



Corporate Overview

Innovative business practices and state-of-the-art global facilities have made EPM Global Services a leader in the delivery of electronics manufacturing services (EMS).

Unique to its size and customer base, with a history of specializing in low to mid-volume, high complexity programs, EPM provides a sophisticated global manufacturing network with operations in Canada, United States and China. EPMs' expertise in quality, technology and supply chain management provides a competitive advantage to its customers by improving time-to-market, and global scalability to provide an entire suite of manufacturing options tailored to meet customers needs.

From NPI to an entire program lifecycle, EPM's innovative Hybrid Manufacturing Solution (HMS) creates options best suited to your product's markets, and maturity level, by utilizing the geographic strengths of each EPM location to effectively support your products through its entire lifecycle.

EPM's commitment to quality assures absolute customer satisfaction. Globally, all EPM facilities adhere to strict controls and processes in compliance with ISO 9001:2000 certification ensuring product and services of the utmost quality. Through continual investment in leading edge manufacturing and systems infrastructure, EPM ensures that the processes, procedures and environment are in place to assure the highest level of quality for your product at all global locations.

EPM offers customer focused solutions, tailoring its service offerings to seamlessly integrate with your supply chain requirements from programs requiring PCB assembly to full service box build solutions, shipped to your warehouse, or directly to your clients as well as RMA and Repair depot services. Flexibility in its service offerings allows EPM to adapt to your program requirements.

Global Facilities



For more than a decade, EPM has been servicing the North American and European industrial electronics market, supporting the needs of a growing and diversified customer base.

Founded in 1993 and originally established as a low to mid-volume, high complexity EMS provider, the Markham, Ontario facility, EPM Global Services, has positioned EPM as a world leader, with innovative practices, resulting in outstanding service, quality and delivery. From Engineering to full box build solutions to RMA and Repair depot services, the Markham facility is not only the central hub in which all program operations begin, but also serves as a full service facility that can fulfill all your program needs.

Located in the New England high tech hotbed, approximately 1 hour outside Boston, the Manchester, New Hampshire EPM facility, EPM Global Electronic Services, Inc. is strategically located to provide a U.S. presence in the global market.

EPM's facility in the harbor city of Shenzhen, EPM Electronic Technologies (Shenzhen) Co., Ltd, is equipped to provide a full suite of EMS solutions leveraging China's natural cost savings and production advantages in the global market

Fully integrated through implementation of common manufacturing and systems infrastructure, all EPM global facilities have the ability to work seamlessly together to provide your program with a range of service options that are unparalleled in the industry. All facilities provide a full suite of EMS Solutions designed to address customer requirements, while providing the equivalent high levels of quality, service and delivery for its customers.

Hybrid Manufacturing Gives Choices



With three strategically located, worldwide facilities, and drawing from the geographic strengths of the regions, EPM has created a unique seamless, customer driven solution that is able to deal with the complexities of global manufacturing: Hybrid Manufacturing Solutions (HMS).

HMS is an innovative solution created by EPM to completely tailor your EMS program to criteria that provide the best possible solution to your requirements by leveraging the strengths of all EPM Global facilities and their unique advantages. HMS provides a custom program best suited to your EMS needs.

Each product in a customers' EMS program is scored and evaluated based on the following criteria: stability of design, complexity, volume, bill of material, forecast stability, phase in the product lifecycle, and the product roadmap. HMS provides several choices based on the results found and analyzed.

Based on these results, a business case for your EMS program is prepared providing clearly outlined choices, and the advantages of each choice across the EPM global facility structure. Options are laid out and thoroughly explained and detailed. Common choices include, but are not limited to, volume, CPP desired, final warehousing and distribution, timelines, inventory levels and after delivery service.

Once a program is chosen, a procurement plan is then put into effect. EPM's integrated MRP allows for the execution of procurement activities to be assigned across our corporate structure, while maintaining control of supply chain timing at the local customer level. The flexibility of EPM's supply chain activities promotes a fluid, and cost-effective procurement model for the customer.

EPM Global Services' Hybrid Manufacturing Solution provides you with:

- A results oriented solution, based on a needs analysis of your program, taking advantage of EPM's Global EMS facilities and their inherent advantages in materials planning and procurement strategies.
- Effective Program Transition/Migration strategies geared to product lifecycle, product maturity and global distribution requirements.
- A local presence for ease of program management while providing you with the advantages of a global manufacturing strategy thereby mitigating the difficulties of dealing with different geographies, cultures and customs.

Program Migration



The ability to move a product between cost centers effectively in its lifecycle helps to maintain and possibly enhance its competitive advantage.

With traditional EMS providers, program migration is a challenging feat, taking into consideration re-engineering for new product lines, time differences, language barriers, cultural differences, local product sourcing and shipping.

EPM offers a fully scalable production model, easing the manufacturing transition of your program, as it moves through its lifecycle. With three global facilities, EPM is able to easily and effectively transfer manufacturing between facilities, without the vast amounts of planning, risk, and costs normally associated with migration to lower cost geography.

Through local program/client management, EPM handles all the challenges and logistics associated with offshore manufacturing. Technical staff manages the fully owned EPM facilities in China, and the U.S.A., while local client managers handle the language, time, and cultural differences to ensure your project delivers consistent, reliable products. Local Client Managers can access real time production data, including detailed production status, quality, and supply chain data via an integrated data infrastructure.

All EPM Global locations have been created with common equipment and systems infrastructure. This creates a unified and globally linked resource structure for manufacturing, materials management, quality reporting and shop floor control that allows for easy transfer of full programs or products from facility to facility. The unified resource structure eliminates most of the risk associated with reprogramming, retooling and reconfiguration normally associated with program migration.

Complementing the commonality of resource structure in the program migration process will be the corporate Global Transition Team (GTT) who have inherent knowledge of the product. The GTT will provide transition management, working with the local facility teams and the customer to ensure a smooth transition without compromising the product supply chain.

EPM Global Services, through its HMS reduces the risk and additional costs associated with program migration. HMS leverages our global facilities, supply chain management programs, common equipment and systems infrastructure. The GTT provides focused transition planning and support to ensure that your supply chain is not compromised while maintaining and enhancing your competitive advantage.

Supply Chain Management



Ensuring an effective materials supply for our customers is critical while managing volatile demand and optimizing supply chain performance. How we manage materials, suppliers and the information about them is critical to our customers.

EPM Global Services utilizes a first in class ERP system that fully integrates bills of materials (BOM's), materials planning, procurement, WIP, and the sales and accounting functions on a single platform, maintaining the integrity and continuity of critical data. This allows for seamless transition from one location to another, by transferring inventory and re-directing existing supply chain deliveries to any of our manufacturing locations.

By combining all customer requirements into a single procurement plan, EPM is able to leverage economies of scale from any or all of its worldwide facilities. A structured plan for procurement by program is established, taking into account individual customer pipeline, liability and volume requirements. As a result, EPM Global Services is able to provide a low cost, highly flexible material pipeline.

This process also allows the EPM Global Services Materials group to focus on management of material lifecycle, reduction of days of inventory and cost, all to provide the lowest possible total cost of acquisition for material. This enables strategies for limiting inventory liabilities while simultaneously ensuring availability of raw materials, which is critical to meeting delivery and business requirements.

Information Technology

An essential element of success for our customers and EPM's HMS strategy is the need to have the latest information and data to enable effective supply chain decision making. Our Global IT systems enable real time reporting on the status of your program and product at all phases through its build and fulfillment cycle.

In line with our philosophies in investment in best in class systems, is the implementation of leading edge ERP and Production Management systems.

Our fully integrated global ERP system gives us complete control over the planning and management of all facets of operations, including accounting, manufacturing and distribution. Our systems are geared towards responding rapidly to changing business circumstances enabling quick, flexible and effective reaction to customer demands. This enables a reduction in operating costs through our ability to streamline processes as well as automation of key business processes enabling effective control over the full supply chain.



❖ Information Technology (cont'd)

Complementing our ERP system is our state of the art Production Management system incorporating leading edge cycle time monitoring, automated process control and assurance and built-in real-time defect monitoring to enable quick, efficient and effective implementation of process improvements and adjustments. This provides EPM Global Services with the capability to conduct comparative analyses of quality and throughput benchmarks, as well as to gain tighter controls on costs via inventory and SMT machine utilization assessments. By utilizing these enhanced process tracking features and the accurate capture of actual project costs, EPM is able to provide the most aggressive costing available.

All EPM Global facilities are linked to provide real time monitoring of materials, production and quality functions and processes to enable rapid and decisive adjustments to be made to reflect dynamic business conditions required to maintain the customer's competitive advantage.

❖ Logistics Services

EPM's service offerings include the provision of logistics functions designed to augment traditional EMS services. Effective coordination of the movement of goods and can provide a competitive advantage.

❖ Warranty / Service Programs

EPM's extensive service facilities cater to the needs of customers who require effective fast turnaround Warranty and Service depot product returns programs. EPM offers customized Warranty and Service programs designed to meet specific customer requirements and technologies. Our warranty and service programs provide for direct receipt into our Canadian and US repair depots and include product evaluation, repair & return to the end customer as well as full lifecycle support and end-of-life (EOL) component management services.

❖ Warehousing and Fulfillment

EPM's service offerings continue even after the customer's products have been manufactured or serviced. Many customers appreciate the complete turnkey approach to delivering professionally packaged products directly from one of EPM's Global facilities to their own customer's dock. EPM's Warehousing and Fulfillment services include: Finished goods storage, customized package assembly, and worldwide on-demand shipping.



EPM is dedicated to a client-centric approach that emphasizes value-added activities such as Design for Manufacturability (DFM), Design for Test (DFT), Environmental consulting and review and EOL component management for full product lifecycle management.

✦ Design for Manufacture / Test

The EPM Global Services Engineering Team provides rapid, flexible and cost-effective manufacturing and test services. Our optimized and robust manufacture and test development services include the following:

- Product design review for cost and process optimization
- PCB Fabrication Analysis services
- Customer BOM/CAD data Analysis
- Design for Testability analysis (Test Expert / Fab Master)
- In Circuit Test development and Fixture design
- Automated Functional Test development and Fixture design
- Final system integration and test development
- Boundary Scan development and Fixture design
- Sustaining Engineering for product upgrades and technology obsolescence
- End of Life support

✦ New Product Introduction

The EPM Global Services New Product Introduction (NPI) program encompasses a suite of techniques and processes geared to allow our customers to achieve the fastest time-to-market, production ramp-up and cost attainment milestones required for successful product launch. Our NPI process is a natural extension of our HMS which ensures that a product flows quickly and seamlessly from one phase to another through taking advantage of the particular strengths and advantages of our global facilities, commonality in equipment and systems infrastructure. EPM's historically strong client-centric approach ensures success in all phases of an effective product launch.

Engineering Services (cont'd)



✦ Environmental Compliance

EPM Global Services provides customers with a cost effective solution to ensure that your product is fully compliant with the RoHS and WEEE directives. Through RoHS/WEEE compliance assessment, our Environmental Compliance team converts your Bill of Materials (BOM) to fully compliant status, and resolves any component engineering issues. Additionally, EPM Global Services has the manufacturing capabilities to take this compliant BOM all the way through to prototype build and test. This relieves organizations from the time constraints of data collection and analysis. Organizations starting their environmental compliance analysis from scratch can face a confusing and complicated array of challenges in researching affected components as well as effectively finding replacement components that do not compromise product form, fit or function. Our Environmental Compliance program ensures that your organization does not have to divert valuable technical and engineering resources from current projects.

✦ RoHS/WEEE Compliance

The RoHS Directive 2002/95/EC is an important regulation in the European Union that is scheduled for full effectivity as of July 1, 2006. The regulation centers on the restriction of use of specific hazardous substances common in components used primarily in electrical and electronic equipment. This Directive will ban shipment into EU markets of new electrical and electronic equipment containing lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardant whose levels exceed defined minimum levels. Shipment of non RoHS compliant products into the EU may expose organizations to significant civil and criminal liabilities.

The WEEE Directive 2002/96/EC is focused on the effective control of disposal of goods, primarily electrical and electronic equipment containing hazardous substances used by consumers or intended for professional use. The WEEE directive places significant responsibility for disposal of affected product at the end of its life by placing the responsibility on producers through financial guarantees that the waste management of their product will be effective.

EPM's Environmental Compliance team will examine your Bill of Materials, to ensure compliance against the RoHS and WEEE directives. EPM's Environmental Compliance team has built up an impressive library of information, data and sources to provide cost-effective analyses and reports in a timely manner to ensure that customers supply chain requirements for the EU markets are not affected. WEEE is typically linked with the RoHS directive in actions and programs as it will cover the reduction of hazardous substances as well as the effective disposal of those hazardous substances.



✦ RoHS/WEEE Compliance (cont'd)

The RoHS/WEEE Compliance package will provide customers with a full review of their BOMs, identification of affected components and suggested alternatives for a fully compliant RoHS/WEEE BOM for a full circuit design impact assessment. Additionally, EPM can source components if necessary to complete RoHS compliance requirements. The Environmental Compliance team will gather data that will enable organizations to declare affected components total mass weight, material composition and the percentage of each of the recyclable substances within the component to enable an effective response program to address the WEEE directive.

✦ Environmental Compliance Monitoring

As the world progresses with its environmental awareness practices, a variety of regulations are starting to appear in the electronics industry. In addition to RoHS and WEEE, and the different legislations being developed globally, terms like DfE (Design for Environment), and EuP (Energy using Products) are gaining momentum and interest. Being aware of these and others to come is important, as some of these might affect your organizations solutions.

EPM's Environmental Compliance team maintains an industry presence to ensure that EPM is aware of worldwide changes to regulations affecting the electronics industry and its customers.

✦ Lead-Free Capabilities

Consistent with EPM's mandate to provide full service offerings to its customers, EPM Global Services is at the forefront of Lead-free technology with lead free manufacturing capabilities provided at all EPM Global locations. As organizations make the transition to lead-free technology for their products, EPM Engineering Services will assist and help organizations transition products seamlessly through environmental compliance, process qualification, dual process transition and inventory management services.

EPM has conducted extensive research in lead free processes, process controls, infrastructure requirements, and quality assurance processes for lead-free manufacturing. Proprietary processes along with required documentation have been developed and are in place to assure organizations that their converted lead-free product will meet all required industry standards. Programs are developed to assure organizations of the quality of their product from the prototype stage through to full scale production runs.