

# Producing Planarized Uniform Layer in Advanced Photosensitive Polyimide over Complex Geometry for Fan Out PLP applied with a Novel Nozzle-less Spray Coating Technology

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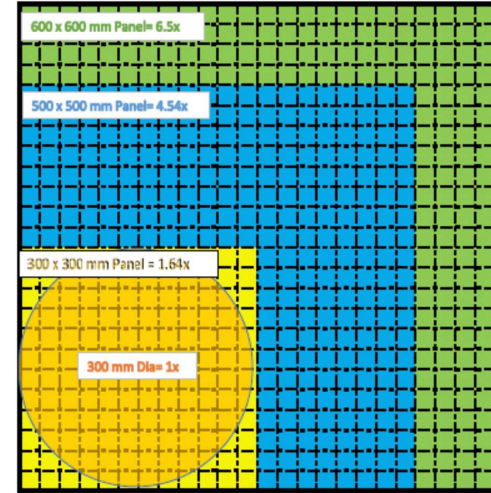
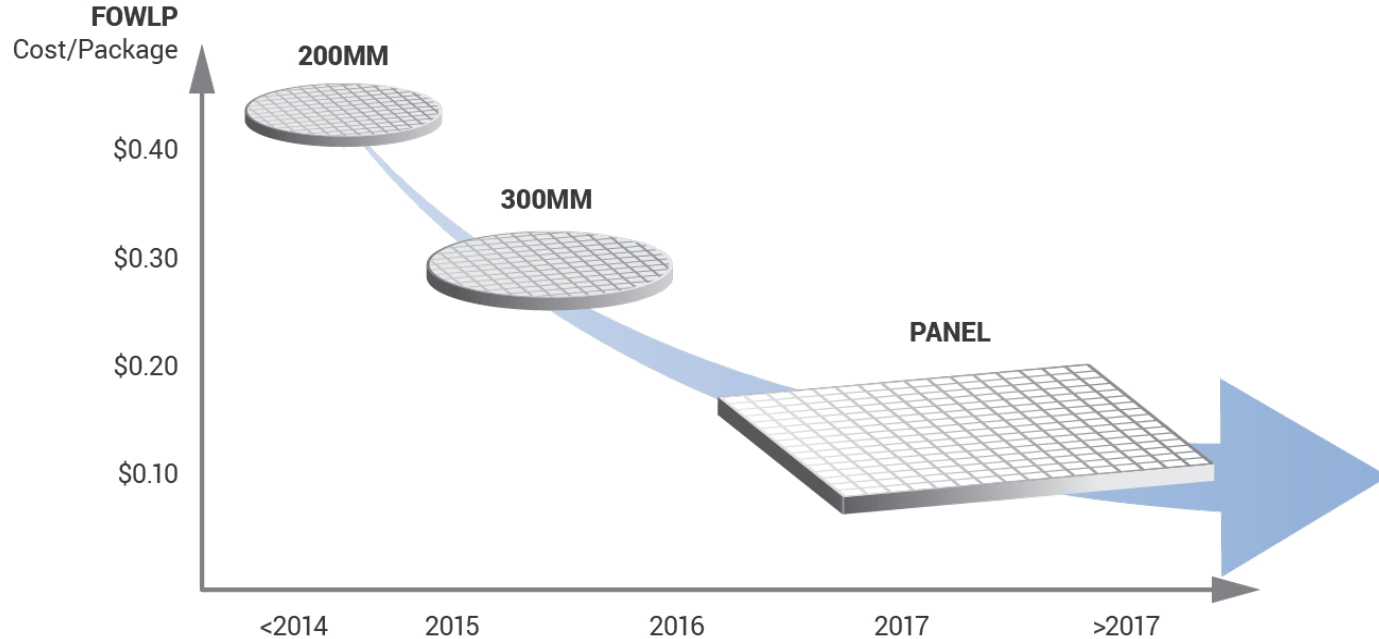
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# Outline

- ▶ Introduction
- ▶ Participating Companies
- ▶ Advanced Packaging trends
- ▶ Objective
- ▶ Systems used
- ▶ Experimental Overview
  - Polyimide preparation for spray coating
  - Spray coating process
- ▶ Results
  - Uniformity
  - Planarization
  - Material properties
- ▶ Conclusions

# From FOWLP to FOPLP



- ▶ **Yole:** Future of advanced packaging 300mm → to Panels

# Objective

- Demonstrate the feasibility of applying polyimide in a uniform layer at a specified thickness using a novel nozzle-less ultrasonic spray technology
- Demonstrate basic feasibility by producing planar layer of polyimide over a surface with complex topography
- Compare the properties of the dielectric film with films produced by traditional application methods