

CONTINUOUS IMPROVEMENT

Continuous Flow Manufacturing
Mistake Proofing Techniques
High Performance Work Teams
Six Sigma Techniques

Quality Teams
Visual Factory
Performance Board

6 "S"

Sort – Straighten – Shine – Standardize – Sustain - Safety

SERVICES

Lean Manufacturing
Flexible Circuit Assembly
Repair Services
Turnkey-Consignment
Chassis & System Integration
Customer Supported Layout & Design

Quick Turn Prototyping
Inspection & Testing
Kanban Services
High Mix Production
Wire & Cable Harness

CAPABILITIES

Surface Mount assembly equipment:

Board Size Min = 50 mm x 50 mm (2" x 2")
Board Size Max = 508 mm x 508 mm (20" x 20")

- 2 EKRA X4 screen printers
- 2 EKRA Serio 4000 volume printers
- 2 Parmi SigmaX Blue solder paste inspection
- 2 Samsung SM481 placement systems
- 1 Samsung SM482 placement system
- 2 Samsung SM 421 placement systems
- 1 Samsung SM485 placement system
- 1 Samsung SM411 placement system
- 1 Samsung SRF70i123 reflow oven
- 2 BTU Pyramax reflow ovens (models 98 & 125)

Ball Grid Array and Advanced SMD's

- ERSA HR600/2
- BGA's (BGA placement up to 55mm² 1.0mm pitch)
- µBGA (0.5mm pitch)
- Ultrafine pitch components (0.4mm pitch)
- QFN/MLP
- LGA
- CSP
- 01005 chip components
- Odd Form components
- Large Connectors (up to 72mm diag.)

Soldering - Lead or Lead Free (RoHS)

Board Size Min = 50 mm x 50 mm (2" x 2")
Board Size Max = 400 mm x 510 mm (16" x 20")

- 4 Wave Solder Machines (Electrovert EPK, Electrovert Vectra Elite, Vitronics Soltec Delta 5, ERS Powerflow)
- 1 Seho Selectline C Soldering Machine
- Board Size Max = 500mm x 500mm (19.68" x 19.68")
- 2 ERS Smartflo 2020 Selective Soldering Machines (Max 18" x 24")

Through-Hole assembly equipment:

Board Size Min = 50 mm x 50 mm (2" x 2")
Board Size Max = 350 mm x 460 mm (14" x 18")

- 6 Contact Systems CS-400 Component Locators

Automated Optical Inspection

Board Size Min = 50 mm x 50 mm (2" x 2")
Board Size Max = 510 mm x 660 mm (20" x 26")

- 2 Mirtec In-Line MV-6 Omni 3D
- 1 Mirtec In-Line MV-7U
- 1 Mirtec In-Line MV-7xi
- 2 Mirtec Desktop MV-2HTL
- 15 Mega pixel downward camera with a telecentric compound lens
- 10 Mega pixel side-view cameras
- Intelli-Scan Laser inspection
- (lifted lead and BGA/QFN co-planarity check)
- 45mm part clearance (same for MV2-HTL)
- 50mm x 50mm to 660mm x 510mm PCB capacity
- SPC data collection

X-Ray Inspection

- 1 FeinFocus Yxlon Y. Cougar X-Ray Inspection station

Automated Depaneling

- 1 Cencorp 1000BR – depaneling and high-capacity router

Cleaning

- 1 Technical Devices Nu/Clean 824 XLR-FB Inline Aqueous Wash Machine
- Board Size Min = n/a
- Board Size Max = 24 x 25"

PCB Conformal Coating

- 1 PVA6000 Conformal Coating Machine and IR2000 Curing Oven
- Board size 600mm x 600mm (23.6" x 23.6")
- Acrylic / Urethane / Silicone / Polyurethane

Potting/Encapsulation

- Fisnar 3 Axis Dispensing Robot

Nitrogen Generator

- 1 On – Site N-150 TGN Nitrogen Generator

Circuit Board Testing

- 1 SPEA Flying Probe
- 2 Teradyne LH In-Circuit Test Stations
- Functional testing on customer owned fixtures
- Custom Test Fixtures

Programming

- 1 Data I/O 3980xpi
- 1 BPM Microsystems 1610

Inventory Control

- 1 Optical Control OC Scan CCX.3 component counter

High Voltage Soldering

Product Identification and Traceability

