

FlipChip International, LLC

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FlipChip International Announces Next Generation Adaptable NANOPillar™ Bumping Technology for Lead-free Fine Pitch Flip Chip and 3D Packaging Applications

PHOENIX, ARIZONA, Nov. 9th 2009—FlipChip International today announced a major step forward in semiconductor package miniaturization with its NANOPillar™, wafer bumping technology. NANOPillar™ wafer scale bumping delivers for the first time, highly adaptable lead-free solder capping for extremely tight tolerance stand-off geometries in demanding applications including smart phones and portable medical devices. Previously, pillar bump lead-free solder alloys have been limited to a narrow range of binary metallurgies because of the electroplating processes utilized to form the miniature solder interconnections. These binary alloys are not optimized for the high reliability requirements of ultra-thin packaging such as the drop test, high temperature storage or thermal cycling. With NANOPillar™, a wide variety of lead-free solder metallurgies tailored to the intended needs of the application can be provided with high coplanarity of the formed bumps. This bumping technology targets the rapidly expanding ultra-fine pitch applications in the 35 to 150 micron pitch range for flip chip substitution in lead frame and BGA Au wirebonding applications and 3D packaging.

Wafer Level Chip Scale Packaging (WLCSP) and 3D packaging are becoming fundamental technologies for the miniaturization of a broad range of different advanced mobile devices including smart phones, image sensors, automotive, gaming, medical monitoring equipment and defense applications and involves chip-to-wafer, chip-to-chip and/or chip-to-substrate flip chip interconnections. FlipChip International is a recognized leader in WLCSP and flip chip bumping. The NANOPillar™ product offering leverages FCI's technical expertise to enable near limitless solder compositions tailored for the intended application.

Bob Forcier, Chief Executive Officer at FlipChip International, said, "We are excited by our continued advancements in our product roadmap for green technologies that provide our valued customers the best options for miniaturization. Our investments in new product development and design for next generation packaging for smart phones and other high growth applications are on track and accelerating. We believe NANOPillar™ will provide our customers new options in this demanding global economy where designs turn rapidly and expectations on performance are high."

Ted Tessier, Chief Technical Officer of FlipChip International, said, “Looking forward, NANOPillar™ bumping is a key enabling technology for cost reduction by Au wire bond displacement in conventional packages as well as for emerging 3D packaging applications. The interest in Pillar bumping by our customers has been overwhelming; particularly in light of the diverse solder alloy options that are enabled. In developing our NANOPillar™ bumping technology, our focus has been to develop a proprietary, next generation pillar bumping technology with unsurpassed solder composition versatility.”

FlipChip International, LLC is a privately held supplier of products and services for the wafer bumping and wafer scale packaging semiconductor market. FlipChip International, LLC is a wholly owned subsidiary of RoseStreet Labs LLC, a supplier of products and services for wireless infrastructure in the life science, renewable energy and homeland security markets.

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