EMS

Electronic Manufacturing Services

EmINENT Microsystems Inc. is a total embedded solutions provider offering systems level Software Libraries, System Integration Services, and Electronic Manufacturing Services (EMS) for technology companies. Our global network of industry alliances allows for a flexible and cost effective manufacturing process, in both the United States and China. EmINENT's ability to provide end-to-end Electronic Manufacturing Services (EMS) enables OEM technology providers to leverage our valuable resources such as engineering, design, layout, board fabrication, turnkey services, prototype and production assembly, testing, mechanical box build and pack out. By doing so, our customers are able to increase profits by saving valuable time and money.

Some product industries we support include, (but not limited to), Wireless, RF, Video Control, Flat Panel Display, Networking, Medical Products, Storage, Industrial Lasers, Embedded Systems, Automotive and Consumer products.

We have researched and qualified each of our PCB fabrication, electronic component, and PCB assembly partners thoroughly. Our ISO certified systems enable us to assemble and deliver products at the right cost, with an assurance of quality.

We invite you to experience our winning team and allow **EmINENT Microsystems Inc.** to manage all of your PCB needs.

Board Design Engineering
Board Layout Engineering
Mechanical Services
  o Concept Data
  o Design Files
  o Process Requirements

PCB Fabrication
  o Rigid FR4
  o Flex Circuit
  o Rigid Flex
  o Exotics

Materials Management
  o Component Procurement
  o Kitting Services
  o Chip Programming
  o Turnkey Services
  o Consignment Control

Board Level Services
  o Prototype
  o Quickturn
  o Surface Mount Assembly
  o Pin-Through-Hole Assembly
  o Fine Pitch Chip Placement
  o Board Level Rework

Ball Grid Array Services
  o BGA Placement
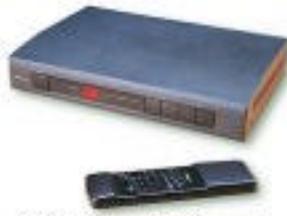 o BGA X-Ray
  o BGA Test
  o BGA Rework / Re-ball

Cable & Harness Assembly

Test Services
  o Functional Testing
  o In-Circuit Testing (ICT)
  o Automatic Optical Inspection

Final Level Services
  o Box Build / Mechanical Assembly
  o Labeling Services
  o Pack-out Services

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PCB Fabrication Technical Capabilities

Panel Sizes and Utilization

16" X 18", 18" X 24", 21" X 24", 21" X 26"
Maximum circuit size: 19.5" X 24.5"
Minimum panel boarder .750
Minimum part spacing .100
Finish thickness tolerance
.010 - .031 +/- .003
.032 - .062 +/- .004
.063 - .093 +/- .006
.094 - .125 +/- .008 Advanced +/- .005
.125 and greater +/- 10%

Constructions
Mixed dielectrics
Controlled dielectrics
Controlled impedance
Blind vias, buried vias
Minimum thickness .002"
Maximum thickness .250"

Line and Space
Minimum line .003
Minimum space .003
Finish trace tolerances +/-
1/2 oz int .0005 ext .0005
1 oz int .001 ext .001
2 oz int .002 ext .002

Lamination
Per IPC-4101
Multi-functional FR-4
Polyimide
Getek
Minimum cladding 1/4 oz
Maximum cladding 6 oz internal
Rogers 4003, 4350, 3000
PTFE
Cyanate Esther
BT Epoxy

EmINENT Microsystems Inc.
205 SE Spokane St. Suite 336
Tel: (503) 238-7530
Fax: (503) 238-7501
www.eminentmicro.com

Equipment List

Shanghai China Plant

13 Advanced Level Surface Mount Technology Lines
5 - Panasonic SMT
4 - Fuji SMT
4 -Juki SMT
13 PTH Auto Insertion Lines
8 Manual Insertion Lines
6 'Automated Visual Inspection' Machines
6 ICT Machines
1 X-Ray System
For more detailed info on our China facility:
http://www.shjinlingsmt.com.cn

Domestic Plant #1
2 - MPM VP3000 Screen printers
2 - Panasonic MV2F Chip Shooters
2 - Panasert MPA3 Fine Pitch Placers
2 - Heller 1800 EXL Reflow Ovens
Universal Radial Inserter
Universal Axial Inserter
Universal DIP Inserter
Electrovert Wave Solder
Stoelting Cleaner
Nicolet 1400 X-Ray
HP 3070 ICT
BGA Rework station
Box Build / Testing / Rework Stations

Domestic Plant #2
4 - TDK Avimount RX-11 w/Vision High Speed Chip Shooter
3 - TDK Avimount SS-2 w/Vision Fine Pitch Flex Assemblers
1 - My Data TP11-UFP w/vision Pick & Place Machine
1 - My Data TP-1 w/ Vision Pick & Place
My Data Direct Line Programming
Ekra E5 Auto In-line Screen Printer
Elite 24" Screen Printer
DEK 260 SA Screen Printer
DEK 248 SA Screen Printer
2 - Heller 1500S Convection Air Reflow
Quad 941 Reflow Oven
Hart SMT Hot Air Rework Station
2 - Leister Hot Air Jet Level Reflow
Nicolet 1410 X-Ray
Zehntel 875 ICT
Functional Test & Full Box Build Stations

Mechanical Services

Design Services

- Conceptual Design
- Product Identity
- Industrial Design
- Product Design

Design Tools

- SolidWorks
- ProE 2000
- Surf Cam
- Virtual Gibbs
- Ashlar Vellum

DFM Services

- Injection Molding
- Structural Foam
- Sheet Metal
- Reaction Injection Molding (RIM)
- Castings
- Rotational Molding
- Blow Molding
- Metal Fabrication
- Pressure Formed

Rapid Prototyping

- Fused Deposition Modeling (FDM)
- Stereo lithography (SLA)
- Selective Laser Sintering (SLS)
- Product Casting

Machine Shop

- 2D & 3D Machines
- Surfacing
- CNC Milling Center
- Conventional Mills, Lathes, Grinding & Sanding
- Plastics / Aluminum / Steel / etc...