

3C.1 Managing Electrical Reliability in Consumer Systems for Improved Energy Efficiency

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In many systems there is always a driving force to improve energy efficiency. This paper describes a new method using Static Adaptive Voltage Scaling (S-AVS) at component level to develop electrically robust system while improving energy efficiency. This work paves the way to S-AVS qualification at system level as well as the dynamic modulation of aging margin in the field so to improve even more the energy efficiency. The figure shows the power efficiency improvement observed on the different SoC corners using the combined approach from the paper.

