

Hymite Company and Technology FAQs



When was Hymite founded?

Hymite was founded in 1999 by Jochen Kuhmann and Mathias Heschel, who are now Chief Technology Officer of the company, and VP of Engineering, respectively.

Where is Hymite located?

Hymite's headquarters is located in Denmark. The company also has research offices in Berlin, Germany and sales offices near Dallas, Texas.

What is Hymite's mission?

Hymite's goal is to provide packaging solutions that answer the electronics industry's demand for size reduction, ease-of-manufacture and cost competitiveness.

What does Hymite do?

Hymite A/S is the leading supplier of wafer-scale silicon packaging technology for electronics applications. The company designs, develops and manufactures innovative silicon-based wafer-scale packages for high-volume applications including high-brightness LEDs (HB LEDs), MEMS and RF. Unlike traditional packaging, the company's innovative silicon packaging enables customers to shrink package size, improve thermal performance, maintain hermeticity, and cut costs through wafer-scale production. Hymite customers include established MEMS, IC and LED companies.

Who are Hymite's competitors?

Currently, Hymite does not have direct commercial competitors in the area of wafer-scale silicon packaging technology. Currently no other company is able to provide proven silicon solutions and an established manufacturing process for packaging HB LEDs, MEMs, and RF.

How does Hymite's packaging technologies compare to others?

When it comes to packaging for HB LEDs, MEMs, and RF, there are unique requirements for thermal management, encapsulation, and package size reduction. While other technologies can meet some of these requirements, they are not based on processes where the chips can be manufactured in high volume in small sizes at lower cost.

Who are Hymite's customers?

Hymite's current customers include established companies in a range of markets from general lighting to mobile electronics, automotive lighting and backplane lighting. Most recently Hymite announced that a major European customer is using its HyLED technology to achieve high efficiency light sources.

What are the markets and application for Hymite silicon-based packaging technology?

The technology is targeted at HB LEDs, MEMs and RF components that are used in a wide-variety of applications in numerous markets, specifically general lighting, automotive, communications and consumer electronics.

Why use silicon packaging material?

Silicon has excellent inherent thermal management characteristics. Hymite's engineers provide optimized designs alleviating thermal and thermo-mechanical stress for excellent performance, even for the most demanding operation conditions. In addition, silicon offers, package size reduction, and shortened electrical lines for improved performance.

What is the silicon-based packaging process?

Instead of using individual ceramic piece or lead frames Hymite technology actually uses wafer-produced packages as the transport mechanism.

What are Hymite's products?

HyLED® is Hymite's packaging technology that meets the requirements of the high-brightness LED market. In addition to being a low-cost solution, HyLED package technology provides excellent thermal management, optical efficiency, and can be used with a number of device types found in LED applications, such as automotive, mobile phone and LCD backlights. Plus, it maintains the small form factor necessary for deployment in LED applications.

The technology behind HyLED™ is silicon wafers and batch micromachining/metallization processes delivering package size reductions of up to 4x. Proven IC-style automated manufacturing processes increase throughputs and yields for a lower cost per unit. The option of wafer level assembly and testing for the end-customer introduces huge cost benefits in this high-volume price sensitive consumer sector.

In addition, HyLED packages work with the existing assembly infrastructure for die attach wire bond or flip chip devices.

HyCap® is typically used for hermetic encapsulation of MEMS components but also other devices outside the MEMS area. HyCap eliminates the need for a secondary package, allowing the device to be mounted directly on the circuit board and maintaining its small die size.

What are the primary benefits to using Hymite packaging technology?

Cost-effectiveness and size. The silicon packaging process eliminates certain expensive and time-consuming steps in the production process, providing customers with a cost-competitive solution and the ability to produce the components in high volume.

Does Hymite hold patents on its technologies?

The company holds patents on all its package structures, as well as its micro via technology.

What services does Hymite provide?

Hymite designs and manufactures the wafer scale packages and then ships these packages to customers for assembly.

What specific expertise/experience does Hymite management have in the packaging market?

Members of Hymite management have solid, well-rounded backgrounds in the electronics and packaging industries. Each member brings to the company unique expertise in business disciplines that are essential and characteristic of a successful and viable company. Collectively the management team has authored numerous technical publications and has been awarded several technical patents.

Does Hymite have any strategic relationships? If so, what are they?

Hymite is in discussions with various wafer foundries to set up an offshore supply chain.

Is Hymite public or private?

Hymite A/S is a privately held company. In January 2007, Hymite closed a Series B Preferred financing round totaling €9.0 million by a European consortium of VCs consisting of TVM Capital (Germany), InnovationsKapital (Sweden), Dansk Kapitalanlæg, Vaekstfonden, and IVS (all Denmark). Hymite is using the latest investment to strengthen its sales organization, increase its customer base and build its manufacturing infrastructure using external foundries.

Didn't Hymite focus on the optical telecommunications industry previously?

Yes, however, softness in the telecom market led the company to investigate new markets for its unique technology, resulting in its current focuses on LED, MEMS and RF applications, where the company is seeing growing success.

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