

# ZIN Precision Printed Circuit Boards

## Precision Printed Circuit Board 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



**Precision PCBs** – ZIN makes use of the latest in Surface Mount Technology (SMT) for placement on printed circuit boards. Our SMT line includes a pick and place, solder paste machine, and a full reflow line. ZIN's SMT is capable of mounting components down to 0201 pitch. Other capabilities include column grid array (CGA), ball grid array (BGA), Field Programmable Gate Array (FPGA) mounting, and Quad Flat Non-lead (QFN) package chip assembly.

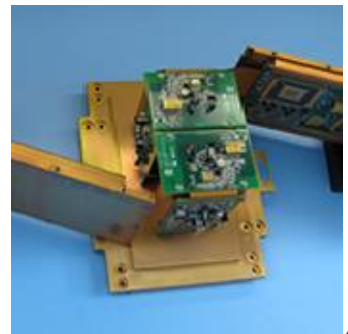
**Selective Soldering** – For mounting through hole parts to PCBs, ZIN employs the latest technology in selective soldering. Using Nitrogen purge, top and bottom IR heaters, and closed loop pyrometer temperature control, ZIN is capable of soldering components in minutes.

**In House Inspection** – ZIN performs 100% inspection of solder joints on PCBs per J-STD-001. For non-exposed leads, ZIN utilizes X-ray with 2µm and 2400x magnification. ZIN's X-ray machine can accommodate up to 28" x 30" PCBs.

### Other PCB Services –

- Hand soldering per IPC-J-001 class 3 + Space Addendum
- Stacking & Bonding per NASA-STD-8739.1
- PCB Cleaning, per IPC-J-001 class 3 + Space Addendum
- Conformal Coating, IAW NASA-STD-8739.4
- Packaging/Board Materials

- ❑ 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 Technologies



Voyager Space External Use  
johansonm@zin-tech.com | www.zin-tech.com