



Board Design 

Board Fabrication 

Board Assembly (PCBA) 

Qualification & Testing 



Electronic Manufacturing Services

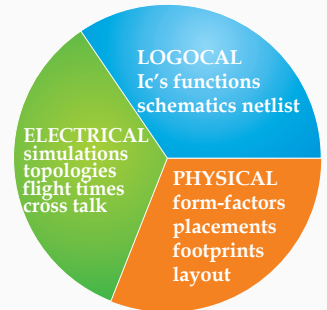
Board Design Services

Our E-CAD division has vast experience in designing complex multi layer PCB's as per IPC standards. Several of our designs are qualified under stringent specifications of aerospace and industrial applications.

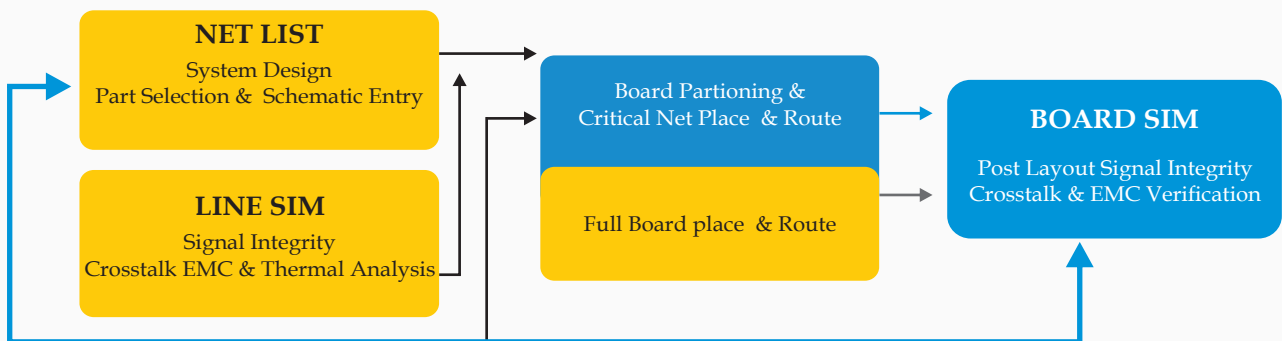
Our team works closely with the engineering services and R & D team in realizing customer requirements. We take responsibility right from the schematic entry up to board level assembly, testing and packing of electronics. We believe in “**First time right designs**”.

Services Offered

- ◆ Schematic capture
- ◆ Board Layout
- ◆ Multi Million gate FPGA based design
- ◆ Mixed Signal Designs
- ◆ RF designs, Switched fabric back planes
- ◆ High speed designs
- ◆ Cross talk & Timing Analysis
- ◆ Library Development
- ◆ Signal integrity analysis
- ◆ EMI-EM C analysis
- ◆ Thermal analysis
- ◆ DFT
- ◆ DFM
- ◆ DDR2 & DDR3 optimization



Board Design Flow Chart



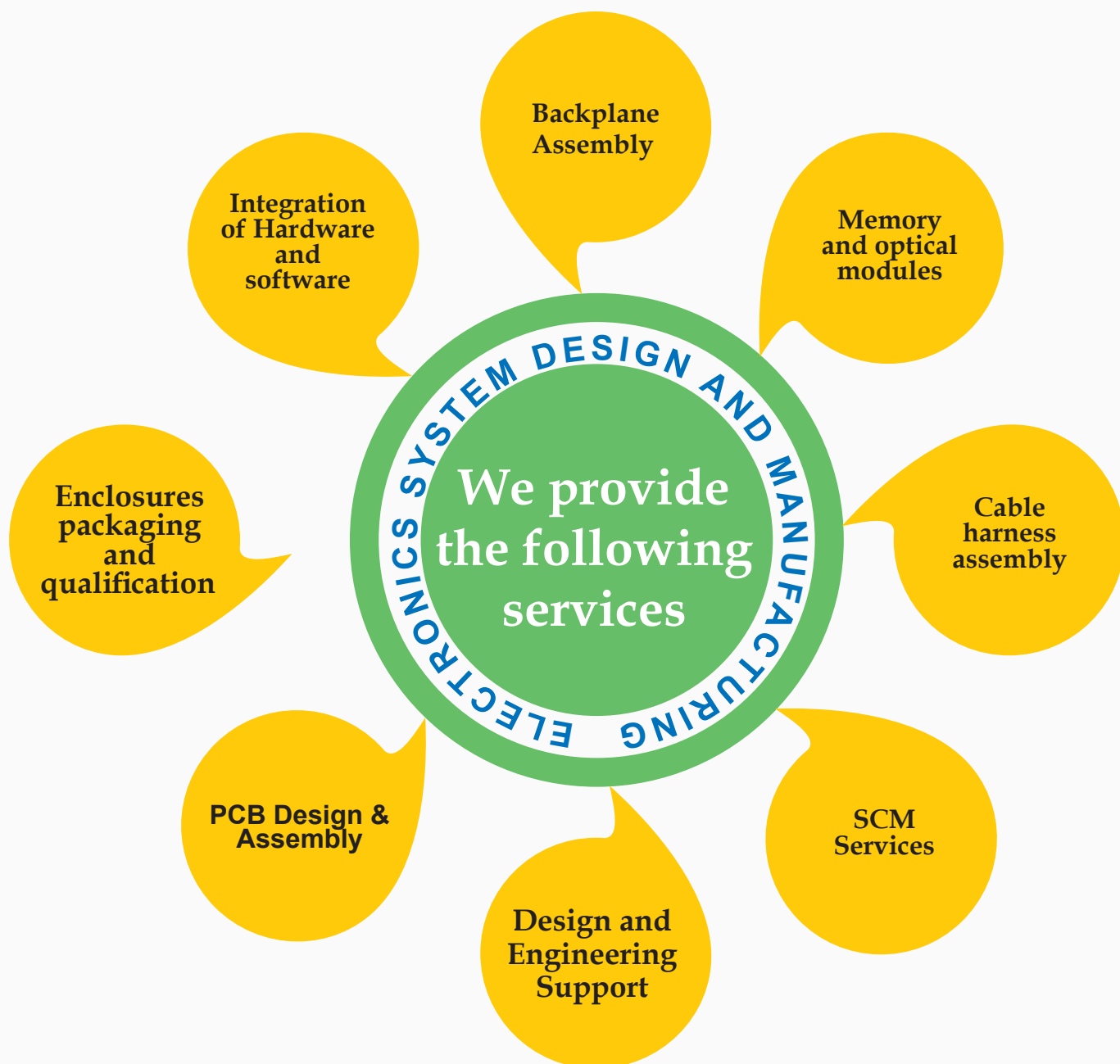
Signal Integrity & EMC Analysis

Early signal integrity analysis and electromagnetic compliance (EMC) analysis are essential in high-speed PCB design, particularly as IC switching and clock speeds escalate. We offer both pre-layout (LINESIM) and post-layout (Boardism) analysis that allows you to eliminate these problems early in the design process, thereby reducing your:

- ◆ Time to market and budget overruns
- ◆ Number of board turns due to Long transmission delay
- ◆ Overshoot, undershoot and ringing
- ◆ Glitches / false clocking
- ◆ Radiated emissions (EMI) and costly, time-consuming EMC
- ◆ Long lab sessions searching for intermittent failures

End to End Manufacturing Services

We offer full integration of electronic products from small-to mid-range to large infrastructure and capital equipment. We guarantee a rise in the quality of your products while lowering costs. As your EMS Company of choice, we deliver the technology, expertise, quality and dedication of an OEM/ODM service provider.





Board Assembly (PCBA)

From automated assembly of Surface Mount Technology [SMT] to insertion and wave solder of Through Hole [TH] components, our highly skilled team and state-of-the-art equipment can handle virtually any project to highly customised hand soldering work.

What's more, our commitment to excellence is reflected in every aspect of the production process. Our process engineering decisions regarding clean processes to conducting a stringent first article review of the first boards off the line on a newly established SMT assembly job.

Capabilities for small & Large quantities include:

- ◆ Manual and Automatic Soldering
- ◆ Through Hole component Boards Assembly
- ◆ SMT & BGA Assembly
- ◆ Wave Soldering
- ◆ Backplane Assemblies
- ◆ Lead free components & Processes
- ◆ Micro BGA Assembly
- ◆ Flip chip on flex assembly
- ◆ 0201 & 0402 chips
- ◆ Large board sizes
- ◆ 12-mil pitch connectors / QFP's
- ◆ Press-fit connectors
- ◆ BGA assembly, rework & reballing
- ◆ X-ray inspection system

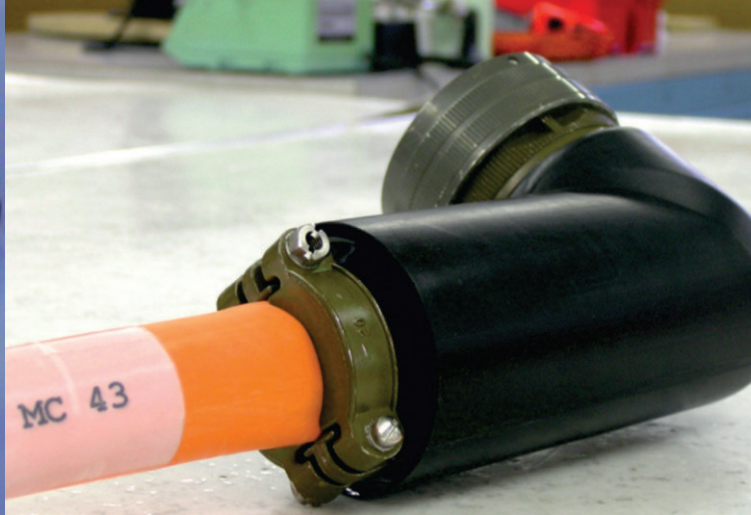
Pb Free & ROHS Manufacturing:

AMS has set up "Lead free" manufacturing lines for PCB assemblies. With the expertise and trained manpower, we are capable to manufacture RoHS compliant products. The process is combined with visual control management, laid down procedures, work instructions, green manufacturing and controlled environment. We are the immediate destination for all your **Electronics** manufacturing products, needing compliance with RoHS standard. We also undertake projects for conversion of non-RoHS line of products to RoHS compliant range.



Partnering with AMS realize following benefits

- ❖ Supply to EU community a product complying with RoHS
- ❖ Plan a compliance strategy for the existing products throughout the life cycle of the products
- ❖ Re-engineer products for your PCB assemblies and sub-assemblies
- ❖ Minimize investments exclusive to RoHS
- ❖ Optimise resources to comply with RoHS



Cable Harness Assembly

We offer wide range of cost-effective cable assembly solutions. Right from assembly to design and development capabilities to industry-leading customer service, we provide cable assembly services that keep you connected and competitive. Our trained manpower in cable harnessing is capable of cable routing for critical defence and automotive markets.

Processing Capabilities

- ♦ Cutting/ Stripping
- ♦ Ink Jet Marking
- ♦ Hot Stamp Marking
- ♦ Semi-Automatic termination
- ♦ Manual Termination
- ♦ Wire Wrap
- ♦ Taping
- ♦ Bar Coding/ Labelling
- ♦ Tywrapping and Lacing
- ♦ Brading
- ♦ Lom, Split or Solid
- ♦ Soldering, resistance soldering
- ♦ Heat Shrink tube application
- ♦ Potted connectors

Manufacturing Capabilities

- ♦ Wire Processing and Termination
- ♦ Wire Harness
- ♦ Cable Assemblies
- ♦ Networking Cables
- ♦ Ribbon cables
- ♦ Molded Cables
- ♦ Power Cords
- ♦ C-Axial Cables
- ♦ Battery Cables
- ♦ HDMI Cables
- ♦ D-Sub Cable
- ♦ RF Cables

Our Advantage includes

- ♦ High speed cables
- ♦ RF cables
- ♦ Wiring harnesses
- ♦ Custom cables
- ♦ Molding assemblies
- ♦ Computer generated drawings and documentation
- ♦ Tooling and test rig development



Environmental Test Services & Quality Assurance

Quality is not just a word at AMS, it is the mantra for our success and underlines all that we do. Our system engineering division works closely with customers and understands their quality requirements. Our quality control group strictly follows process maps, process metrics and route cards at every stage of production process

Every stage of inspection is conducted with a pre-decided mandatory process as per the quality requirements. A separate quality assurance document is generated for every project which is the guideline for the sub-assemblies to go to the next stage of integration.

- ◆ Product qualification from prototype to life cycle maintenance
- ◆ Qualifying system as per MIL, CE, JSS 55555
- ◆ Performing ESS tests for system Qualification
- ◆ Consultancy services to qualify system as per MIL standard

Testing Capabilities

- ◆ Burn-In Chambers / Run - In
- ◆ Thermal Cycling
- ◆ Vibration shaker up to 100 G
- ◆ X-ray machine

Workmanship Standards

- ◆ ANSI - J - STD 001
- ◆ ANSI - J - STD 001 ES (Space Add)
- ◆ ANSI - J - STD 001 Certified Trainers and operators
- ◆ IPC - A - 610D, class 1, 2 & 3 Acceptability Standard

Qualification & Testing Services

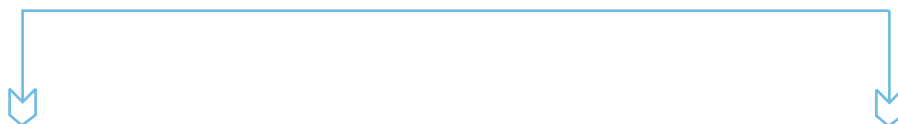
- ◆ Extensive testing capabilities to certify products in compliance with CE, UL & TUV External certifications



Infrastructure Capabilities

- ◆ State of the art Clean Environment
- ◆ Facility for Design and Production of RF Systems
- ◆ State-of-the-art PCB assembly line capable upto 01005 to 120x90mm, T=28mm
- ◆ BGA Rework station
- ◆ Wave Soldering for TH Components
- ◆ Cable Harnessing Facility
- ◆ Specially Designed Conformal Coating Facility
- ◆ Ultrasonic PCB Cleaning Facility
- ◆ Optical inspection stations for PCB assembly
- ◆ 130kv X-ray inspection Systems
- ◆ System Integration facilities for mass production
- ◆ Automated Test Equipment [ATE]
- ◆ Programmable Power Supplies
- ◆ DSO, Signal generator and function generators
- ◆ Vector Network Analyzer
- ◆ Preforming tools
- ◆ Wire wrapping tools
- ◆ De-humidifiers
- ◆ ESD storage units
- ◆ In-House ENTEST Facility

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