductivity as the thermal pad of 6.0 watt/m-k (by JIS R2618 / ASTM D2326 standard).**




Heat plate assembly sketch