

3M and SUSS Announce Agreement on Temporary Wafer Bonding Technology to Enable 3-D Semiconductors

3M, a leading supplier of advanced materials to the semiconductor industry, and SUSS MicroTec, a leading supplier of semiconductor processing equipment, today announced an agreement to expand access to 3M Wafer Support System (WSS) equipment for temporary wafer bonding of ultrathin wafers required for 3-D packaging. As part of this non-exclusive agreement, SUSS MicroTec becomes an authorized equipment supplier for the 3M WSS and will manufacture and sell XBC300 and CBC300 wafer bonders configured to use 3M's WSS materials including 3M Liquid UV-Curable Adhesive and Light-To-Heat Conversion coating. Under the agreement, both companies will work closely to address customer demands for high-performance process solutions that support high-volume manufacturing with a competitive cost of ownership.

3M WSS uses processes and materials for temporary wafer bonding to support wafer thinning and processing of ultra thin wafers for 3-D packaging. 3M's innovative use of a UV-curable adhesive for wafer bonding to glass carriers provides robust wafer support throughout wafer grinding. This is particularly important in the multiple high-temperature cycles required in subsequent wafer processing steps. After processing, 3M's unique Light-To-Heat Conversion layer allows low stress, room temperature debonding of the thinned wafer directly to the tape carrier. The thinned wafer is supported throughout the entire process reducing warpage, stress and process complexity compared to other processes that require high-temperature exposure and stress to the thinned wafer, or solvents to release the temporary bonding material. 3M's WSS enables wafer processing currently in high-volume production at multiple semiconductor sites worldwide.

"SUSS MicroTec is a recognized leader in wafer bonding and applications for 3-D and MEMS markets. Working with an industry leader, like SUSS, allows 3M to focus on advanced materials development. The joint efforts of both companies provide 3M customers with improved support, lower overall costs and faster access to more advanced solutions for their demanding 3-D packaging requirements," commented Mike Bowman, marketing development manager for 3M Electronics Markets Materials Division.

"We are pleased to collaborate with a leading material expert like 3M to offer customers a leading edge temporary bonding process with superior performance compared to current materials and processes on the market," said Wilfried Bair, general manager, Wafer Bonder Division, SUSS MicroTec. "This relationship and process offering fits nicely with SUSS MicroTec's 3-D strategy to provide a flexible and modular bonding platform that can be configured to meet customers' needs."

About Suss

SUSS MicroTec is a leading supplier of process and test solutions for markets such as 3-D Integration, Advanced Packaging, MEMS, Nanotechnology and Compound Semiconductor. High-quality solutions enable customers to increase process performance while reducing cost of ownership. SUSS MicroTec supports more than 8,000 installed mask aligners, coaters, bonders and probe systems with a global infrastructure for applications and service. SUSS MicroTec is headquartered in Garching near Munich, Germany. For more information, please visit <http://www.suss.com>.

About 3M

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms – often in combination – to a wide array of customer needs. With \$25 billion in sales, 3M employs 76,000 people

worldwide and has operations in more than 60 countries. For more information, visit <http://www.3M.com>.

3MMaryna Frolova, 612-392-7618LaBrechemfrolova@labreche.comorColleen Harris, 651-733-15663M Public Relations<http://www.3m.com/PressContact>

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