

Enthu Manufacturing Solutions

(a Division of Enthi Technology Solutions India Pvt. Ltd.)

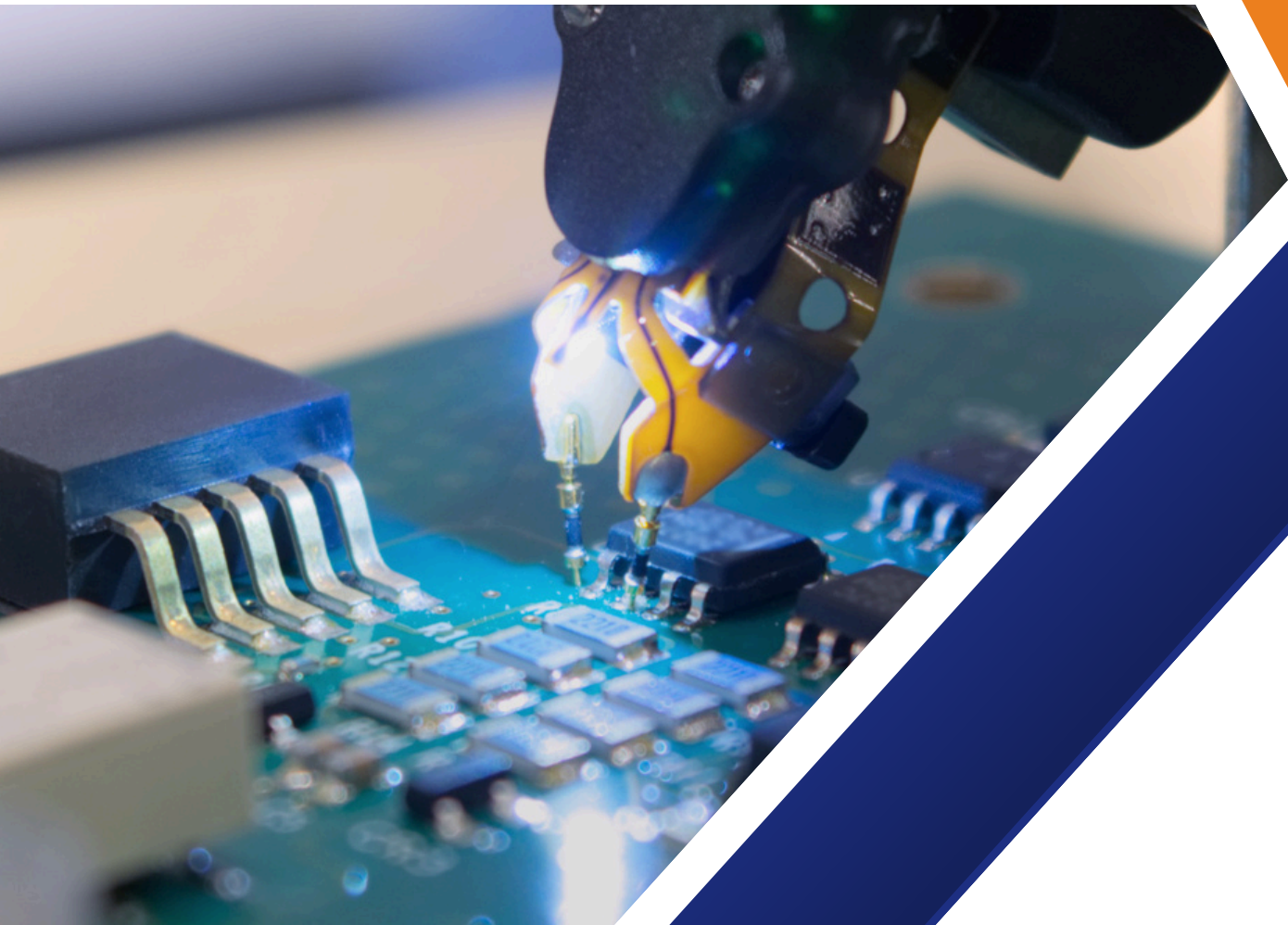


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Introduction



10+

Years of operations

75+

Employees

200+

Happy clients

10000+

Design & Fabrication works
Successfully Completed

Enthu Manufacturing Solution is the manufacturing division of Enthutech Technology Solutions India Pvt., Ltd., EMS is a leading provider of comprehensive Electronics Manufacturing Services (EMS). We specialize in delivering high-quality, cost-effective solutions tailored to meet the unique needs of our clients. Our services cover the entire lifecycle of electronic product development, from design and prototyping to mass production and supply chain management. With state-of-the-art facilities, a skilled workforce, and a commitment to excellence, we aim to be your trusted partner in bringing innovative electronic products to market.

Company Overview



Mission

Our mission is to provide superior electronics manufacturing services that empower our clients to succeed in their markets by delivering products that meet the highest standards of quality, reliability, and innovation.

Vision

To be recognized as a global leader in the EMS industry, known for our technological expertise, customer-centric approach, and unwavering commitment to excellence.

Core Values



Quality: Commitment to the highest standards in every product we deliver.



Innovation: Continuous improvement and adoption of cutting-edge technologies.



Customer Satisfaction: Exceeding client expectations through tailored solutions.



Sustainability: Environmentally responsible manufacturing processes.

Our Services

Design and Development



Conceptual Design: Transforming ideas into viable product concepts.



Electronic Design: Schematic and PCB layout design.



Firmware and Software Development: Embedded systems and application software.



Design for Manufacturability (DFM): Ensuring designs are optimized for production efficiency and cost-effectiveness.

Manufacturing



PCB Assembly: Surface mount technology (SMT) and through-hole assembly.



Cable and Harness Assembly: Custom cable assemblies and wire harnesses.



Box Build Assembly: Complete product assembly including enclosures and subassemblies.



Testing and Inspection: Automated optical inspection (AOI), in-circuit testing (ICT), and functional testing.



Quality Assurance: Rigorous quality control processes to ensure product reliability.

Our Services

Production



Rapid Prototyping: Fast turnaround for initial prototypes.



Functional Testing: Ensuring prototypes meet all specifications and performance criteria.



Iterative Development: Refining prototypes based on feedback and testing results.

Supply Chain Management



Component Sourcing: Strategic sourcing of high-quality components.

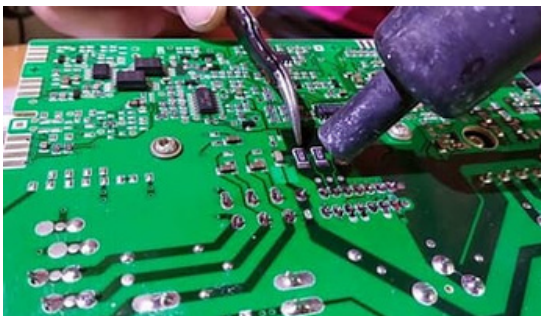


Inventory Management: Efficient management of materials to reduce lead times and costs.



Logistics and Distribution: Streamlined logistics for timely delivery of finished products.

Aftermarket Services



Repair and Rework: Post-production support for repairs and rework.



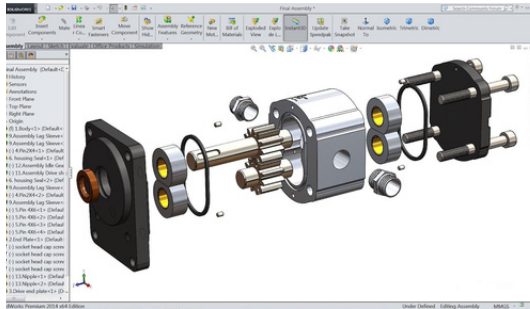
Warranty Management: Handling warranty claims and product returns.



End-of-Life Services: Sustainable disposal and recycling of electronic products.

Our Services

Mechanical Design



Mechanical Design: Enclosures and mechanical components. Using advanced CAD software, our team creates detailed 3D models of your enclosure.



With a team of experienced engineers and designers, we ensure that every enclosure is crafted with precision, functionality, and aesthetics in mind.

Sheet Metal Fabrication

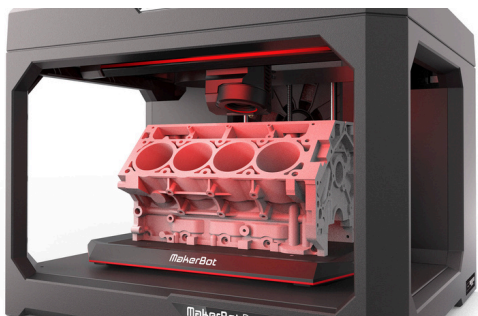


Fabrication techniques used in sheet metal involve various methods to shape, cut, and assemble metal into desired forms.



We assist in selecting the most suitable materials for your enclosure, considering X-factors

3D Printing Services



Creating complex, customized designs quickly and cost-effectively.



We also provide rapid prototyping services to help you visualize and test the design before final production.

Our Approach

At Enthu Technology Solutions, we adopt a customer-centric approach to ensure that we meet and exceed client expectations. We engage closely with our clients throughout the project lifecycle, from initial consultation to final delivery and support. Our approach includes:



Collaborative Planning

Working closely with clients to understand their needs and define project goals.

Agile Development



Using iterative development processes to allow flexibility and rapid responses to feedback.



Quality Assurance

Implementing rigorous testing and quality control measures at every stage.

Sustainable Practices



Ensuring our processes are environmentally friendly and sustainable.

Our Facility

At Enthi Technology Solutions India Pvt Ltd, we pride ourselves on having state-of-the-art facilities that enable us to deliver high-quality electronics manufacturing services. Our facility is equipped with the latest technologies and machinery, ensuring precision, efficiency, and scalability in our production processes.

SMT Machine Details

Our Surface Mount Technology (SMT) assembly lines are at the core of our manufacturing capabilities. Below are the details of our SMT machines and their capabilities:



Our Facility

SMT Machine 1: SMTMATE 660

- **Description:** High-speed, versatile SMT mounter suitable for a wide range of component types.
- **Placement Speed:** Up to 15,000 CPH (components per hour)
- **Component Range:** 0201 (metric) to 45 x 45 mm, height up to 15 mm

Features

- High-speed Picking head.
- Intelligent feeder system for fast and accurate component handling
- Vision system for precise placement accuracy with component Visual Test.
- Advanced PCB transport system for stable and reliable operations

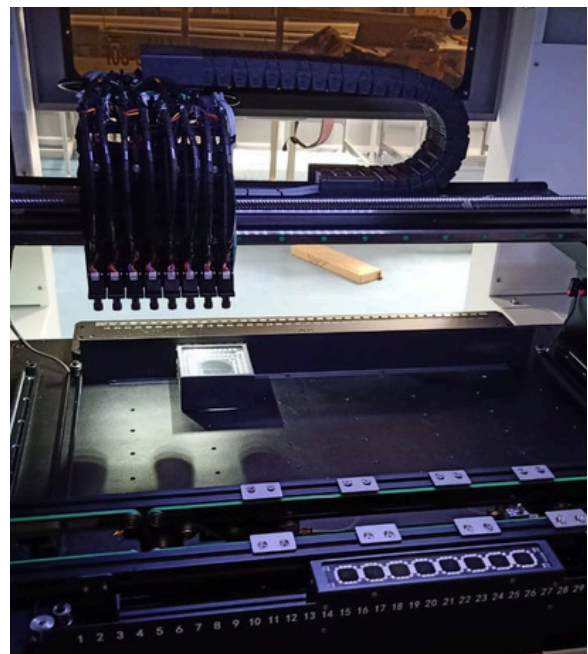


SMT Machine 2: SMTMATE 660s

- **Description:** High-speed, flexible SMT placement machine with a wide component range.
- **Placement Speed:** Up to 15,000 CPH (components per hour)
- **Component Range:** 0201 (metric) to 45x 45 mm, height up to 25 mm

Features

- High-speed Picking head.
- Intelligent feeder system for fast and accurate component handling
- Vision system for precise placement accuracy with component Visual Test.
- Advanced PCB transport system for stable and reliable operations



Our Facility

Ets - Stencil Printer

ETS - Stencil printer machine aligns a stainless steel stencil over a PCB, spreading solder paste across the stencil openings using a squeegee at precise deposits of solder paste remain on the PCB pads. This ensures accurate and consistent solder paste application for component placement

Features

- PLC Control System to ensure working stabilized & reliable; Touch screen is easy to operate.
- Printing scraper can rotate 45 degrees fixed up, easy printing stencil and squeegee cleaning and replacement



Ets - Reflow oven

ETS - Reflow oven machine provides the advantage of precise and consistent soldering of electronic components on PCBs. It ensures uniform heating, which improves solder joint reliability and reduces defects. This automation speeds up production and enhances the overall quality of electronic assemblies.

Features

- PID Closed-loop control.
- Rapid & Uniform heating.
- On-the-fly vision system for high-precision placement



Product Development Flow

Initial Consultation

- Understanding client needs and project requirements.
- Defining project goals and deliverables.

01

Design and Development

- Creating conceptual designs and schematics.
- Developing firmware and software.
- Designing for manufacturability (DFM).

02

03

Prototyping

- Rapid prototyping for initial models.
- Conducting functional testing to meet specifications.
- Iterating designs based on feedback.

04

Manufacturing

- High-precision PCB assembly.
- Cable and harness assembly.
- Complete box build assembly.
- Rigorous testing and inspection.

05

Quality Assurance

- Automated optical inspection (AOI).
- In-circuit testing (ICT).
- Functional testing and reliability checks

06

Supply Chain Management

- Strategic component sourcing.
- Efficient inventory management.
- Streamlined logistics and distribution.

07

Aftermarket Services

- Post-production repair and rework.
- Warranty management.
- Sustainable disposal and recycling.

Process We Follow

Inventory

- Project Data collection.
- Checking of Component as per the Purchase order.
- Parameters verification.

01

PCB Assembly

- Machine Programming & Component loading & NPI Verification.
- Through hole Component inserting and Soldering.

02

Cleaning

- It involves removing flux residues, dust, and other contaminants from the board surface.
- It ensure optimal performance and reliability

03

Final Quality Check

- Visual inspection to detect any surface defects or irregularities..
- Verification of component placement and soldering quality.

04

Box Build Assembly

- Integrating of PCB board with all necessary cables, connectors, and sub-assemblies within the Enclosure box.

05

Packing / Shipping

- It involves securely placing the boards in anti-static packaging to prevent electrostatic discharge and physical damage.
- Proper labeling and cushioning materials are used to ensure safe transport and handling.

06



Contact Us

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