DIFFERENTIAL POWER PROCESSING FOR SERIES-STACKED PROCESSORS

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Abstract

Prior research has focused on series-stacked servers to increase data center power efficiency by removing a power processing step and applying differential power processing to balance the servers. This research investigates the application of differential power processing to series-stacked processors to improve the efficiency of a multi-processor sever or system. This talk will cover the fundamentals of the series-stacked architecture and differential power processing. Both will then be applied (with a switched capacitor converter) to series-stacked processors with the goal of improving power delivery efficiency.