

Proven in Land Grid Array (LGA) Applications

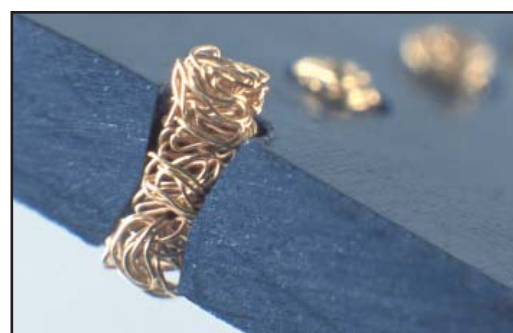
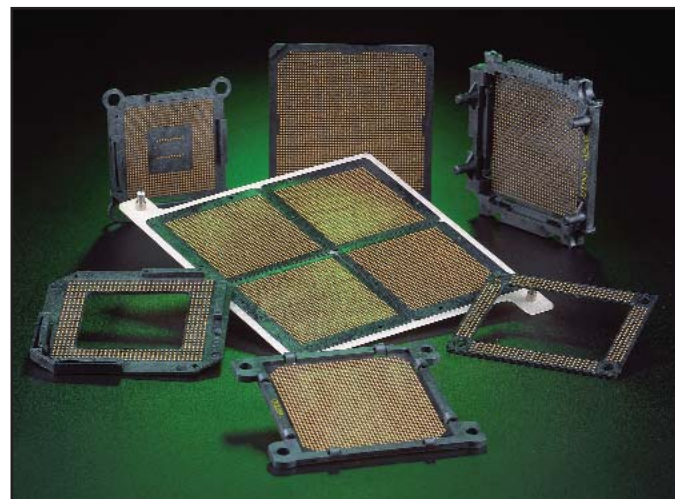
Unsurpassed reliability and proven performance make CIN::APSE Land Grid Arrays the interconnect of choice for the most demanding CPU/ASIC-to-Board applications.

Technology

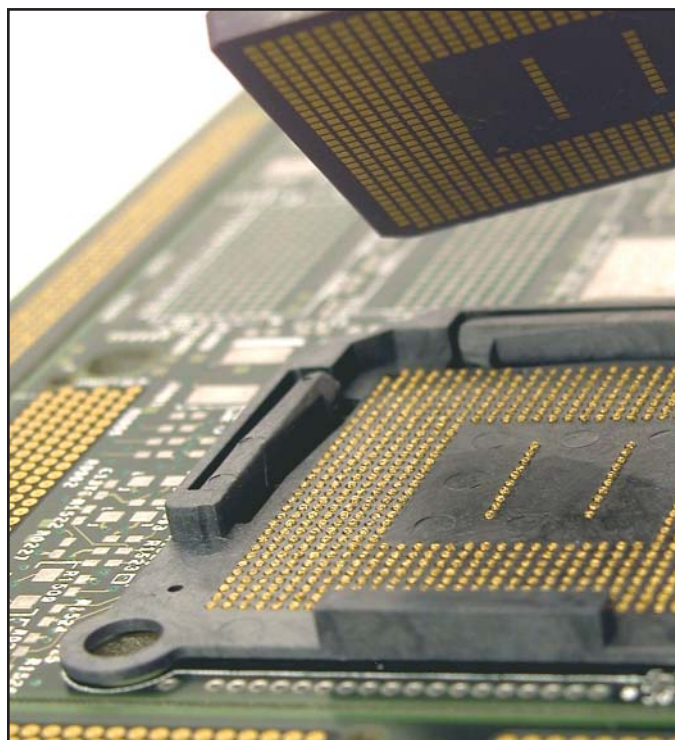
CIN::APSE is a proven solderless Z-axis connector technology that offers exceptional mechanical and electrical performance. At the heart of the technology is a unique all metal contact formed from a single gold-plated molybdenum wire. This reliable contact delivers unmatched mechanical and electrical benefits in a wide variety of applications.

Key Benefits for LGA Applications:

- Solderless
- High Reliability
- Low Resistance and Inductance
- High Density/Low Profile
- Multi-Point Contact/Mechanical Wipe



LGA Cross Section



More than 10 Years of Experience

- CIN::APSE LGA is the connector of choice (sole source in most cases) for leading US High-End Server and Workstation manufacturers.
- Cinch has shipped more than 2 billion CIN::APSE LGA contacts and currently supplies the market's largest LGA (over 5,000 contacts).

Versatile Design

- CIN::APSE can be custom configured to meet your exact footprint.
- Cinch has designed and produced more than 50 CIN::APSE LGA configurations.
- Quick-turn machined prototypes are available.

Your Need	CIN::APSE Solution
Solderless	Unlike BGA, CIN::APSE LGA sockets provide the advantages of a Solderless connection: <ul style="list-style-type: none"> • Easy rework and upgrade in plant or in the field • Reliable contact even under CTE mismatches between ceramic and FR4 materials
Signal Integrity	Superior electrical performance: <ul style="list-style-type: none"> • Low inductance of <0.5 nH • Low crosstalk • Low signal loss • Low circuit resistance of 15-20mΩ
High Density High I/O Low Profile	CIN::APSE is the leader in high I/O, yet is also compact: <ul style="list-style-type: none"> • I/O counts in production exceeding 5,000 • Standard pitch as small as 1 mm • Standard mated height of 0.032"
Reliability	Unmatched reliability features: <ul style="list-style-type: none"> • 7 to 11 points of contact per button • Mechanical wipe • Extremely stable over time and temperature

Technical Considerations

- CIN::APSE technology requires a compression system that can make use of your heat sink. CIN::APSE engineers are available to help design the right compression system for your application.
- For best performance, gold pads are needed on mating contact surfaces.
- CIN::APSE can be used with in-pad vias.
- For technical specs and information on how to design with CIN::APSE refer to the *CIN::APSE Design Guide*.

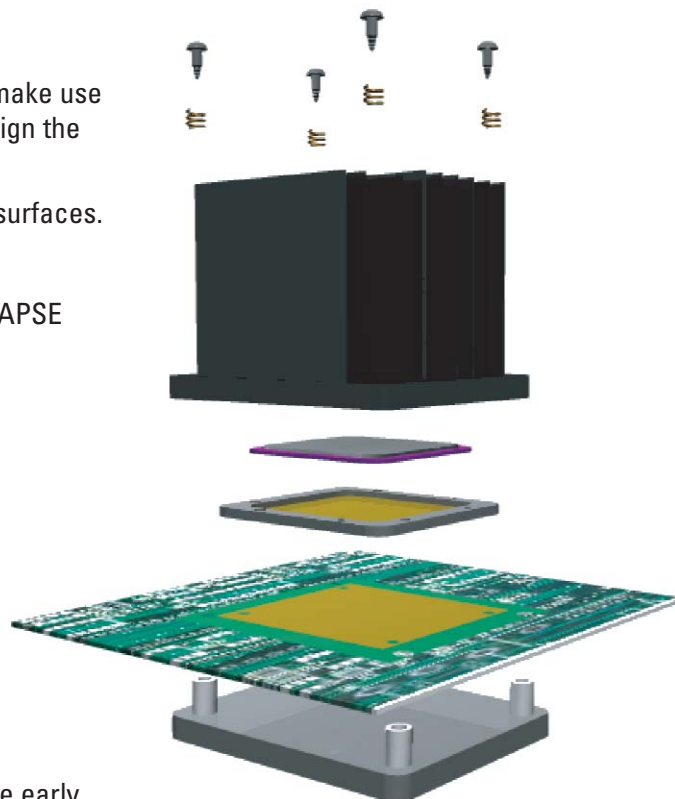
Common Application Include:

LGAs for use with ASICs, MCMs and CPUs in:

- Servers
- Work stations
- Main frames
- Routers
- High speed switches

For More Information:

CIN::APSE can best serve your needs when we are contacted in the early stages of your design. Our experienced engineers will work closely with your design team to ensure you get the best system performance. Contact CIN::APSE Marketing department at 1-800-323-9612 or e-mail directly to cinapse@cinch.com.



*Typical Compression System
for CIN::APSE LGA*