

## Product Features

### ECAD interfaces

- ▶ Cadence® APD
- ▶ Sigrity® UPD

### Package types

- ▶ Ball grid array
- ▶ System-in-package
- ▶ Leaded
- ▶ Leadless
- ▶ Stacked die
- ▶ Multi-chip modules
- ▶ Flip chip
- ▶ Wire bond

### ECAD data imported

- ▶ Complete ball grid array substrate
  - all traces
  - all types of vias
  - dielectric and metal layers
  - solderballs
  - bond wires
  - chips
  - encapsulant

### MCAD interface through DXF/DWG files

### Thermal environment

- ▶ Add convection, radiation or fixed temperature boundary conditions
- ▶ Simulate standard JEDEC thermal tests

Export the model to ANSYS for stress analysis

Define non-uniform power to predict chip hot spots

Accurate 3-D models automatically generated

Fast solve times, usually in minutes

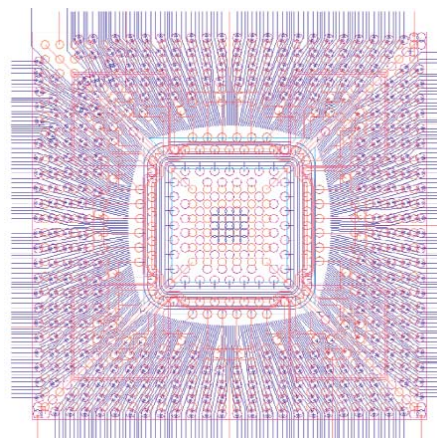
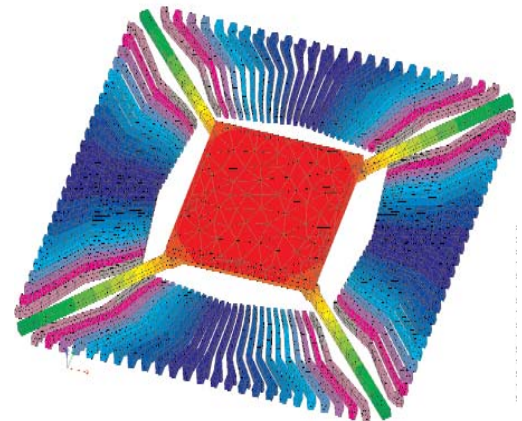
Includes a library of standard JEDEC boards

With ANSYS® Package Thermal Designer™ (ANSYS PTD), you can accurately characterize package during design — saving time, money and headaches that result from discovering thermal problems late in the design cycle.

ANSYS PTD provides more than temperature predictions typical of other thermal analysis tools. It actually helps build thermal optimization into the design, no matter what package style you are designing.

Developed for use by both non-thermal and thermal analysts, the ANSYS PTD direct interface with industry-recognized package design tools delivers fast, accurate results, ensuring the best possible thermal design.

- Improves accuracy: Launch ANSYS PTD from within Cadence APD or Sigrity UPD to capture real device geometry automatically.
- Reduces time to market: ANSYS PTD integrates thermal into the system design and verification process.
- Solid long-term investment: ANSYS PTD handles today's package styles as well as the high heat-generating designs of tomorrow.
- Customer confidence: the ANSYS PTD library of standard JEDEC boards and multiple case studies capability means packages can be characterized based on customers' real world conditions.



### Who can use ANSYS PTD

- Electrical and packaging engineers: designed so you don't need a strong thermal background
- Thermal engineers: generates accurate thermal models and provides the flexibility to solve thermal problems

### Benefits

- Thermally design components quickly and accurately
- Work easily and intuitively
- Automatically produce detailed 3-D models

