

Département électronique électrotechnique automatique (EEA)

ENS CACHAN



Reliability of first level assembly of system packaging Gaëtan Delétoille, Packaging Research Center, Georgia Tech University

System packaging is a major concern for industry: They are needed to protect chips from mechanical damages, moistures, and thermal induced warpage, but reducing their size without worsening their performances has become a real challenge.

The Packaging Research Center designs packages for electronic systems using of glass interposer, which is thinner and provides better electrical and mechanical performances than previous technologies, in spite of its brittleness.

During my internship, my goal was to compare different technologies in term of reliability of the interconnexions on glass interposer



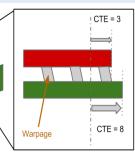


Integrated Interposer Scheme



Substrate

Effect of coefficient of thermal expansion mismatch



The interconnexions reliability is a major issue for industry: Many defects of electronic system come from there. In order to improve the reliability of the first level interconnection on glass, new surface finish of the interposer pads are developed.

