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Place: Mainz, Germany

SCHOTT Marks A New Era of Chip Packaging – With Structured Glass

The specialty glass powerhouse expands FLEXINITY® portfolio of structured glass to Advanced Packaging

With FLEXINITY® connect, glass circuit boards can solve many of the data latency and manufacturing issues that have plagued the semiconductor industry while reducing costs. Its versatility benefits applications like datacenters, the Internet of Things (IoT), autonomous vehicles, and medical diagnostics.

Mainz, Germany - January 19, 2022 - [SCHOTT](#), the inventor of specialty glass and international technology group, introduced [FLEXINITY® connect](#) as the latest innovation in the advanced packaging industry. With *FLEXINITY® connect*, ultra-fine structured glass brings a game-changing element to semiconductor manufacturing, which has traditionally used printed circuit boards (PCB) and silicon interposers for advanced chip packaging solutions.

The combination of silicon and copper clad laminates are too expensive, have low electrical performance, and only limited reliability.

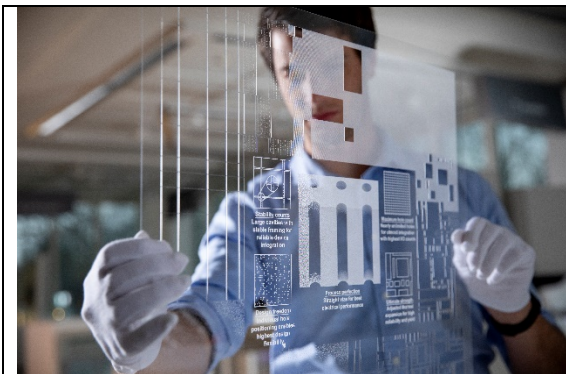
Thanks to its properties, a glass circuit board can improve signal performance and reduce signal latency, while maintaining virtually the same build-up as the interposer package. It is cost-efficient and allows the embedding of passive components, which minimizes the thermal load of the package and simultaneously shrinks the overall package size.

“SCHOTT’s long history of industry changing innovations enters a new chapter with *FLEXINITY® connect*.” Said Dr. Tobias Gotschke, Senior Manager New Ventures at SCHOTT. “Replacing a printed circuit board with a glass core package requires a significant amount of adaptation in the supply chain and offers many benefits. The flexible positioning of through glass vias, or TGVs, allows for unmatched design freedom. Using SCHOTT’s glass and structuring capability provides a faster ramp-up in manufacturing with higher yields.”

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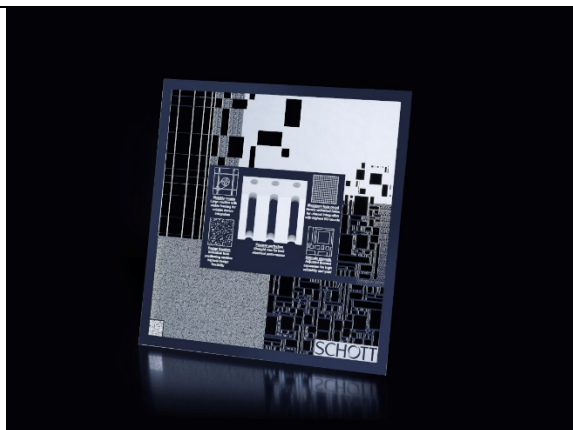
FLEXINITY® connect offers versatility in format, allowing for a wide spectrum of applications. With a thickness range from 0.1 mm to 1.1 mm, a maximum size of 600 mm, and up to millions of holes with a radius of as little as 25 µm which is thinner than a human hair, the new product can be used in nearly any capacity.

For high performance computing applications like datacenters and artificial intelligence, *FLEXINITY® connect* increases efficiencies for higher computing power with large thermal loads. In mobile and IoT applications, *FLEXINITY® connect* offers ubiquitous and fast wireless communication, enabled by the integration of antenna in package (AiP) for higher frequencies in the GHz regime and optimized materials for broad bandwidth in all climate zones. Further prospective use-cases include autonomous driving and medical diagnostics.



FLEXINITY® connect is an ultra-fine structured glass that could have a game-changing effect on the semiconductor industry. Image: SCHOTT

From autonomous vehicles and medical diagnostics to domestic and commercial equipment connected to the Internet of Things (IoT) – semiconductors are a key component in much of the world’s advanced technology. Image: SCHOTT



With FLEXINITY® connect, glass circuit boards can solve many of the data latency and manufacturing issues of the semiconductor industry. Image: SCHOTT

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Pioneering. Responsibly. Together.

These attributes characterize SCHOTT as a manufacturer of high-tech materials based on specialty glass. Founder Otto Schott is considered its inventor and became the pioneer of an entire industry. Always opening up new markets and applications with a pioneering spirit and passion – this is what has driven the #glasslovers at SCHOTT for more than 130 years. Represented in 34 countries, the company is a highly skilled partner for high-tech industries: Healthcare, Home Appliances & Living, Consumer Electronics, Semiconductors & Datacom, Optics, Industry & Energy, Automotive, Astronomy & Aerospace. In the fiscal year 2021, its 17,300 employees generated sales of 2.5 billion euros. With the best teams, supported by the best digital tools, the group intends to continue to grow. SCHOTT AG is owned by the Carl Zeiss Foundation, one of the oldest foundations in Germany. It uses the Group's dividends to promote science. As a foundation company, SCHOTT has anchored responsibility for employees, society and the environment deeply in its DNA. The goal is to become a climate-neutral company by 2030.

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