



Electrical Packaging Manufacturing

ZIN Technologies

Multi-Disciplined Engineering: Electrical Packaging Manufacturing

Mechanical Manufacturing

- Clean room & laminar flow workspace
- Machine Shop, Additive Manufacturing (DLS)
- Property Management, shipping and receiving area, and a climate controlled bonded storage.
- Manufacturing Work Order Process

Electrical Manufacturing

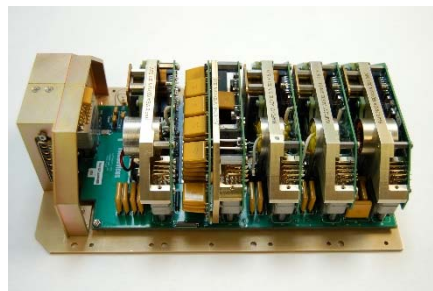
- Electrical Assembly Technicians
- 207 Unique PWA's assembled in-house over the past 5 years
- Inclusive of Harness, cable design, development & Test

TOOLS:

- IPC J-STD-001 ES certified technician staff
- NASA-STD-8739.1 Polymeric Applications
- NASA-STD-8739.2 Surface Mount Technology
- NASA-STD-8739.3 Soldered Electrical Connections
- NASA-STD-8739.4 Crimp, Cable and Harnesses
- IPC-A-600, Acceptability of Printed Boards
- GSFC -WM-001B



ZIN can provide product realization for electrical hardware to IPC-6011/12/13 Class 3. The team has provided hardware for Mission Critical Space hardware for aerospace applications. ZIN provides for PCB Coupons & Microsections Analyzed with In-House Certified Component Engineers (IPC-A-600 Int / Ext). ZIN has ESD controlled (to GSFC -WM-001B) and certified facilities with a trained staff to NASA-STD-8739 and IPC J-STD-001ES. Production at ZIN is through our AS9100C work order system. The work order system allows for capture of as-built data as well as all inspection points. In house manufacturing inspection points are performed by ZIN QA staff, or outside inspectors. MIP's are performed under magnification by QA department for: Solder, Masking, Conformal Coat and Mechanical Assembly. ZIN can facilitate upscreening (PIND, DPA, etc.) for nonstandard, or source controlled parts.



- ESD Control/Monitoring per W09007
- Contamination Control Visibly Clean, gloves, sticky mats, mopping etc. per Contamination Control and Cleanliness Requirements for ZIN Tech Facilities W09010.
- Limited lab access. Access requires level 1 or 2 ESD certification. all others are escorted.
- ZIN MWO is used to manage all internal assembly/fabrication work
- Flight MWOs contain CM released Drawings, BOMs, process plans and Test plans (A/R)
- Process Plan captures all as-built data
- Process Plan captures all QA Inspection Points
- Tooling is identified on drawings and logged in process plans.
- Part identification Serialization/Lotting identified per ZIN Configuration Management procedure P05002



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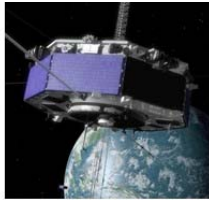
6745 Engle Road | Middleburg Heights, Oh 44130
Phone: 440.625-2223 | johansonm@zin-tech.com | www.ZIN-Tech.com

Founded in 1957, ZIN provides multidisciplinary engineering services to NASA and the aerospace industry and has managed the development of space flight and ground system hardware (aerospace/space systems) from formulation, design, and development through to fabrication, integration, testing, verification, and mission operations.

Our experience includes the development and validation of new technologies (sensors, inertial navigational measurement units (IMUs), composites, advanced acoustic resonant attenuation, optics, power, additive manufacturing and wireless/RF), ISS research investigations, space launch systems (Orion, commercial crew/resupply), satellite (IMU) accelerometer systems, and space based human research projects enabling future space and science missions.



Focus on Quality - Certified and Compliant with Industry and Government Quality Standards



ZIN Technologies, Inc. is an experienced developer of ground and flight systems for manned and unmanned aerospace applications. Marking history for almost five decades, we have provided integrated hardware and software development products and services to NASA, DoD and Fortune 500 companies.


OUR PRODUCTS & SERVICES

	SPACE SYSTEMS INTEGRATION & OPERATIONS		MANUFACTURED PRODUCTS		ADDITIVE MANUFACTURING
	ENGINEERING & TECHNICAL SERVICES		HARDWARE & SOFTWARE DEVELOPMENT		HUMAN HEALTH & MEDICAL DEVICES

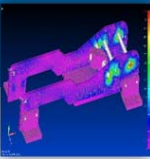
Research & Technology



Systems Concepts




Systems Design & Analysis



Engineering & Manufacturing



Systems Assembly



Systems Integration & Test



Management & Mission Operations



Logistics & Sustainment



- Minority Owned-SDB**
- AS9100 certified**
- Experienced Team of scientists, engineers, designers, and technicians**
- DCAA Approved Forward Pricing**
- Headquartered Cleveland Ohio**
- Award Winning Capabilities**

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