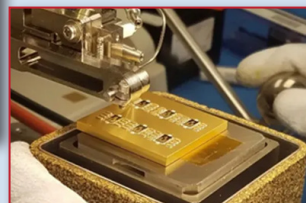
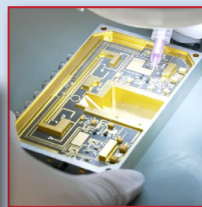


FAB\$ and LAB\$S

Microsembly: A Fully Equipped Partner



Microsembly, founded in 2019 and based in Merrimack, N.H., brings together prototyping, manufacturing, and testing capabilities in a 20,000-square-foot facility equipped with ISO 14644-1-compliant Class 7 and Class 8 cleanrooms. The company is positioned to serve two main types of customers: smaller and medium-sized RF and microwave designers and suppliers looking to fulfill specific, high performance requirements and larger manufacturers who need to maintain tight delivery schedules without compromising quality. In both cases, Microsembly provides scalable, flexible support that allows clients to manage fluctuating demands without extensive capital investments.

For both customer groups, the prototyping stage at Microsembly emphasizes design for manufacturability (DFM), integrating practical manufacturing insights into the design process. For smaller companies, Microsembly can refine designs to avoid costly production rework processes, while larger manufacturers can leverage the company's DFM insights to validate product iterations before going to production volumes. Their cleanroom environments support contamination-sensitive processes like die attach, critical for high frequency RF and optical components, helping clients achieve high reliability.

Once a design is validated, Microsembly's manufacturing capabilities offer a range of specialized techniques suited to high performance RF and microwave applications. Microsembly's manufacturing processes include eutectic and epoxy die attach, wire and ribbon bonding and the direct attachment of beam lead diodes for minimized parasitics in high frequency circuits.

Additional manufacturing capabilities at Microsembly include custom coil fabrication and feedthrough soldering, which allow for tailored solutions and unique design need if specific RF and magnetic properties are required. In addition, Microsembly performs encapsulation and wafer processing to add protection and durability to components that may need to operate in rigorous and harsh environments.

These processes enable Microsembly to support complex builds and component integrations, allowing clients to effectively add significant manufacturing capacity without needing to expand in-house facilities.

Microsembly has test capabilities to 110 GHz. This enables validation of RF, microwave and mmWave chips, components and assemblies across a full range of electrical and mechanical performance metrics. For smaller suppliers, these capabilities eliminate the need for costly, in-house, high frequency testing equipment. Small and large suppliers can benefit from Microsembly's testing suite that covers RF and EMI/EMC performance, mechanical stress and environmental conditions for a range of devices from basic active and passive components to complex, fully integrated microwave assemblies like up-converters and transceivers.

Manufacturers can also benefit from Microsembly's expertise by augmenting their quality control and inspection needs. Quality control is built into each phase of production. This includes rigorous in-process inspections and certifications including ISO-9001, ITAR registration, ANSI/ESD S20.20 and IPC-A-610, along with J-STD-001 (Space Addendum).

Through its prototyping, manufacturing, inspection and testing services, the company reinforces a commitment to precision. This enables Microsembly products to meet the most stringent client requirements before reaching the field. In addition to these manufacturing services, the company also offers inventory services as part of a flexible, on-demand partner relationship. Microsembly offers a unique set of value propositions for the industry. Smaller RF and microwave suppliers can benefit from a contract relationship that allows them to scale performance, quality and throughput. Larger manufacturers can use Microsembly as an extension to fill specific design, production and testing gaps. For customers of any size, Microsembly stands ready to manage manufacturing and supply chain demands with their expertise and service capabilities.

www.microsembly.com