

Selection, Metrology Controls and Reliability Performance of Thermal Interface Materials (TIM) in Advanced 3D Package Designs

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Presentation is intended to provide basic understanding of the performance and selection process for Thermal Interface materials TIM1 and TIM2 in advanced package designs – Fig1 below 2D, 2.5D and 3D designs will be discussed for Automotive, HPCCompute and RF high power applications. Graphite, Graphene, Sintered metal pastes and Epoxy materials will be reviewed and correlated in performance and Reliability during the presentation along with the metrology required to evaluate their performance. Specific emphasis will be applied to die top-side and die bottom-side for heat dissipation in complex designs involving variety of interposers.

Optimization Opportunities for heterogeneous integrated packages

Constrained by overall footprint and height of the package module

