

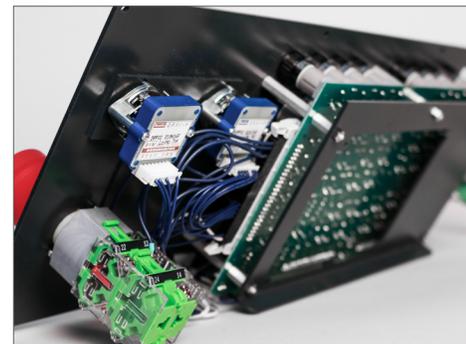
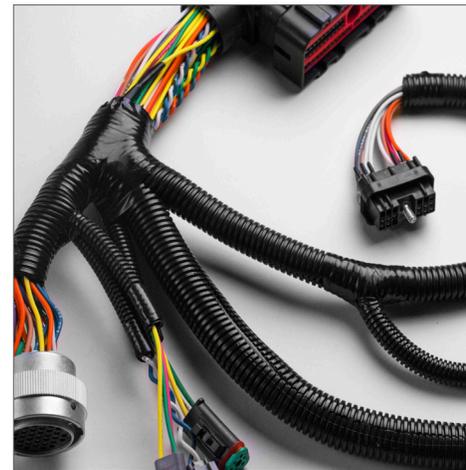
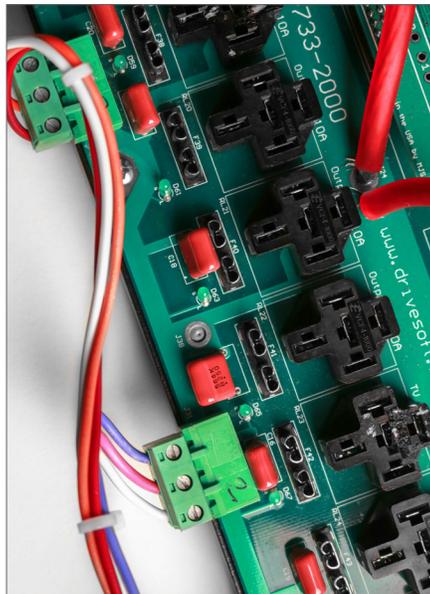
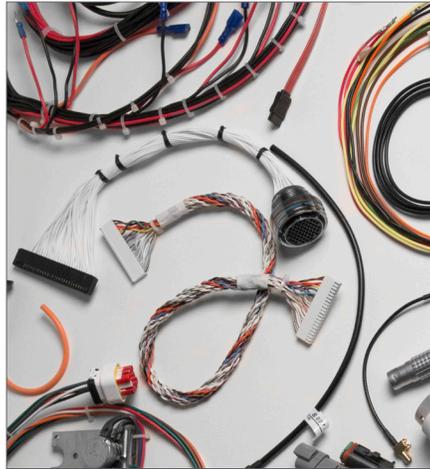


## Sig4CAI Electronic Process Technology for Customercentric Results

Electro-mechanical Solutions

### cai Processes

- Harness Assembly
- Vacuum Forming
- Overmolding
- Potting
- Cut / Strip / Terminate
- PCBA
- Specialty Finishing
- Rapid Prototyping 3D Printing
- Injection Molding
- Metal Casting and Forming



# PCBA Fabrication Capability

## PCB STANDARDS:

- Layer count; 1-12 Layers
- Maximum Panel Size; 30" x 32"
- Smallest Circuit Width/Spacing; 5 mil / 5 mil
- Materials; FR-4, Teflon, Aluminum Clad Laminate, Polyimide (Kapton)
- Stocked Thickness ; .008", .014", .031", .047", .062", .093", .125"
- Smallest Drill Hole Size; 10 mil
- Hole Size Tolerance; +/- .003
- Dimensional Tolerance; +/- .005
- Finishes; HASL, Pb-Free HASL, ENIG, Immersion Silver, Hard Gold, Gold Tab Plating
- Maximum Copper Thickness; As required up to 6 oz.
- Electrical Testing; Available as specified Flying Probe and Bed of Nails
- Fabrication; Available Methods of Routing and Scoring

## TESTING CAPABILITY:

- In Process Inspection with 3 AOI: ALD-510, MF-760VT, MRD-620L
- In-Circuit Test – Genrad 2286, T121 and HP 3070 III
- Vision Engineering microscopes; 3 of Model 2TX-20
- Digital oscilloscopes (7 total)
- Fluke multimeters (10 total)
- Functional Test - Per Customer Supplied/Specification
- Hi-pot and Burn-in Testing; (2 total) CS26720D

## STANDARDS:

- ISO9001:2008
- IPC 610 Compliance

## STANDARD EQUIPMENT:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>4 - PICK &amp; PLACE; 4250 CPH</li> <li>5 - PICK &amp; PLACE; 3500 CPH</li> <li>2 - PICK &amp; PLACE; 30000 CPH</li> <li>1 - PICK &amp; PLACE; 35000 CPH</li> <li>3 - REFLOW OVENS</li> <li>4 - AUTO SCREEN PRINTER</li> <li>3 - SEMI-AUTO SCREEN PRINTER</li> <li>4 - UPLOADER</li> <li>1 - BGA REPAIR</li> <li>4 - WAVE SOLDERING</li> <li>2 - ULTRASONIC CLEANING</li> <li>3 - AOI INSPECTOR</li> <li>2 - AOI INSPECTOR</li> <li>1 - AOI INSPECTOR</li> </ul> | <ul style="list-style-type: none"> <li>• BGA REPAIR; AIR-VAC &amp; Conceptronic BGA rework station; EX-380</li> <li>• WAVE SOLDERING; Leaded and RoHS wave solder machines; (4 total) Wave soldering, SA-3JSL</li> <li>• ASSEMBLY; Leaded and RoHS PCB assembly processes; (6 total) lines, with 44 working places ea.</li> <li>• SMT CAPABILITIES; SMT capabilities (0201s, Package on Package, BGA's, QFN's, uBGA's, etc)</li> <li>• SUBSTRATE EXPERTISE; As required - expertise on multiple substrates (FR4, Aluminum clad, Copper, Ceramic, CEM1 &amp; CEM3, Flexible PCB, etc)</li> <li>• PLATED THROUGH HOLE ASSEMBLY; Automated and semi automated PTH assembly</li> <li>• TESTING EQUIPMENT; (6 total) Electrostatic testing TAK#498; 2 pcs LCR, #YD2810</li> </ul> |
|---|--|

# Harness Fabrication Capability

CABLE FORMING EQUIPMENT	UNITS, EACH OR STATIONS
Cable Extruding	3
Spiral Shielding	9
Braided Shielding	2
Inner Wire Twisting	2
Al-Foil Wrapping	4
Strand Winding	4

HARNESS FABRICATION EQUIPMENT	UNITS, EACH OR STATIONS
Molding Stations	47
Ultrasonic Welding	3
Automatic Welding	2
Laser Welding	2
Cable Stripping Stations	39
Cable Cutting	10
Crimping Stations	42
Automatic Crimping	8
Wire Twisting	2
Manual Crimping Tools	400
Modular Plug Crimping	2
Manual Punching	3
Electric Punching	3
Automatic Cable-Winding	1
Automatic Shrink-tube Heating	1
Oven	3

CABLE & HARNESS TEST & RELIABILITY EQUIPMENT	UNITS, EACH OR STATIONS
Multifunctional Cable Tester	37
Hi-Pot Tester	2
Microscope	22
Tensile Tester	1
Cable Bending Tester	1
Tension Meter	4
Torsion Meter	1
Durometer	1
LCR Bridge	2
X-Ray Detector for Banned Substances	1
Pull & Push Force Tester	2
Regulated DC Power Supply	5
High-voltage Holding Tester	2
Network Analyzer	1
Salt Spray Test Chamber	1
Vibration Tester for Simulation of Auto Transportation	1
Temperature and Humidity Test Chamber	1
Cable & Wire Elongation Tester	1
Air-leakage Detector	1
Image Measuring Instrument	1