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Special issue on

Design and manufacturing of flip chips

CALL FOR PAPERS

Submission Deadline: August 26, 2023

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Papers are published upon acceptance, regardless of the Special Issue publication date.

In our journal *Chip Design and Manufacturing*, a special issue is calling for papers about flip chips.

Flip chip, also known as controlled collapse chip connection or direct chip attach, is a method for interconnecting dies such as semiconductor devices, IC chips, integrated passive devices and microelectromechanical systems, to external circuitry with solder bumps that have been deposited onto the chip pads. Semiconductor dies are attached bond pad side down to a substrate or carrier.

What makes the design of the flip chip so unique is the straightforward, wireless application of the installation. Solid connectivity is expected by buyers who need components to function for their products well beyond the terms of any warranty. The key features of this technology are ease of production and quality management capabilities. As some models have over 2000 bumps, the flip chip method is simply more efficient. This saves a significant amount of time compared to the preferred one-at-a-time method before soldering the ball grid array and the subsequent flip-chip technique. The superior bonding achieved makes it ideal for products requiring reliable, long-lasting components.

In this issue, we are looking forward to collecting papers on flip chips. All topics are welcomed, such as **the comparison of different commonly used technologies involving flip-chip design and process, the effect of bare die or die-size components in an uncased or minimally cased format, the impact on current component characteristics, and reviews of the appropriate PCB design guidelines to ensure efficient assembly processing, etc.**