

Smart System Partitioning, a Paradigm Shift in Power Management of Battery Operated Electronic Systems

P. Zdebel, ON-Semiconductor Corp., Phoenix, USA

Power Management in today's electronic systems is lacking a coherent top down implementation synergy to fully optimize energy consumption. There is still major opportunity for improvement of power management efficiency through innovation on system architecture level by enforcing smarter system level partitioning at the functional IC component level. Furthermore, power management systems have to become more programmable and adaptive to the end-application usage and environment as well as to work in close loop configuration with energy sources to adapt to an optimum efficiency usage.