





## **ELECTRONIC DE**

Take advantage of Sealevel's proven expertise designing and manufacturing quality electronic assemblies and systems. We specialize in high mix, complex printed circuit board design and assembly. System level design, integration, and testing are available for one-stop service.

Located in Upstate SC, Sealevel's modern 52,000 sq. ft. facility sits on a 17-acre site. To protect electronic components from damage during assembly and test, ESD tile is installed in all manufacturing and test areas. Sealevel is proud to be ISO 9001:2008 and ITAR registered.

Whether you need a turnkey design from specification to production, or quality assembly of your own design, Sealevel has the know-how, equipment, and experience you can trust.

Static precautions eliminate latent component failures due to ESD

## **CUSTOM DESIGN SERVICES**

### **Design Specifications and Project Management**

Successful projects start with clear specifications. Sealevel's experienced project managers will work with you to create a Statement of Work and project schedule, then follow a requirements-based design process to meet all project deliverables.

### **Electrical Design**

Our engineers use advanced schematic capture, layout, routing, and modeling tools for error-free designs and fast time to market.

#### Mechanical Design

Advanced 3D modeling enables full turnkey system design with amazing speed and accuracy. Thermal modeling is used to create simulations and predict environmental performance before prototypes are produced.

#### Software Design

Whether your project requires a custom BSP, microcontroller firmware, driver, API, or test utilities, Sealevel's team is adept at solving even the most complex problems. Many of our designs use advanced field programmable gate arrays (FPGAs) to reduce size and cost while increasing flexibility.

### **Product Compliance and Certifications**

Using a "design for certification" approach, Sealevel can manage the entire process of product certification compliant to a wide variety of standards including:

MIL-STD-810F · MIL-STD-464A · MIL-STD-1472F · MIL-STD-461F · MIL-STD-901D · MIL-STD-167-1 · NEMA · IP · ATEX FCC · CE · UL · CSA · Hazardous Areas · Component Derating Process per NASA GSFC Preferred Reliability Practices

# STATE OF THE ART MANUFACTURING



Automated Screen Printer with 2D Inspection



Fifteen Head High Speed SMT 34,500 CPH Placement

## SIGN & MANUFACTURING SER

## **ELECTRONIC ASSEMBLY AND TESTING**

Sealevel's assembly capabilities are optimized for low to medium volume production. State of the art surface mount line, X-ray, BGA and fine pitch repair equipment can reliably handle even the most sophisticated designs.

#### **Printed Circuit Board Assembly**

- · Real-time Process Feedback and Control Systems
- · Defect Tracking and Trending
- · Route Verification
- · Real-time Process Alarming
- · Barcoding and Batch Lot Tracking
- · Feeder Verification
- · Electrostatic Discharge Controls (ESD)
- · Moisture Sensitive Controls (MSD)
- · Customer Deviation and ECO Controls

### Certification/Registrations

- · ISO 9001:2008 Registered
- · ITAR Registered
- · DDTC Registered
- · CCR Registered
- · RoHS Compliant
- · ESDS 2020 Compliant
- · IPC-A-610 Workmanship Certified
- · IPC-7721 Repair Skill Certified
- · J-STD-001 Soldering Certified



## SYSTEM ASSEMBLY AND ESS

For products that require the highest reliability, Environmental Stress Screening (ESS) can accelerate defects that may otherwise not be detected until a field failure occurs. This is done by subjecting the unit under test to rapid thermal cycling and vibration testing that can precipitate latent defects such as cold solder joints, loose fasteners, or poor wire crimps. Defects found during ESS can be



addressed rapidly to determine root cause and effect a corrective action to eliminate recurrence and improve the overall quality level of the product.

Once a product is released for production, Sealevel's extensive manufacturing capabilities provide a troublefree pipeline to meet delivery demands. Our in-house test equipment includes modern thermal chambers and vibration stations suitable for large volume production orders requiring ESS. Whether your market is military or commercial, Sealevel offers the knowledge and tools to bring the highest level of quality to your next product design.



ven Head gh Speed SMT 5,300 CPH Placement





Five Camera Automated Optical Inspection



Closed - Loop Inline Aqueous Cleaner with Isolati

## **VICES**

## SUPPLY CHAIN MANAGEMENT

Sealevel's supply chain management services leverage key vendor relationships to minimize cost and inventory while meeting challenging delivery requirements. Our experienced management works with each customer to create a customized program with optimum cycle time.

### **Supply Management Services**

- · Strategic Vendor Models
- · Commodity Aligned Procurement
- · Supply Kanban
- · Vendor Management Inventory (VMI) Programs
- · Consigned Materials Strategies
- · Bonded Inventory Management Programs
- · Life Cycle Strategies
- · RoHS and RoHS II Compliance
- · Counterfeit Parts Avoidance





Transmissive X-Ray



Automated Conformal Coating



Two Axis Vibration Table



Thermal Walk In Chamber

## A WORLD OF EXPERTISE



At Sealevel we do our jobs to the best of our abilities because we understand the products we create help our clients make the world stronger, safer and better. Our engineers work with your team from conception to completion to develop a solution for your industry. From design specifications to project management to compliance and certification, you can rely on our world of expertise.

Thank you for considering Sealevel Systems, Inc.

