



Automated Fixture Design Reduces Board Stress

(Using CAD Data & Bill of Materials)

Our design process is divided into systematical steps, which we have been able to automate. We have removed most of the decisions that were formerly made by CAF operators.

Our software now makes calculated and informed decisions during the following processes:

- Push Finger Placement.
- Board Support Placement.
- Probe Tip Style Assignment.
- Component pocket machining.
- Mechanical Design Rule Verifications.

Is Your Product Being Stressed During ICT?

It's a fair question, but a difficult one to answer. If your PCB passes ICT, you could feel quite confident by answering "no" to the above question. However, situations do exist where field returns have failed due to process failures potentially induced by stresses on the PCB at ICT & FCT. Since ICT is part of the production process then the ICT process should not be disregarded as a contributing factor.

The questions you need to be asking your supplier are as follows:

- Can you demonstrate to me how much stress my PCB will receive when it is tested at ICT?
- How do you avoid or reduce the amount of stress my PCB receives when it is tested at ICT?
- Can you calculate the stresses at ICT, before my CAD design is frozen?

What do ECT Offer?

The ECT fixture design process is fully automated. This is achieved by using your CAD & BOM. Our custom fixture design software (CAF) contains all of your 3-D PCB properties, as well as the fixture hardware properties dictated by your test strategy, and our fixture quotation.

The end result is a fixture that has been designed based on the real 3-D properties of your product. Fixture machining and the placement of fixture parts is optimized so that stress and damage to your PCB is reduced / eliminated.

It is now very easy for us to calculate where stress will be applied to your product, the details of which can be communicated to yourself before we start manufacturing your fixture.

