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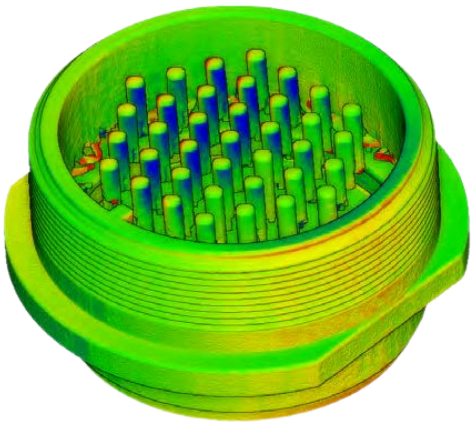
Electrical Application Spotlight

Electrical Connectors and Housings



This printed electrical connector is accurate to the original CAD design, with a 4 sigma tolerance value of +167/-123 microns

The Challenge

A manufacturer of high density interconnection products is investigating using additive manufacturing methods to produce specialized connectors. Additive manufacturing could allow the company to supply semi or fully custom connector designs to customers at production volumes that are not cost-effective to mold. These designs are often complex, requiring a process that's able to resolve many fine features while having material performance that's needed for connector applications.

Electrical Connectors have a variety of internal channels that makes support removal difficult with some AM technologies.

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The Solution

Inkbit Vista would enable the company to produce a wide range of connector designs at production volumes.

Inkbit's VCJ process ensures that the connectors have the tight tolerances needed for fit, while support material is easily removed from even the most complex parts, during this low-labor post-processing step. The tough epoxy resin provides the durability needed as well as basic flame resistance rating.

Key Takeaways

Final Results

- Fine features capability
- Durable materials provide the properties needed for many connector applications
- High production volumes possible with scalable printing and low-labor post-processing

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