

ZIN Electrical Manufacturing and Fabrication Capabilities

Mechanical, Electrical & Additive Manufacturing Capabilities

All manufacturing at ZIN is managed through our ZIN AS9100D Quality Management System (QMS). The Manufacturing Workflow Process (P09014) is managed through the QMS. This process has been applied to Class A/B Mission critical hardware.

The ZIN QMS includes an Approved Vendors List (AVL) for the procurement of non-catalog items and services such as mechanical parts manufacture, EEE parts, and PWB manufacture. Suppliers must be audited by ZIN QA to be added to the AVL.

ZIN Certifications:

ZIN has certified trainers to the NASA and IPC standards

- NASA-STD-8739.1
- NASA-STD-8739.2
- NASA-STD-8739.3
- NASA-STD-8739.4
- 5GSFC-WM-001
- J-STD-001 Space Addendum
- IPC-A-600

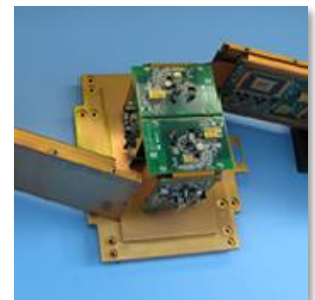


Our electrical manufacturing and fabrication capability includes pick and place line managed through material and process control plans, SOPs, EEE parts control, contamination control, risk management, and engineering conformance management and review.

ZIN's in-house electrical assembly facility includes stenciler, multi device pick-and-place machine, 8 zone oven, selective soldering machine, lead forming, solder stations, rework stations, reflow for electrical assemblies and batch board washing machine. Our facility allows assembly of surface-mount technology, including BGA, CGA, and leadless chip carriers. For elements that cannot be hand-soldered and visually inspected, ZIN has rework and reflow capabilities. These elements are inspected with ZIN's in-house X-ray machine. ZIN has certified trainers and technicians to the NASA, J, and IPC standards, certified to NASA-STD-8739 for cabling, staking components, and conformal coating. ZIN has also assembled and tested CGAs to GSFC-STD-6001.

ZIN provides standalone cabling and in-box harnessing per NASA-STD-8739.4 & IPC/WHMA-A-620 (+ Space Addendum). Cables are built, inspected, and tested by our Certified Operators & Inspectors. Continuity, Dielectric Withstanding Voltage & Insulation Resistance (DWV/IR) testing is performed with a Cirrus automated Harness tester and using ZIN's ever-expanding library of test fixtures. ZIN can create unique or standalone support cables to meet your needs.

- ❑ Our manufacturing and fabrication capabilities include electrical assembly, machine shop, and additive manufacturing facility (metal alloys and polymer).
- ❑ ZIN maintains 18,000 square feet of secured manufacturing floor space.
- ❑ Bonded storage, fabrication, assembly, and testing activities occur in temperature and humidity-controlled areas.
- ❑ ZIN is committed to Lean manufacturing and has implemented 5S practices (sort, set in order, shine, standardize & sustain) within our manufacturing facility.



ZIN Technologies



Voyager Space External Use

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