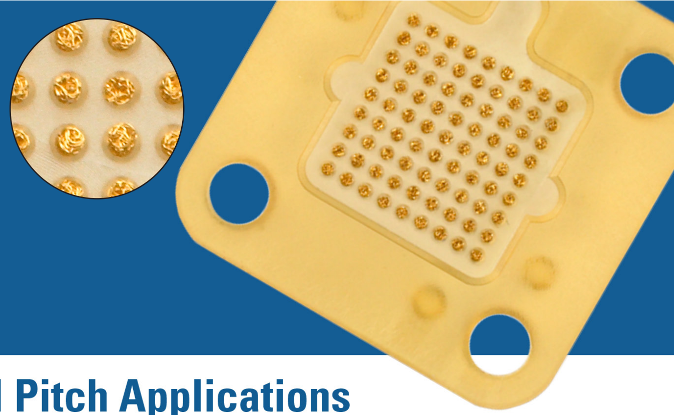
0.8 mm CIN::APSE®



Solutions for Small Pitch Applications

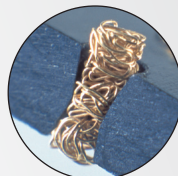
The CIN::APSE Advantage

Now available — The proven performance of CIN::APSE technology in a reduced size contact ideal for high density applications requiring pitches down to 0.8mm.

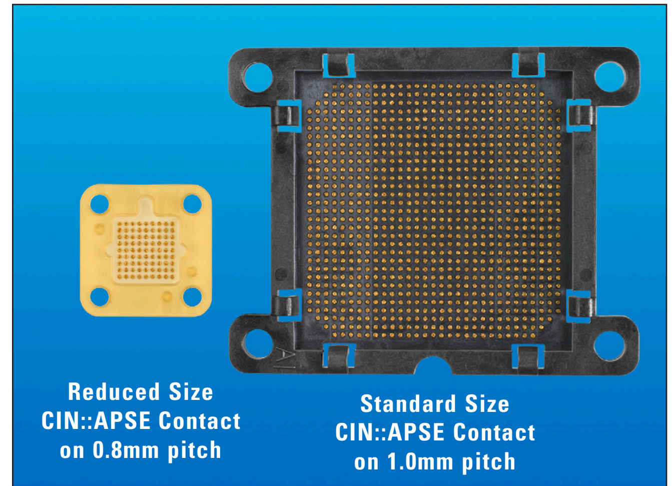
- CIN::APSE has been used in demanding high frequency and high reliability designs since 1990
- Cinch has shipped over three billion contacts without a single reported field failure
- Cinch engineers are available to provide design assistance for your application, including on compression systems
- CIN::APSE can be custom configured to meet your interface pitch requirements down to 0.8mm
- Cinch offers quick turn around machined prototypes

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.



Detail of Cin::Apse Contact



Reduced Size CIN::APSE Contact on 0.8mm pitch

Standard Size CIN::APSE Contact on 1.0mm pitch

Small Pitch Applications

Very high density interconnects are needed for many components and applications.

- Fiber Optic Tranceiver Modules
- Automated Test Equipment (ATE)
- Medical Device Electronics
- High Density Module Attach
- Sensors and Other Small Components

Key CIN::APSE Features for Small Pitch Applications

- High Density
- Low Force
- High Reliability
- Low Resistance and Inductance
- Solderless

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CIN::APSE Technical Information

Performance Area	CIN::APSE Provides
Low Profile, High Density I/O	• Pitches as small as 0.8mm • Standard mated height of 0.032" (0.81mm)
Reliability	Unmatched reliability features: • 5 or more points of contact per Cin::Apse contact • Mechanical wipe • Extremely stable over time and temperature
Signal Integrity	Superior electrical performance: • Low inductance (<0.5 nH) • Low crosstalk • Low signal loss • Low circuit resistance (15-20m Ω typical)
Solderless	Unlike BGA, CIN::APSE interconnects provide the advantages of a solderless connection: • Easy rework and upgrade in plant or in the field • Reliable contact even under CTE mismatches between different materials

Small Pitch Application Considerations

- Gold pads are needed on mating surface
- A compression system is required, typically comprised of the following components
  - Threaded hardware with controlled stop: provides pre-established compression to the springs and transfers load to the system.
  - Springs (ground ended, with known spring rate): to assure a uniform load distribution.
  - Bolster plate with heatsink: for support and planarity.

For More Information:

CIN::APSE can best serve your needs when Cinch is 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.

For pricing and availabilty contact CIN::APSE Marketing department at 1-800-323-9612 or e-mail directly to cinapse@cinch.com.

Please refer to the CIN::APSE Design Guide for additional information.

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