

# Electrical Connectors and Housings

## 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.

## 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

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



## Highlights

Print Time: 2.13 hours

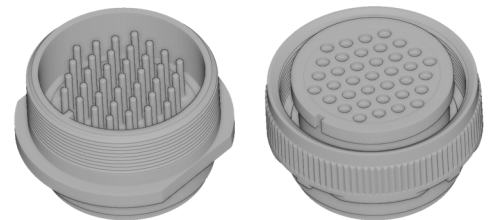
Cost per part: \$18.39

Number in build: 18

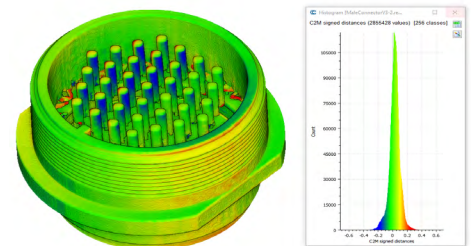
## Material:

Titan Tough Epoxy EP-R-017

## A Closer Look: CAD Comparison



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



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