Measuring the reflow profile

Thermocouples are a good way to locally measure temperature.They are connected to a system that records the temperaturechanges in time. Different equivalent systems exist on the market.

How to measure:

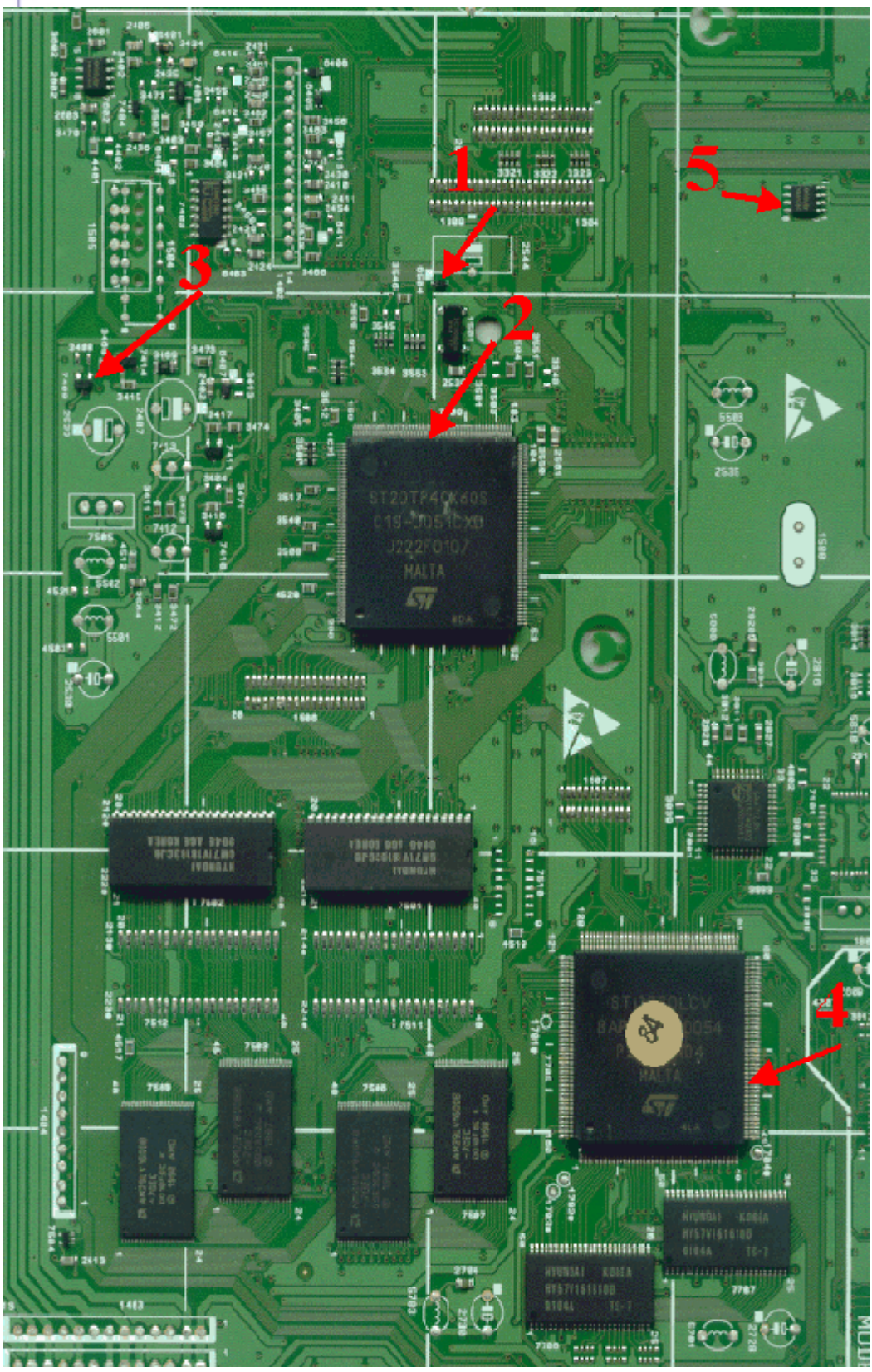
- The profile has to be measured on the same board that runs in production.
- Measure on a solder island,close to a lead of a component
- Do not cover thermocouples with tape. The leads can be taped to hold them.
- To get good contact, you can cover the thermocouple with a little bit of high melting point solder.
- Beware that the leads of the thermocouples cannot get stuck inside of the oven

Where to measure:

- In the middle of the board on a small(1) and a big component(2).
- On the side of the board on a small(3) and a big component(4) (heattransfer to the conveyor).
- Near Heatsinks : Big coppermasses, shields,... (5)

Understanding:

- The recorded profiles should be inside the process window limits of the prescribed profile.
- A fresh board consumes more energy than a measuring board that has already been soldered. Actual temperatures are a bit lower than the measured temperatures because of fluxevaporation of the solderpaste.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