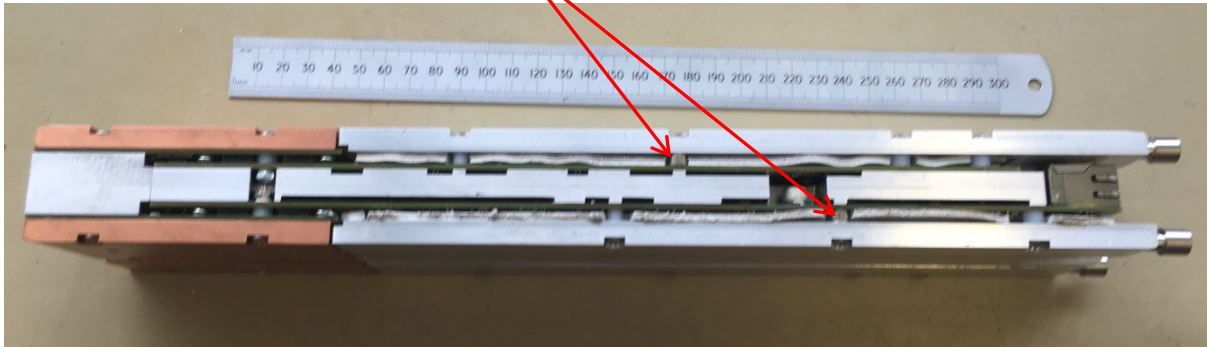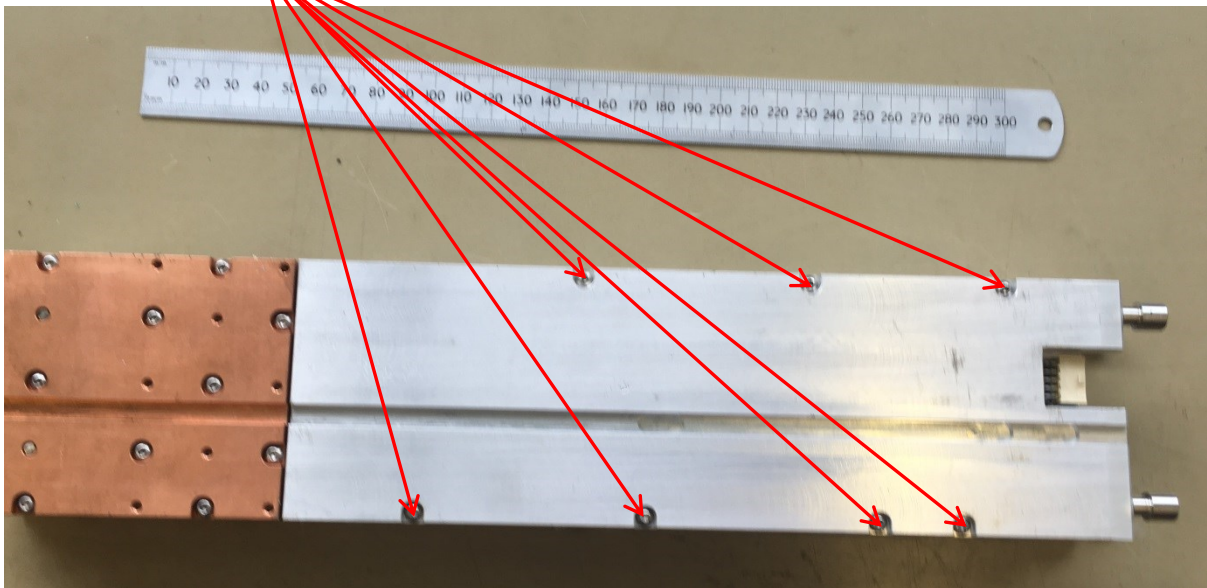# Process for applying thermal paste to the FPGA in FEE64
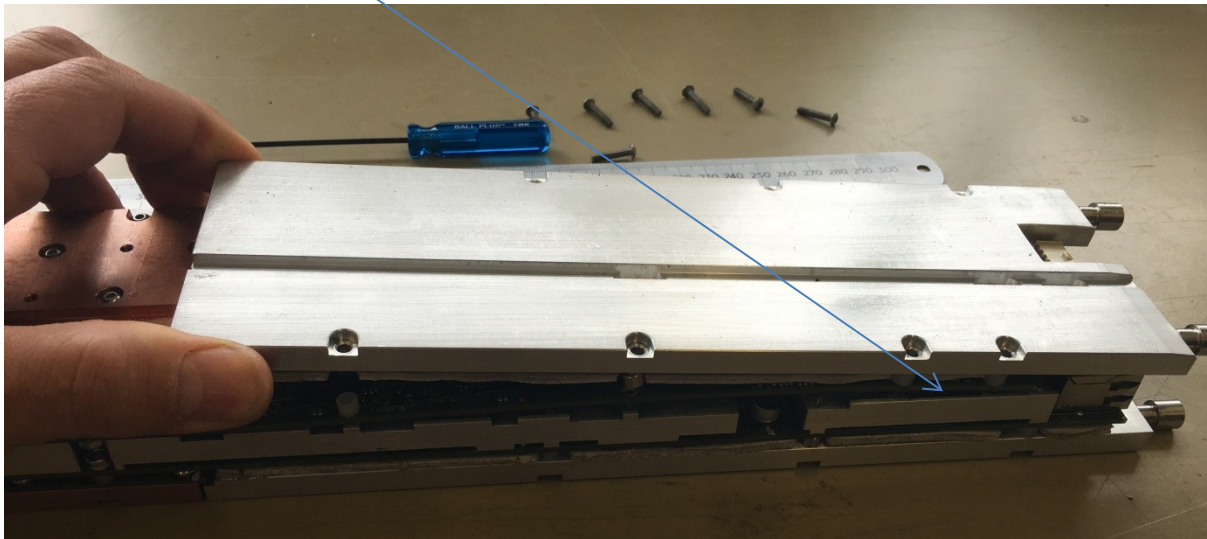
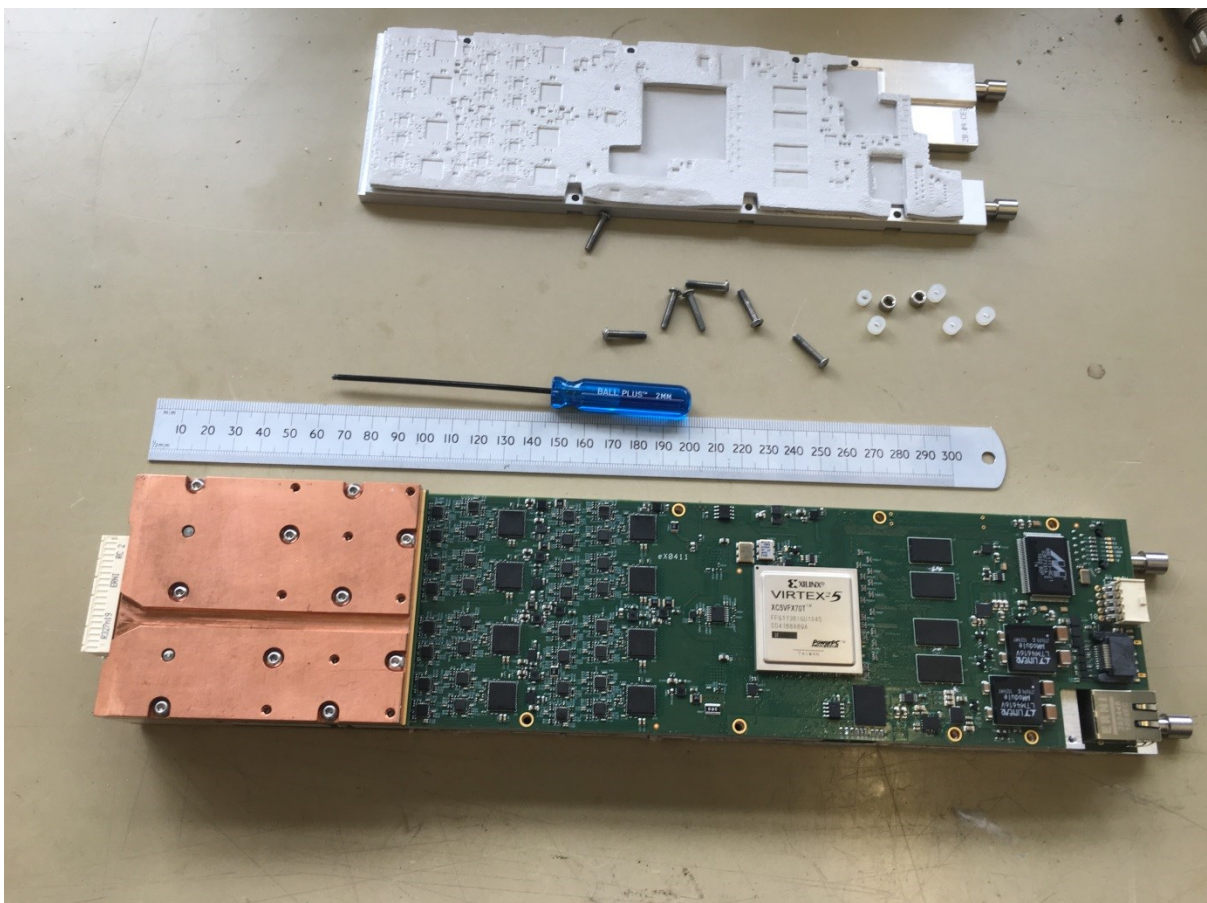Note the position of the two steel spacers.

Remove the 7 screws. Save the 7 spacers.
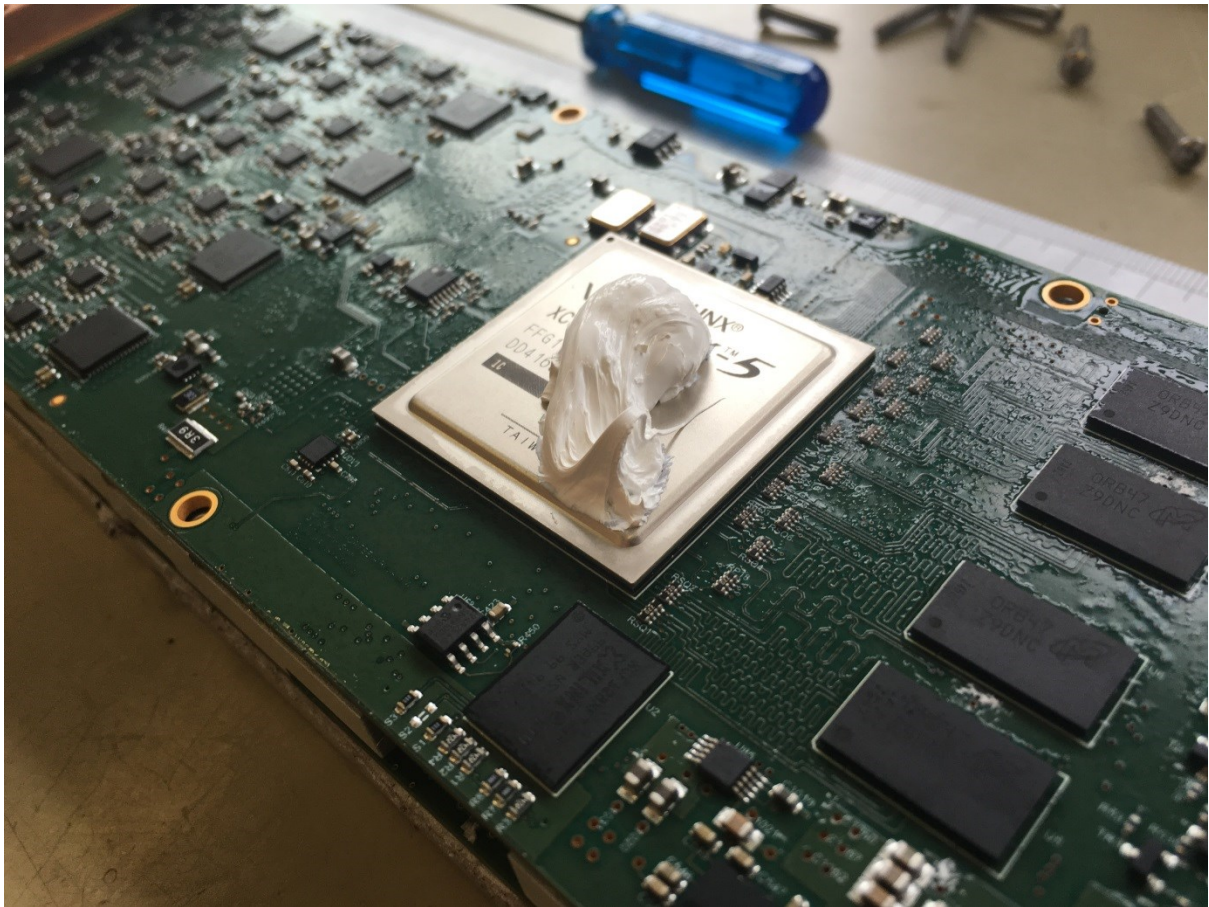
Carefully prise up the top aluminium plate. Slow steady pressure is best. As the plate comes up hold the pcb down at the back.

This is how it can look when the lid is off. The thermal pads may stay on the pcb. Either is fine.
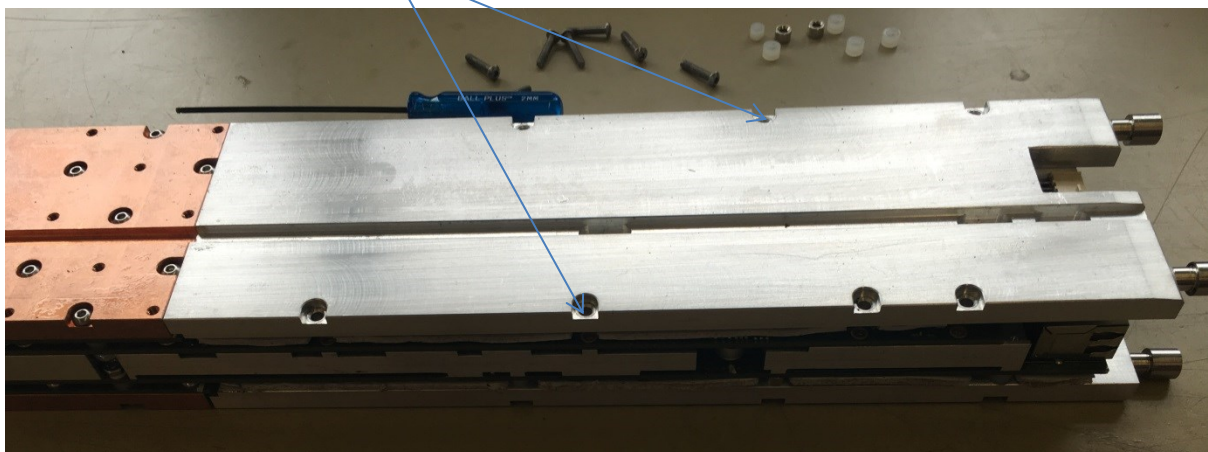
Apply a blob of thermal paste to the top of the FPGA. This is possibly too generous but it will spread through the thermal pad and so isn't a problem.
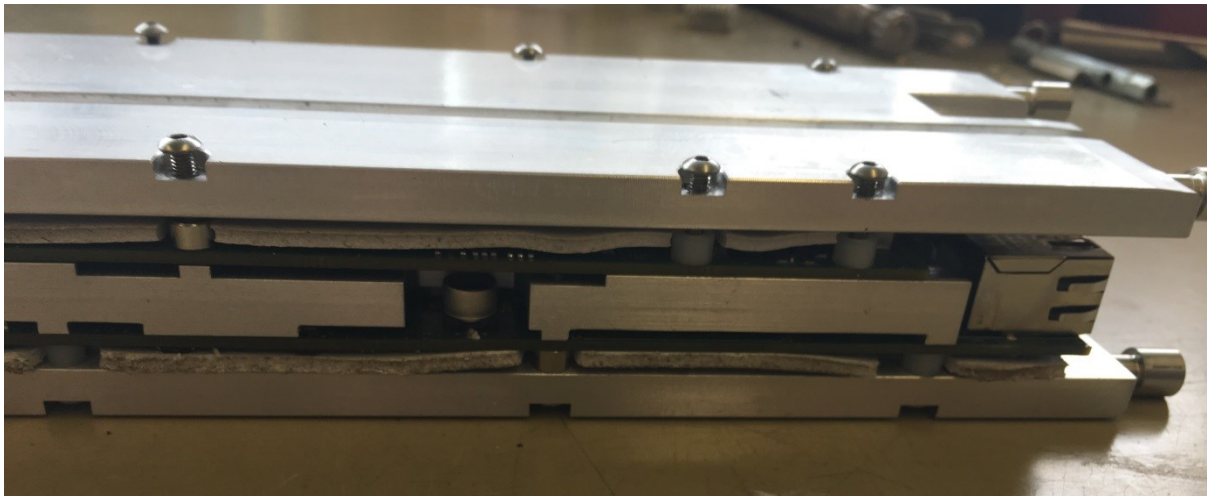
Apply smaller amounts to the two power units and the Ethernet interface chip.
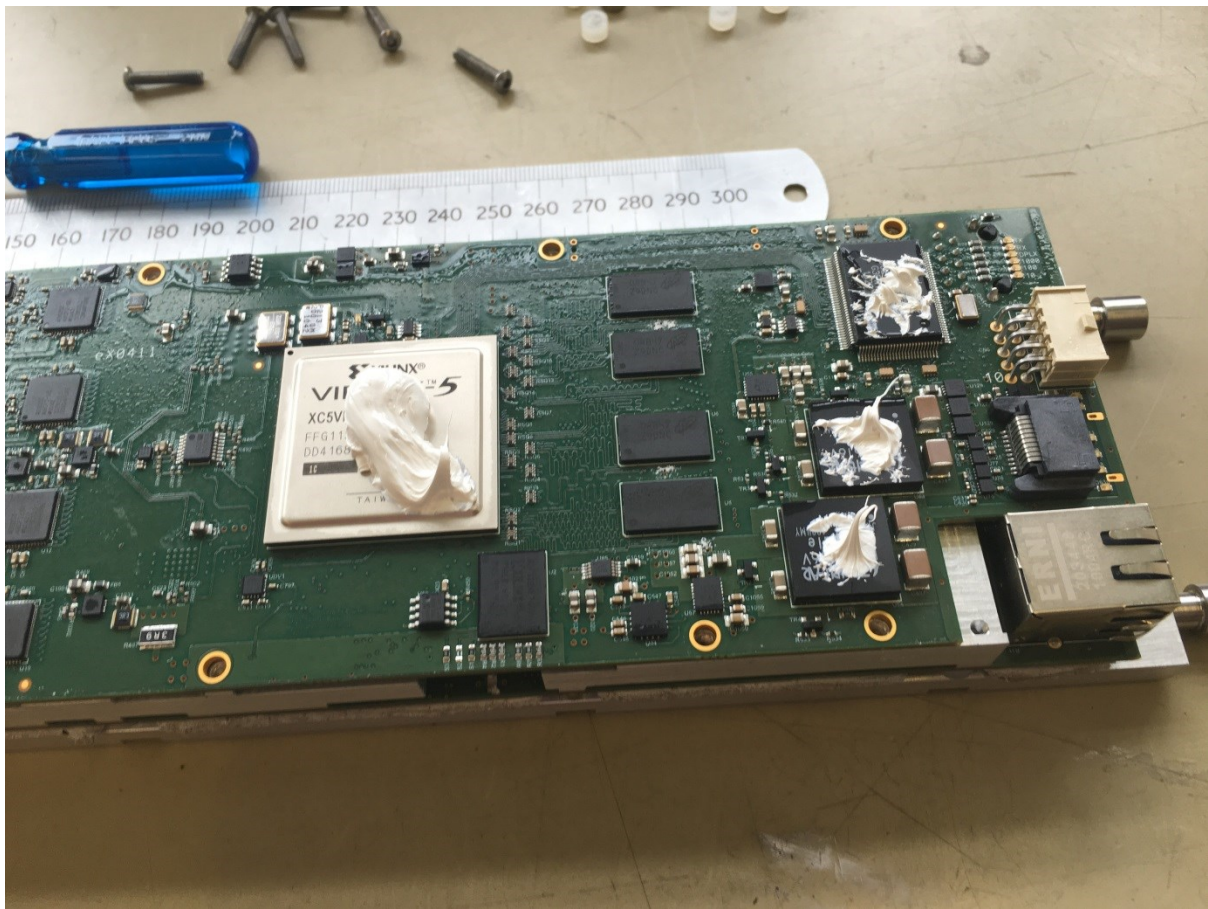
Replace the plate carefully on the pcb and install the screws and spacers loosely. Install the steel spacers in the correct positions.

The screws loosely installed.

A couple of views of the thermal paste in its plastic syringe.

AIDA: Temperature and status scan(1.12) @ nndhcp021   client address is 127.0.0.1

FEE64 System	Virtex Temperature(65C)	PSU Temperature(35C)	ASIC Temperature(55C)	Firmware version
nnaida11	44.88	27.56	44.81	0x14600c1a
nnaida12	46.81	28.56	43.31	0x14600c1a
nnaida13	60.81	30.50	43.69	0x14600c1a
nnaida14	49.62	32.94	43.75	0x14600c1a

Plot Temperature file   No Temperature Logging

System functions (Expert users only for test/debugging purposes!!!)   Select required function ⇕

Empty Log Window   Send Log Window to ELog   Reload   Reset   Show Variables   Show Log Window   Enable Logging

Last Updated: July 28, 2016 10:15:58

Temperatures before and after application.

AIDA: Temperature and status scan(1.12) @ nndhcp021   client address is 193.62.115.213

FEE64 System	Virtex Temperature(65C)	PSU Temperature(35C)	ASIC Temperature(55C)	Firmware version
nnaida11	44.50	27.50	49.06	0x14600c1a
nnaida12	45.94	28.31	46.75	0x14600c1a
nnaida13	44.06	29.88	46.50	0x14600c1a
nnaida14	49.12	32.62	46.44	0x14600c1a

Plot Temperature file   No Temperature Logging

System functions (Expert users only for test/debugging purposes!!!)   Select required function ▾

Empty Log Window   Send Log Window to ELog   Reload   Reset   Show Variables   Show Log Window   Enable Logging

Last Updated: July 28, 2016 11:25:02