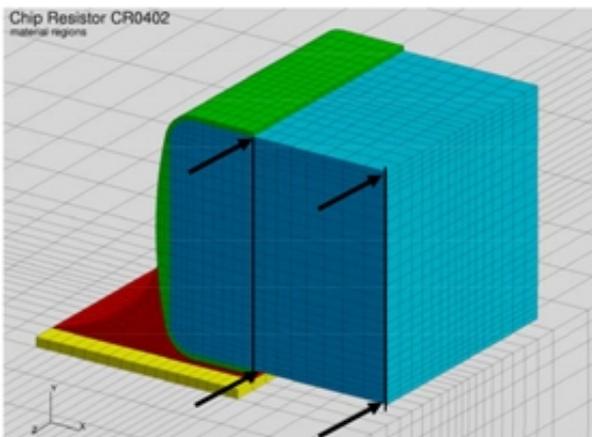


SMD shear

## SMD shear test

- Rotating shear tools to test components at any orientation
- Deep Access SMD test
- Fully automated testing
- Temperature induced stress test with **heater work holder**
- Sensor accuracy  $\pm 0.075\%$
- Round test tool recommended
- In accordance with AEC-Q200-006

[Video not included in PDF: [click here to view online](#)]



Schematic view of an SMD shear test. Source: Fraunhofer ENAS

## Future requirements

While 100  $\mu\text{m}$  is currently a commonly used line width for printed circuit boards in the near future, this is expected to become as low as 20  $\mu\text{m}$ . Reductions in the linear scale are not linear when it comes to other aspects of board design like solder interconnects. For example, such a reduction in scale reduces solder volumes by around 50 times.

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### Other offices

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- Thailand
- United Kingdom
- USA: California
- USA: Massachusetts
- **Distributors**

### Bond testers

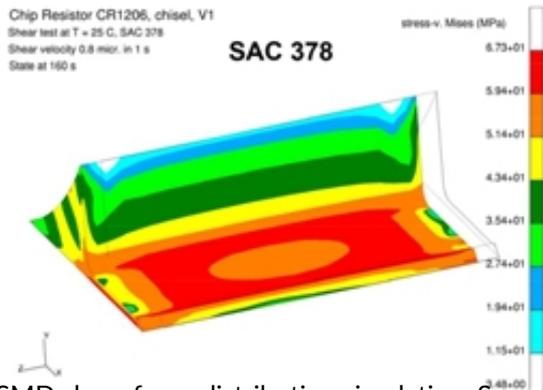
- Condor *Sigma*
- Condor *Sigma Lite*
- Condor *Sigma W12*
- Condor *150HF*

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**Technology leader in bond testing worldwide**



On the other hand the intermetallic layer thickness will not be reduced, resulting in a dramatic change in the distribution of material properties within the joint and the changes within it due to aging and/or electro migration. Similarly, surface irregularities become larger in comparison to the solder pads changing the geometry of the soldered joint and its consistency. At smaller scales stress concentration becomes more likely, increasing the risk of crack formation and them propagating through the relatively large intermetallics.



SMD shear force distribution simulation. Source: Fraunhofer ENAS

## Condor Sigma ideal for SMD shear

XYZTEC have a range of tests that can determine the effect on solder joint integrity resulting from reduced scale. The Sigma's **Revolving Measurement Unit (RMU)** enables up to 6 different sensors or tools to be easily and quickly selected to suite a wide range of component and test requirements. Our pull, shear and tweezer sensors can include rotation, enabling the tool to be aligned to and then test components in any orientation.

## Contact us

Did we catch your attention? Please [contact us](#) for more information, to request a demonstration or a quotation.

## Relevant products

- Condor Sigma
- Condor Sigma Lite
- Condor Sigma W12
- Condor 150HF
- Revolving Measurement Unit
- Sensors
- Tweezers
- Vision
- Software
- Calibration
- Work holders

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## Increase your bondtesting throughput

The **Condor Sigma** is not only the most accurate bondtester in the world, but also the fastest. [Click here to read the study that proves the Condor Sigma is up to 39% faster than the competition.](#)

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## Special applications

Please [contact us](#) if you have any questions or special bond testing requirements.

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## Condor Sigma brochure

[Click here](#) to download the **Condor Sigma brochure**, the **Condor Sigma W12 brochure** or the **Condor Sigma Lite brochure** or the **Condor Sigma Vision brochure (PDF)**.

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