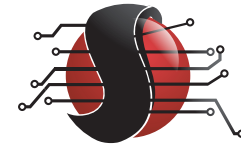


About Us

Sierra Assembly Technology Inc. sprouted from humble roots in 1982, operating with one simple pick and place machine in a 7,000 square foot building. We have since more than tripled the square-footage of our working space, now running two fully automated SMT assembly lines in the 20,000 square-foot complex we call home.

Our production has both expanded and become more efficient. However, we remain a small business at heart, with the versatility to accommodate a wide variety of customer needs, and the disposition to ensure these needs are met sufficiently. Over the years, we've worked with industries of all kinds – from those in government and healthcare, to the world of entertainment – and Sierra has proven, again and again, that we're equipped to supply for any type of business.

For more than 30 years, Sierra's goal has been to build premier circuit board assemblies right here in our own local facilities. Whatever changes may come for our industry and for our company, we believe in American-made products and we believe in creating, and keeping jobs in America.



SIERRA
ASSEMBLY TECHNOLOGY INC



CERTIFICATIONS

- AS9100C CERTIFIED
- ISO 13485:2003 CERTIFIED
- IPC-A-610 CERTIFIED
- J-STD-001 STANDARD
- ANSI/ESD S20.20:2007 STANDARD COMPLIANT



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Sierra Assembly Technology Inc.
10880 MULBERRY AVE, FONTANA, CA 92337

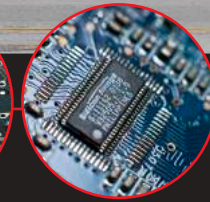
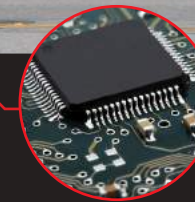


909.355.5400



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Service Offered :

- **PCB ASSEMBLY**
- **BGA & MICRO BGA PLACEMENT**
- **CABLE AND WIRE HARNESS ASSEMBLY**
- **PCB DESIGN & REVERSE ENGINEERING**
- **BOX BUILD ASSEMBLY**
- **CONFORMAL COATING**
- **IC PROGRAMMING**
- **IN CIRCUIT TESTING/FUNCTIONAL TESTING**
- **X-RAY INSPECTION**
- **AUTOMATED OPTICAL INSPECTION**
- **BGA REWORK**

Our Facility

- 20,000 square foot air-conditioned, static free environment.
- Two surface mount machines & one through hole line.
- Mechanical assembly area provides box build capability.
- Separate prototype area with capability for manual & semi-automated assembly.
- Test areas for fixture & fixtureless ICT plus functional test.
- Inspection & finishing area including optical inspection, X-Ray stations, rework stations & burn-in capability.
- Warehousing area for component & FG inventory.
- ESD safe shipping, receiving & inspection area.

Our Capabilities

Technical

- Laser alignment & vision systems for SMT placement.
- Auto-calibration for SMT lines.
- BGA, μ -BGA, ultra-fine pitch QFP, QFN, and CSP, FCP & 0201 placement & repair.
- Component placement to 7-mil pitch.
- High layer & ultra-dense component counts.
- On site firmware programming.
- 10-zone air convection reflow system with nitrogen atmosphere option.
- X-Ray laminography.
- Surface Mount Addendum
- Largest BGA Size: 75mm x 75mm
- BGA Pitch Range: 0.25 mm - 3 mm
- Largest QFP Size: 75mm x 75mm
- Smallest QFP Pitch: 0.25 mm - 3 mm
- Largest PCB/Panel Size: 18" x 20"
- Smallest PCB/Panel size: 1.2" Wide
- Smallest Space between Adjacent Components: 0.005"
- Smallest Passive Component Size: 0201
- Bed of Nails (Fixture) ICT Test Station: Genrad 2280
- Component Placement Speeds:
 - Juki - 12,500/Hr.
- Component Placement Accuracy:
 - Juki - $\pm 30\mu\text{m}$ (3 Sigma)

Manufacturing

- Complex RoHS & non-RoHS PCAs up to 18"x20".
- PTH, SMT & mixed technology assembly.
- Single and double-sided assembly.
- No clean flux process & closed loop aqueous cleaning system.
- Conformal coating & potting compliant with IPC-CC-830B.
- Cable & harness assembly.
- Complete mechanical assembly.
- Fixture & fixtureless in circuit & functional testing.
- Repair/rework including BGA & QFP.

Our Comprehensive Services

Design

- Electrical, PCB & layout capabilities.
- DFT & DFM engineering support.
- Component selection/BOM creation support.

Prototyping

- Quick turn - 1 to 5 days.
- Turnkey, consignment, or mixed model.
- One piece through beta run.
- Machine & hand placement.
- Reflow and hand soldering.

NPI (NEW PRODUCT INTRODUCTION)

- Dedicated program management.
- Documentation requirements defined.
- Program review; kick off meeting & Project development.
- Final SOW, materials, processes, & schedule documentation & sign off.
- 1st article inspections (Tooling, materials, & assembly) & acceptance.
- Release to production.

Supply Chain Management

- Component sourcing - Full turnkey to full consignment based on customer needs.
- BOM analysis & suggestions for cost, availability & serviceability improvement.
- Demand aggregation for cost optimization.
- AVL management & supplier certification.
- Demand forecast & supplies management.
- RoHS & non-RoHS Inventory management.

Our State of the Art Equipment

Prep / Kitting

- Material Storage with RoHS Compliance Area
- Hepco-APS 1500-1 Radial Lead Formation System
- Hepco 8000-1 Axial Lead Formation System
- Ideal Wire Processor
- PEI OLAMEF TP6 Lead Formation System
- GPD CF-8 Component Former

Surface Mount

- **Production Line 1** *** RoHS Compliant ***
 - **Speed line MPM / Ultra flex 3000**
 - Screen printer with 2D Camera System, Auto Pin Placement, Auto Wiper etc.
 - **Juki KE760 Pick & Place**
 - Laser Alignment & Vision System
 - 7-mil Pitch, BGA, MicroBGA placement
 - Placement at 12500 CPH (Laser centring/effective tact)
 - One Multi-Nozzel laser head plus one high- resolution head ering/effective
 - From 0201 to 74mm sq. component placement capability
 - **Juki Matric Tray Changer**
 - Capable up to 44 different types of QFP, QFN, BGA, CSP etc.
 - **Heller XPM2 with Brush Roller Output**
 - Lead Free Compatible
 - 10-zone air convection reflow including a 3 zone cooling system with nitrogen
 - **Juki 2060 Pick & Place**
 - Laser Alignment & Vision System
 - Multi-nozzle vision centering
 - High Resolution & Standard Cameras
 - Laser Alignment vision Systems
 - 5 Nozzles, 5 Head
 - Fine Pitch, BGA & MicroBGA placement at 16,000 CPH

Through Hole PRODUCTION LINE 2

- **IAC TH Assembly Work Station**
- **Tech-Mation Assembly Line**
- **Technical Device Wave Solder System (Two machine)**
 - Lead free capability & "Quick Change" solder pot
 - Machine with Dancer Wave
 - 3 convection preheaters, 1 infra-red preheater & dual wave capability
 - Skinner Flux Sprayer module with self contained external fluxer cabinet
 - Real time 3-D graphic animation of system & process
 - User friendly operator interface console with storage for 5000+ unique recipes

Testing & Inspection

ICT - In Circuit Testing

- GenRad 2283 & GenRad 2280S
 - Bed of nails with fixture
 - Open express equipped & Boundary Scan capable

X-Ray System

- Glen Brook RTX-113
 - Vision Systems
 - Scionscope
 - 19" camera system
 - Microscopes
 - Vision Engineering
 - Mantis
 - Clear view

Rework

- Bandit APE Rework Station for QFP & BGA components
- Tektronix 7704A Oscilloscope
- Sony color 65 power inspection camera with color monitor
- Inspection Microscope

Mechanical Assembly / Wire Harness

- Carpenter Model 70D wire stripper
- Cirrus 1100 H+ Hi Pot Cable Tester
- Ideal Industries Model 45-754 Measure, cut & strip
- Ideal Industries Model 45-145 Wire strip
- Pico crimping Tools Model 400B crimp master